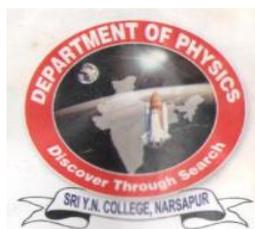




SRI Y N COLLEGE (A), NARSAPUR

**PUBLICATIONS IN
INTERNATIONAL JOURNALS**



2022-2023

DEPARTMENT OF PHYSICS

**SRI Y.N.COLLEGE (A)
NARSAPUR**



DEPARTMENT OF PHYSICS

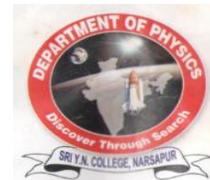
SRI Y. N. COLLEGE (AUTONOMOUS)

(Affiliated to Adikavi Nannaya University)

Accredited by NAAC with 'A' grade with a CGPA of 3.40

Recognized by UGC as 'College with Potential for Excellence'

NARSAPUR-534275, W.G.Dist. AP



PUBLICATION 2022-2023

Book's Publications (04)

2. Dr L Malleswara Rao acted as Associate Editor in a Book "Recent Trends in Multidisciplinary Subjects-Volume 2" RED'SHINE Publication Pvt Ltd with ISBN: 978-93-94727-44-1 AND ISBN-10:93-94727-44-2, published in June, 2022.

3. Dr L Malleswara Rao acted as Associate Editor in a Book "Hand Book of Research Methodology" RED'SHINE Publication Pvt Ltd with ISBN: 978-93-94727-84-7 AND ISBN-10:93-94727-84-1, published in August, 2022.

4. Dr L Malleswara Rao acted as 2nd Author in a Book "Atomic and Molecular Physics" Alpha International Publication (AIP) with ISBN: 978-93-95405-14-0 published in August, 2022.

5. Dr L Malleswara Rao acted as 2nd Author in a Book "Foundations of Quantum Mechanics: An Exploration of the Theoretical Physics" Alpha International Publication (AIP) with ISBN: 978-93-95978-36-1 published in December, 2022.

Edited Book (01)

02. Dr.L Malleswara Rao (2022): A Study on Satisfaction Level of Policy Holders towards the Services of Life Insurance Companies. *Chapter-24, International ISBN Edited Book, "Multidisciplinary studies: Prospects and Problems in Modern Era" Princeton Press, Overland Park, Kansas, USA, First published in July, 2022, Pp: 166-171, July, 2020 (ISBN: 978-920-5-20223-5).*

PATENTS (02)

1. Dr L Malleswara Rao (2022). Title of Invention "Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew" *Intellectual Property India, Patent Application No. 202241033431, filed 10th June, 2022. (Patent Pending).*

2. Dr L Malleswara Rao (2022). Title of Invention "Novel Battery Management System for Green Energy Storage" *Intellectual Property India, Patent Application No. 202231053181, filed 16th September, 2022. (Patent Pending).*

JOURNALS (03)

49. Dr.L Malleswara Rao, Dr.APV Appa Rao, Ch. Sundar Singh P Ramakrishna Rao & Ch Kanaka Rao (2022): A Positive Effect of Nanotechnology on Global Warming and Climate change. "Journal Research and Development (JORD)" *A multidisciplinary International level Referred and Peer reviewed Journal, Volume-7 Issue-11, pp: 113-117, July, 2022 (ISSN: 2230-9578, Impact Factor: 7.26, Web of Science Indexed, UGC- Approved Journal.*

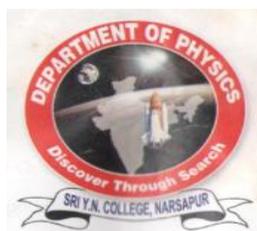
50. Dr.L Malleswara Rao (2022): *Investigation of High-Temperature Wear Behaviour of AA 2618-Nano Si3N4 Composites Using Statistical Techniques.* “Journal of Nanomaterials (Hindawi)” Volume-2022, Article ID 3449903, pp: 1-12, 16th September, 2022 (ISSN: 2230-9578, Impact Factor: 3.8, Q2, Journal, SCI/Web of Science/Scopus Indexed, UGC- Approved Journal, Journal link: <https://www.hindawi.com/journals/jnm/> and article Link : <https://www.hindawi.com/journals/jnm/2022/3449903>

51. Dr.L Malleswara Rao (2022): *Battery Management in Electrical Vehicles using machine Learning techniques.* “Journal of Pharmaceutical Negative Results (JPNR)” Volume-13, Special Issue 6, pp: 3213-3222, 20th October, 2022 [ISSN: Print -0976-9234, Online - 2229-7723] , Impact Factor: 0.31 (SJR), Q4 Journal, Emerging Sources Citation Index, Index Copernicus, Scimago Journal Ranking (SCI)/Web of Science/Scopus Indexed, UGC- Approved Journal, Journal link: <https://www.pnrjournal.com/index.php/home> and article Link: <https://www.pnrjournal.com/index.php/home/article/view/2481> and DOI: <https://doi.org/10.47750/pnr.2022.13.S06.434>



SRI Y N COLLEGE (A), NARSAPUR

Book's Publications



2022-2023

DEPARTMENT OF PHYSICS

**SRI Y.N.COLLEGE (A)
NARSAPUR**



LOREM IPSUM

LOREM IPSUM



LOREM IPSUM

LOREM IPSUM



LOREM IPSUM

LOREM IPSUM



RECENT TRENDS IN MULTIDISCIPLINARY SUBJECTS

VOLUME -2

CHIEF EDITORS

PROF. (DR.) NAMITA RAJPUT
DR. BISWAJIT SAHA

ASSOCIATE EDITORS

DR. MOHD. SHAIKHUL ASHRAF
AISHWARYA KATYAL
MONIKA GUPTA
PRASANTA ADHIKARY

DR. L. MALLESWARA RAO
DR. M. KIRUTHIGA DEVI

CO-EDITORS

DR. VEENA MAURYA



LOREM IPSUM
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas facilisis.



LOREM IPSUM
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas facilisis.



LOREM IPSUM
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas facilisis.



RECENT TRENDS IN MULTIDISCIPLINARY SUBJECTS

VOLUME -2

CHIEF EDITORS

PROF. (DR.) NAMITA RAJPUT
DR. BISWAJIT SAHA

ASSOCIATE EDITORS

DR. MOHD. SHAIKHUL ASHRAF
AISHWARYA KATYAL
MONIKA GUPTA
PRASANTA ADHIKARY

CO-EDITORS

DR. L. MALLESWARA RAO
DR. M. KIRUTHIGA DEVI

DR. VEENA MAURYA

RECENT TRENDS IN MULTIDISCIPLINARY SUBJECTS

VOLUME-2

CHIEF EDITORS

Prof. (Dr.) Namita Rajput
Dr. Biswajit Saha

ASSOCIATE EDITORS

Dr. Mohd. Shaikhul Ashraf
Aishwarya Katyal
Monika Gupta
Prasanta Adhikary
Dr. L. Malleswara Rao
Dr. M. Kiruthiga Devi

CO-EDITOR

Dr. Veena Maurya

red'shine
Publication
INDIA

RECENT TRENDS IN MULTIDISCIPLINARY SUBJECTS, VOLUME-2

Edited by: Prof. (Dr.) Namita Rajput, Dr. Biswajit Saha, Dr. Mohd. Shaikhul Ashraf, Aishwarya Katyal, Monika Gupta, Prasanta Adhikary, Dr. L. Malleswara Rao, Dr. M. Kiruthiga Devi, Dr. Veena Maurya

RED'SHINE PUBLICATION PVT. LTD.

Headquarters (India): 88-90 REDMAC, Navamuvada,

Lunawada, India-389 230

Contact: +91 76988 26988

Registration no. GJ31D0000034

In Association with,

RED'MAC INTERNATIONAL PRESS & MEDIA. INC

India | Sweden | UK

Text © *Editors*, 2022

Cover page ©RED'SHINE Studios, Inc, 2022

All rights reserved. No part of this publication may be reproduced or used in any form or by any means- photographic, electronic or mechanical, including photocopying, recording, taping, or information storage and retrieval systems- without the prior written permission of the author.

ISBN: 978-93-94727-44-1

ISBN-10: 93-94727-44-2

DIP: 18.10.9394727442

DOI: 10.25215/9394727442

Price: ₹ 1000

June, 2022 (First Edition)

The views expressed by the authors in their articles, reviews etc. in this book are their own. The Editor, Publisher and owner are not responsible for them. All disputes concerning the publication shall be settled in the court at Lunawada.

Website: www.redshine.co.in | **Email:** info@redshine.in

Printed in India | Title ID: 9394727442



CONTENTS

CHAPTER NO.	CHAPTER NAME	PAGE NO.
1	A STUDY ON CUSTOMER AWARENESS AND PREFERENCE TOWARDS CASHLESS TRANSACTION WITH SPECIAL REFERENCE TO NAGAON TOWN Abhishek Sah , Sakshi Munoth	1
2	MODERN MARKETING STRATEGIES ADOPTED BY BUSINESS FOR PRODUCT PROMOTION AND CUSTOMER SATISFACTION Amal Joseph	8
3	QUADRICEP EXERCISE AN KINESIOTAPING FOR KNEE OSTEOARTHRITIS Dr Trapti Puthiya (PT) , Dr Vishal Verma (PT)	14
4	TWELVE ENDURING MONTHS: BREACH BETWEEN TRADITION AND MODERNITY Dr. Yeshwant M.R.	28
5	A STUDY ON FACTORS AFFECTING CHILD LABOUR IN INDIA AND ITS ADVERSE CONSEQUENCES OF EDUCATION Dr. Arun Kumar Mandal	33
6	A STUDY ON PVC PIPES: USING CONTROL CHART TECHNIQUES Dr. Boya Venkatesu , S. Upendra	42
7	POTENTIAL USE OF MICROBIAL ELECTROLYSIS CELLS FOR CLEAN HYDROGEN PRODUCTION FROM WASTEWATER-STRENGTHS, WEAKNESSES AND RESEARCH NEEDS Dr. Sajith.S	48
8	SHORT STORY AS A GENRE: THE NARRATIVE TECHNIQUE Dr. Vidya Desai	53
9	UNDERSTADING OF DEVELOPMENTAL DISORDER- CEREBRAL PALSY AND ITS MANAGEMENT Dr. Vishal Verma (PT) , Dr. Trapti Puthiya (PT)	62
10	THE POSITION OF WOMEN IN INDIAN SOCIETY AFTER INDEPENDENCE Dr. S. Subash Chandra Bose	80

CHAPTER NO.	CHAPTER NAME	PAGE NO.
11	A STUDY ON INTELLIGENCE OF 10-12 YEARS SCHOOL CHILDREN Dr. Sandip Kumar Mandal	86
12	A STUDY ON THE FINTECH INDUSTRY LANDSCAPE IN INDIA H. Rajeeta Rani , Dr. K. Mallikarjuna Rao	89
13	INFORMATION AND COMMUNICATION TECHNOLOGY IN EDUCATION FOR TEACHING AND LEARNING IN POST PANDEMIC SOCIETY Kritisudha Baraily	102
14	KERALA WALL FRESCOES Nimisha. P	107
15	THE ABODE OF KATHIVANUR VEERAN THOTTAM: A BRIEF STUDY Nimisha P	112
16	RENEWABLE ENERGY RESOURCES Pallavee Jaiswal , Ayaz Ahmed Faridi	118
17	DEMARICATION OF SUPPLY CHAIN-CONCEPTS: IN BUSINESS ANALYSIS Pallikkara Viswanathan	132
18	DECISION SUPPORT SYSTEM IN SUPPLY CHAIN MANAGEMENT Pallikkara Viswanathan	137
19	A STUDY OF HUMOUR APPEAL IN TELEVISION ADVERTISEMENTS Radhika B. S , Dr. Veena M. D'Almeida	141
20	WAITING FOR THE BARBARIANS BY JOHN MAXWELL COETZEE AS A CRITIQUE OF HISTORY Rimzim Saikia	147
21	A STUDY ON THE LEVEL OF SELF-ACTUALIZATION AMONGST THE POST-GRADUATE STUDENTS OF TEZPUR UNIVERSITY Nripen Baishya , Ankit Biswas	154
22	THE POLITICAL PARTICIPATION OF WOMEN IN THE PANCHAYATS IN WEST BENGAL Prasanta Adhikary	163

CHIEF EDITORS



Prof (Dr) Namita Rajput has served as the Principal (OSD) at Sri Aurobindo College (Evening), University in Delhi for a term of 3 years (April 2017-May 2020) and has an enriching experience 30 years of experience in the Department of Commerce, Sri Aurobindo College (Morning) since December 1, 1995. Presently she is a professor in department of commerce since 2018. She has 27 copyrights with the Government of India and one Australian patent. She has authored 33 books and about 200 research papers in National and International Journals of repute. She has delivered about 200 lectures in CEC, UGC.



Dr Biswajit Saha is presently the Director Training. & Skill Education at CBSE, under Ministry of Education, Govt. of India. He represents CBSE in various National and International committees. He has served CBSE in different leadership roles for over decade now. Prior to CBSE he has worked with Govt of India and Tripura State Govt in the areas of Higher Education and Information Technology.

ASSOCIATE EDITORS



Dr. Mohd. Shaikhul Ashraf, Assistant Professor, Department of Botany, HKM Govt. Degree College Bandipora Kashmir, obtained his M.Sc., M.Phil. and Ph.D. from the Aligarh Muslim University, Aligarh. He has also done B.Ed. from the University of Kashmir, Srinagar and M. A. in English from IGNOU, New Delhi. The area of his Research is Plant Pathology and Nematology. He is teaching Botany in various Degree Colleges of Kashmir since 2009. He has published 23 research papers in reputed journals and co-authored five books. He is recipient of several awards and life member of several Scientific and Educational Societies.



I am **Monika Gupta** from Delhi, Uttam Nagar. I am pursuing Ph. D. in management from Jagannath University, Jaipur. I am keep interested to do Research in my subject areas... Finance and Banking.



Prasanta Adhikary is a Lecture (SACT) Department of Political Science at Kandra Radha Kanta Kundu Mahavidyalaya under Burdwan University. He is a Ph.D research scholar at the Department of political Science, Seacom Skills University, Bolpur-Shantiniketan. Masters from university of Chhatrapati Shahi Ji Maharaj university Kanpur. His areas of interest are political theory, Indian Government & Politics and Sociology.



Dr Lakkimsetti. Malleswara Rao received BSc in 1984 and M.Sc in 1989, M.Phil Atmospheric Sciences in 2002 & Ph.D Meteorology in 2012 from Andhra University, Visakhapatnam. He was joined as Assistant Professor in 1990 in department of Physics, Sri Y N College, Narsapur, where he was an, became an Associate Professor in 2012 and a Professor in 2018. He has 32 years of teaching experience. His current research interests in atmospheric sciences and Meteorology and Physics. He has published 47 publications in various reputed International Journals and 06 edited Books. He has attended 82 National/ International seminars/symposiums and workshops and presented papers. He has organized 01 National Workshop, 01 National Seminar and 02 National Webinars.



Dr.M.Kiruthiga Devi is working as an Associate Professor in the Department of Information Technology, Dr.M.G.R Educational and Research Institute, Chennai, India. She has pursued her Ph.D. in Computer Science and Engineering, M.E in Mobile and Pervasive Computing and B.E in Computer Science and Engineering and has more than 10 years of experience in the Field of Teaching. She has received various academic awards such as The Global Teacher Award 2021" from AKS Education Awards International held on 24.10.21, "Best Outstanding Young Researcher National Award 2021" from Kamarajar Institute of Education and Research (KIER), "Best Faculty Award National Award for the year 2021" from Global Multidisciplinary Research & Academic Foundation (GMRAF) and "Best Faculty Award" from Chennai Teaching Club (CTC) for Excellence in Teaching for the year 2021. She has been the author of the following Books "Compiler Design", Charulatha Publications, "Green Computing" ARS Publications, "Computer Vision" Gujarat Technological University, Technical Publications.

red'shine
PUBLICATION
I N D I A

RED'SHINE PUBLICATION PVT. LTD.
88-90 REDMAC, Navamuvada,
Lunawada, Gujarat-389230
Website: www.redshine.co.in
Email: info@redshine.in
Helpline: 0-76988 26988

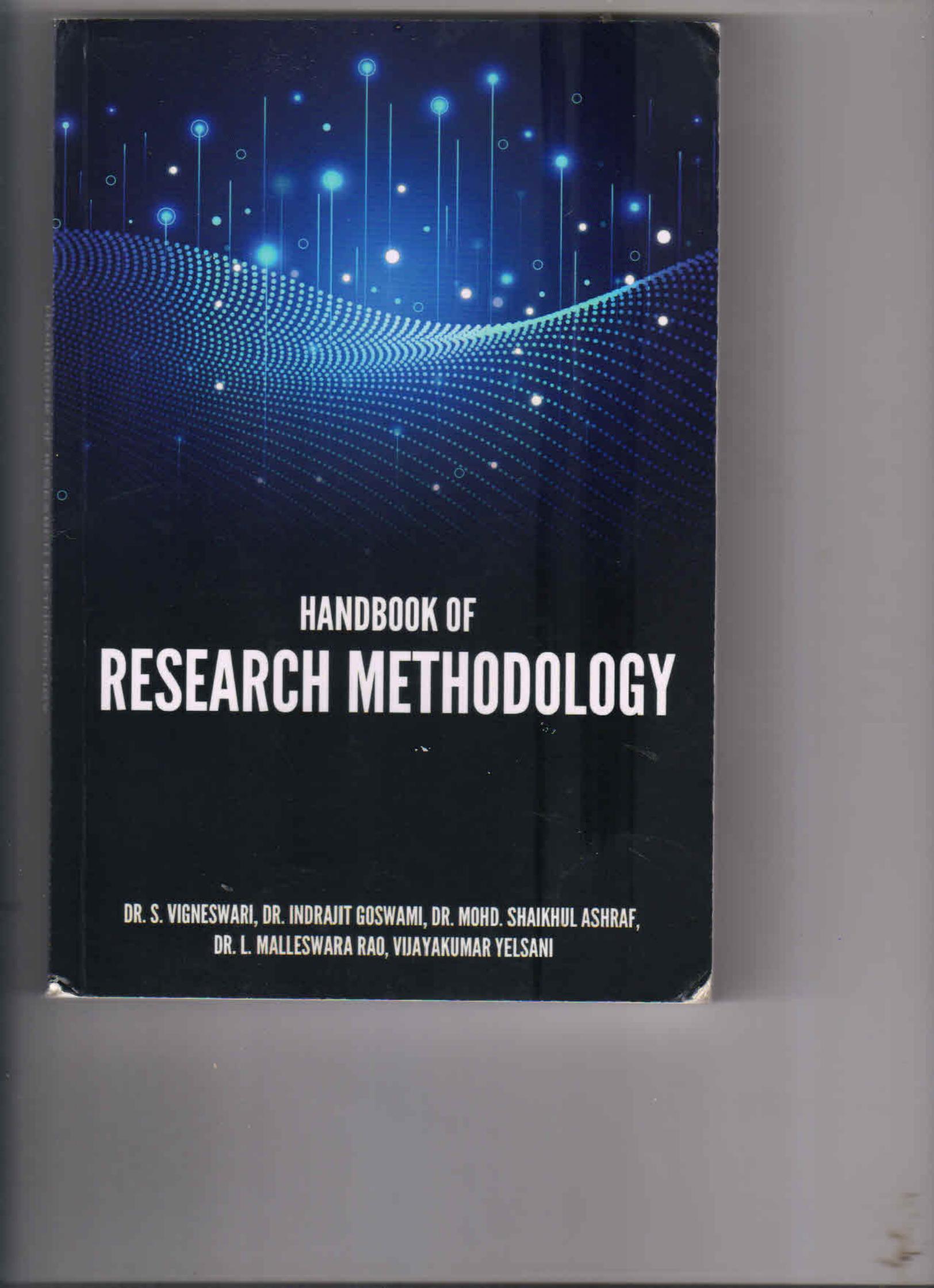
ISBN 978-93-94727-44-1



₹ 1000/-

Available on

kindle amazon goodreads Google Books



**HANDBOOK OF
RESEARCH METHODOLOGY**

**DR. S. VIGNESWARI, DR. INDRAJIT GOSWAMI, DR. MOHD. SHAIKHUL ASHRAF,
DR. L. MALLESWARA RAO, VIJAYAKUMAR YELSANI**

Dr. L. MALLESWARA RAO
Lecturer in Physics
SRI Y.N. COLLEGE (A)
NARSAPUR - 534 275, W.G.Dt., A.P.

HANDBOOK OF
**RESEARCH
METHODOLOGY**



EXCLUSIVE PARTNER



HANDBOOK OF
**RESEARCH
METHODOLOGY**

Dr. S. Vigneswari
Dr. Indrajit Goswami
Dr. Mohd. Shaikhul Ashraf
Dr. L. Malleswara Rao
Vijayakumar Yelsani

red'shine
Publication
INDIA

HANDBOOK OF RESEARCH METHODOLOGY

by: Dr. S. Vigneswari, Dr. Indrajit Goswami, Dr. Mohd. Shaikhul Ashraf,
Dr. L. Malleswara Rao, Vijayakumar Yelsani

RED'SHINE PUBLICATION PVT. LTD.

Headquarters (India): 88-90 REDMAC, Navamuvada,
Lunawada, India-389 230
Contact: +91 76988 26988
Registration no. GJ31D0000034

In Association with,

RED'MAC INTERNATIONAL PRESS & MEDIA. INC
India | Sweden | UK

Text © Authors, 2022

Cover page ©RED'SHINE Studios, Inc, 2022

All rights reserved. No part of this publication may be reproduced or used in any form or by any means- photographic, electronic or mechanical, including photocopying, recording, taping, or information storage and retrieval systems- without the prior written permission of the author.

ISBN: 978-93-94727-84-7

ISBN-10: 93-94727-84-1

DIP: 18.10.9394727841

DOI: 10.25215/9394727841

Price: ₹ 400

August, 2022 (First Edition)

The views expressed by the authors in their articles, reviews etc. in this book are their own. The Editor, Publisher and owner are not responsible for them. All disputes concerning the publication shall be settled in the court at Lunawada.

www.redshine.co.in | info@redshine.in

Printed in India | Title ID: 9394727841

MODULE NO.	
Module 1	Introduction to Research <ul style="list-style-type: none">• Meaning• Objectives• Motivations• Types of Research• Research Process• Significance• Research Methods• Research Ethics• Research Phases• Criteria of Good Research
Module 2	Defining the Research Problem <ul style="list-style-type: none">• Conceptualization• Identification• Defining the Problem
Module 3	Research Question and Hypothesis <ul style="list-style-type: none">• Variables• Characteristics• Research Questions• Directional Hypothesis• Basic Hypothesis
Module 4	Research Design <ul style="list-style-type: none">• Meaning• Concepts• Types• Basic Design• Various Methods• Historical Design• Genetic• Case Studies
Module 5	Tools for Data Collection <ul style="list-style-type: none">• Collection Methods• Collection Techniques• Scheduling• Interview Techniques• Collection of Secondary Data

SYLLABUS

MODULE NO.	MODULE
Module 1	Introduction to Research Methodology <ul style="list-style-type: none">• Meaning of Research• Objectives of Research• Motivations in Research• Types of Research• Research Approaches• Significance of Research• Research Methods v/s Methodology• Research and Scientific Methods• Research Process• Criteria of Good Research.
Module 2	Defining the Research Problem <ul style="list-style-type: none">• Concept and need• Identification of Research problem• Defining and delimiting Research problem.
Module 3	Research Questions and Hypothesis: <ul style="list-style-type: none">• Variables and their linkages• Characteristics of a good hypothesis.• Research question and formulation of hypotheses- directional and non-directional hypotheses• Basis for hypotheses.
Module 4	Research design: <ul style="list-style-type: none">• Meaning, Need, Features of Good Design• Concepts• Types• Basic principles of Experimental Design• Various methods of Research Survey: Philosophical, Historical, Experimental, Causal Comparative, Genetic,• Case Studies.
Module 5	Tools for Data Collection: <ul style="list-style-type: none">• Collections of Primary Data• Collection of Data through questionnaire and Schedules other Observation• Interview Methods• Collection of Secondary Data

MODULE NO.	MODULE
	<ul style="list-style-type: none"> • Selection of appropriate method for data collection • Case Study • Focus Group Discussion • Techniques of developing research tools, viz. Questionnaire and rating scales etc. • Reliability and validity of Research tools.
Module 6	Sampling: <ul style="list-style-type: none"> • Probability and Non-Probability sampling • Types and criteria for selection. • Developing sampling Frames.
Module 7	Descriptive Statistics: <ul style="list-style-type: none"> • Measurement Scales • Sources of error in measurement • Measures of central Tendency (Mean, medium, Mode) • Measures of dispersion (range, mean deviation, standard deviation) • Graphical representation of Data.
Module 8	Inferential statistics: <ul style="list-style-type: none"> • Normal Probability Curve- Meaning, characteristics and applications. • Standard error. • Confidence Intervals and Fiduciary limits. Type I and Type II errors. • Estimating Population Means.
Module 9	Non-Parametric Statistics: <ul style="list-style-type: none"> • Sign Test, • Man- Whitney u Test • Chi Square test steps, • Characteristics and applications.
Module 10	Interpretation and Report Writing: <ul style="list-style-type: none"> • Meaning and Technique of interpretation • Precautions in interpretation • Significance of report writing • Different steps in writing a report • Layout of a Research report. • Types of report • Mechanics of writing a research report • Precautions for writing a research report.

Students in the social health, and other relevant resource for learning about the research. Our lecture materials decade of teaching the same foundation for this book. Students who offer courses on research audience for this book. However, book as a useful and compact

The first and most crucial this book should have is, "How are now available on the market" distinctions.

To begin, in contrast to "research techniques" (empirical about the "research process" is the very conclusion. The research whole research process, but perhaps most regimented. The discussion of research methods, difficult, less structured, and include theorizing and thinking frequently prerequisites for a majority of students are able to procedure competence, but they are engaging or relevant or to make up for this shortcoming, subjects like "Thinking Like a Researcher," which are fundamental

Second, the book was written easy to carry. When we were concentrate exclusively on the

PREFACE

Students in the social sciences, business, education, public health, and other relevant fields may find this book to be an excellent resource for learning about the steps involved in conducting scientific research. Our lecture materials that we generated over the course of a decade of teaching the subject on Research Methods provide the foundation for this book. Students, young researchers, and professors who offer courses on research techniques make up the primary audience for this book. However, older researchers may also utilize this book as a useful and compact reference source.

The first and most crucial question that prospective readers of this book should have is, "How is it different from other text books that are now available on the market?" To be clear, there are two primary distinctions.

To begin, in contrast to other textbooks, this one is not just about "research techniques" (empirical data collecting and analysis), but also about the "research process" in its whole, from the very beginning to the very conclusion. The research technique is only one step in the whole research process, but perhaps the one that is least difficult and most regimented. The majority of textbooks provide an in-depth discussion of research methods, but they omit topics that are more difficult, less structured, and possibly more significant. These topics include theorizing and thinking like a researcher, both of which are frequently prerequisites for empirical research. In my experience, the majority of students are able to develop a reasonable level of research procedure competence, but they struggle to develop research topics that are engaging or relevant or to construct scientific ideas. In order to make up for this shortcoming, we have dedicated whole chapters to subjects like "Thinking Like a Researcher" and "Theories in Scientific Research," which are fundamental abilities for a young researcher.

Second, the book was written in a way that makes it concise and easy to carry. When we were writing the book, we made the decision to concentrate exclusively on the most important ideas and avoid

cluttering the pages with side topics or irrelevant information that would draw the attention of the readers away from the primary subject matter. The majority of classes consist of a substantial amount of assigned readings culled from the relevant academic field. Instead of burdening students with a lengthy text on top of their prescribed readings, this book is intended to supplement those readings by condensing all relevant themes in a single compact volume.

Please let us know if there is any new or fascinating information that you would want to have included in future editions of this publication, and we will do all in our power to meet your requests. Any feedback, whether it be in the form of comments, critiques, or edits to the current material, will be warmly received.

Authors

SR.NO.	MODULE NAME
1	MODULE-1 INTRODUCTION TO METHODOLOGY
2	MODULE-2 DEFINING THE RESEARCH
3	MODULE-3 RESEARCH QUESTIONS
4	MODULE-4 RESEARCH DESIGN
5	MODULE-5 TOOLS FOR DATA
6	MODULE-6 SAMPLING
7	MODULE-7 DESCRIPTIVE STATISTICS
8	MODULE-8 INFERENCE STATISTICS
9	MODULE-9 NON-PARAMETRIC TESTS
10	MODULE-10 INTERPRETATION AND
*	REFERENCES

CONTENTS

SR.NO.	MODULE NAME	PAGE NO.
1	MODULE-1 INTRODUCTION TO RESEARCH METHODOLOGY	1
2	MODULE-2 DEFINING THE RESEARCH PROBLEM	53
3	MODULE-3 RESEARCH QUESTIONS AND HYPOTHESIS	63
4	MODULE-4 RESEARCH DESIGN	78
5	MODULE-5 TOOLS FOR DATA COLLECTION	98
6	MODULE-6 SAMPLING	116
7	MODULE-7 DESCRIPTIVE STATISTICS	140
8	MODULE-8 INFERENCE STATISTICS	162
9	MODULE-9 NON-PARAMETRIC STATISTICS	175
10	MODULE-10 INTERPRETATION AND REPORT WRITING	180
*	REFERENCES	196

ABOUT THE AUTHORS



Dr. S. Vigneswari, well organized, driven professional brings 15 years of experience in teaching 6 years experience in research, working as a assistant professor. Committed to providing students with necessary tools to achieve academic instilling love of learning and cooperative team work. Looking to contribute my knowledge and skills in a college that offers a genuine opportunity for career progression.



Dr. Indrajit Goswami is an academican with 26+ years of experience in teaching, multidisciplinary research, and consultancy, and he is a published author with more than 70 publications in SCOPUS, Sage, Emerald, ABDC, Routledge, Cengage, and Taylor & Francis. He is on editorial board of reputed journals, an advisory board member in Harvard Business Review, and an invited speaker & resource person to 65+ events, including MDP/FDP, Seminars, Conferences & All India Radio.



Dr. Mohd. Shaikhul Ashraf, Assistant Professor, Department of Botany, HKM Govt. Degree College Bandipora Kashmir, obtained his M.Sc., M.Phil. and Ph.D. from the Aligarh Muslim University, Aligarh. He has also done B.Ed. from the University of Kashmir, Srinagar and M .A. in English from IGNOU, New Delhi. The area of his Research is Plant Pathology and Nematology. He is teaching Botany in various Degree Colleges of Kashmir since 2009. He has published 23 research papers in reputed journals and co- authored five books. He is recipient of several awards and life member of several Scientific and Educational Societies.



Dr Lakkimsetti Malleswara Rao received BSc in 1984 and M.Sc in 1989, M.Phil Atmospheric Sciences in 2002 & Ph.D Meteorology in 2012 from Andhra University, Visakhapatnam. He was joined as Assistant Professor in 1990 in department of Physics, Sri Y N College, Narsapur, where he was an, became an Associate Professor in 2012 and a Professor in 2018. He has 32 years of teaching experience. His current research interests in atmospheric sciences and Meteorology and Physics. He has published 47 publications in various reputed International Journals and 06 edited Books.



Vijayakumar Yelsani, Founder and director of Data Scholar Pvt Ltd., working as an Assistant Professor, Anurag University, Hyderabad. He received PhD in materials science from Osmania University, Hyderabad. He worked as UGC – Raman Postdoc Fellow at NC State University, Raleigh, USA. His research interests are fabrication of advanced nanomaterials for gas sensors, photocatalysis, antimicrobial, energy storage and conversion.

red'shine
PUBLICATION
INDIA

RED'SHINE PUBLICATION PVT. LTD.
88-90 REDMAC, Navamuvada,
Lunawada, Gujarat-389230
Website: www.redshine.co.in
Email: info@redshine.in
Helpline: 0-76988 26988

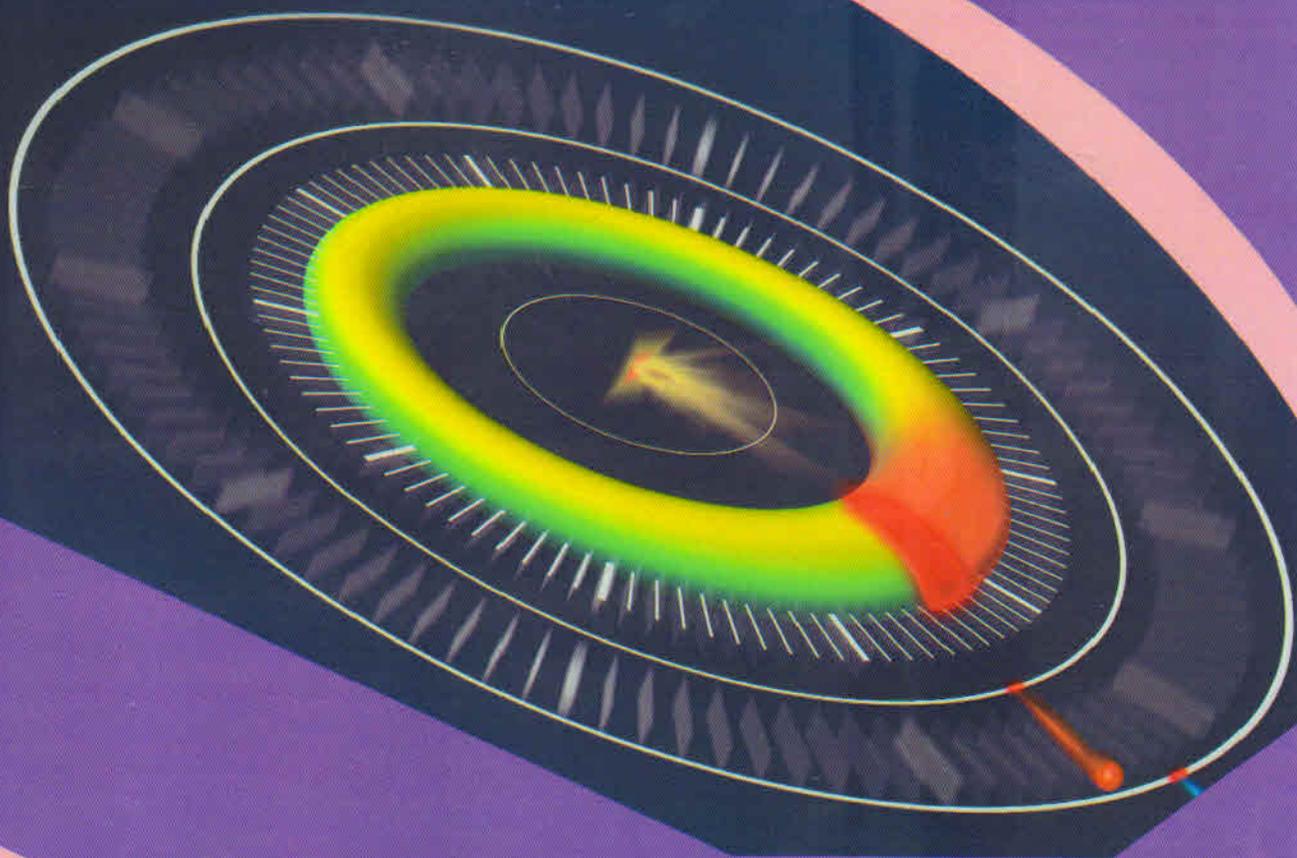
₹ 400/- eBook

ISBN 978-93-94727-84-7



exclusive partner |

Paradox
PUBLICATIONS GUIDED HOUSE
PUBLICATIONS GUIDED HOUSE



ATOMIC AND MOLECULAR PHYSICS

Dr. A. RAMU

Dr. L. MALLESWARARAO

Prof. THORAT S. K

Mr. HIMAYUN MUKHTAR QURESHI



Dr. L. MALLESWARARAO
Lecturer in Physics
SRI Y.N. COLLEGE (A)
NARSAPUR - 534 275, W.G.Dt., A.P.

ATOMIC AND MOLECULAR PHYSICS

First Edition

Dr. L. MALLESWARARAO
Lecturer in Physics
SRI Y.N. COLLEGE (A)
NARSAPUR - 534 275, W.G.Dt., A.P.

AUTHORS

Dr. A. RAMU

Dr. L. MALLESWARARAO

Prof. THORAT S. K

Mr. HIMAYUN MUKHTAR QURESHI

QIP

Alpha International

Publication

Title of the Book: Atomic and Molecular Physics

Edition: First – 2022

Copyright © Authors

No part of this text book may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owners.

Disclaimer

The authors are solely responsible for the contents published in this text book. The publishers or editors do not take any responsibility for the same in any manner. Errors, if any, are purely unintentional and readers are requested to communicate such errors to the editors or publishers to avoid discrepancies in future.

ISBN: 978-93-95405-14-0

MRP: Rs 650 /-

PUBLISHER & PRINTER: Alpha International Publication (AIP)

Website: editoraipublications@gmail.com

ACKNOWLEDGMENT

First and foremost, praises to God, the Almighty, for his immense shower of blessing and kindness throughout the work and has allowed us to finish successfully. We are sincerely grateful to our Institution Management, Director, Principal, Faculties, Students, and all our family members for providing continuous support and motivation during the work. We would also like to take the opportunity to express our special thanks of gratitude to the publisher for providing a golden chance by giving us the most awaited platform to showcase our novel work. Any attempt at any level can't be satisfactorily completed without our students' collaborative effort, resulting in our Book being unique.

PREFACE

Atomic structure refers to the structure of an atom comprising a **nucleus** (centre) in which the **protons** (positively charged) and **neutrons** (neutral) are present. The negatively charged particles called **electrons** revolve around the **centre of the nucleus**. The history of atomic structure and quantum mechanics dates back to the times of Democritus, the man who first proposed that matter is composed of atoms. The study about the structure of an atom gives a great insight into the entire class of chemical reactions, bonds and their physical properties. Keeping such things in mind, the material in the book is organised into five parts. Chapter 1 smallest unit of element which consist of a dense, central positively charged nucleus surrounded by negatively charged electron is called an atom. Gases at normal atmospheric pressure are poor conductors of electricity because they do not have free electrons for conduction. Chapter 2 In an atom, electrons (negatively charged) revolve around the positively charged nucleus in a definite circular path called orbits or shells. The electrons in an atom move from a lower energy level to a higher energy level by gaining the required energy and an electron moves from a higher energy level to lower energy level by losing energy. Chapter 3 X-rays are a form of electromagnetic radiation with wavelengths ranging from 0.01 to 10 nanometers. Finally, the differential absorption of X-rays within the tissues of the body subsequently contributes to the production of the final image. Chapter 4 A photoelectric cell is an application of the photoelectric effect. A photoelectric cell has a semi-cylindrical photosensitive metal plate, called the emitter and a wire loop called the collector which is supported by an evacuated glass or quartz bulb. Chapter 5 The electrons absorbing the energy may be part of atoms which make up solids, liquids, gases, or plasmas. They may be around isolated neutral atoms, ionic compounds, or complicated organic molecules.

CONTENT

S.NO	TITLE	PAGE. NO
UNIT : I CATHODE AND POSITIVE RAY – ANALYSIS		
I	1.1 INTRODUCTION	1
	1.2 MILLIKAN'S OIL DROP EXPERIMENT: DETERMINATION OF CHARGE OF AN ELECTRON	2
	1.3 DISCOVERY OF POSITIVE RAYS:	5
	1.4 ASTON'S MASS SPECTROGRAPH:	10
	1.5 BAINBRIDGE'S MASS SPECTROGRAPH	12
	1.6 DEMPSTER'S MASS SPECTROGRAPH	14
	1.7 MASS DEFECT AND PACKING FRACTION	15
	1.7 MASS DEFECT AND PACKING FRACTION	16
	1.8 BINDING ENERGY:	18
	1.9 MASS DEFECT	19
	1.10 ELECTRON MICROSCOPE	22
1.11 BAND THEORY OF SOLIDS	24	
UNIT : II ATOM MODEL		
II	2.1 INTRODUCTION TO THE BOHR MODEL	35
	2.2 DETERMINE THE CRITICAL POTENTIALS OF A HELIUM ATOM.	39
	2.3 FRANCK AND HERTZ'S EXPERIMENT	44

	2.4 SOMMERFELD ATOM MODEL	46
	2.5 THE VECTOR ATOM MODEL	50
	2.6 QUANTUM NUMBERS ASSOCIATED WITH VECTOR ATOM MODEL	51
	2.7 PAULI EXCLUSION PRINCIPLE	57
	2.7 STERN – GERLACH EXPERIMENT	71
	2.7 ZEEMAN EFFECT	75
	2.8 ANOMALOUS ZEEMAN EFFECT	83
	2.9 STARK EFFECT	86
UNIT : III X-RAYS		
III	3.1 X-RAYS - PRODUCTION	91
	3.2 EXPLAIN BRAGG'S SPECTROMETER METHOD	94
	3.3 BRAGG'S LAW	95
	3.4 LAUE'S EXPERIMENT	98
	3.5 THE POWDER CRYSTAL METHOD	100
	3.6 ROTATING-CRYSTAL DIFFRACTION	108
	3.7 X-RAY SPECTRA - CHARACTERISTICS OF X-RAY SPECTRUM	118
	3.8 INTRODUCTION TO MOSELEY'S LAW	122
	3.9 WAVELENGTH FORMULA	124
	3.10 SYMMETRY OPERATIONS AND ELEMENTS OF SYMMETRY.	126

UNIT : IV PHOTOELECTRIC EFFECT AND FREE ELECTRON THEORY OF METALS		
	4.1 WIEDEMANN AND FRANZ LAW. PHOTOELECTRIC EFFECT	129
IV	4.2 LENARD'S EXPERIMENT	132
	4.3 RICHARDSON AND COMPTON EXPERIMENT	135
	4.4 EXPERIMENTAL INVESTIGATIONS ON THE PHOTOELECTRIC EFFECT	138
	4.5 EINSTEIN'S PHOTOELECTRIC EQUATION	145
	4.6 MILLIKAN'S EXPERIMENT	148
	4.7 PHOTOELECTRIC CELLS	150
UNIT : V MOLECULAR PHYSICS		
V	5.1 ABSORPTION	165
	5.2 SPONTANEOUS EMISSION	166
	5.3 RUBY LASER	174
	5.4 HELIUM-NEON LASER	177
	5.5 SEMICONDUCTOR LASER	183
	5.6 THEORY OF THE ORIGIN OF THE VIBRATION	195
	5.7 ROTATION SPECTRUM OF A MOLECULE	196
	5.8 ELECTRONIC SPECTRA OF MOLECULES	198
	5.9 MOLECULAR ORBITAL THEORY OF HYDROGEN MOLECULE ION	204

	5.10 LONDON DISPERSION FORCES DEFINITION	206
	5.11 TYPES OF BONDS	207
	5.12 THEORY OF ESR	210

Author's Profile



Dr. A. Ramu. M.Sc., M.Phil., B.Ed., Ph.D. Working as an Assistant Professor and Head of the Physics Department at Ganesar College of Arts and Science in Melaisivapuri, Pudukkottai (Dt). He graduated with a Master of Physics from Alagappa University, Karaikkudi, Tamil Nadu, India. He has been awarded Ph.D. in the field of Spectroscopic and Molecular studies based on DFT at Bharathidasan University, Tiruchirappalli, India. He has been in the teaching profession for more than 14 years. He has presented a number of papers in national and International Journals, Conference and Symposiums and has also published a text book on Introduction to Electromagnetic Theory and the Physics of Conducting Solids.



Dr Lakkimsetti. Malleswara Rao was born in Narsapur, west Godavari district, Andhra Pradesh, India, in 1966. He received BSc, M.Sc (Physics), M.Phil (Atmospheric science) and Ph.D (Meteorology) from Andhra University, Visakhapatnam. In 22nd August, 1990 he joined the department of Physics, Sri Y N College, Narsapur as a Lecturer and after 1997 he has Assistant Professor, in 2012 he became a Associate Professor and then Professor till to date. Dr Rao has 32 years of teaching experience. Dr Malleswara Rao is a member of London Journals Press (LJP) and Life member of Global Academic Sciences (GAS) and Member of Indian Meteorological Society (IMS). He has published 47 publications in JGR, Earth Science Reviews (ESR) Global planetary Change (GPC), Journal of American Institute of Physics (AIP), IJAR, IJLESS, IJMER, IJCAR, IJESI, JETIR, RRJ, IJBAS (Web of science Indexed), IJME (Scopus Indexed), 06 edited Books 01 Patent. He acted as Associate Editor of Recent Trends in Multidisciplinary subjects volume-2. He has organized One National Workshop, One National Seminar and Two National Webinars.



Prof. Thorat S. K. received his master degree in Physics through Fergusson College, Pune under Savitribai Phule Pune University in 1996. The author is presently working as Assistant Professor at the Adv. M. N. Deshmukh College Rajur, Dist.-Ahmednagar, (M.S.) He has twenty six years teaching experience. He is a popular teacher among his students. He is a life member of 'Luminescence Society of India'. He has been engaged in the organising and conducting of various workshops and conferences at different levels. The author has published 5 books based on the syllabus of Savitribai Phule Pune University, Pune. His 27 research papers have been published by various national and international journals. The author has received many state and national level awards.



Mr. Himayun Mukhtar Qureshi is a post graduate in embedded systems and design. He is a STEM enthusiast and works with schools, colleges and other educational institutes in making learning, particularly physics fun. He has got experience in content development and teaching for various competitive exams. His areas of interest include atomic, molecular and optical physics, topology and actuarial sciences.

QIP

Alpha International Publication (AIP)

www.alphainternationalpublication.com | editoraipublications@gmail.com

ISBN

978-93-95405-14-0



**FOUNDATIONS OF QUANTUM
MECHANICS:
AN EXPLORATION OF THE
THEORETICAL PHYSICS**

QIP

Dr. M. S. MANI RAJAN

Dr. L. MALLESWARARAO

Dr. SHRIDHAR N. MATHAD

**FOUNDATIONS OF QUANTUM
MECHANICS:**

**AN EXPLORATION OF THE
THEORETICAL PHYSICS**

Dr. L. MALLESWARA RAO
Lecturer in Physics
SRI Y.N. COLLEGE (A)
NARSAPUR - 534 275, W.G.Dt., A.P.

FIRST EDITION

Authors

Dr. M. S. MANI RAJAN

Dr. L. MALLESWARARAO

Dr. SHRIDHAR N. MATHAD

QIP

Title of the Book: Foundations of Quantum Mechanics: An
Exploration of the Theoretical Physics

Edition: First - 2022

Copyrights © Authors

No part of this text book may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owners.

Disclaimer

The authors are solely responsible for the contents published in this text book. The publishers or editors do not take any responsibility for the same in any manner. Errors, if any, are purely unintentional and readers are requested to communicate such errors to the editors or publishers to avoid discrepancies in future.

ISBN: 978-93-95978-36-1

MRP: Rs. 600/-

**PUBLISHER & PRINTER: Alpha International Publication (AIP),
3/725/2, Kammangudi, Adichapuram,**

Thiruvarur District, Tamilnadu- 614717, INDIA

Email: editoraippublications@gmail.com

Website: www.alphainternationalpublication.com

Theoretical physics
evolving their
possibly the
stagnate and
acclaimed
special attention
Traditional
quantum formalism
especially the
theory says
paper deals with
equations of motion
holonomic and
incorporation of
dynamics. It is
ideal constraints
when all the
introduction
go to matter
formalism the
mechanics and
simultaneously
mechanics. It
how classical
quantum perspective
nature of the
twentieth century
mysteries - the

Dr. L. MALLESWARA RAO
Lecturer in Physics
SRI Y.N. COLLEGE (A)
NARSAPUR - 534 275, W.G.D., A.P.

PREFACE

Theoretical physics is the branch of physics that deals with developing and evolving theory to explain the fundamental nature of the universe. It is possibly the most important branch of physics in that without it physics would stagnate and no new discoveries or ideas would develop. Authored by an acclaimed teacher of quantum physics and philosophy, this textbook pays special attention to the aspects that many courses sweep under the carpet. Traditional courses in quantum mechanics teach students how to use the quantum formalism to make calculations. But even the best students - indeed, especially the best students - emerge rather confused about what, exactly, the theory says is going on, physically, in microscopic systems. Chapter: 1 This paper deals with the foundations of analytical dynamics. It obtains the explicit equations of motion for mechanical systems that are subjected to non-ideal holonomic and nonholonomic equality constraints. It provides an easy incorporation of such non-ideal constraints into the framework of Lagrangian dynamics. It bases its approach on a fundamental principle that includes non-ideal constraints and that reduces to D'Alembert's Principle in the special case when all the constraints become ideal. Chapter : 2 The course begins with an introduction to the Calculus of Variations, and Hamilton's Principle. Next we go to material covered in the last chapter of Landau, the Hamilton-Jacobi formalism that makes clear the intimate connection between classical mechanics and quantum mechanics. (The students are taking quantum simultaneously, so this works well in helping appreciation of classical mechanics, for example how least action is a limit of the sum over paths, and how classical adiabatic invariants are immediately understandable from a quantum perspective.) Chapter : 3 The dual nature of the object and the dual nature of the rays were flexible concepts of physics. At the beginning of the twentieth century, scientists were unveiling one of the most well-kept natural mysteries - the dual wave particles or the dual nature of matter and radiation.

TABLE OF CONTENT		
S.NO	TITLE	PAGE.NO
UNIT: I FUNDAMENTAL PRINCIPLES AND LAGRANGIAN FORMULATION		
I	1.1 MECHANICS OF A PARTICLE AND SYSTEM OF PARTICLES	1
	1.2 CONSERVATION LAWS	8
	1.3 CONSTRAINTS	10
	1.4 GENERALIZED COORDINATES	11
	1.5 PRINCIPLE OF VIRTUAL WORK-D'ALEMBERT'S PRINCIPLE AND LAGRANGE'S EQUATION	14
	1.6 HAMILTON'S PRINCIPLE	16
	1.7 CONSERVATION THEOREMS AND SYMMETRY PROPERTIES	28
	1.8 ATWOOD'S MACHINE	39
	1.9 SIMPLE PENDULUM	43
UNIT : II HAMILTON'S FORMULATION		
II	2.1 HAMILTON'S CANONICAL EQUATIONS OF MOTION	51
	2.2 HAMILTON'S EQUATIONS FROM VARIATIONAL PRINCIPLE	54
	2.3 PRINCIPLE OF LEAST ACTION	56
	2.4 PHASE SPACE	60
	2.5 GENERALIZED MOMENTUM	61
	2.6 CYCLIC CO-ORDINATES	62
	2.7 CONSERVATION THEOREM FOR GENERALIZED MOMENTUM	67
	2.8 CONSERVATION THEOREM FOR ENERGY	71

UNIT: III DUAL NATURE OF MATTER		
IV	3.1 DE BROGLIE CONCEPT OF MATTER WAVES	77
	3.2 De Broglie wavelength	79
	3.3 WAVE VELOCITY AND GROUP VELOCITY FOR THE DE BROGLIE WAVES	82
	3.4 EXPERIMENTAL STUDY OF MATTER WAVES	87
	3.5 DAVISON AND GERMER EXPERIMENT	89
	3.6 G.P. THOMON'S EXPERIMENT FOR VERIFYING DE BROGLIE RELATION	94
	3.7 HEISENBERG'S UNCERTAINTY PRINCIPLE	96
	3.8 ELECTRON MICROSCOPE	101
	3.9 GAMMA RAYS	107
UNIT: IV BASICS OF QUANTUM MECHANICS		
IV	4.1 BASIC POSTULATES OF WAVE MECHANICS	111
	4.2 DEVELOPMENT OF SCHRÖDINGER WAVE EQUATION	113
	4.3 TIME-INDEPENDENT-SCHRÖDINGER-NONRELATIVISTIC EQUATION	115
	4.4 FREE-PARTICLE WAVE FUNCTION	119
	4.5 ORTHOGONAL AND NORMALIZED WAVE FUNCTION EIGEN FUNCTION AND EIGEN VALUES	121
	4.6 PROPERTIES OF WAVE FUNCTION	125
	EXPECTATION VALUES AND EHRENFEST'S THEOREM	127
	4.8 TIME INDEPENDENT AND DEPENDENT FORMS OF EQUATIONS	132

7
9
32
37
89
94
96
101
107
111
113
115
119
121
125
127
132

UNIT : V EXACTLY SOLVABLE QUANTUM SYSTEMS		
V	5.1 SIMPLE HARMONIC OSCILLATOR	139
	5.2 PARTICLE IN A BOX	148
	5.3 RECTANGULAR BARRIER POTENTIAL	155
	5.4 RIGID ROTATOR	158
	5.5 HYDROGEN ATOM	165

Author's Profile



Dr. M. S. Mani Rajan received his B.Sc (Physics) from Vivekananda College, Tiruvudakam West, Madurai and M.Sc degree from NMSSVN College, Nagamalai, Madurai, Tamilnadu, India. He received M. Phil from Bharathidasan University, Tiruchirappalli, India. He received Ph.D in the field of "Optical soliton based fiber optic communication" from College of Engineering Guindy (CEG), Anna University, Chennai. He published over 80 papers in the field of soliton based optical fiber communication systems and Photonic crystal fiber based optical sensors in highly reputed international journals and he published around 30 papers in various international conferences. He is a Life member of Indian Physics Association (IPA), Life member in Indian Laser Association (ILA), Life member in Optical society of India (OSI), Life member in Materials research society of India (MRSI) and Life member in Photonics society of India (PSI). He is currently working as Assistant Professor in the Department of Physics, Anna University, University College of Engineering Ramanathapuram, Tamilnadu, India. His area of research is soliton propagation in various nonlinear waveguides, photonic crystal fiber for various sensing applications and erbium doped fiber amplifiers. He wrote one book on Engineering Physics, Published in Cengage publication in 2018. He wrote one chapter related to Application of Photonic crystal fibers for various sensing applications in 2022 (Elsevier). He also served as a reviewer of several reputed journals like IEEE Photonics, Journal of Modern Optics (Taylor & Francis), Nonlinear Dynamics (Springer), Optics Communications (Elsevier), Journal of Modern Physics Letters B (World Scientific), Optik (Elsevier), Communications in Theoretical Physics (IOP). He received funded project for international research collaboration from SERB, Department of science and Technology (DST). He visited many countries for research collaborations like, Malaysia, UAE, Singapore and South Africa. He has emerged in the list of top 2 % scientists released by a leading publisher Elsevier BV, Stanford University. The Netherland-based publisher updated science-wide author databases of standardized citation indicators- on 19.10.2021.



Dr Lakkimsetti. Malleswara Rao was born in Narsapur, west Godavari district, Andhra Pradesh, India, in 1966. He received BSc, M.Sc (Physics), M.Phil (Atmospheric science) and Ph.D (Meteorology) from Andhra University, Visakhapatnam. In 22nd August, 1990 he joined the department of Physics, Sri Y N College, Narsapur as a Lecturer and after 1997 he has Assistant Professor, in 2012 he became a Associate Professor and then Professor till to date. Dr Rao has 32 years of teaching experience. Dr Malleswara Rao is a member of London Journals Press (LJP) and Life member of Global Academic Sciences (GAS) and Member of Indian Meteorological Society (IMS). He has published 47 publications in JGR, Earth Science Reviews (ESR) Global planetary Change (GPC), Journal of American Institute of Physics (AIP), IJAR, IJLESS, IJMER, IJCAR, IJESI, JETIR, RRJ, IJBPAS (Web of science Indexed), IJME (Scopus Indexed), 06 edited Books 01 Patent. He acted as Associate Editor of Recent Trends in Multidisciplinary subjects volume-2. He has organized One National Workshop, One National Seminar and Two National Webinars.



Dr. Shridhar N. Mathad has his M.Sc (2004) in the Department of Physics, Karnataka University, Dharwad, Karnataka, India and completed his PhD (2014) in Shivaji University, Kolhapur. At present he is working as Head of Department, Assistant professor, in the Physics in K. L. E. Institute of Technology, Hubli. He has published 130 research papers in research Journals, presently guiding 03 research scholars, 01 submitted and 01 completed Ph.D. His research area of interest is in nano oxides, ferrites, miniaturized microstrip components using ferroelectrics and ferromagnetic thick films.

AIP

Alpha International Publication (AIP)

www.alphainternationalpublication.com | editorealppublications@gmail.com

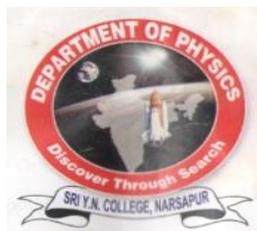
ISBN

978-93-95978-36-1



SRI Y N COLLEGE (A), NARSAPUR

EDITED BOOKS



2022-2023

DEPARTMENT OF PHYSICS

**SRI Y.N.COLLEGE (A)
NARSAPUR**

MULTIDISCIPLINARY STUDIES: PROSPECTS AND PROBLEMS IN MODERN ERA

**Chief Editor
Dr. Suja Sundram**

**Editors
Dr. S. Ayyappan,
Ms. S. Julia Selva Sundari,
Dr. K. Bhavana Raj,
Prof. Gargi Gohel &
Mr. Davood Nihal**

Princeton Press

Overland Park, Kansas - 66212, USA

Website : www.princetonpress.us

© PRINCETON PRESS, USA

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording and/or otherwise without the prior written permission of the publishers.

Copy right of the article/paper, based on the declaration on the genuineness and originality of the article/paper, is owned by the author (s). the author (s) will be responsible in case of any copyright infringement.

Published in the year : **July 2022**

Published By:

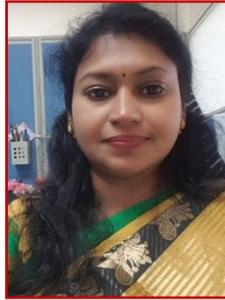
Princeton Press

Overland Park, Kansas - 66212, USA

Website : www.princetonpress.us

Title: Multidisciplinary Studies: Prospects and Problems in Modern Era

ISBN: 978-920-5-20223-5



Dr. Suja Sundram, MBA, MPhil., Ph.D., concomitant as Assistant Professor, Department of Business Administration, Jubail University College, Kingdom of Saudi Arabia. Her area of specialization is Marketing and International Business. She serves as a Department Field Training Coordinator for 5 programs namely Business Administration, Management Information Systems, Accounting, Human Resources Program and Logistics & Supply Chain Management.

With 21 years of teaching experience in different Universities, she has acquired excellent proficiency of various Programs and Courses. Her publications in various Journals in both National and International helped her evolve as editorial member. She is a founder member of a Scientific Journal called 'Global Management Review and Sona Journal of Marketing Research' for Sona College. She also holds a predominant role in the Board of Studies for Hindusthan College of Arts and Science and Sanjivini groups of Institutions.

Though working in the kingdom, she continues to evaluate Ph.D. thesis as foreign examiner for Bharathiar University and Periyar University. As member of American Marketing Association and Stephen Covey Community, she participates in many conferences and presides over many workshops in India and abroad.



Dr.S.Ayyappan is a highly skilled and cogent academician in the area of Financial Management with excellent team dynamics and global collaboration with expertise in corporate liasoning and all discipline of commerce and management. He is an Instantaneous communicator with exemplary research skills and also a meticulous planner, impeccable facilitator and extraordinary team specialist. At present he is working as Professor and Principal In charge at Akshaya Institute of Management studies Coimbatore. He has two decade of teaching experience in commerce and management studies with dual Ph.D in both Commerce and Management. He has published numerous article in Scopus, web of science and other peer reviewed international journals and filed 4 Indian patents for his credit. He has already produced 10 M.Phil. scholars and 4 Ph.Dscholars as well.



Ms. S. Julia Selva Sundari holds post-graduation degrees in English, Education, and Social Work and is currently heading Holy Cross group of Institutions, Thirupattur, as Vice Chariman. She is presently the HoD of English, Holy Cross Arts and Science College for Women, Thirupattur, teaching undergraduate and post-graduate students and Academic Principal of Holy Cross Matric Hr Sec School, Thirupattur. Her sixteen years of work experience in the field of Education comprises teaching, research, and student counseling. She is pursuing Ph.D. at Thiruvalluvar University in English, and her thesis combines the multidisciplinary fields of Ecofeminism, Translation studies, and Bioregionalism. She has published articles (indexed and non-indexed) and presented papers in National and International seminars. Her quest to discover the best method in English Language Teaching led her to pursue Montessori training at American Montessori Institute (affiliated with the American Montessori Society) San Leandro-California, USA. With theoretical knowledge and experience in American schools, she formulated a research-based teaching methodology, 'SPROUT GARDEN- EDUCATION MY WAY', designed for school children to achieve and excel in academics. She is the lifetime trustee of 'Trinity Educational and Social Welfare Trust.' Her specialization in Youth Counselling has helped in the professional intervention of young women in crisis and students with learning difficulties.



Dr K Bhavana Raj

Assistant Professor

Finance and Banking, Business Analytics, Fin Tech,
Institute of Public Enterprise, Survey No.: 1266
Shamirpet (Village and Mandal), Hyderabad - 500 101

Dr. K. Bhavana Raj, Assistant Professor in the area of Banking, Finance & Business Analytics at Institute of Public Enterprise, Hyderabad is a prolific researcher and has published numerous research papers and case studies in various journals of international repute in the area of Banking, Finance & Business Analytics. She is also a reviewer for many reputed international journals. Her research interests include Risk Management, Basel, Corporate Finance, Risk Modelling, Financial Analytics, Corporate Governance etc. She has a blend of both engineering and management expertise, holding a B. Tech degree in Computer Science & Engineering, M.B.A and Ph.D from JNTU Hyderabad. She also has more than four years experience in HSBC Bank.

She has successfully completed all 8 (eight) modules of MOOCs in SWAYAM - NITTT (The National Institute of Technical Teachers Training) conducted by NITTTR (The National Institute of Technical Teachers' Training and Research, Chennai) during March 2021 as per the AICTE mandatory teacher training policy in the First Attempt. She has qualified herself UGC-NET (University Grants Commission- National Eligibility Test) for Lectureship in June 2011 in the Faculty of Management Sciences -Finance in the First Attempt.

Dr. K. Bhavana Raj



Prof. Gargi Gohel

With 28 years of teaching experience, Prof. Gargi Gohel has been active in research and publication in National and International Journals. She has more than 20 International Research Papers to her credit. Her area of interest are Translation Studies, Diapora Writing, African Literature, Fourth World Literature and very recently has taken up interest in Digital Technology in Learning Pedagogy. She travels around to present Research Papers out of India thus widening the scope of self learning.



Davood Nihal

Junior Research Fellow

Centre for Marine Living Resources and Ecology (CMLRE),
Govt. of India, Kochi, Kerala.

Email: davoodnihal123@gmail.com

Mr Davood Nihal obtained his degree of Bachelor of Fisheries Science (B.F.Sc) in the year 2017 from Kerala University of Fisheries and Ocean Studies (KUFOS), Kochi, Kerala. He completed his postgraduate degree of Master of Fisheries Science (M.F.Sc) in Aquatic Environment Management, in the year 2020 from Kerala University of Fisheries and Ocean Studies (KUFOS), Kochi, Kerala. He worked as Technical Assistant at private aquaculture farms from 2020 to 2021. He has been selected as 'Best NSS Volunteer' of the University in the year 2017 by the National Service Scheme (NSS) unit of KUFOS. He has received the Ministry of Earth Sciences (Govt. of India) Research Fellowship (JRF/SRF) for doctoral studies in 2021. To his credit, he has several research papers in national and international journals and also has presented papers at both national and international conferences. He has received the Young Researcher Award (2022) from Phoenix International. He is presently working as Junior Research Fellow at Centre for Marine Living Resources and Ecology (CMLRE), Govt. of India, Kochi, Kerala.

CONTENTS

S. No.	Title	Page No.
1.	A STUDY ON FACTORS INFLUENCING CONSUMER PREFERENCES TOWARDS ORGANIC FOOD PRODUCTS <i>Dr. R.V. Suresh, Dr. B. Hannah & Dr. Jitendra Chouhan</i>	1
2.	A DESCRIPTIVE STUDY ON SERVICE QUALITY AND CUSTOMER PERCEPTION TOWARDS DIGITAL MARKETING <i>Dr. M.J. Sathish Kumar, Dr. Rajendra Subhash Jarad & Dr.S.Karthik</i>	9
3.	CUSTOMER PERCEPTION TOWARDS ROLE OF E- BANKING SERVICES IN CURRENT SCENARIO <i>Dr K Bhavana Raj, Dr. M. Anusuya & Mr. Devanand Kashinath Mandavdhare</i>	16
4.	AN EMPIRICAL STUDY ON FACTORS AFFECTING INVESTMENT DECISION IN INDIAN CAPITAL MARKET <i>Dr. V.C. Shanker, Dr Sanjay Kumar & Dr D Deepa</i>	24
5.	DIVIDEND POLICY AND ITS IMPACT ON PERFORMANCE OF INDIAN INFORMATION TECHNOLOGY COMPANIES <i>Dr. Sonia Kaushik, Dr. S. Umamaheswari & P.T.J.K. Lilian</i>	32
6.	A STUDY ON WORK LIFE BALANCE OF WOMEN EMPLOYEES WITH REFERENCE TO TEACHING FACULTIES <i>Mrs. Licy Varghese, Dr. M. Durgarani & Dr. Ajit Kumar</i>	39
7.	CONFLICTS OF ETHNICITY IN THE WORKS OF ARUDPRAGASAM'S THE STORY OF BRIEF MARRIAGE <i>Dr. Nancy Prasanna Joseph, Dr. V. Jagadeeswari & Dr. Hemamalini</i>	47
8.	HISTORIOGRAPHIC PRESENTATION IN THE WORKS OF SALMAN RUSHDIE <i>Dr. C. Shanmuga Priya, Dr. M. Vijayalakshmi & Aliya Parveen A Mulla</i>	51
9.	AN EMPIRICAL STUDY ON IMPACT OF EMPLOYEE RETENTION IN IT COMPANIES ON THE EMPLOYER BRANDING WITH REFERENCE TO CHENNAI CITY <i>Santosh Ram Pagare, Dr. Venkata Harshavardhan Reddy Dornadula & Dr. S. Kavitha</i>	56
10.	A STUDY ON INVESTORS PERCEPTION TOWARDS ONLINE TRADING <i>Kumar. S & Kiran. J</i>	64
11.	A STUDY ON PERCEPTION OF ENTREPRENEURS TOWARDS CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS <i>Dr. Ganesh K Chavhan, Santosh Ram Pagare & Shailendra Kashinath Bansode</i>	70
12.	A STUDY ON ADOPTION OF ICT TOOLS BY STUDENTS IN HIGHER EDUCATIONAL INSTITUTIONS <i>Dr. Ganesh K Chavhan, Kajal D. Jaisinghani & Dr. M.A. Barote</i>	78
13.	A STUDY ON WORK LIFE BALANCE OF WOMEN EMPLOYEES WITH REFERENCE TO TEACHING FACULTIES DURING COVID 19 <i>Dr. R. Indumathy, Dr. M. Esther Kalyani Asiroadam & Galiveeti Poornima</i>	86

14.	REVIEW ON BLENDED LEARNING: IDENTIFYING THE KEY TO THEMES	93
	<i>Dr. T. Manichander, Dr. Kanika Handa & Dr. Dushyant Nimavat</i>	
15.	EFFECTS ON HRM PRACTICES ON LOGISTICS AND SUPPLY CHAIN MANAGEMENT	101
	<i>Dr. John E P, Dr. Kiruthiga V & Dr. S. Mahalakshmi</i>	
16.	SOCIAL ENTREPRENEURIAL TRAITS AMONG YOUTH IN INDIA	108
	<i>S. Sam Santhose, Dr. Anviti Rawat & Dr. M. Prakash</i>	
17.	AWARENESS TOWARDS GOVERNMENT INITIATIVE SCHEMES FOR FINANCIAL INCLUSION: WITH REFERENCE TO RURAL PEOPLE	116
	<i>Dr. Balaga Sahadevudu, Bharat Maurya & Dr. Suman Roy Barman</i>	
18.	A STUDY ON FINANCIAL LITERACY AMONG THE COLLEGE STUDENT	125
	<i>Dr. C. Radha Priya, Dr. Anviti Rawat & Dr. Nilesh Uke</i>	
19.	ROLE OF TECHNOLOGY IN PROMOTING DISTANCE ENGLISH LANGUAGE LEARNING PROGRAM	133
	<i>Indranee Borkar, Dr Shivani Vashist & Dr. E.V. Ramkumar</i>	
20.	AN EMPIRICAL STUDY ON HRM PRACTICES AND EMPLOYEE TRAINING IN PRIVATE BANKS HRM PRACTICE IN BANKING SECTOR; AN ANALYSIS OF EMPLOYEE TRAINING IN PRIVATE BANKS	139
	<i>Neha Choudhary, B. Sakthimala & Dr. D. Dhanalakshmi</i>	
21.	ANALYSIS OF INFLOWS OF FOREIGN DIRECT INVESTMENT IN INDIA PROBLEMS AND CHALLENGES	147
	<i>Dr. Ataur Rahman Farooqi, Samuel Lalthanliana & Dr. M. Murali Krishnan</i>	
22.	FDI IN BANKING SECTOR: AN OVERVIEW	153
	<i>Lalita Babulal Malusare, Rakesh Bharat Ghode & Jaywant Ramdas Bhadane</i>	
23.	A STUDY ON OCCUPATIONAL STRESS AMONG NURSES WORKING IN HOSPITAL	160
	<i>V. Gowrishankkar, Monika Devi NR & Dr Deepu G P</i>	
24.	A STUDY ON SATISFACTION LEVEL OF POLICY HOLDERS TOWARDS THE SERVICES OF LIFE INSURANCE COMPANIES	166
	<i>Dr. Malleswara Rao, Dr Neeti Mathur & C.R. Vijay</i>	
25.	MOTIVATION AMONG EMPLOYEES OF PUBLIC SECTOR CONCERN	172
	<i>Dr. Carolin Golda. P, B. Sakthimala & Jugal Kishore</i>	
26.	A STUDY ON HRM PRACTICES IN HEALTH CARE SECTOR	178
	<i>Mrs. Licy Varghese, Dr. N. Rajesh & Mr. Ashish Kumar Pandey</i>	
27.	A STUDY ON HEALTH CARE SYSTEM IN INDIA ISSUES AND CONCERNS	184
	<i>Dr. Sunil E. Tamboekar, Dr. Nitesh Pradhan & Dr. Neha Dubey</i>	
28.	DIGITAL MARKETING AND ITS IMPACT ON THE CONSUMER BEHAVIOUR A STUDY WITH SPECIAL REFERENCE TO SELECT CITIES	191
	<i>Dr. Raghavendra, Dr. Varsha Agarwal & Dr Priyanka Rawal</i>	
29.	A STUDY ON ONLINE MARKETING WITH SPECIAL REFERENCE TO HOME DELIVERY SYSTEM	198
	<i>Dr. L. Satheeskumar, S. Sekar & T. Rajamanickam</i>	
30.	STUDENTS' PERCEPTIONS TOWARDS BLENDED LEARNING ENVIRONMENT	204
	<i>Mrs. Licy Varghese, Dr R. Portia & Archana Pujar</i>	

A STUDY ON FACTORS INFLUENCING CONSUMER PREFERENCES TOWARDS ORGANIC FOOD PRODUCTS

Dr. R.V. Suresh Dr. B. Hannah** Dr. Jitendra Chouhan****

**Associate Professor, Department of Management, (PG) & Research), VLB Janakiammal College of Arts and Science, Kovaipudur Main Road, Coimbatore, Tamilnadu*

***Assistant Professor, Department of Commerce, Bishop Heber College, Trichy. (Affiliated to Bharathidasan University)*

****Associate Professor, Department of Business Management and Commerce, Mandasaur University M.P*

ABSTRACT

The organic products are manufactured from natural ingredients, the majority of today's consumers believe that purchasing organic goods helps them maintain a healthy lifestyle. The cultivation of organic goods does not include the use of synthetic fertilizers, artificial chemicals, or pesticides. Even though it's still in its infant stage, the organic food industry in India has begun expanding at a quick pace. Organic food is preferred by customers because it is safer, better for human health, and less harmful to the environment. The primary focus of the study is to provide a detailed description of the traits possessed by a consumer. This research is descriptive in nature, and it is being carried out with the purpose of investigating the variables that influence consumers' attitudes about and intentions towards the purchase of organic food items. For the purpose of the research, data from both primary and secondary sources are gathered. In order to achieve the goals, survey samples are collected using a questionnaire with a clear organizational framework. The first thing that has to be done in order to gather primary data from various locations inside the city boundaries is to identify sample customers. This is done by taking into consideration the respondents who go to organic food shops and make purchases there. It was decided to use a technique of sampling that was not based on probability but rather on convenience. Data has been collected from 250 respondents, for which questionnaire (google form) was structured. The study concluded that there is a need to build more trust among the consumers and get the proper government certification for the organic food products

Keywords: Organic food; consumer perceptions; consumer's willingness and quality

INTRODUCTION

Organic food is made using organic farming concepts and methods to produce organic food. The use of chemicals, fertilizers, pesticides, or other artificial enhancers is prohibited in the production of organic food. There are numerous retail outlets that supply and sell organic food products. Consumer purchases of organic foods on a regular basis have contributed to the market's continued expansion. Consumers of organic foods are impacted by a number of factors, which can be broken down into the following categories: Organic food is a sort of natural food that is grown without irradiation and does not contain any artificial chemicals such as fertilizers, antibiotics, pesticides, GMOs, or herbicides. Furthermore, organic food is free of genetically engineered organisms. (Gad Mohsen et al., 2013)¹. India is responsible for the production of cereals such as oats, rice, rye, barley, maize, wheat, and other grains across a total area of 97.1 million hectares, according to a report published by the Food and Agricultural Organization of the United States. India is also responsible for the production of citrus fruit such as oranges, lemons, tangerines, limes, pomelos/grapefruit, and other varieties across a total area of 0.75 (Willer and Kilcher, 2011)². According to the findings of the study titled "India Organic Food Market Forecast & Opportunities, 2019," it is anticipated that the total market revenue for

¹ Gad Mohsen, Dacko, Scott, (2013). *An extension of the benefit segmentation base for the consumption of organic foods: a time perspective. Journal of Marketing Management*, 29(15-16). 1701-1728.

² Willer and Kilcher (2011). *The World of Organic Agriculture. Statistics and Emerging Trends 2011.*

organic food in India will exhibit a combined annual growth rate of approximately 25 percent from the years 2014 through 2019. This prediction is included in the report. (Honkanen 2006)³. The way the environment behaves has emerged as a source of worry and is seen as being of the utmost importance by both the people who make goods and the people who buy them. An optimistic attitude toward organic food items was supported by the findings of a number of studies conducted in the past. (Davies et al, 1995)⁴. There is a growing movement toward live a more modern and sophisticated lifestyle, which indicates that there is a growing chance that this movement will have an impact on the preferences and dietary decisions of consumers. The study on organic food and health, based on Rathika and Ammani's considerations of organic items (2012)⁵ it has been suggested that demand for organic food goods, which were formerly exported in large quantities, has changed due to changes in consumer demand from inside the local market itself. Additionally, consumers have shown signs of increasing knowledge of the difficulties that develop as a result of ingesting foods that were cultivated using artificial fertilizers and pesticides.

ORGANIC FOOD PREFERENCE

Consumers' choices are often impacted by a number of variables, including not limited to the following: knowledge on product, the qualities of the product, and an analysis of the possible outcomes that may result from using the product. Before settling on a purchase, the consumer will first and foremost consider how the product will affect their health as an important consideration.⁶ Many shoppers choose to buy organic food for a wide range of reasons, and this preference is widespread. The clients have a predilection for organic food, which may be attributed to a lot of the demographic characteristics that they possess. It was found that homes with graduates had a lower chance of buying organic food, whereas households with children under the age of 18 had a greater likelihood of purchasing organic fruit. Women, in addition to males and those with higher incomes and levels of education, have a stronger knowledge and comprehension of foods that are detrimental to one's health. The following is a list of the demographic features, lifestyle choices, and environmental perspectives that make up the organic consumer profile, as determined by the results of the study: Organic food consumers often have higher levels of education, more stable incomes, and are members of more affluent socioeconomic classes than the general population as a whole. It has been shown that there is a significant correlation between attaining a higher level of formal education and consuming organic foods at ever-increasing quantities as one moves up the educational ladder.⁷

Customers who prefer organic goods are ready to pay a premium of 10 percent for these goods, with women being willing to pay an average of 9.5 percent more than men and men being to pay an average of 11.4 percent more than women. There is a widely held belief within the organic trade sector that pricing and income do not necessarily represent organic sales. This is a common misconception. This is a mistake that many people make. There are a variety of factors that play a role in determining the level of interest that customers have in the concept of buying organic food products. Concern for one's own health comes in top when ranking the factors that influence a person's choice to buy organic food, followed by worries about the health of animals and the environment. Some consumers choose to buy organic food because they are under the impression that it is of superior quality and that it provides a greater quantity of essential nutrients.⁸ The sensory characteristics are one of the few specific requirements that are given, which are then followed by the variables pertaining to safety and nutrition. The increase in the purchase of organic products can be attributed to a variety of different factors, such as the fact that organic food items have a more robust flavour than food

³ Honkanen, P, Verplanken and Olsen, S.O. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behavior*, 5(5), 420-430.

⁴ Davies, A, Titterington, A, Cochrane, C. (1995). Who buys organic food? A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), 17-23.

⁵ Rathika, P., & Ammani, P. (2012). Eating healthy consumer perception towards of organic foods, *International Journal of Marketing, Financial Services and Management Research*, 1(2), 2012,

⁶ UrenaBernabeu and Olmeda (2008) Women, men and organic food: Differences in their attitudes and willingness to pay. A Spanish case study. *International Journal of Consumer Studies*.32 (1), pp.18–26.

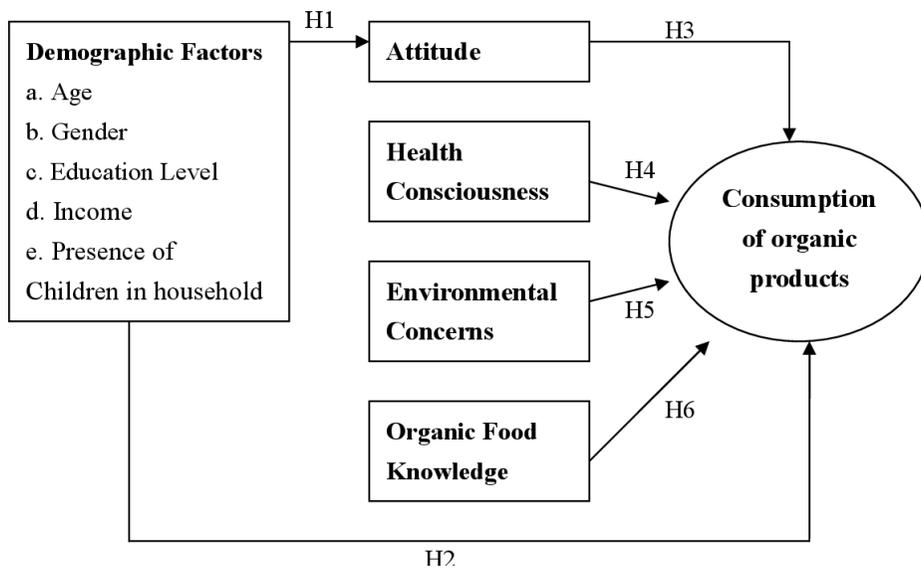
⁷ Padel and Foster (2005), "Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food". *British Food Journal*. 107(8), pp.606–615

⁸ Chinnici, D'Amico and Pecorino (2002) "A multivariate statistical analysis on the consumers of organic products". *British Food Journal*. 104(3/4):187–199

that is produced using conventional methods, concerns regarding one's health, the importance of the nutrients that it contains, and concerns regarding the environment.⁹ Concerns have been made over the use of herbicides, pesticides and agricultural practices, in addition to issues regarding the degradation of land and the treatment of animals; nevertheless, these are just some of the contributing reasons.

CONCEPTUAL FRAMEWORK

The consumer's perception that organic food products are healthy and safe, that organic food products are environmentally friendly, that organic food product prices are reasonable, that organic product certifications can be trusted, and that organic food products are widely available all contribute to the consumer's preference to purchase organic food products..¹⁰



REVIEW ON CONSUMER PERCEPTIONS TOWARDS ORGANIC FOOD

BrijeshSivathanu (2015), organic products are made from natural components. The majority of customers in today's market think that buying organic goods assists them in maintaining a healthy lifestyle. When growing organic food, man-made fertilisers, artificial chemicals, and pesticides are not permitted at any stage of production at any time. The market for organic food in India has started growing at a rapid speed, despite the fact that the sector is just in its infancy at this point. Customers should give careful thought to whether or not an organic product is risk-free to consume, how it will affect human health, and how it will alter the natural environment. However, the nutritional content, flavour, and freshness of organic food also play a big influence in the decision-making process of customers when it comes to choosing organic food. The technique of multiple linear regression was used in order to discover the elements that would provide an explanation for the preference that consumers have for buying organic food items. This preference was shown to be correlated with increased sales of organic food products. Statistics that are descriptive were used so that the demographic information could be comprehended in a more clear and concise manner. The results of this poll indicate that people would prefer spend their money on organic food products than on conventional ones. This decision is affected by a variety of various factors, one of which is the demographic information of customers. The vast majority of respondents who had some level of education expressed a significant preference for buying organic food goods. People who are between the ages of 29 and 39 have a higher likelihood of purchasing organic food when compared to people in other age groups. In addition, those who have higher earnings show a stronger preference for buying organic goods. Because consumers believe that organic food items are better

⁹ Thompson GD.(1995) Consumer demand for organic foods: What we know and what we need to know. American Journal of Agricultural Economics. 1995; 80(5), pp.1113–1118.

¹⁰ Harper, Makatouni.(2002) "Consumer perception of organic food productions and farm animal welfare". British Food Journal. 104(3/4),pp.287–99

for their health and safety, as well as their nutritional requirements and the environment, they choose to purchase organic food goods. This is because consumers believe that organic food items are better for their health and safety. The study shed light on the reasons why consumers have a preference for organic food, and the knowledge that can be gleaned from this research will be very helpful to marketers as they work to formulate an effective marketing strategy. This research has the potential to be incorporated into the execution of a variety of marketing strategies by marketers, as well as other factors that have an influence on the preference of consumers in the various strata of society. Anish Kunhikannan and Ramachandran(2020)¹¹ discovered that the growing of organic food does not include the use of any chemicals, fertilisers, pesticides, or other kinds of artificial enhancers of any kind. There is a significant number of retail establishments that keep organic food products in stock and sell them. Consumers' consistent spending on organic produce and other food products has been a major factor in the market's continued growth for these types of products. Consumers of organic foods are impacted by a variety of different factors, which may be broken down into the following categories: This study's objective is to evaluate the knowledge, awareness, availability, pricing on buying attitude, and purchasing intentions of consumers in the city of Coimbatore with regard to organic food goods. Coimbatore, in particular, will serve as the focal point of this investigation's attention. Participants in the study are invited to fill out questionnaires while they are shopping for organic food products at specialty stores that only sell organic goods. The questionnaires are given to the participants while they are shopping. In order to conduct out the data analysis, a total of 468 samples were gathered for examination.

STATEMENT OF THE PROBLEM

The artificial effect is becoming the driving force that affects the general public, which has a substantial negative impact on the way of life of people of all ages, from children to the elderly, regardless of gender, socioeconomic status, or other characteristics. In today's world, truth is gradually being pushed to the margins, and artificial influence is increasingly becoming the driving force that impacts ordinary people. The great majority of people are now recognizing that they are gradually turning around to look back at the loss caused by their ignorance, and as a consequence, they are gradually catching up to the true natural world. This is occurring at the same time that they accept the truth that they are progressively catching up to the competition. It is crucial to highlight that, as a consequence of this good movement in people's attitudes, initiatives by green organic promoters and policymakers are putting forth their best efforts to serve the people in a healthy manner while simultaneously working to preserve the environment. This adjustment in people's attitudes has been a good thing. This is an important new finding that must be acknowledged. The purpose of this research is to determine the influencing elements, such as knowledge, awareness, availability, and price that have a direct influence on the purchasing attitude, which leads to behavioral intentions. These variables were shown to have a direct association with the purchasing attitude and behavioral intentions. Despite the fact that prior studies have explored the consumer's viewpoint on organic food consumption, this is the first to concentrate on determining the components that impact a consumer's attitude toward organic food consumption. As a result, the goal of this investigation, which is the researcher's first of its kind, is to study and uncover discrepancies in the perception of organic food items in connection to a number of qualities.

RESEARCH OBJECTIVES

The main purposes of the study are

1. To study the socio-economic characteristics of the sample respondents
2. To identify the factors that influence consumer preference towards organic food purchase.
3. To understand the consumer preference towards organic food purchase.

¹¹ Anish Kunhikannan and Ramachandran (2020)The Factors Influencing Consumers Organic Food Products Buying Intention, Academy of Marketing Studies Journal Vol: 24,(2),pp.2-4

RESEARCH METHODOLOGY

This study approach is concerned with describing the features of certain people or groups. This descriptive research is being done to investigate the variables affecting customers' purchase attitudes and purchasing intentions for organic food items. For the research, both primary and secondary data are gathered. To achieve the goals, survey samples are collected using a well-structured questionnaire. The first stage is to identify sample customers from various locations inside the city borders by evaluating respondents who enter organic retailers and buy organic products. A non-probability sampling approach based on a convenient sampling method was used. Data has been collected from 250 respondents, for which questionnaire (google form) was structured.

FINDINGS, RESULTS AND DISCUSSIONS

1. Socio-economic characteristics

Age, gender and income level of the respondents are considered as important factors to influence the attitude of the consumers.

Table 1: Socio-Economic Characteristics

Socio-Economic Characteristics		Number of respondents	Percentage
Age group	Young	78	31.2
	Middle	112	44.8
	Old	60	24.0
Gender	Male	176	70.4
	Female	74	29.6
Income level	Less	86	34.4
	Middle	129	51.6
	High	35	14.0
Consumer preferences	Less	20	8
	Moderate	96	38.4
	High	134	53.6
Total		250	100

The table indicates that more number of respondents 112 (44.8) are from the middle age group, 176 (70.4%) respondents are male, 129 (51.6 %) are from the middle income group. The attitude of the respondents is measured using 5 point Likert scale. The result is given below

2. Consumer preference towards organic food purchase

9 statements are used to measure factors that influence consumer preference towards organic food purchase

Table 2: The factors that influence consumer preference

Dimensions	Mean	Std. Deviation
Attitude	3.69	1.123
Availability	3.72	1.197
Buying Intensions	3.82	1.109
Environmental Consciousness	3.75	1.182
Health Consciousness	3.65	1.047
Knowledge	3.38	1.058
Price	3.78	1.122
Safety and Quality Characteristics	3.69	1.290
Socially Responsible Consumption	2.87	1.086

There are 9 statements used to measure factors that influence consumer preference towards organic food purchase. The result from the 5 point Likert scale is analyzed using descriptive statistics. Among the 9

statements, Buying Intentions has highest mean (3.82) with low standard of deviation. Secondly, Price, where appropriate has the mean of 3.78 and least was Socially Responsible Consumption has a mean value of 2.87.

DISCUSSION

Padel (2005)¹² study highlighted buyers' ignorance of labelling, certificates, and the validity of the organic nature of the product. As a consequence of their lack of trust, people may refuse to purchase organic items. When customers become more aware about the risk and its hazards, their risk perception improves. Furthermore, when clients gain trust in the distributor, their perception of risk decreases. Consumer Knowledge refers to a consumer's knowledge and experience with a product throughout the course of his life. Beyond this point, he does external research to get further understanding. Except for awareness and attitude, as well as consciousness and pricing, which make no difference among customers purchasing organic food goods. The model construct in the research is crucial and relevant to the study because it helps to understand how consumers gather and arrange information. (Alba, 1983)¹³. There are three categories of knowledge: objective, subjective, and experiential. (Dodd, 2005)¹⁴. The research is limited to respondents based on their experience and expertise in purchasing organic food items in Coimbatore because it summarizes the primary actions of the consumer in terms of actual usage, historical consumption, information search, and knowledge obtained from their experiences. Attitude is the proclivity to respond positively or negatively to a person, circumstance, or event. Vermeir, et al. (2014)¹⁵ study has revealed that there exists a positive relationship between Organic food purchasing intentions and actual purchases. Consumer belief and the advantages received from it have had a favourable influence on the attitude toward buying organic foods. According to the findings of the research, there is a considerable association between direct significant impacts on purchasing attitude and buying intentions. The result contradicts with the study by Pearson et al. (2010)¹⁶ stated that there is a disparity between consumers' favourable attitude about purchasing organic foods and their actual amount of purchase of organic foods¹⁷.

SUGGESTIONS

1. Price has a big impact on purchasing behaviour, and it is evident that a high price might reduce interest when identical items (traditional) are available in the market, even if there are advantages for self and society. To keep the spirit alive and attract more customers into the organic fold, unwavering efforts in the media, government sources, and non-governmental organizations (NGOs) are required to raise awareness and improve the organic market.
2. It is necessary to push organic food products to every part of the market, which is lacking in local (Indian) settings. Only specialized organic shops promote the product by keeping it in their store, however it is becoming more important to maintain it within reach of all people in society, i.e. must be made accessible with mega merchants such as super markets, malls, and department stores. Creating awareness via retail displays that solely feature organic items may help customers find the products.
3. It is vital to instil in consumers marketing messages that link organic features to desirable consumer ideals (organic food product, eco-friendly nature, etc.). Consumer attitudes around organic foods must shift. The government must aggressively enforce organic food rules by offering centralized

¹² Padel (2005). "Exploring the gap between attitudes and behavior". *British Food Journal*, 606-625.

¹³ Alba (1983). "The effects of product knowledge on the comprehension, retention, and evaluation of product information". *Advances in Consumer Research*, pp.577-580.

¹⁴ Dodd (2005). "Differential Effects of Experience, Subjective Knowledge, and Objective Knowledge on Sources of Information used in Consumer Wine Purchasing". *Journal of Hospitality and Tourism Research*, pp.1 3-19

¹⁵ Vermeir, and Verbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer Attitude-Behavior Gap. *Journal of Agricultural and Environmental Ethics*, Vol.19(2), pp.169-194

¹⁶ Pearson, D., Henryks, J., & Jones, H. (2010). Misreading between the lines: Consumer confusion over organic food labelling. *Australian Journal of Communication*, 37(3), 73-86

¹⁷ Basha, B., Mason, M., Shamsudin, C., Iqbal-Hussain, M., & Salem, H.M. (2015). Consumers Attitude towards Organic Food (March 20, 2017). *Procedia Economics and Finance*, 31, 444-452

facilities for supply chain operations at cheap cost to all enterprises, which would aid in the promotion of organic foods and improve consumer organic attitudes, especially in food goods.

4. Subsidies will be granted for volunteers who are about to build organic food technology. Corporate initiatives to promote organic food items will be made obligatory. Encouraging imports with suitable tax breaks or incentives can assist manufacturers in being green and organic.

CONCLUSION AND MANAGERIAL IMPLICATIONS

It is clearly seen that the consumers prefer to buy organic food products, there are various factors impacting the preference including demographic characteristics of the consumers. It has been observed that females have more preference for organic food products as compared to male respondents. More number of educated respondents prefers to buy organic food products. Middle Age group prefers to buy organic food as compared to other age groups. Also people of higher income group prefer to buy organic food. Consumers prefer to buy organic food products because of their perception that the organic food products are healthy and safe, nutritious and environment friendly. To attract more consumers to buy organic food products, marketers need to work on the strategies and design the elements of the marketing mix to make the organic products easily available to consumers. Also there is a need to build more trust among the consumers and get the proper government certification for the organic food products

REFERENCE

1. Anand and Palaniamma. (2016). "Consumer Buying Behaviour towards Organic Food Products in Vellore Region". *International Research Journal of Management and Social Sciences*, Vol(1)(4), pp.35-44.
2. Andersen and Lund, T. B. (2014). Digging deeper: How do different types of organic consumers influence the increasing organic market share? *British Food Journal*, Vol.116 (1), pp.16-29.
3. Bernabeu, R., Diaz, M., & Olmeda, M. (2010). Origin vs organic in Manchego cheese: which is more important? *British Food Journal*, Vol.112 (8), 887-901.
4. Dardak et al.(2009). "Consumer Perceptions, Consumptions and Preferences towards Organic Product: *Malaysian Perspective. Economic and Technology Management Review*, Vol.4, pp.95-107.
5. De Maya, Lopez-Lopez and Munuera(2011). "Organic food consumption in Europe: International segmentation based on value system differences". *Ecological Economics*, Vol.70 (10), pp.1767-1775.
6. Essoussi, and Zahaf (2008). "Decision making process of community organic food consumers: an exploratory study". *Journal of Consumer Marketing*, Vol.25 (2), pp.95-104.
7. Hsu, Chang and Lin (2016). "An analysis of purchase intentions toward organic food on health consciousness and food safety with/under structural equation modeling". *British Food Journal*, Vol.118 (1), pp.200-216.
8. KamalAryal, Pashupati Chaudhary, Sangitapandit and Govinda Sharma. (2009). "Consumers' Willingness to Pay for Organic Products: A Case from Kathmandu Valley". *The Journal of Agriculture and Environment*, Vol.10, pp.15-26
9. Lodorfos and Dennis, J. (2008). "Consumers' intent: in the organic food market". *Journal of Food Products Marketing*, Vol.14 (2), pp.17-38.
10. Manoranjan, et al. "Using the TAM Model to Explain How Attitudes Determine Adoption of Internet Banking." *European Journal of Economics, Finance and Administrative Sciences*, Vol. 36 (2011), pp.1450-2275
11. RavnHeerwagen, Mørch Andersen Christensen, and Sandøe(2014). "Can increased organic consumption mitigate climate changes?" *British Food Journal*, Vol.116 (8), pp.1314-1329.
12. SriwaranunGan Lee and Cohen (2015). "Consumers' willingness to pay for organic products in Thailand". *International Journal of Social Economics*, Vol.42 (5), pp.480-510.
13. Tung, Shih Wei and Chen (2012). "Attitudinal inconsistency toward organic food in relation to purchasing intention and behavior: An illustration of Taiwan consumers". *British Food Journal*, Vol.114 (7), pp.997-1015.
14. Alba (1983). The effects of product knowledge on the comprehension, retention, and evaluation of product information. *Advances in Consumer Research*, pp.577-580.

15. Basha, B., Mason, M., Shamsudin, C., Iqbal-Hussain, M., and Salem, H.M. (2015). Consumers Attitude towards Organic Food (March 20, 2017). *Procedia Economics and Finance*, Vol.31, pp.444-452.
16. Chiao, C.C., and Yang, C.C. (2010). The impact of recommendation sources on online purchase intentions: The moderating effects of gender and perceived risk. *World Academy of Science, Engineering and Technology*, Vol.6, pp.111-114.
17. Dodd (2005). "Differential Effects of Experience, Subjective Knowledge, and Objective Knowledge on Sources of Information used in Consumer Wine Purchasing". *Journal of Hospitality and Tourism Research*, pp.13-19.
18. Pearson, D, Henryks, and Jones, H. (2010). Misreading between the lines: Consumer confusion over organic food labelling. *Australian Journal of Communication*, Vol.37(3),pp. 73-86
19. Vermeir andVerbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer Attitude-Behavior Gap. *Journal of Agricultural and Environmental Ethics*, Vol.19 (2), pp.169-194.
20. Shaharudin (2010), "Factors affecting purchase intention of organic food in Malaysia's Kedah State". *Cross-Cultural Communication*. Vol.6(2),pp.105-16
21. Honkanen ,Verplanken , Svein.(2006), "Ethical values and motives driving organic food choice". *Journal of Consumer Behavior*.Vol.15 (5),pp.420-30
22. Silverstone (1993), "Organic farming: Food for the future? *Nutrition and Food Science*." Vol.93 (5), pp.10-14.
23. Katouni (2002), "What motivates consumers to buy organic food in the UK?*British Food Journal*. Vol.104 (3/4), pp.345-352.

A DESCRIPTIVE STUDY ON SERVICE QUALITY AND CUSTOMER PERCEPTION TOWARDS DIGITAL MARKETING

Dr. M.J. Sathish Kumar Dr. Rajendra Subhash Jarad** Dr.S.Karthik****

**Assistant professor, Department of Business Administration,
Alagappa Govt. Arts College, Karaikudi.*

***Department of Management Studies,
Dr.D.Y.Patil Institute of Technology, Pimpri, Pune.*

**** Head and Associate Professor of Commerce, Kalasalingam Academy of Research and Education, Krishnankoil, Tamil Nadu*

ABSTRACT

In this era of information and communications technology, we have seen a significant development in the number of services that are based online. One of the primary obstacles of using the internet as a medium for the delivery of services is figuring out how to effectively monitor service quality, which is of critical significance to maintaining happy customers. This research was conducted with the intention of gaining a deeper comprehension of the aspects of service quality that have a result on customer satisfaction in the context of online marketing from the customer's point of view. The main purposes of the study are to study the demographical nature of the sample respondents and to determine the various dimensions of service quality. The study used a sample size of 250 persons drawn from an unlimited population. The items for sampling were chosen by the researcher using a standard sampling method. Convenient sampling, also known as availability sampling, is a way of gathering information from individuals who are willing to take part in a study. As a result, this study will combine previous studies from literature reviews, and will focus on the impact of internet shopping on consumer behaviour to develop a comprehensive analytical framework that demonstrates the essential ingredient of marketing and business to satisfying the consumer's needs, as well as a deep understanding of online consumer behaviour as a reference for any e-commerce company to make marketing strategies.

Keywords: *Customer satisfaction, cash on delivery, debit card, credit card, price, and marketing.*

INTRODUCTION

There has been a recent uptick in the number of people buying online in India, although the practice is still in its infant stage there. In spite of this, an increasing number of people are turning to the internet as a result of the availability of technology, the accessibility of information online, the allure of placing orders, the delivery of items to their doorsteps, the availability of a variety of offers and reduced price offers, and the capacity to engage in conversation. Because customers in the United States are now more educated about the possibilities that are accessible to them as a direct result of the recent development in mall culture in the country, consumers are more likely to shop and window shop online. In the past, customers would go online to purchase airline, rail, or cinema tickets, as well as books and technological equipment. They would also use the internet to book hotel rooms. However, in today's day and age, people also shop online for items such as clothing and consumer durables. On the other hand, many consumers avoid making real transactions online because they are concerned about the invasion of their privacy and the safety of their financial information while using the internet. When it comes to marketing, the internet has developed into a very effective tool thanks to the proliferation of internet usage in commercial settings, which has led to substantial changes in corporate operations. The expansion of internet shopping throughout India is playing a significant role in the country's overall economic development, which is a direct result of this trend. The percentage of people who use the internet in India is now the second highest of any nation in the world.

In addition to this, it was projected that one Indian customer out of every three will make a purchase through the internet. As a result of the continued development of India's internet infrastructure, an increasing number of people in India, particularly in rural regions, are beginning to make purchases online. When it comes to internet marketing, the level of expectation that customers have for the service providers influences how they evaluate the level of quality in the services that are delivered by those suppliers. Customers who come from a wide variety of cultural backgrounds each have a unique perspective with respect to specific facets of the overall quality of marketing. These factors include the degree to which they feel that certain societal ideals are significant, the degree to which they are concerned about their own personal safety, the degree to which they trust other people, their general temperament, and their overall culture. Customers who shop online have the distinct advantage of being able to compare the costs of the goods they purchase with those offered by other businesses in the industry. Customers in countries like India, where it is normal practice to shop around for the best bargain, are likely to make their purchases through an online or internet-based platform because it is so simple to compare costs on this platform. This is because it is so easy to compare prices on this platform.

Customers are increasingly devoting the bulk of their time to utilizing digital devices and are participating in an expanding number of activities that are based online. They are using many social media channels for the purpose of communication; they are numerous platforms for the purpose of education; they are making their vacation reservations online; and, last but not least, they are digital platforms for the purpose of shopping. The vast bulk of the day's activities are shifting their focus to the internet. It is anticipated that this pattern will go on. As the shift toward digital continues around the world, business organizations have also been exploring for online platforms on which they may be able to expand their activities. They believe that the digitalization of things presents a big business potential. Recently, advertising and other forms of promotion carried out by businesses have started to make use of digital technology. This trend is expected to continue in the near future. They are using a wide range of different digital marketing methods in the hope of achieving this objective. The marketing and promotional activities of the organization are receiving a boost thanks to the organization's use of digital marketing, which serves both as a catalyst and an enabler to make this development possible. As a consequence of the recent implementation of a number of government programmes in India, such as "Make in India," "Start-up India," "Stand-up India," and "Digital India," individuals in India are contemplating the launch of their own companies, which are referred to as start-ups. As a direct consequence of this fact, digital marketing has the potential to be an extremely effective, productive, and advantageous aspect in the growth of their start-up or business.

SERVICE QUALITY IN DIGITAL MARKETING – AN OVERVIEW

With the introduction of the internet, individuals are now able to shop for and obtain goods and services in a manner that is fundamentally different from how it was done formerly. It moved forward at a dizzying pace in order to become a phenomenon that is known all over the globe. This field of research on consumer attitude for online buy choices focuses on finding the factors that impact the propensity of customers to engage in online shopping as a means of making purchase decisions. Companies started leveraging the internet as a tool to cut down on the many intermediary expenditures, which further contributed in decreasing the prices of their products and services while still maintaining their competitive edge in the market. This was done in an effort to offset the dynamic nature of the continuously expanding markets. These businesses also make use of the internet to engage with customer's directly through direct selling business to customer (B2C) and to gather information and feedback from customers. Both of these activities contribute to the further improvement of company strategies that are directly based on the desires, needs, and feedback

The internet is not just to make purchases online but also to do research and price comparisons on a variety of topics, including product characteristics, after-sale service choices, and overall cost. There are a few different basic models of buying behaviour that can be found in the area of study on consumer behaviour. These models depict the process that customers go through while selecting whether or not to make a purchase. Because they can explain and predict the purchase behaviour of consumers, these models are very helpful to marketers because they can be used to analyses customer data. This continuum starts with the ability to solve problems in a normal manner and concludes with the ability to solve problems in an extended manner. The following is a

model of attitudes and shopping intentions that was proposed by Todd. The model comprised a number of variables, each of which corresponded to one of these four basic categories: the value of the items, the quality of the service offered by the website, the shopping experience, and the risk perceptions connected with retail purchasing done online. Kin and Young(2001) the essential factors that affect a consumer's willingness to make an online purchase and their pattern of making such transactions include a consumer's attitude, the perceived behaviour of others, the perceived usefulness, and the ease of use of the product. Trust is one of the most important aspects in the realm of virtual marketing, and it has been one of the most important aspects ever since the inception of this sector of the business world. The world of online marketing is made up of a great deal of varied aspects, some of which are of the highest relevance.¹

REVIEW OF LITERATURE

NausherwanRaunaqueZeeshan and Azam Imam (2016)² resulted in an increase in the number of opportunities for different forms of online shopping, from the perspective of both shoppers and sellers. Because electronic marketers, also known as E-Marketers, are aware of the factors that influence Indians' behaviour while shopping online, as well as the relationships that exist between these factors and the types of customers who shop online, they are able to further develop their marketing strategies in order to convert potential customers into actual customers while still maintaining their existing customer base. This allows electronic marketers to keep their existing customer base while expanding their customer base. The aim of this study was to investigate the factors that online customers take into account before making a purchase utilizing their desktop computer or mobile device. This study will assist in determining the effect that e-markets have on the shopping habits of consumers as well as the ways in which customers' worries about the protection of their personal information and security are reflected in their preferences for making purchases online. This study will also determine the ways in which e-markets affect the shopping habits of consumers. The scope of the research will also include the many significant inputs that will provide businesspeople with the tools necessary to make internet marketing more profitable and secure by increasing the value of the services that are already available. This will be accomplished by enhancing the quality of the services that are currently on the market.

Stone & Woodcock (2013)³ investigated the role that the most recent technologies play in digital marketing, with the goal of making it more interactive and responsive to clients' needs. The researcher went into detail on how firms may benefit from business data and customer insight while engaging in interactive or digital marketing. The author concluded that the enhanced support of Business Intelligence is assisting businesses in the execution of operations associated with interactive or digital marketing. Companies are now placing a greater emphasis on business intelligence and consumer insight in an effort to make this process more advanced and popular. In addition, they arrived at the conclusion that automation is performing a very significant function. Bhatt& Bhatt (2012)⁴ examined the factors that influence the consumers' perceptions of the value of shopping online. The findings of the study, the ease of use and attractiveness of websites, the quality of the services provided by websites, and the safety of websites are the three important factors that have prominently emerged from the study. The research presented here demonstrates without a reasonable doubt that these aspects have a bearing on the kinds of customers known variously as occasional, frequent, and regular consumers. According to the findings of the research, the frequent purchasers are more affected by the ease/attractively of the website as well as the quality of the service, while the occasional consumers place a larger emphasis on the security of the website.

¹ Kin, S., and Young, Z., 2001. "Consumers perceived importance and satisfaction with internet shopping," *Electronic Markets*, Vol.11(3), pp.148-54

² NausherwanRaunaque, Md. Zeeshan, Md.Azam Imam, (2016), *Consumer Perception towards Online Marketing in India*, *International Journal of Advanced Engineering, Management and Science (IAEMS)*, Vol-2, (8), pp.1236- 1240

³ Stone, M. D. & Woodcock, N. D. (2014) *Interactive, direct and digital marketing: A future that depends on better use of business intelligence*. *Journal of Research in Interactive Marketing*. Vol.8(1), pp.14-17

⁴ Bhat, S. A., Darzi, M. A. & Hakim, I. A. (2019) *Understanding Social Marketing and Well-being: A Review of Selective Databases*. *Vikalpa*. Vol.44 (2), pp.75-87.

NEED OF THE STUDY

Digital marketing has developed as a feature or component that is increasingly vital and critical for commercial organizations in all fields as a direct consequence of the quick pace at which technical improvements and breakthroughs are being achieved in all fields. Conducting market research is the most important components for any business that aspires to be successful as it is one of the most important factors for acquiring a huge competitive advantage in the market. The purpose of the current study, which is titled "A Study on service quality and customer perception towards digital marketing," is to gain an understanding of the various impacts that digital marketing has had on Indian businesses, as well as the perceptions that customers have of digital marketing or digital advertising, which is one of the subsets of digital marketing. In addition, the study will focus on gaining an understanding of the perceptions that customers have of digital marketing. Businesses will have a comprehensive understanding of the various functions of digital marketing, its positive and negative effects, as well as what customers think about this growing technological breakthrough in the field of marketing, also known as digital marketing, if they follow the findings of this study and put them into practice. When it comes to the growth and success of a company, the viewpoints and evaluations of its customers are very necessary. This study is important because there is a very little quantity of research being done on this topic, and there is an exceptionally small number of specific papers that are available in this sector of the business. Because of the findings and conclusions of this study, it will be much simpler for businesses who are already using digital marketing or have future plans to begin utilizing it to comprehend the role, scope, and impact that digital marketing has on their organizations.

IMPORTANCE OF THE RESEARCH

It is pretty clear from the debate that was made in the parts that came before this one that digital marketing has a new fundamental in the business sector. It is by far the most prevalent and significant marketing trend that is taking place at the moment. Due to the fact that this is quickly becoming the most crucial component of marketing, it is essential to investigate the effects that digital marketing has had on businesses, as well as the perceptions and perspectives that consumers have towards digital marketing. However, if we take a look at the secondary data or at the literature that already exists, we will see that there are very few studies that have been conducted that address this significant part of marketing, which is digital marketing.

SCOPE OF DIGITAL MARKETING

The use of digital marketing strategies is fast gaining popularity, because of the fact that the internet is gradually becoming more pervasive over the whole earth. This has a direct influence on people's lives since the majority of people now spend the bulk of their waking hours on the internet or working remotely utilizing the internet. The current study has a lot of potential applications for business organizations in a variety of fields because it was conducted to find out different impacts of digital marketing on Indian firms and also the perception of customers regarding digital marketing. This means that the current study has a lot of potential applications for business organizations. This is as a result of the fact that the research was performed. This will help to solve a number of issues that could crop up throughout the course of future research, and it will also be of assistance to business organizations and consumers when it comes to deciding what course of action to take. As a consequence of this study, businesses will have a better grasp of the several facets of digital marketing that are having an impact, either positively or negatively, on their operations. This will enable them to choose whether or not they should make use of digital marketing. The findings of this study will also throw light on the challenges that businesses face when putting their strategies for digital marketing into reality. The results and conclusions of the research will assist businesses better understand the function, scope, and effect of digital marketing on businesses in the future.

STATEMENT OF THE PROBLEM

No of the size of a business, there is always the potential for that firm to achieve success in digital marketing. Because the cost of traditional marketing and advertising was so much greater than the cost of digital marketing, before the emergence of digital marketing, only affluent firms could afford to offer their products

and services. This is because the cost of digital marketing is so much lower. Because of the significant influence that digital marketing is having, the whole corporate environment is experiencing a transition that is profound and unprecedented at this time. It is possible to get exceptional returns while decreasing the overall amount of money invested. The development of advertising that is dynamic in nature and is capable of reaching customers in different parts of the world is helped along by the use of digital technology and the Internet.

THE STUDY'S OBJECTIVES

The main purposes of the study are

1. To study the demographical nature of the sample respondents
2. To determine the various dimensions of service quality
3. To assess the level of perceptions towards the Digital Marketing

METHODOLOGY OF STUDY

The research design is intended to provide a suitable structure for a study. This is a descriptive research that was carried out in the Chennai District. The research strategy chosen is an important decision in the research design process since it determines how relevant information for a study will be acquired. This study relied on both primary and secondary sources of data. The fundamental data is acquired through a questionnaire (Google form) completed by a group of respondents. Furthermore, to construct the theoretical and analytical framework, the researcher gathered secondary data from a variety of books and published materials, newspapers, journals, and websites. The study used a sample size of 250 persons drawn from an unlimited population. The items for sampling were chosen by the researcher using a standard sampling method. Convenient sampling, also known as availability sampling, is a way of gathering information from individuals who are willing to take part in a study.

FINDINGS - VARIOUS DIMENSIONS OF SERVICE QUALITY

The service quality of the online shopping is measured in various dimensions like Security, Reliability and responsiveness, Credibility, Content applicability, Accessibility, Tangibles, Ease of use and Assurance & Attractiveness. The difference in the expected and perceived service quality is considered as service quality.

1. Nature of the sample respondents

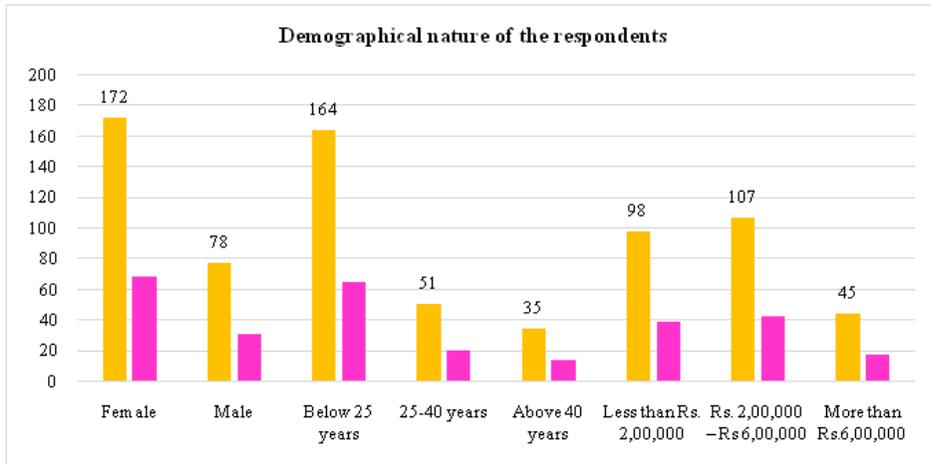
The study has been conducted with 250 sample respondents from different categories. The age, gender and annual income of the respondents are considered as nature of the customers of the banks in the study. They are given in Table 1.

Table 1: Demographical nature of the respondents

Nature		N	%
Gender	Female	172	68.8
	Male	78	31.2
Age group	Below 25 years	164	65.6
	25-40 years	51	20.4
	Above 40 years	35	14.00
Income level	Less than Rs. 2,00,000	98	39.2
	Rs. 2,00,000 – Rs 6,00,000	107	42.8
	More than Rs.6,00,000	45	18.00
Total		250	100.0

The Table 1 depicts that 172 (68.8%) respondents are male and 78 (31.2%) respondents are female. 51 (20.4%) respondents are from the middle age group (25-40 years), 164 (65.6%) are from young age group (less than 25 years) and 35 (14.0%) respondents are aged more than 45 years. According to the level of annual

income, 107(42.8%) respondents are from the middle income group, 98 (39.2%) are less income group and 45 (18.0%) are from high income group.



2. Perceptions towards the Digital Marketing

The perception of the customers towards the Digital Marketing is measured through the opinion of the respondents towards the 7 features of the Digital Marketing.

Table 2: Perception towards the Digital Marketing

Factors	Mean	Std. Deviation	Mean Rank
Security	3.23	1.149	3.76
Reliability and responsiveness	2.78	1.107	4.25
Credibility	2.40	1.827	4.21
Content applicability	2.38	1.052	3.93
Accessibility	1.90	1.046	3.89
Tangibles	2.34	1.286	4.14
Ease of use	2.68	1.432	3.58

The Table 2 shows that the easy fund transfer is most preferred feature of the Reliability and responsiveness (4.25) ranked first followed by Credibility (4.21) and third rank Tangibles (4.14). The significance of the rank is tested with the help of Kendall's W test as follows.

Table 3: Kendall's Coefficient of Concordance

N	250
Kendall's W ^a	0.010
Chi-Square	15.260
df	6
Asymp. Sig.	0.018

The above table shows that the calculated Chi-Square value for the degree of freedom 6 is more than the critical value. The significance is measured at 1.8% (less than 5%). Hence, it is concluded that the ranks given by the respondents about the various features is significant.

IMPLICATIONS FOR MANAGEMENT

The study's findings may assist online marketers comprehend the relationship between the causes and effects of service quality in online marketing from the customers' point of view. The research reveals how service quality elements such as tangibility, trust and confidence, communication, and ordering impact consumer

pleasure, which in turn promotes behavioral outcomes such as customer loyalty and willingness to pay a premium. The purpose of this research is to demonstrate the correlations between several service quality factors in an online marketing scenario. The connection between customer happiness, customer loyalty, and desire to pay premium illustrates the connectivity, particularly the direct and indirect influence among them, using route coefficients. The marketer may profit from recognizing characteristics that can impact internet marketing both directly and indirectly. Marketers may develop appropriate marketing strategies based on the needs of the circumstance.

CONCLUSION

The overview of internet and internet shopping growth shows that e-commerce is being employed in many organizations as a result of the remarkable advancement of technology and the competitive benefits of online selling. Furthermore, individual use expansions were major contributors to the growth of online commerce. Few research have looked at the influence of online purchasing on customer behaviour. Previous research have been more concerned with the marker's point of view, such as how to develop a more efficient marketing route online rather than the conventional offline channel. As a result, this study will combine previous studies from literature reviews, and will focus on the impact of internet shopping on consumer behaviour to develop a comprehensive analytical framework that demonstrates the essential ingredient of marketing and business to satisfying the consumer's needs, as well as a deep understanding of online consumer behaviour as a reference for any e-commerce company to make marketing strategies.

REFERENCE

1. Baroudi, and Orlikowski, W.J. (1988), "A short-form measure of user information satisfaction: a psychometric evaluation and notes on use", *Journal of Management Information Systems*, Vol. 4 No. 4, pp. 44-59.
2. Bitner, M.J. (1992) Service Scapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56, pp.70-71
3. Bitner, Mary Jo (1986), "Consumer Responses to the Physical Environment in Service Settings," in *Creativity in Services Marketing*, pp.89-93.
4. Bowen, J. T. & Chen, S. (2001). The relationship between customer loyalty and customer satisfaction. *International Journal of Contemporary Hospitality Management*, Vol.13 (5), pp.214-217
5. Brown, S.W. and Swartz, T.A. (1989), "A gap analysis of professional service quality", *Journal of Marketing*, Vol. 53, April, pp. 92-94.
6. Chu, S, Leung, L. Van Hui, Y., & Cheung, W. (2007). Evolution of e-commerce Web sites: *A conceptual framework and a longitudinal study. Information & Management*, 44(2), pp.154-164.
7. Cox, J. & Dale, B. G. (2001). Service quality and e-commerce: An exploratory analysis. *Managing Service Quality*, 11(2), pp.126-129.
8. Dolatabadi, H. R., &Poursaeedi, A. (2012).An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. *International Journal of Marketing Studies*, Vol.4 (5), pp.81-98.
9. Goswami, A., Baruah, P., & Borah, S. (2013).Customer Satisfaction towards Online Shopping with Special Reference to Teenage Group of Jorhat Town. *PARIPEX-Indian Journal of Research*, Vol.3 (4), pp.239-241
10. Haq, Z. U. (2012), "Perception towards online shopping: an empirical study of Indian consumers", *International Journal of Electronic Commerce*, Vol.1 (8), pp.19-20.
11. Hsu,S., &Bayarsaikhan, B. E. (2012). Factors influencing on online shopping attitude and intention of Mongolian consumers. *The Journal of International Management Studies*, Vol.7 (2), pp.167-176
12. Kumar, P. (2013). A Study on Customer Perceptions towards Online Promotions. IRC'S *International journal of multidisciplinary research in social & management sciences*, Vol.1 (3), pp.116-124
13. Poojajulka (2019) conducted a study on "Customer perception towards online shopping" *International Journal of Management, Technology and Engineering*, Vol. 9, (5) pp.5892-5894
14. Vikash (2017) 'A Study on Consumer Perception Toward Online Shopping' *Journal of Business and Management* Vol. 19, (8), pp.32-35

CUSTOMER PERCEPTION TOWARDS ROLE OF E- BANKING SERVICES IN CURRENT SCENARIO

Dr K Bhavana Raj Dr. M. Anusuya** Mr. Devanand Kashinath Mandavdhare****

**Assistant Professor, Department of Management Studies, Institute of Public Enterprise, Hyderabad, Telangana*

***Assistant Professor, Department of Commerce, Bishop Heber College, Trichy. (Affiliated to Bharathidasan University)*

****Assistant Professor in Economics, M. G. Vidyamandir's Arts, Science and Commerce College, Harsul, Tal. Tryambakeshwar, Dist. Nashik, Maharashtra.*

ABSTRACT

Back office automation has given way to the online, centralized, and integrated solutions that are now accessible in the Indian banking sector, technology has seen a significant transformation. Banking is no longer limited to the branches, where one was previously had to physically approach a branch in order to withdraw cash, deposit a check, or get a statement of accounts. Instead, banking may now be done online. E-banking has emerged as one of the most innovative aspects of the rise of the world's economy in recent years, thanks largely to the proliferation of internet use. The objectives of the study are to find out the factors influencing customers' perception towards e-banking service and to examine frequent use of the E-Banking Services by the respondents. 200 respondents were identified for measuring Customer perception towards role of E-Banking services in current scenario using convenient sampling technique. The data from the selected sample respondents have been collected through the Google forms. The researcher concluded that E-banking is being used by the bank in an effort to provide customers with faster service, and it also assists banks in lowering the costs associated with running their businesses.

Keywords: *E-banking; Service Quality; Customer Satisfaction; Customer- Relationship and Indian Banking Sector*

INTRODUCTION

There is a significant presence of banking institutions in every sector of economic activity. The progress and development of any economy remain dependent on the operational efficiency of the financial institutions that are present in that economy. When there is a powerful banking system in place, the funds of the general population may be pooled together and made accessible for a broad variety of investment reasons. This makes it possible for individuals to invest their money. When seen in this light, financial institutions, and more specifically banks, are regarded as the fundamental engines behind the expansion and success of an economy. These financial services are very essential to the successful operation of contemporary commerce and company. At the moment, customers may access banking services no matter where they are located in the nation. In this aspect, the function of the banking sector as a conduit for fostering the growth of a nation's economy is an essential one that banks play. In addition, banking has evolved into an essential part of people's day-to-day lives, making it impossible for them to avoid doing it. The activities of the financial sector, including banks and other financial institutions, are inextricably linked to human existence. It's possible to generally divide the banking business in India into two distinct sub-industries: the organized and the unorganized sectors. E-banking, or electronic banking, refers to the transfer of banking services through the internet. As the use of computers and the internet has become more common, banks have found that e-banking is a suitable approach to utilize in order to meet the expectations of their clients. This not only saves money in today's more competitive banking atmosphere by removing the need for costly paper handling, but it also minimizes the amount of interaction that there is between consumers and tellers, which is a significant benefit. E-banking has the potential to provide benefits over conventional banking in the areas of cost reduction and the satisfaction of consumer demand.

ELECTRONIC BANKING IN INDIAN BANKING SECTOR: AN OVERVIEW

Through the use of electronic distribution channels, there is the potential to provide alternatives for the expedited delivery of financial services to a wider variety of customers. (Kaleem and Ahmed 2008)¹. The majority of customers who start using online banking do so because they have a recurring need to pay bills and would like to do so with the least amount of effort possible. This is because internet banking makes it easy to access one's account from anywhere in the world. In addition, customers may utilize internet banking to keep tabs on their own money, check the balances of their accounts, and research the veracity of payments made by other parties. In addition to this, consumers are able to carry out financial transactions from any location in the globe when they use online banking. The widespread availability of information technology has made it feasible for electronic channels to perform a variety of financial operations that were once carried out face-to-face. This has resulted in significant time and cost savings. (Giannakoudi 1999)²E-cheque, also known as electronic checks, are progressively replacing traditional paper checks as the preferred method of payment. This shift has allowed financial institutions to expand their storage capacity, reduce their expenditures, and improve the quality of service they provide to their customers.. (Rose and Hudgins 2005)³When it comes to the ease and cheap cost of performing transactions, customers have a plethora of benefits available to them when they bank online. The most important advantage of online banking is that it enables financial institutions to strengthen their competitive position. This, in turn, enables these institutions to maintain their current customers, increase customer satisfaction, increase market share, decrease administrative and operating costs, and a variety of other advantages. (Khalfan.et al, 2006.)⁴The world's financial institutions are engaged in a heated rivalry to offer an expanding number of services and features that can be accessed via online banking platforms. This is done with the goal of ensuring that their customers are happy with the products and services they get. There has been a consistent increase in the number of customers interacting through remote channels, and to a greater extent than in the past because of the rise of e-banking and the expansion of the variety of interface options that can be used to access online banking solutions. This is due to the expansion of the variety of interface options that can be used to access online banking solutions. It is anticipated that this pattern will go on for the foreseeable future. Banks that have chosen to keep significant branch networks despite growing online competition are reorganizing the responsibilities of the personnel working in these branches in order to transition toward a culture that places a greater emphasis on forming and sustaining relationships with customers. This is being done in an effort to remain competitive in the face of growing online competition.

PROGRESS OF E-BANKING

The term "online banking" refers to an electronic payment system that allows users of a financial organization, such as a retail bank, virtual bank, credit union, or building society, to make financial transactions on the institution's website. Virtual banks, retail banks, credit unions, and building societies are examples of such financial entities. The terms "virtual banking" and "internet banking" are occasionally used interchangeably. Online banking is also known as internet banking, e-banking, virtual banking, and a few more terms. Online banking is also known as "virtual banking" at times. A client with Internet connection who wishes to use a financial institution's online banking service must first register with the institution and create a password (under a number of identities) in order to be recognized as a valid user of the service. This is required in order for the client to be authenticated as a valid user of the service.

It is an unusual occurrence for the password required for online banking to be different from the password required for telephone banking. It is presently standard practice for financial institutions to issue client

¹ Kaleem, A and Ahmad, S, Bankers perceptions of Electronic Banking in Pakistan, Journal of Internet Banking and Commerce, Vol.14, No.1, 2009, pp.23-36

² Giannakoudi, S. (1999) 'Internet banking: the digital voyage of banking and money in cyberspace', Information and Communications Technology Law, Vol. 8, No. 3, pp.205-243

³ Kolodinsky, J.M., Hogarth, J.M. and Hilgert, M.A. (2004) 'The adoption of electronic banking technologies by US consumers', International Journal of Bank Marketing, Vol. 22, No. 4, pp.233-241

⁴ Khalfan.et.al, 2006, Factors influencing the adoption of internet banking in Oman, a descriptive case study analysis. International Journal of Financial services management. 1(2) 155-172

numbers, which are also known by a variety of different names. This occurs regardless of whether or not customers have shown an interest in using the online banking facility offered by the organization. The terms "account number" and "customer number" do not refer to the same thing in most cases. This is as a result of the fact that one customer number may be tied to a number of distinct accounts held by different customers. In addition, any debit or credit card that the customer receives from the financial institution will not have a customer number that is the same as the customer's own number. This is to protect the consumer from identity theft. In order to use online banking, a customer of the financial institution must first go to the secure website of the company. When they arrived at the destination, they would be required to log in to the online banking facility using the customer number and password that they had established earlier. Despite the fact that some of these financial institutions have included additional safety precautions in order to get access to online banking, there is no consistency in the approach that is followed by the many different kinds of financial organizations.

E-BANKING: STATUS, IMPLEMENTATION, CHALLENGES, OPPORTUNITIES

Internet banking is widely used not just in the United States but also in other nations like Singapore and Spain. There are more individuals utilizing the internet in Scandinavian countries than in any other area, and in Finland and Sweden, respectively, up to a third of customers use online banking services. The most important financial institutions in the United States continue to have the majority of market share in the internet banking sector. Only about 6 percent of people in the United States actually use the internet, despite the fact that the vast majority of people in the country have bank accounts with financial institutions that offer internet access. However, there are a small number of banks that have established and are selling their products and services entirely through the electronic distribution channels. The great majority of banks as of today have blended the current electronic delivery channels with the classic brick and mortar locations. These "virtual" or "internet only" banks may not have a branch network, but they could have a physical presence in the form of an administrative office or facilities that are not often associated with branches, such as automated teller machines (ATMs).⁵

REVIEW RELATED TO PREVIOUS STUDIES

Siriluck et al. (2003)⁶, discovered that a number of Thailand's banks are in the process of implementing online banking at the present time. Banks who provide their services via this channel argue that it enables them to become more competitive and reduces the costs that are connected with offering such services. On the other hand, a significant proportion of commercial customers do not have a very upbeat perspective towards internet banking. If financial institutions are able to get an understanding of the factors that prevent their business customers from using online banking, they will be in a better position to put this sort of customer self-service technology to use. People who do not use Internet banking have a significantly higher level of concern for customer service and do not trust financial transactions that are done over Internet channels. Those who do use Internet banking appear to have a higher level of confidence in the dependability of the system, in contrast to those who do not use it. Those who do not use it appear to have a higher level of confidence in the system's dependability. People who do not utilize online banking are more likely to have a negative opinion of the adoption process and to claim that they do not have the financial resources to embrace the technology. Another significant hurdle preventing corporate consumers from adopting internet banking is a lack of adequate legal advice. The study concluded that there were a variety of factors that contributed to the expansion and widespread use of online banking, in addition to the possible consequences for financial performance. A significant proportion of commercial customers do not have a very upbeat perspective towards internet banking. If financial institutions are able to get an understanding of the factors that prevent their business customers from using online banking, they will be in a better position to put this sort of customer self-service technology to use. People who do not use Internet banking have a significantly higher level of concern for customer service and do not trust financial transactions that are done over Internet channels. Those

⁵ Leow, Hock Bee, "New Distribution Channels in banking Services." *Banker's Journal Malaysia*, No.110, June 1999, 48-56

⁶ SiriluckRotchanakitumnuai, Mark Speece,(2003) "Barriers to Internet banking adoption : a qualitative study among corporate customers in Thailand", *international journal of Bank marketing*, Vol. 21 issue 6, July 2003.

who do not use it appear to have a higher level of confidence in the system's dependability. People who don't use internet banking are likely to have a more negative view of the process of adoption and are more likely to declare that they don't have the means to embrace the technology. One further key barrier that prevents business customers from embracing online banking is the absence of sufficient legal counsel. The researcher concluded that there were a number of variables that led to the growth and widespread usage of online banking, in addition to the potential repercussions for financial performance.

Kuchara (2012)⁷ argued that customers were able to conduct their financial transactions from a wider range of locations because to innovations such as internet banking and mobile banking. This research study also highlights the fact that Internet banking has not gained as much popularity in India as was anticipated. Indian customers are wary of their financial assets and banking services provided via electronic channels due to the country's continuing tradition of thriftiness. However, these services may now be accessed at any time and from any location, making them more appealing to Indian consumers.

Venugopal (2013)⁸ investigated the extent to which Internet Banking Services users are satisfied with their experiences. This study will also investigate how other researchers have conducted their research in the past. In order to accomplish the goals of the study project, then, empirical data was gathered from bank clients in the town of Tirupati. According to the findings of the survey, Internet banking in India is still in its infancy and is mostly controlled by Private Indian and international financial institutions. There are just a select few types of customers that utilize banking over the internet. The banks are required to simulate the many hazards that are involved with online banking by using technologically advanced systems and making great use of the technology available to them. In its current state, the regulatory framework has to be modernized in order to address the complexities of online banking and make it more user-friendly. The study also indicated that the majority of people who use Internet Bank services on a regular basis do not typically carry out a large number of transactions, but that these individuals find the service to be highly beneficial for monitoring the status of their accounts. In light of the findings presented in this research, there is a strong consensus among the authors that enhancing the safety of Internet Bank and educating clients about how to make use of the service would unquestionably lead to an increase in the percentage of people using Internet

Verma (2014)⁹ evaluated the degree of contentment experienced by clients of Union Bank of India and Yes Bank based on a number of factors that are associated with automated teller machines. For the aim of this investigation, data gathered from bank customers via the use of a survey, and it will then be analyzed through the use of statistical methods and tools such as descriptive statistics, the percentage method, and the ranking method. E-services and the E-banking business are now through a revolutionary stage. The traditional banking system is being phased out in favour of banking based on electronic transactions. The cash economy has given way to the plastic card economy as the dominant trend in banking today. The fierce rivalry that exists between banks, in conjunction with the forces that operate on a worldwide scale, has driven banks to make the technical improvements that are necessary to compete in the electronic age. It is also known as E-banking, internet banking, or online banking, and it offers numerous electronic channels that can be used as alternatives to traditional ways of accessing banking services. Some examples of these channels include internet banking, mobile banking, ATM services, electronic fund transfer, credit cards, debit cards, and electronic clearing services. Counted among these several services. The result would be construed in a manner that is consistent with the view of the respondents as it applies to banking services.

Reddy (2015)¹⁰ highlighted the fact that the development of the banking industry is impacted more than any other group of financial service providers. An increase in the usage of mobile services and the use of the internet as a new distribution channel for banking transactions and international trade necessitates an increase

⁷ Kuchara (2012) "A Study on Customers perception towards Internet Banking at Ahmedabad City" September 2012 ISSN - 2250-199

⁸ Venugopal (2013) customers' perception on electronic banking a study on Tirupati area of Andhra Pradesh, India, Journal of management and Social Science, Vol.1(6), pp.62-64

⁹ Verma (2014), "Non-Performing Assets: A Comparative Study of the Indian Commercial Banks", Non-Performing Assets: A Comparative Study of the Indian Commercial Banks Vol.6(2), pp.6-7

¹⁰ Reddy (2015) "A Study on Customer's Perception and Satisfaction towards Electronic Banking in Khammam District" ISSN: 2319-7668. Volume 1.

in the level of attention directed toward the protection of electronic banking systems from fraudulent activities. The growth and the ongoing advancement that is being experienced in Information and Communication Technology (ICT) have resulted in a great deal of change being brought about in almost all facets of everyday life. E-Banking, also known as Internet Banking and Online Banking, has emerged as the dominant model in the banking sector.

SCOPE OF THE STUDY

The findings of this study are based on the opinions of clients with relation to online banking services. The study investigated the consumers' perspectives on the e-banking services offered by the chosen banks, as well as the characteristics of the e-banking services, including their dependability, responsiveness, and security, ease of use, accessibility, and efficiency.

NEED IN SUPPORT OF THE STUDY

Electronic banking is a vital component of running a company in the modern day and also plays an important role in people's day-to-day lives. The electronic banking system is used for many facets of people's enterprises, such as marketing, banking, trade, and other sorts of entertainment, amongst other things. People are putting an increasing amount of importance on performing their operations in the aforementioned fields via the use of technology tools. Because it enables them to do their business without requiring them to travel, take risks, relocate from place to place, or otherwise cope with an unpleasant atmosphere, they are particularly interested in conducting something known as online banking. Consumers participate in e-banking transactions for the purpose of their own personal financial demands, which are quite frequent in the banking sector and have made e-banking transactions very popular. It is also recognized as e-banking services to a large degree, which are absolutely required in any manner for customers of banks in the present day to utilize in all of their financial activities.

STATEMENT OF THE PROBLEM

In order for the government to realize its objective of bringing about an all-encompassing improvement in the state of the nation as a whole, it is launching a great number of creative new programmes all across the country that are geared specifically toward the communities of the people. E-banking services have started to increase in all over the world over the course of the past few years, and as a direct consequence of this growth, the companies that offer banking services have been compelled to compete with one another in order to survive. As a direct consequence of this, consumers are driven to make use of the many online banking services that are now accessible. From the perspective of financial institutions, it is of the highest necessity to conduct research on the sentiments and levels of happiness held by banking customers. As a result, the purpose of the research is to analyze the customers' points of view about the impression of the services offered by online banks.

OBJECTIVES OF THE STUDY

The objectives of the study are

1. To find out the factors influencing customers' perception towards e-banking service
2. To examine frequent use of the E-Banking Services by the respondents.
3. To study the nature of E-Banking Services Preferred by the respondents

RESEARCH METHODOLOGY

200 respondents were identified for measuring Customer perception towards role of E- Banking services in current scenario using convenient sampling technique. The data from the selected sample respondents have been collected through the Google forms.

The details of the frequent use of the E-Banking Services

The banking sector in India has been a major contributor to the country's rising standard of living and economic progress in recent decades. Self-service banking is becoming more commonplace around the globe, including in India. Customers may now use banking self-services to make deposits, money transfers, pay invoices, and complete other business activities on their own. It does this through improving customer

happiness, boosting awareness, and expanding the quality of service for banking self-services, all of which work together to bridge the gap that exists between depositors and borrowers.

The details of the frequent use of the E-Banking services

Services	N	Percentage
Mobile Recharge	36	18
Payment of Telephone Bill	26	13
Payment of Electric Bill	32	16
Money Transfer	40	20
Railway Ticket Booking	12	6
Air Ticket Booking	16	8
Filing of Tax Return	18	9
Investments	20	10
Total	200	100

The above table shows the results of the inquiry made with the selected respondents for their opinion on the frequency of using the e-banking services of both the banking sectors. Out of the total 200 respondents of banks, 36 respondents (18 per cent) use the e-banking services for mobile recharge and. 26 respondents (13 per cent) use the services for payment of telephone bills. 32 respondents (16 per cent) use the services for payment of electric bills.

The customers' perception towards e-banking service

E-Banking is the banking service using electronic means such as a personal computer (PC), automated teller machine (ATM), mobile phone, etc. to conduct transactions via the Internet. This term is more and more popular for banking users and represents the modern method of banking that replaces gradually traditional one using cash for transactions.

Factors	N	Percentage
Website Design	25	12.5
Reliability	60	30
Security	40	20
Customer Service	42	21
Customer satisfaction	33	16.5
Total	200	100

Electronic banking is the most current in a long line of technological marvels that have emerged in the recent past and include the use of the internet for the purpose of the delivery of goods and services. With the introduction of the World Wide Web, electronic banking has been a driving force in the evolution of the environment. The internet has allowed banks to become a strategic resource that can be used to achieve better levels of productivity. More recently, the E-banking service in India has been carried out in an efficient manner, with the goal of providing very high levels of satisfaction to the consumers of the various banks. The majority of the respondents 60 (30 %) had the view that the reliability was the reason for customers' perception towards e-banking service

Nature of E-Banking Services Preferred and it's ranking

Services	Mean	Std. Deviation	Mean Rank
ATM / Debit card	3.27	1.159	5.43
Credit Card	3.50	1.315	6.00
Broad band internet	3.46	1.168	5.95
Mobile Banking	3.31	1.104	5.58
Online Banking	2.92	1.185	4.54
Tele Banking	2.98	1.447	4.99

Provides efficient services	3.06	1.161	4.88
Provides accurate information	3.26	1.116	5.35
Anywhere banking facilities	3.57	1.132	6.21
Download previous bank transaction history	3.53	1.256	6.08

The above table shows the results of the inquiry made with the selected respondents for their opinion on the nature of the e-banking services preferred by them from the banking sectors. Out of the total 200 respondents of banks, (6.21) anywhere banking facilities were ranked first Download previous bank transaction history (6.08) were ranked second. The result shows that the respondents prefer Credit Card mostly (6.00), Fourthly, the respondents feel Broad band internet (5.95), followed by Mobile Banking (5.58). The result of the significance in the ranking is given below.

Table 3: Friedman Test

N	200
Chi-Square	85.565
Df	9
Sig.	0.000

The Friedman ranking shows that the calculated value of the Chi-Square (85.565) for the degree of freedom 9 is significant at 1% level (p-0.000). It is concluded that E-Banking Services Preferred by the consumers are satisfied.

CONCLUSION

E-Banking, in general, has resulted in a shift away from the conventional patterns of bank operations. These shifts in technology, levels of competition, and patterns of lifestyle all have an effect on the way that banks do their business in the modern period. In point of fact, the client was required to make a personal appearance at the bank branch in order to complete any financial transactions. Clients are able to save both money and time thanks to the advent of electronic banking, which eliminates the need for customers to physically visit a bank branch. Every single financial institution is aware that in order to maintain a healthy customer base, they need to provide their clients some kind of online banking. Because clients using e-banking tend to engage more with the services supplied, banks are able to better maintain their relationships with their customers via the usage of electronic banking. Additionally, it raises the amount of money that banks make, and it makes it simpler for banks to achieve a competitive edge by differentiating their banking services and, as a result, improving their image. The government as well as the banking sector are concerned about concerns related to how customers feel about the growth of e-banking services and how they respond to such advancements. There is a great deal of work that has to be done in order to instil trust in the minds of consumers about the advantages and safety of using e-banking services. There is a pressing requirement for complete contentment with respect to any and all aspects of the nature of e-banking services and the various delivery methods of such services. Customers should be encouraged to use e-banking services to the greatest degree possible by placing a specific focus on the security measures that are in place. Because customers are the firm's most important asset, the success of the banking industry is dependent on them either directly or indirectly. As a result of rapid technological advancement, customers' demands are becoming ever more stringent; as a result, only those businesses that are able to meet those demands more quickly and effectively than their rivals will be able to survive. Skilled workers are required for electronic banking less frequently than for manual banking, and decision-making authority lies with the top management. E-banking is being used by the bank in an effort to provide customers with faster service, and it also assists banks in lowering the costs associated with running their businesses.

REFERENCE

1. Cronin, J. Brady, M. E Hult, G. Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments, *Journal of Retailing*, Vol.,6 (2), p.193-218,2000
2. Daniel, E., "Provision of Electronic Banking in the UK and the Republic of Ireland," *International Journal of Bank Marketing*, Vol. 17, No. 2:72-82, 1999

3. Delgado-Ballester, E. and J.L. Munuera-Alemán, "Brand Trust in the Context of Consumer Loyalty," *European Journal of Marketing*, Vol. 35, No. 11/12:1238- 1258, 2001.
4. De Young, The financial progress of pure-play Internet banks, *Bank of International Settlements*, Vol.7, pp.80-86. (2001)
5. Devlin J.F. "Customer Knowledge and Choice criteria in retail banking". *Journal of Strategic Marketing*,; 10: 273-290. 2002
6. Eriksson Kerem and Nilsson "Customer acceptance of internet banking in Estonia". *International Journal of Bank Marketing*, 2005; 23: 200- 216
7. Frei, Kalakota, Leone and Marx LM. "Process variation as a determinant of bank performance: evidence from the retail banking study". *Management Science*, 45: 1210-1220.1999
8. Ganesh, C. & Varghese, M. E."Customer Service in Banks: An Empirical Study". *Vinimaya*, 24(2): 14-26.2003
9. Garland, R. "Estimating customer defection in personal retail banking". *The International Journal of Bank Marketing*, 20 (7), 317-325. 2002.
10. Gefen, D., "Customer Loyalty in E-Commerce," *Journal of the Association for Information Systems*, Vol. 3:27-51, 2002.
11. Ali.,Kaynak,Erdener. and Kucukemiroglu, OrsayCredit card development strategies for the youth market: The use of conjoint analysis 'The International Journal of Bank Marketing, Vol.12:6,pp. 30-36, 1994
12. Sathye, 'Adoption of internet banking by Australian consumers: an empirical investigation *International Journal of Bank Marketing*, Vol.17 (7), 324-334.1999
13. Mols, N. 'The Behavioral Consequences of PC banking', *International Journal of Bank Marketing*, Vol. 16, No. 5, pp. 195–201,1998

AN EMPIRICAL STUDY ON FACTORS AFFECTING INVESTMENT DECISION IN INDIAN CAPITAL MARKET

Dr. V. C. Shanker Dr Sanjay Kumar** Dr D Deepa****

**Assistant Professor & Head, Post Graduate & Research Department of Commerce,
The M.D.T. Hindu College, Tirunelveli -627010.*

***Assistant Professor, Department of Economics,
Govt. Degree College, Dharampur Distt Mandi HP-175040*

****Assistant Professor, Department of Management Science-BBA,
Sri Ramakrishna College of Arts and Science, Nava India Coimbatore 641 006*

ABSTRACT

Investment decisions are made by investors and investment managers. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and their self-judgment. It is assumed that various decision making factors and market information influence 'individuals' investment decisions as well as the market outcomes. Investor behaviour derives from psychological principles of decision making in order to explain, why people buy or sell stocks. These factors will focus upon how investors interpret and act on information to make investment decisions. The study has endeavored to find out the major factors influencing investment decisions of the investors. This study is intended to identify the factors influencing individual investor's choice in stock market. The aim of the paper is to analyze the factors mostly considered by the investors towards selecting the mutual funds in India. The study has been carried out during the month of January, 2022. The investors who prefer to invest in the mutual funds are purposively selected using convenient sampling technique. The sample size is 600. The primary data collected through the interview schedule. The factors considered by the respondents are analyzed with the help of descriptive statistics.

Keywords: *Mutual funds, NAV, Risk appetite, pool of money, decision making, investment and volatility of risk.*

INTRODUCTION

The capital market serves as a conduit for the transfer of surplus funds from lenders to borrowers who are in need of financial support. (Obamuyi, 2013)¹. Through the sale of shares on the capital market, businesses are able to increase their available cash. Investors buy these shares for a variety of reasons, including the chance to become a part owner of the company, access to a risk-free investment opportunity that is unaffected by inflation, the ability to benefit from an easily accessible supply of cash, the desire to diversify their portfolios, the desire to have some regular income, or the desire to simply amass wealth very quickly. Whatever the reason, all of this buying and selling takes place on the stock or share market. It doesn't matter what motivates it. Teweleset al.(2008)². The stock market also makes it easier for investors to quickly reorganize their investment portfolios. (O'Donnell, 2002)³. The state of a country's stock market has a significant impact on that country's level of economic development. When a country has a functioning and robust capital market, it is often observed that the country's economy is likewise in good shape. This is because effective and strong capital markets. People are more likely to increase their level of investment and buy more shares of a company when that company's stock market is doing well and the value of the company's shares is increasing. This is a relatively straightforward argument to deduce. Because of this increase in investment, businesses now have access to a greater amount of money, which they may use toward the growth of their facilities and the production of even more goods. As a direct result of this, they have a greater need for new workers, and the rate of unemployment in that country has decreased.

¹ Obamuyi, T. M., 2013. "Factors influencing investment decisions in capital market: a study of individual investors in Nigeria", *Organizations and Markets in Emerging Economies*, 4(1:7), pp. 141-161

² Teweles, R. J. and E. S. Bradley, 1998. "The Stock Market", John Wiley and Sons, Inc

³ O'Donnell, R., 2002. "The economic role of the stock market in the Australian economy", *Ecodate*, 16(3), pp. 6-8.

The income of people likewise increases, and individuals' overall quality of life also improves as a result. All of these things are indicators of a nation's economic development throughout time. (Jaswani2008)⁴. However, in order for the capital market to perform the function for which it was designed in an effective manner, it is essential that investors, who are the primary market actors, respond rationally to the information that is currently available on the market rather than acting solely based on their emotions. When investors behave in an illogical manner, there is no way to prevent the stock market from becoming volatile. The degree of potential future cash flows and the amount of risk that investors are willing to assume are often two of the primary considerations that go into making investment decisions. There is a widespread belief that behavioural finance has a role in the decisions that investors in emerging nations make. like Bangladesh (Hossain and Adnan, 2013)⁵. The field of research known as behavioral finance attempts to explicate how the illogical or emotional actions of investors might have an impact on the value of a company's shares (Shleifer, 2000)⁶. When it is observed that the stock price of a company vacillates up and down on a daily basis despite the fact that there was really no change in the fundamental characteristics of that company, which ought to be the logical explanations, the potential use of behavioural finance becomes obvious. This is because of the fact that stock prices are driven by emotions rather than logic. Investors should focus their attention, from a purely practical standpoint, on the fundamental changes that a company is going through in order to develop their expectations, which will in turn determine the stock price of that company. When it comes to decision-making, however, investors place a greater emphasis on the psychological, emotional, and behavioral elements of themselves. (Morck, 2004)⁷. Because of this, the behaviour of these investors in terms of buying and selling a particular stock of a company generates volatility in the price, which in turn makes both the situation of the economy and the condition of the capital market subject to risk.

REVIEW OF LITERATURE

Tania Afroze (2015) et al⁸ determined the elements that individual investors in the Bangladesh stock market consider most important when making investment decisions. It also sought to compare the discovered parameters in terms of investor demographic factors such as gender, age, occupation, monthly income, and educational level. These factors include: gender, age, monthly income, and educational level. The city of Khulna will serve as the focus of this investigation. The research consisted of conducting a survey using a structured, closed-ended questionnaire with a total of twenty-five questions categorized into five different categories (the company's image, accounting information, reliability, expert advice, and investors' action against specific issues) and measured on a Likert scale. It was determined to use the approach of convenience sampling. The instrument's reliability was found to have a score of 0.756, which indicates that it is a reliable instrument. According to the findings of the research, the information about accounting is the element that investors believe to be the most significant when they are making decisions, and the trustworthiness of the information regarding the company is the aspect that investors consider to be the least important. In addition, it was discovered that certain aspects differ depending on the demographic characteristics of the respondents, and others do not differ at all.

Aregbeven and Mbadiugha (2011)⁹ investigated the behaviour of investors in the Nigerian capital market and the variables that affect them to invest in shares using the behavioural finance theory as our primary research tool. They accomplished this by employing the 2,000 Nigerian clients of 10 stock broking businesses located in the metropolitan region of Lagos as their research subjects. The outcomes of the study demonstrated that social influences, economic considerations, psychological variables, and cultural elements all work together to impact investment decisions involving shares of stock. To continue along these lines

⁴ Jaswani, T., 2008. "Function and Purpose of Stock Market", Retrieved May 28, 2014, from <http://www.articlesbase.com/investing-articles/function-and-purpose-of-stockmarket58288.html>

⁵ Hossain, M. A. and S. M., Adnan, 2013. "Capital Market, Bangladesh Economic Update", *UnnayanOnneshan-The Innovator*, 4(3), pp. 1-26

⁶ Shleifer, A., 2000. "Inefficient Markets: An Introduction to Behavioral Finance". Oxford University Press, Oxford

⁷ Morck, R., 2004. "Behavioral finance importance", Working paper no 5353, National Bureau of Economic Research.

⁸ study of individual investors in Bangladesh was conducted for the article "Factors Influencing Investment Decisions in Capital Market: A Study of Individual Investors in Bangladesh," which was published in the *European Journal of Economics, Finance, and Administrative Sciences* volume 1 issue 71 pages 82-85

⁹ Aregbeven, O. and S. O., Mbadiugha, 2011. "Factors Influencing Investors Decisions in Shares of Quoted Companies in Nigeria", *The Social Sciences*, 6(3), pp. 205-212

Obamuyi (2013)¹⁰ carried out a survey with a total of 297 people in order to determine the factors that influence the investment decisions of investors and investigate how these factors connect to the socioeconomic characteristics of investors in the Nigerian Capital Market. The purpose of the survey was to determine the factors that influence the investment choices of investors. It was discovered that the elements that had the least impact on the investor's choice were things like religions, rumours, devotion to the company's goods or services, the views of members of the investor's family, and predicted losses in other investments. The previous performance of the stock, the dividend policy, anticipated stock splits/bonuses/capital growth, anticipated profits from the company, and the opportunity to become wealthy quickly were the five criteria that had the most effect. It was also shown that socio-economic factors have a significant impact on the decision-making process that investors use when it comes to making investments. In order to conduct an analysis of how the Nepalese stock market responds to both physical and intangible information, we need some background information.

Kadariya (2012)¹¹ surveyed 185 stock investors and received a response rate of 27 percent. The objective of this research was to investigate the ways in which the market reacts to both physical and intangible types of information. According to the conclusions of the research, the aspects of capital structure and average pricing mechanism, political and media coverage, chance, and financial education are the most important elements that impact investment choices. The findings of the study led the researchers to the conclusion that being successful in the Nepalese capital market necessitates possessing both physical and intangible knowledge. Chandra and Kumara (2012)¹² conducted a research on the factors that impact the actions of individual investors in the Indian Stock Market and employed a sample size of three hundred fifty people located in the Delhi-National Capital Region as their subjects. The findings suggested that investors have an exaggerated sense of confidence in their ability to base investment decisions on heuristics, with price serving as the decision-anchor, and that their investment behaviour is influenced by representativeness. In addition, the findings indicated that investors have a tendency to overestimate the degree to which their investment decisions are influenced by representativeness. This is because, prior to making decisions, investors engage in a substantial amount of mental accounting in the form of categorizing their earnings and losses. This is one of the reasons why this is the case. The data also indicated that investors pay attention to fundamentals; nevertheless, they have a tendency to overlook difficult information and instead focus on information that can be readily modified when making investment choices. In addition, the findings demonstrated that the presence of an asymmetric pattern of distribution and usage of information among individual investors has a greater influence on the investment behaviour of those investors. This was demonstrated by the fact that the investors invested their money differently depending on which information they used.

MAIN VARIABLES AFFECTING INVESTMENT BY ENTERPRISES

1. **Interest rates:** Investments may be financed by either new borrowing or the use of existing funds. As a consequence of this, interest rates have a significant impact on investment. When interest rates are high, the cost of borrowing money rises to a higher level. Considering how high interest rates currently are, putting money away in the bank could result in a superior rate of return. When interest rates are higher, the opportunity cost of investing is greater since you will not get interest payments from your investments. According to the theory of marginal efficiency of capital, in order for an investment to be profitable, the rate of return on the investment has to be higher than the interest rate. If an interest rate of 5 percent is to be paid on a loan, the rate of return on the project must be at least 5 percent in order for the loan to be profitable. As interest rates continue to climb, there will be a reduction in the number of investment projects that are profitable. If interest rates are lowered, it will be good for more people to invest.

¹⁰ Obamuyi, T. M., 2013. "Factors influencing investment decisions in capital market: a study of individual investors in Nigeria", *Organizations and Markets in Emerging Economies*, 4(1:7), pp. 141-161

¹¹ Kadariya, S. 2012. "Factors affecting investor decision making: A case of Nepalese capital market", *Journal of Research in Economics and International Finance (JREIF)*, 1(1), pp. 16- 30.

¹² Chandra, A. and R., Kumara, 2012. "Factors Influencing Indian Individual Investor Behaviour: Survey Evidence", *Decision*, 39 (3), pp. 141-167

2. **Economic Development:** Consumer demand falls, businesses will reduce their level of investment. If there is an improvement in the economic outlook, companies will increase their investment because they expect an increase in future demand. There is much anecdotal evidence to suggest that investment follows a cyclical pattern. During a downturn in the economy, less money is put into businesses; this trend reverses itself when the economy improves.
3. **Confidence:** Companies will only invest money if they have a positive outlook on future expenses, demand, and the economy as a whole. Keynes proposed that the "animal spirits" of businesspeople played a crucial part in the choices they made about investments. Keynes made the observation that confidence is not necessarily founded on reality. Growth in the economy and interest rates will both have an effect on confidence, but the bigger economic and political climate will have an even greater impact. When there is a great deal of unpredictability in the environment, such as when there is political unrest, businesses may choose to delay making investment choices in order to see how things play out.
4. **Inflation:** Over a period of time, the rates of inflation may have an impact on investments. Inflation that is both high and volatile has a tendency to make everything more unpredictable and confusing, which in turn raises concerns about the future cost of investment. If inflation is high and unpredictable, firms won't know how much their investments will end up costing them, and they may also be afraid that excessive inflation could lead to economic instability and a future downturn. Countries that have had a protracted period of low and steady inflation have often witnessed greater rates of investment throughout that time period.
5. **Capital Productivity:** Long-term technical progress may have an effect on the desirability of a particular investment. Businesses in the late 19th century had a significant incentive to invest in new technology since it was more efficient than older technologies such as Bessemer steel and better steam engines. This provided a strong incentive for businesses to make these investments. In the event that the pace of technological innovation slackens, businesses will reduce their levels of investment since the returns on investment will fall.
6. **Wage costs:** If the cost of labour is rising at a high rate, a company may be compelled to make investments in capital stock in order to boost labour productivity. When the rate of wage growth is low for an extended period of time, businesses may be more likely to utilize labor-intensive manufacturing processes
7. **Depreciation:** There are several types of investments that do not follow a cyclical pattern. It takes a certain amount of money to buy new equipment to replace old one that has become worn out or outdated. In addition, the organic growth of a company may involve the expenditure of capital. During a recession, investment will drop substantially, but it won't disappear entirely. Businesses will keep up the work they're already doing, but after a certain amount of time, they'll be forced to take on less ambitious projects. In addition, during a recession, some companies may decide to make investments or launch operations for the first time.
8. **Government policies:** Investing may be made more difficult by laws and regulations implemented by the government. For instance, strict zoning regulations may act as a barrier to investment activity. Subsidies and tax advantages provided by the government, on the other hand, might sometimes serve as an incentive to invest. On a consistent basis, the Chinese and Korean governments both directly and indirectly guarantee and cover the costs of investment expenditures. This has led to a greater amount of investment; nevertheless, it is possible that this has also led to a decrease in the quality of investments. This is because there is less reason to ensure that the investment produces a favourable rate of return.

RESEARCH PROBLEM

The providers of mutual funds are now offering a variety of programmes to their customers, each of which confers a distinct benefit on the investor. This research work is an attempt to examine into the factors that affect the investment choices related to mutual funds with reference to urban, semi-urban, and rural investors.

The focus of this investigation is on urban investors. In the past, several research projects on mutual funds have been carried out in India. The current research investigates the factors that have a role in an investor's choice to invest in a mutual fund. This research will provide administrators of mutual funds and policymakers with assistance in establishing and implementing regulations that will help to the expansion of the mutual fund sector and increase investor happiness. Our findings will be useful to future scholars in the field of behavioural finance who are interested in approaching the topic from a number of different perspectives. In the future, investors will discover that the conclusions of this research are to their advantage.

OBJECTIVES OF THE STUDY

The aim of the paper is to analyze the factors mostly considered by the investors towards selecting the mutual funds in India.

RESEARCH METHODOLOGY

The study has been carried out during the month of January, 2022. The investors who prefer to invest in the mutual funds are purposively selected using convenient sampling technique. The sample size is 600. The primary data collected through the interview schedule. The factors considered by the respondents are analyzed with the help of descriptive statistics.

FINDINGS, DISCUSSION AND CONCLUSION

Socio-economic characteristics of the respondents

Factors Considered for Selecting a Mutual Fund

The research combines variables from factors impacting mutual fund investing into a useful investment model [IM] for implementation. The findings show that basic variables and investor perception are extremely important in the investment decision-making process.

FINDINGS, RESULTS AND CONCLUSION

Factors Considered for Selecting a Mutual Fund

Factor analysis was employed and it was found that the most influencing factors on investment decisions of investors in Indian Capital Market with the help of previous studies. In order to simplify the factors, tool for data reduction technique, factor analysis is used. The result is given below. First the reliability of the data is measured with the help of Kaiser-Meyer-Olkin Measure of Sampling Adequacy test and Bartlett's Test of Sphericity. The result is given in Table 1.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.893
Bartlett's Test of Sphericity	Approx. Chi-Square	5803.667
	df	136
	Sig.	0.000

The KMO test shows significant value of 0.893 (>0.7) to determine the adequacy of the data for applying the factor analysis. The Bartlett's Test of Sphericity test shows a value of 5803.667 for the degree of freedom 136. It is significant at 1% level (<0.01). Hence, it is concluded that the data collected for analyzing the factor analysis are adequate and can be used for further analysis. The communalities for the 17 factors are tested as below

Table 2: Communalities

	Variables	Initial	Extraction
FACTOR 1	Affordability of share price	1.000	0.644
FACTOR 2	Current condition of financial statements	1.000	0.736
FACTOR 3	Diversification	1.000	0.721

FACTOR 4	Dividend per share (DPS) paid	1.000	0.699
FACTOR 5	Earnings per share (EPS)	1.000	0.679
FACTOR 6	Ethical practice of firm	1.000	0.708
FACTOR 7	Expected dividend	1.000	0.556
FACTOR 8	Family and friends opinion	1.000	0.510
FACTOR 9	Firm's involvement in solving community problems	1.000	0.540
FACTOR 10	Firm's status in the industry	1.000	0.712
FACTOR 11	Fluctuation in stock index	1.000	0.643
FACTOR 12	Good feelings for company's products and services	1.000	0.549
FACTOR 13	Information obtained from internet	1.000	0.596
FACTOR 14	Market Trend	1.000	0.684
FACTOR 15	News/ media influence	1.000	0.590
FACTOR 16	Past performance of stock	1.000	0.753
FACTOR 17	Recent price movement of stock	1.000	0.628

Source: *Principal Component Analysis*

The factor analysis is used to verify the level of agreeability towards job satisfaction of women nurses. It is used to analyze the variability of the respective factor to optimize from the list. Principal Component Analysis (PCA) is used to derive a relatively small number of components that can account for the variability found in a relatively large number of measures. The procedure called data reduction is typically performed when a researcher does not want to include all of the measures in analyses. Initial assumption is taken as 1 and extracted value is presented in extraction column. By using the Principal Component analysis, the communalities of the factors calculated. Extraction values of all the factors are found more than 0.5. Hence, it is concluded that all the factors can be used for the analysis. The total variance of the model is also calculated and presented in Table 3 below.

Table 3

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.958	40.931	40.931	6.958	40.931	40.931	4.303	25.314	25.314
2	2.627	15.450	56.381	2.627	15.450	56.381	4.240	24.942	50.256
3	1.260	7.410	63.791	1.260	7.410	63.791	2.301	13.535	63.791
4	0.915	5.380	69.171						
5	0.801	4.712	73.883						
6	0.606	3.562	77.445						
7	0.578	3.398	80.843						
8	0.464	2.727	83.570						
9	0.454	2.670	86.240						
10	0.403	2.368	88.608						
11	0.337	1.984	90.592						
12	0.321	1.890	92.482						
13	0.313	1.839	94.321						
14	0.287	1.690	96.011						
15	0.249	1.465	97.476						

16	0.221	1.297	98.773						
17	0.209	1.227	100.000						

Extraction Method: Principal Component Analysis

The above table shows that three components have their initial Eigen values more than 1. The first component has 40.93% on the total variation, and second one is 15.45% and their one is 7.41%. The total variance explained by the combined these three components is 63.79%. This is more than 50%. Hence, the finally, the components are taken further analysis. Using Varimax model, the rotation of the rotated components is prepared as below.

Table 4: Rotated Component Matrix

Factors	Component		
	1	2	3
Affordability of share price	0.854		
Current condition of financial statements	0.794		
Diversification	0.786		
Dividend per share (DPS) paid	0.771		
Earnings per share (EPS)	0.706		
Ethical practice of firm	0.567		
Expected dividend		0.833	
Family and friends opinion		0.804	
Firm's involvement in solving community problems		0.718	
Firm's status in the industry		0.694	
Fluctuation in stock index		0.686	
Good feelings for company's products and services		0.649	
information obtained from internet		0.605	
Market Trend			0.500
News/ media influence			0.807
Past performance of stock			0.609
Recent price movement of stock			0.504

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

The result of the rotated component matrix shows that 17 factors are grouped into three components. Those factors are named based on the nature of their characters. They are grouped as follows. The first group is named as *the profile and performance of the investment company*. It includes the factors – service of the company, performance and profile of the fund managers, performance, systematic capital appreciation, systematic investment, and high return form the investment. These 6 factors are related to the performance of the company.

The second group consists of awareness for closed ended and open ended schemes, nature of the fund, flexible for investment, regular income plan, personal factors of the investors, less risk in investment. This group is identified as *personal factors and awareness of the investors*.

The third group is name as *information* based on the uniqueness of the data. It includes Inter relationship between Risk & Return, Offer document with details, Periodic Accounts are sent to investors and Disclosure of portfolio Risk & Return.

From the result of the factor analysis, the factors considered by the investors for selecting the mutual fund are grouped into three. The major factors are profile and performance of the fund, personal factors and awareness of the investor and information available to the investors.

REFERENCE

1. Aregbeven, O. and S. O., Mbadiugha, 2011. "Factors Influencing Investors Decisions in Shares of Quoted Companies in Nigeria", *The Social Sciences*, 6(3), pp. 205-212.
2. Barberis, N. and R. Thaler, 2003. "A Survey of Behavioral Finance". In: Constantinides, G. M., Harris, M. and Stulz, R. "Handbook of the Economics of Finance", Amsterdam, pp. 1051-1121.
3. Bashir, T., A., Javed, A. A., Butt, N., Azam, A., Tanveer, and I., Ansar, 2013. "An Assessment Study on the Factors Influencing the Individual Investor Decision Making Behavior", *IOSR Journal of Business and Management*, 9 (5), pp. 37-44.
4. Bennet, E., Dr. M., Selvam, E., Ebenezer, V., Karpagam, and S., Vanitha, 2011. "Investors' Attitude on Stock Selection Decision", *International Journal of Management & Business Studies*, 1 (2), pp. 7-15.
5. Chandra, A. and R., Kumara, 2012. "Factors Influencing Indian Individual Investor Behaviour: Survey Evidence", *Decision*, 39 (3), pp. 141-167.
6. Chandra, A., 2008. "Decision Making in the Stock Market: Incorporating Psychology with Finance". National Conference: FFMI 2008 IIT Kharagpur.
7. Croushore, D., 2006. "Money and Banking: A Policy Approach", Cengage Learning. *Journal of Finance*, 56, pp. 1533-1597.
8. Hossain, M. A. and S. M., Adnan, 2013. "Capital Market, Bangladesh Economic Update", *UnnayanOnneshan-The Innovator*, 4(3), pp. 1-26.
9. Hossain, M. F. and S., Nasrin, 2012. "Factors Affecting Selection of Equity Shares: The Case of Retail Investors in Bangladesh", *European Journal of Business and Management*, 4 (20), pp. 110-124.
10. Sultan, T.S. and S. Pardhasaradhi, 2012. "An Empirical Analysis of Factors Influencing Individual equity Investors Decision Making and Behavior", *European Journal of Business and Management*, 4 (18), pp. 50-62

DIVIDEND POLICY AND ITS IMPACT ON PERFORMANCE OF INDIAN INFORMATION TECHNOLOGY COMPANIES

Dr. Sonia Kaushik Dr. S. Umamaheswari** P.T.J.K. Lilian****

**Associate Professor, Department of Commerce, Bharati College,
C-4 Janakpuri, University of Delhi, New Delhi.*

***Assistant Professor of Commerce, VET Institute of Arts and Science (Co- education)
College, Thindal, Erode. Tamilnadu.*

**** Assistant Professor, Department of Management Studies,
NPR college of Engineering and Technology, NPR Nagar, Natham*

ABSTRACT

This study is an attempt to evaluate the impact of dividend policy on profitability of Indian Information Technology (IT). The study has been made to know the impact of the dividend policy of the IT companies on their performance. The study is focusing only on the IT companies in India. The top IT companies based on the Nifty 50, 5 companies have been selected for the study. They are HCL Technologies, Infosys, TATA Consultancy Services, Tech Mahindra and WIPRO. The Dividend per Share (DPS), Price to Earnings (PE) and Earning per Share (EPS) are considered as independent variables related to the dividend and Return on Equity (ROE) and Return on Assets (ROA) are considered as dependent variables related to the performance of the companies. The secondary data have been collected from moneycontrol.com for the period of 5 years from 2018 to 2022.

Keywords: Dividend, Firm Performance, Earnings per Share, Price Earnings Ratio, Return on Assets and Return on Equity

INTRODUCTION

The decision to pay a dividend is an important component of a company's overall strategic financial planning. It is a payment made to shareholders as a kind of remuneration for their risk tolerance and is directly proportionate to the amount of risk that is accepted. The choice about dividends has historically been one of the most challenging and important aspects of company finance. Even after many decades have passed since the development of dividends theories, the choice on dividends continues to be one of the most significant unsolved issues in finance (Brealey and Myers, 2002). It involves determining how much of the company's earnings, after taking into account interest and taxes, should be distributed among shareholders in return for their investment in the firm, and how much of those earnings should be retained for the purpose of the company's continued growth in the future. The dividend policy of a company is one of the many aspects that influence the value of a company. Returns to shareholders may be made in the form of dividends or appreciation of their capital, and these returns, along with other financial choices, are determined by the dividend policies of the company. The basic objective of dividend policy is to maximise the wealth of shareholders. The question of whether or not a company's dividend policy is significant to investors is one that is still being discussed among financial economists. On the other hand, the prevalent viewpoint is that if dividend policy is important, then the best possible dividend policy must exist; alternatively, if dividend policy is not important, then any dividend policy will do.¹

INFORMATION TECHNOLOGY

Acquiring, processing, storing, and disseminating information in vocal, pictorial, textual, and numerical formats using a combination of computing and telecommunications that is based on microelectronics is the

¹ Brealey, R.A. and Myers, S.C., (2002). Principles of Corporate, Finance, Irwin/McGraw Hill, Boston, MA. Corporations. The Review of Economics and Statistics. Vol. 64, pp. 243-269

definition of information technology (IT). IT also includes the dissemination of this information. The field of information technology encompasses all businesses that contribute to the dissemination of information by making use of computers and several other pieces of ancillary technology. For a while, the term "information technology" was synonymous with "computers." But with the rapid and advancement in various information delivery system such as radio, television, telephone, newspapers, fax, and of course computers and computer Networks, information technology refers to the entire gamut of Media and devices used to transmit and process information for use by various target groups in the society. This includes radio, television, telephone, newspapers, fax, and of course computers and computer Networks. The revolution in information technology has been appropriately dubbed the revolution in information and communication.

REVIEW OF LITERATURE

Over the course of many decades, the information technology sector in India has seen extraordinary levels of transformation, expansion, and progress. The outlook for this sector seems to be positive given that more expansion is anticipated. Analysts of finance are confidently forecasting that India would make significant leaps in the development of software technology. In addition, it is anticipated that the expansion of the information technology industry would bring about an equivalent expansion in other areas like employment, exports, and Foreign Direct Investments. The information technology industry is also closely connected to other key industries, such as the biomedical technology, military, and infrastructure industries. As a result, the development of the information technology industry will have an immediate bearing on the expansion of the country. MeghaNarang (2018)² the influence of firm performance on dividend policies of twenty manufacturing businesses that were listed on the NSE during the years of 2012 and 2017 was investigated. In order to achieve the objectives of the research, statistical methods such as correlation and multiple regressions were used. When conducting research on the connection between company performance and dividend policy, the following metrics were used as independent variables: dividend payout ratio, earnings per share, price earnings ratio, return on assets, and return on equity. In the end, the investigation came to the conclusion that there was no connection between the dividend policy and the success of the company.

Vasantha and Thirumagal both. (2018)³ attempted to investigate the connection between dividend payments and the wealth of shareholders by conducting research. During the period of 2001 to 2005, the research focused on 15 enterprises in India that were divided across five different sectors. Statistical methods such as panel regression and the paired t test have been used in order to investigate the data. According to the findings of the research, the dividend payout ratio had a large and detrimental effect on the wealth of shareholders in the key industries. According to the findings of the research, there was also a disparity between the share price before and after the announcement of a dividend.

Onyango Benedict Enrile (2018) During the period of 2009 to 2013, they utilised correlation and multiple regression analysis to investigate the influence of dividends per share on the market price per share of 63 businesses that were listed on the NSE in 11 different sectors. There was discovered to be a link that was both positive and substantial between the dividend per share and the market price per share. The research also found that the market price per share had a positive but small link with the price earnings ratio. EbireKolawole, MukhtarSalisuSadiq and Monya Lucky (2018)⁴ investigated how the dividend policy of oil and gas businesses that were traded on the Nigerian Stock Exchange during the years 2017 and 2016 impacted the overall firm performance of those companies. In order to accomplish the goals of the research, statistical methods such as descriptive statistics, correlation matrices, and pooled regression were used. The findings indicated that the dividend payment ratio contributed favorably to earnings per share. [Citation needed] The findings of the research also demonstrated that dividend yield has a detrimental impact on profits per share..

² MeghaNarang. (2018). "Dividend policy and firm performance: A study of listed firms on national stock exchange". *International Journal of Advanced Educational Research*. 5.12: 286 – 289

³ Thirumagal and S.Vasantha. (2018). "A research paper on impact of dividend payout on shareholders wealth in Indian industries". *International Journal of Pure and Applied Mathematics*. 65 – 97

⁴ EberiOkeke, (2018). "Dividend policy and performance of selected quoted firms in Nigeria". *Journal of Management Research and Analysis*. 4.878: 142 – 157.

Thirumagal and Vasantha (2015)⁵ examined “The Effect of Dividend on the Profitability of a Company with Specific Reference to the Leasing and Hire Purchase Industry in India” The dividend choice of the chosen firms is analyzed, along with the elements that influence that decision, as well as the link between dividends and net profit and share price of those companies. The research was conducted over the course of five years, from 2010 to 2015. The size of the firms' respective markets drove the decision to choose these businesses. The data, which were derived via the use of correlation and multiple regression, reveal that there is no significant association between the dividend distribution and the share price of the firms; this is the proof that the dividend irrelevance hypothesis is correct. According to the findings of the research, there is a substantial connection between dividends and net profit. According to the findings of the research, the size of the firm, profits per share, and return on equity are the three primary factors that have the most impact on the dividend distribution of the company.

Amar Dhungel (2013)⁶ investigated how dividend policies influence the prices of shares offered by commercial banks in Nepal. The authors investigated how the distribution of dividends affected the movement of the share price of five commercial banks that are included on the list of member banks of the NBA. The main data were acquired by interviewing a sample of one hundred bank shareholders and staff members, while the secondary data were obtained from the published financial reports of a selection of commercial banks between the years 2005 and 2011. According to the findings of the survey, 87 percent of investors in equity shares give primary consideration to the state of the company's finances before committing their capital to purchasing equity shares. In addition to this, it was discovered that there is a positive and substantial connection between dividend policy and share price.

IMPLICATIONS OF THE STUDY

The information technology industry plays a crucial part in the service sector, which is the sector that contributes the most income to India's GDP. The pattern of dividend distribution as well as the dividend policy itself has been a significant topic of debate in the world of finance. Users, such as managers, who are interested in profit planning and investment might benefit from the research. The reader will be able to get a deeper knowledge of dividend policy, which is still one of the most challenging subjects in corporate finance, with the assistance of the paper. In addition to this, the significance of this work lies in the fact that an effort has been made to build suitable dividend policy models.

OBJECTIVE OF THE STUDY

The study has been made to know the impact of the dividend policy of the IT companies on their performance.

METHODOLOGY

The study is focusing only on the IT companies in India. The top IT companies based on the Nifty 50, 5 companies have been selected for the study. They are HCL Technologies, Infosys, TATA Consultancy Services, Tech Mahindra and WIPRO. The Dividend Per Share (DPS), Price to Earnings (PE) and Earning Per Share (EPS) are considered as independent variables related to the dividend and Return on Equity (ROE) and Return on Assets (ROA) are considered as dependent variables related to the performance of the companies. The secondary data have been collected from moneycontrol.com for the period of 5 years from 2018 to 2022. The Pearson correlation and Regression tests have been applied to analyze the data.

FINDINGS

1. Return on Equity (ROE)

Return on equity or shareholders fund is the key ration from the investor point of view. The ratio of the selected IT companies is given below in the following table

⁵ Thirumagal and Vasantha. (2018). “A research paper on impact of dividend payout on shareholders wealth in Indian industries”.*International Journal of Pure and Applied Mathematics*. 65 – 97.

⁶ Amar Dhungel. (2014).“Impact of dividend on share pricing in commercial banks of Nepal”. *Banking Journal*. 23 – 36

Table 1: Return on Equity

Companies	2022	2021	2020	2019	2018
HCLTECH	25.53	20.07	24.04	26.88	26.70
INFOSYS	30.63	25.23	24.97	23.44	25.44
TCS	49.48	41.39	44.72	38.10	33.27
TECH MAHINDRA	19.00	16.94	20.35	21.21	20.46
WIPRO	22.32	22.23	18.68	15.41	18.27

The overall return on equity of the IT companies is looking good. During the study period, the selected companies have RoE from 15.41 to 49.48. The RoE of the TCS is looking better every year than other IT companies.

2. Return on Assets (ROA)

The overall performance of the companies based on the amount invested in assets is calculated. It helps to measure the performance in their business activities. The result is given below.

Table 2: Return on Assets

Companies	2022	2021	2020	2019	2018
HCLTECH	20.35	15.79	16.75	21.85	22.43
INFOSYS	21.36	19.21	19.17	18.62	21.29
TCS	31.49	28.3	31.68	30.21	27.72
TECH MAHINDRA	14.03	12.7	14.95	14.43	14.92
WIPRO	15.09	15.3	13.29	11.36	13.16

The result of the ROA is also looking better for all the selected IT companies. The ROA of the TCS in every year during the study period is better than other companies. The ROA ranges from 11.36 to 31.49.

3. Dividend per share (DPS)

Dividend is the reward given to the investors in cash. The dividend is an attracting factor to investors. The dividend is also indicating the performance and reputation of the company. Hence, the attractive dividend is always necessary to retain their fame.

Table 3: Dividend Per Share (DPS)

Companies	2022	2021	2020	2019	2018
HCLTECH	42	10	10	8	12
INFOSYS	31	27	17.5	21.5	43.5
TCS	43	38	73	30	50
TECH MAHINDRA	45	45	15	14	14
WIPRO	6	1	1	1	1

The above table shows that the dividend per share shows that HCL Technology, Tech Mahindra and WIPRO have increased their dividend per share during the study period. Volatility is observed from Infosys and TCS in paying Dividend per share.

4. Price to Earnings (PE)

The PE ratio is a key ratio from the investors' point of view which shows the price rise to its earnings. It helps them to enter or exit from the investment. The PE ratio of the selected companies is given below.

Table 4: Price to earnings (PE)

Companies	2022	2021	2020	2019	2018
HCLTECH	16.18	23.64	19.57	16.03	14.84
INFOSYS	36.16	30.03	16.36	20.89	7.70
TCS	35.7	36.25	21.14	23.84	10.54
TECH MAHINDRA	23.64	19.57	12.21	16.03	14.84
WIPRO	26.54	21.02	11.55	17.07	11.93

The PE ration explains the belief and confidence of the investors about the company in price rise. Low PE ratio shows their chance for investment and high PE ratio indicates the risk. The overall result shows that the PE ration of the IT companies are always high. It ranges from 7.70 to 36.16.

5. Earnings per share (EPS)

Investors are always looking how much earning they have for their investment. The earnings per share show the return for their investment. In this point of view, the EPS of the selected companies are given below.

Table 5: Earnings per share (EPS)

Companies	2022	2021	2020	2019	2018
HCLTE. CH	40.1	32.22	33.06	59.69	52.54
INFOSYS	50.27	42.37	36.34	33.66	71.28
TCS	103.24	82.78	88.64	79.34	131.15
TECH MAHINDRA	50.48	43.76	46.89	44.58	40.84
WIPRO	22.2	17.81	14.88	12.67	16.26

The EPS of the selected company's shows during the study period is that the TCS has high PE ratio upto 131.15. The PE ratio shows that the share price of the WIPRO does not increase more to the earnings.

RELATIONSHIP BETWEEN THE FACTORS OF DIVIDEND

The study has considered dividend per share, Price to earnings and Earnings per share as parameter to measure the influencing factors on the performance. The relationship between the factors are studied as below.

Table 6: Correlations

Independent variables		DPS	PE	EPS
DPS	Pearson Correlation	1	0.330	0.707**
	Sig. (2-tailed)		0.107	0.000
	N	25	25	25
PE	Pearson Correlation	0.330	1	0.171
	Sig. (2-tailed)	0.107		0.414
	N	25	25	25
EPS	Pearson Correlation	0.707**	0.171	1
	Sig. (2-tailed)	0.000	0.414	
	N	25	25	25

** . Correlation is significant at the 0.01 level (2-tailed).

The relationship between the EPS and DPS is found significant (0.707) positively. The relationship between the DPS with the PE is not significant. Hence, it is concluded that the Dividend paid per share is positively correlated with the Earning per share.

INFLUENCE OF THE DIVIDEND FACTORS ON THE ROE

The ROE is the key factor of the performance of the company. The influence of the dividend on the ROE is studied with the help of regression as below.

Table 7: Model Summary and ANOVA

Model	R	R Square	Adjusted R Square	Std. Error of the	F	Sig.
1	0.882	0.777	0.746	4.46107	24.443	0.000
a. Dependent Variable: ROE						
b. Predictors: (Constant), EPS, PE, DPS						

This model is to find the influence of the dividend on the performance in the ROE. The ROE is dependent factor and EPS, PE and DPS are independent factors. The R value of the model is 0.882. R square is 0.777. The F value from the ANOVA shows significance. Hence, the model is fit. The level of influence of the independent variables is measured as below.

Table 8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.547	2.806		2.334	0.030
DPS	0.007	0.070	0.016	0.106	0.917
PE	0.427	0.122	0.384	3.503	0.002
EPS	0.218	0.044	0.718	4.911	0.000
a. Dependent Variable: ROE					

The above tables shows that constant (other factors), PE and EPS are significantly influencing the ROE. The t values are more than 1.96. But the result shows that the DPS does not have significant influence.

INFLUENCE OF THE DIVIDEND FACTORS ON THE ROA

Return on assets influenced by the dividend factors, this is studied from a regression model as below.

Table 9: Model Summary and ANOVA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
.	0.881	0.776	0.744	3.13662	24.208	0.000
a. Dependent Variable: ROA						
b. Predictors: (Constant), EPS, PE, DPS						

The R value is 0.881 and R square is 0.776. The Anova test shows that the F value is significant. Hence, the model is proved. Further, the influence of the factors on the ROA is analysed as below.

Table 10: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7.300	1.973		3.701	0.001
DPS	0.006	0.049	0.018	0.120	0.906
PE	0.172	0.086	0.221	2.013	0.057
EPS	0.170	0.031	0.801	5.462	0.000
a. Dependent Variable: ROA					

The ROA is significantly influenced by the constant (other factors) and EPS. The significance of DPS (0.906) and PE (0.057) are not significant. It is concluded from the result that the EPS is influencing the Return on assets.

CONCLUSION

IT industry plays a vital part in service sector, which generate highest income to the Indian GDP. Dividend policy and pattern of its distribution has been a major matter of debate in finance. The research would be beneficial for users like managers who are interested in profit planning and investing. The article will allow the reader to build additional knowledge on dividend policy, which is still on the most challenging issue in

corporate finance. This work is especially relevant because an effort has been made to construct acceptable dividend policy models.

REFERENCE

1. Abor and Bokpin, G.A. (2010). Investment opportunities, Corporate Finance, and Dividend Payout Policy: Evidence from Emerging Markets. *Studies in Economics and Finance*. Vol. 27 No. 3, pp. 180-194.
2. Adediran, and Alade, S.O., (2013). Dividend policy and corporate performance in Nigeria. *American journal of social and management sciences*, 4(2), pp.71-77.
3. Al-Malkawi, Rafferty, M. and Pillai, R., (2010). Dividend policy: A review of theories and empirical evidence. *International Bulletin of Business Administration*, 9(1), pp.171-200.
4. Amidu, M., (2007). How does dividend policy affect performance of the firm on Ghana stock Exchange? *Investment Management and Financial Innovations*, 4(2), pp.103-112.
5. Azhagaiah, R., & Priya, S. N., (2008). The Impact of Dividend Policy on Shareholders' Wealth. *International Research Journal of Finance and Economics*. 20, 180 – 187.
6. Baker, H. K., Veit, E. T., & Powell, G. E. (2001). Factors Influencing Dividend Policy Decisions of NASDAQ Firms. *The Financial Review*. 36(3), 19-37.
7. Brealey, R.A. and Myers, S.C., (2002). *Principles of Corporate, Finance*, Irwin/McGraw Hill, Boston, MA. Corporations. *The Review of Economics and Statistics*. Vol. 64, pp. 243-269.
8. DeAngelo, H. and DeAngelo, L., (2007). Payout policy pedagogy: what matters and why. *European Financial Management*, 13(1), pp.11-27.
9. DeAngelo, H., DeAngelo, L. and Stulz, R.M., (2006). Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory. *Journal of Financial economics*, 81(2), pp.227-254.
10. Easterbrook, Frank H. (1984). "Two Agency-Cost Explanations of Dividends." *American Economic Review* 74:4, 650-659.
11. Foong, S. S., Zakaria, N. B. and Tan, H. B. (2007). "Firm Performance and Dividend-Related Factors: The Case of Malaysia", *Labuan Bulletin of International Business & Finance*. Vol. 5; 97-111.
12. Kanwal, M. & Hameed, S. (2017). The Relationship between Dividend Payout and Firm Financial Performance, *Research in Business and Management*, 4(1).
13. Khan, Nadeem, B., Islam, F., Salman and Gill (2016). Impact of dividend policy on firm performance: An empirical evidence from Pakistan Stock Exchange, *American Journal of Economics, Finance and Management*, 2(4), pp.28-34.
14. Lintner, J., (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), pp.97-113.
15. Lipson, M., Maquieira, C.P. & Megginson, W. (1998). "Dividend initiations and Earnings surprises", *Financial Management*, Vol.24; 36-45.
16. Masum, A. (2014). Dividend Policy and Its Impact on Stock Price – A Study on Commercial Banks Listed in Dhaka Stock Exchange, *Global Disclosure of Economics and Business*, Volume 3, No 1.
17. Miller, M. H., and Modigliani, F. (1961). "Dividend Policy, Growth, and the Valuation of Shares", *Journal of Business*, Vol.34; 411-433.
18. MulaNazar Khan, Babar Nadeem, Fahad Islam, Muhammad Salman, Hafiz Muhammad Ikram Sarwar Gill (2016). Impact of Dividend Policy on Firm Performance: An Empirical Evidence from Pakistan Stock Exchange, *American Journal of Economics, Finance and Management* 2(4).
19. Nishant B. Labhane, Jitendra Mahakud (2016). Determinants of Dividend Policy of Indian Companies: A Panel Data Analysis.
20. Priya, K a & Nimalathasan, B. (2013). Dividend Policy Ratios and Firm Performance: a case study of Selected Hotels & Restaurants in Sri Lanka. *Global Journal of Commerce & Management Perspective*, 2(6), 16-22.
21. Pruitt, S.W. and Gitman, L.W. (1991). "The interactions between the investment, financing, and dividend decisions of major US firms", *Financial Review*, Vol. 26 (33); 409-30.
22. Thirumagal, P.G. and Vasantha, S. (2018). A Research Paper on Impact of Dividend Payout on Shareholders Wealth in Indian Industries, *International Journal of Pure and Applied Mathematics*, 118(5).

A STUDY ON WORK LIFE BALANCE OF WOMEN EMPLOYEES WITH REFERENCE TO TEACHING FACULTIES

Mrs. Licy Varghese Dr.M.Durgarani** Dr. Ajit Kumar****

** Senior Lecturer and Research Scholar of Commerce,
M.K.Sanghvi College of Commerce and Economics, Mumbai*

***Assistant Professor, Department of Management Studies, Jeppiaar Engineering College,
Rajiv Gandhi Salai, OMR, Chennai.*

****Assistant Professor, Department of Management Studies, B.D. College,
Mithapur, Patna.*

ABSTRACT

Teaching professionals are a variety of factors that contribute to the inevitability of maintaining a healthy for teaching professionals. To start, there has been a significant leap forward in technology, most notably the development of information and communications technology (ICT), which has effect on the manner in which higher education is delivered. The traditional method of instruction, which centers on the instructor, has given way to the more constructivist method of education, the student at the center of the process. Because of the changing learning environment, teachers are required to deal with a greater number of unknowns, which may cause stress and lead to an imbalance in their personal and familial lives. The main aim of the study is to analyze the demographic factors of the respondents in the studyarea and to measure the level of satisfaction as perceived by the women respondent employees on the varied determinants of work life balance. The researcher used both of the primary and secondary data. Simple Random sampling used to collect the data. The sample was employees' working in educational Institutions at Chennai and the sample size is 200. The results discussed above have implications for working women with a greater awareness of the causes of work-life balance disruption and the effects of having a poor work-life balance. It offers information on several recommendations made to management and working women to maintain a good work-life balance.

Keywords: *Work life balance, women employees, teaching faculties and Chennai*

INTRODUCTION

QWL is a positive working environment that supports and encourages contentment by providing workers with incentives, job stability, and opportunity for professional advancement. A work environment that may meet workers' personal demands such as skill diversity, job identity, task importance, autonomy, and feedback is thought to generate a good interaction, impact that leads to an exceptional QWL.As a result, maintaining a healthy balance between work and personal life is essential for education professionals. Another significant factor has been the role that educational professionals have had in this process. In today's society, education professionals take on a wide variety of responsibilities. Since the time has changed from men earning the family living to today's world, where both men and women equally share the earning for the betterment of their family life, work-life balance for women employees has become an important subject. This is because women are now more likely than men to be the primary breadwinners in their families. As a result, understanding how women manage the demands of their work and home lives is of the utmost importance. In the beginning phases, women were required to put up a great deal of effort in order to define their identity in this cutthroat environment. This was true not just in their personal lives but also in their working lives. But thanks to significant strides that have been made in educational and training institutions, the situation has significantly improved. Women in India have been successful in breaking down barriers and building bridges in the professional arena. Achievement and satisfaction are the focal points of the discussion around work-life balance. When a working woman is able to succeed in both her professional and personal life, it indicates that she has a healthy work-life balance. This implies that a woman should be able to have job satisfaction

(Enjoyment) and at the same time be able to develop up in his career (Achievement). In the second half of the 18th century, at the time of the Industrial Revolution, there was a significant shift in the pattern of professionalism as well as the notion of professionalism.

The concept of balancing work and life has been expanded as a result of this. However, there is no one formula that can perfectly strike a balance between work and life. It differs from person to person due to the fact that different people have different priorities based on the kinds of lives they lead. It not only changes in terms of priority but also in terms of status, such as when one is single, when one is married, after one has given birth, when one starts a new profession, and so on; and this continues to shift up to the time that one retires. Because to rising levels of industrialization and educational attainment, there are now more job options available to women. In addition, as a result of the worsening economic climate, it is now essential for both the husband and the wife to maintain employment in order to have a normal existence. In this rapidly expanding and competitive world, every available option for work is increasing; thus, enterprises need to establish a friendly culture where employees can balance their professional and personal lives so that they may maximise their potential. Only when an employer has a healthy work-life balance (WLB), she is able to be productive and provide her company her absolute best.

Components of Quality of Work Life: The task, the physical work environment, the social environment inside the organisation, the administrative system, and the interplay between life on and off the workplace are all important aspects in determining an individual's work life quality. Attention must be paid in order to comprehend and evaluate QWL, which is a multidimensional construct comprised of several interrelated aspects. It is connected to job satisfaction, job involvement, motivation, productivity, health, safety, and well-being, job security, competence development, and a good balance between work and non-work life, according to the European Foundation for the Improvement of Living Conditions.

Work Environment: An individual's workplace is their surroundings. Employees operate in a social and professional atmosphere where they are expected to engage with a variety of individuals and must, in some manner, coordinate their efforts. Good health, service continuity, and a reduction in unfavourable labor-management relations are all ensured by safe and healthy working conditions. A healthy employee records a high level of production. Employees are upbeat and self-assured, and they might prove to be a priceless addition to the company. It entails creating rational working schedules and creating safe working environments for the body and mind. By offering incentives, employment stability, and possibilities for professional advancement, the QWL fosters and encourages employee happiness. The QWL for academics offered five work environment domains—role stress, job features, supervisory, structural, and sectoral characteristics—that might impact academicians' experiences, attitudes, and behaviour both directly and indirectly. The task, the physical work environment, the social environment inside the organisation, the administrative system, and the interplay between life on and off the workplace are all important aspects in determining an individual's work life quality. QWL is an integrated improvement approach designed to improve the workplace and suit the unique needs of each employee.

Organization Culture and Climate: Organizational culture is a collection of characteristics. The collective conduct of those who adhere to an organization's beliefs, vision, standards, etc. is known as the climate. Promotional opportunities, criteria for promotions, and rewards are all directly controlled by an organisation and governed by its rules. If it is determined that these two factors significantly affect outcomes like Quality of Work Life, Organizational Commitment, Job Satisfaction, and Intent to Turnover, then that direct control allows for the required change to have a beneficial influence on those outcomes. The extent to which employees have the ability to make choices that affect their working environment is the quality of their work life. The quality of work life increases when people have more opportunities to make these choices. Staff perceptions of the quality of work life are significantly influenced by organisational aspects such as rules and procedures, leadership style, and general contextual variables of environment.

Relation and Co-Operation: Communication about workplace decisions, disagreements, and issue solutions between management and workers is known as relationship and collaboration. The form of interpersonal interactions becomes a significant aspect of quality of work life since job and career are often conducted

within the framework of social organisation. Without regard to ethnicity, sex, physical appearance, or other factors, a worker's acceptance is based only on his or her qualities, skills, and potential in the workplace. Sense of belonging to the organisation and social coherence inside the workplace. QWL is linked to job advancement, and professional growth results from such employee engagement inside firms. Human care may also boost employees' self-esteem and ability to succeed, helping them actively overcome challenges.

Compensation and Rewards: Compensation and incentives are aspects that may motivate people to work hard and accomplish both corporate and personal objectives. The top performers are awarded the prizes. People work because it serves their economic interests, and employee happiness is at least somewhat influenced by the pay package. Pay should be determined based on the tasks completed, the duties assumed, and the employee's unique abilities, performance, and achievements. The "fundamental aspects of a decent quality of work life" include a safe work environment, fair salaries, equal job possibilities, and prospects for promotion. Quality of working life was linked to satisfaction with earnings, hours, and working conditions. The employee's job happiness and performance would be abruptly impacted by the variations in the various parts of their compensation. Employees with stable employment and compensation will feel at ease at work, which has an impact on their quality of life. Fair remuneration and satisfying social needs may help establish a good working environment. According to the findings of the Work Life Satisfaction survey, the two most crucial factors influencing an employee's quality of work life were pay and autonomy..

Job Security: Employees like stable employment; they dislike being subjected to arbitrary personal rules and being at the mercy of their bosses. Another aspect that worries workers is job security. Employees benefit from the security and improved QWL that comes with permanent employment. In the modern workplace, a considerable degree of organizational change has been exposed by a drastic shift in the workforce. Employee loyalty, morale, motivation, and perceptions of job security have all been negatively impacted by organizational transformation such as downsizing, rightsizing, and outsourcing. Job security is the most contentious topic in the modern workplace, according to a 1996 poll by the Organization for Economic Cooperation and Development. The primary component of QWL, job security, is the ability of the company to provide secure, long-term employment despite changes in the workplace.

Autonomy of Work: Employees are given the flexibility to make decisions, and they plan, organize, and manage job-related activities in independent work groups. Additionally, it provides employees with a variety of options, such as the freedom to acquire important information for their job and independence at work. The QWL is a process through which a company reacts to employee requirements by creating tools that enable them to actively participate in the choices that shape their working life. More engagement is thought to encourage cognitive development via improved information transmission among workers, while greater autonomy on the job improves knowledge acquisition and usage.

REVIEW OF LITERATURE

Jeyaratham and Malarvizhi (2011)²⁰ discussed about the Working Conditions of Sugar Mill Employees in Erode District According to the study's findings, the main method for increasing the quality of work life is to first identify and meet employees' essential demands. As a result, the study concluded that an increase in the quality of work life leads to an increase in productivity, while dissatisfaction may occur as a result of a lack of recognition, tedious work, unhealthy peer relationships, poor working conditions, low self-esteem, occupational stress, heavy work load, monotony, fatigue, time pressures, job insecurity, job instability, and so on. According to the research, promotion procedures may be improved by assigning a grade for designation based on the workers' experience. Organizing meditation workshops and entertainment programmes for workers might help to reduce workplace stress.

Alireza et al (2011)²¹ researched on Relationship between Quality of Work Life and Demographic Characteristics of Information Technology Staffs Determine the relationship between QWL and demographics. As demographic determinants, the aspects of QWL employed as fair remuneration, secure and healthy environment, growth and security, social significance, life duration, social integration, development of human talents and age, gender, job experience income. Data was collected from 5 IT organisations with a total

of 292 workers, and ANNOVA was employed as one method of data analysis. The findings revealed that there is no significant association between gender and QWL, but a strong relationship between IT personnel and QWL, job experience and QWL, and income and QWL.

Ramesh Kumar et al. (2012)²⁵ in Their research aims to emphasise the need of implementing Work-Life Balance (WLB) policies for instructors teaching at various levels. The study investigates several aspects of WLB, particularly with regard to instructors at government and private institutions. Based on the empirical facts, the paper advises that WLB policies for teachers be implemented. The study's data was gathered from 100 instructors working in public and private schools, colleges, universities, and professional courses. The study's results suggest that WLB policies and initiatives for the teaching community are needed to help them balance their work and personal requirements. This research also attempted to uncover distinct personal objectives and their importance across different demographic groups, which might serve as the foundation for establishing WLB policies for teachers.

NEED FOR WOMEN WORKERS

Due to India's rapid urbanization and industrialization, traditional Indian culture is going through substantial changes in how it perceives the progress of women in the workplace. The proportion of Indian women employed in occupations that pay a wage has increased. The number of educational possibilities accessible to Indian women has significantly increased recently, especially in the context of urban environments. Urban regions are where this tendency is most obvious. This has opened my eyes to fresh viewpoints, made me more mindful, and motivated me to grow as a person. This, together with the pressures brought on by the economy, has played a big role in women's decision to enter the job. The degree of financial necessity in India is the main determinant of whether or not a married woman would look for job. Generally speaking, working women's outside employment has a positive rather than a negative impact on marriage, as well as the effects of family life on working women's performance at work and attitudes toward their occupations. However, contrary to what one would have expected, women who had younger children performed better than women who had older children. It was demonstrated that women who had children had a substantially lower level of professional commitment in contrast to women who did not have children. Although there was a strong correlation between family functioning, stress, and wellbeing, there was little doubt that the stresses related to job were more significant than those related to family function.

STATEMENT OF THE PROBLEM

Employees' bodies and minds are pressured by the demands of their jobs in India, particularly in terms of physical and mental health. When people are required to labour for extended periods of time, the stress connected with job grows. Their way of life has been disrupted, and there is a possibility that their mental health has been negatively influenced as well. The Mental Health Foundation is concerned about how many individuals miss essential aspects of their identity that will help them be robust or resistant to mental health challenges. The goal of this research is to understand more about the goals of workers who work for diverse companies, as well as how they successfully combine their personal and professional lives. Based on this information, it has been proposed that this research offer institutions with suggestions about work-life balance guidelines.

IMPORTANCE OF THE STUDY

There have been very few studies conducted in the Namakkal District that deal to the issue of staff members. There has been no effort made to establish an investigation committee to research the issue and determine the extent to which women are exploited in teaching positions. In addition, there has been no effort made to research the working lives of female teaching faculty members or their socioeconomic circumstances in any capacity. The purpose of this research, therefore, is to shed some light on the varied socio-economic situations and work lives of women teachers in the Namakkal District of Tamil Nadu by means of the findings of this study.

SCOPE OF THE STUDY

According to the present organizational layout of the majority of businesses, employees are expected to manage a sizable quantity of work in addition to a sizable level of responsibility over the course of their daily operations. The importance of working employees in ensuring that companies continue to fulfil their core mission makes it impossible to ignore the question of whether or not those employees are happy with the job they perform. The issue of work-life balance among employees has been the subject of a sizable amount of research, although the subject of employees' work lives has received far less attention. Consequently, the goal of this study is to ascertain how well their employees manage to keep a good balance between their personal and professional life.

PROBLEM STATEMENT

Kanthisree (2013), explored that managing a home while raising young children when both spouses are employed outside the home is challenging and stressful. Balancing one's work responsibilities and desires with one's responsibilities and interests outside work is, at best, challenging. While balancing work commitments with life commitments involves a myriad of trade-offs for two-income families with children, it also provides ongoing challenges for adults who remain single or do not have children. Mid-life workers often deal with balance issues from two ends of the spectrum; young children and ageing parents (Padma & Reddy, 2013). This issue, however, includes employees beyond those who have children. Many employees are choosing to stay unmarried, but still have critical and valuable commitments outside work. Therefore, there is a need to identify the factors affecting the work life balance of school teachers.

OBJECTIVES OF THE STUDY

The main aim of the study is

1. To analyze the demographic factors of the respondents in the study area.
2. To measure the level of satisfaction as perceived by the women respondent employees on the varied determinants of work life balance.
3. To identify the major factors that influences the work life balance among women teachers in the study area

RESEARCH METHODOLOGY

The researcher used both of the primary and secondary data. Simple Random sampling used to collect the data. The sample was employees' working in educational Institutions at Chennai and the sample size is 200

Personal Details

One of the most important factors in determining a person's work-life balance is their age. Age is a biological indicator of a person's physical and intellectual development. One of the most significant aspects influencing our decision-making in life is our age. Hence age has been classified in to five categories like 21-25 years, 26-30 years, 31-35 years, 36 - 40 years, above 40years. One of the key factors affecting a person's position in society is their marriage. Marriages elevate people in society and compel them to take on a variety of societal, family, and marital responsibilities. In our culture, marriage is seen as a vital sacrament without which it would be impossible to fulfil many social and religious responsibilities. In a traditional community, living alone was almost unimaginable. Marriage has historically been one of the key determinants of rank and lifestyle in traditional Indian culture. As a result, they may be divided into two groups: married women and single women. In the lives of working women, particularly teachers, education level is a significant aspect. It is necessary for their employment chances. Education improves a person's conduct and increases any businesses' and institutions' performance in the ever-changing environment.. For the purpose of the study educational qualification has been classified in to five categories like graduate, post graduate, doctorate, professionally qualified and other studies.

Table No: 1

Particulars		Number of Respondents	Percentage
Age	21-25	24	12
	26 – 30	64	32
	31 – 35	56	28
	36 – 40	40	20
	Above 40	16	8
Marital Status	Married	160	80
	Unmarried	40	20
Educational Qualification	Graduate	32	16
	Post-Graduate	108	54
	Doctorate	24	12
	Professionally	20	10
	Others	16	8

Source: Primary Data

The above table shows that, out of 200 respondents 32% of the respondent's falls under the age group of 26-30 years, 28% of respondents comes under 31-35 years, 20% of respondents were under the age group of 36-40 years, 12% of respondents comes under 21-25 years, remaining 8% of the respondents comes under above 40 years. Hence the majority of the respondents (32%) were in the age group of 26-30 years. The above table indicates that, out of 200 Respondents 80% of the respondents are married and 20% of the respondents were unmarried. Hence, the majority (80 %) of the respondents were in the category of married. The above table indicates that, out of 200 respondents 54% Respondents falls under the post graduate level, 16% of respondents comes under graduate level and 12% of respondents comes under Doctorate level and 10% of the respondents are professionally qualified and 8% of were in other category. Hence, the majority(54 %) of the respondents falls under the post graduate level.

EXPERIENCE

Experience refers to the information that people have acquired independent of their educational background. For the purpose of this study experience in years classified in to four categories like, below 5 years, 5 to 10 years, 11 to 15 years, and above 15 years.

NATURE OF FAMILY

The kind of family is a key factor in determining a household's style of life. For analysis, the nature of family was classified in to two categories viz., joint family and nuclear family.

MONTHLY INCOME

Humans' standard of life is determined by their level of income. In order to efficiently administer organizations and institutions as well as meet basic human needs, income is essential. For the purpose of raising their level of income, people invest money in businesses. The researcher attempted to assess the respondents' monthly income in this category. For this purpose the income level has been classified in to four categories like Below Rs.5000, Rs.5000-10000, and Rs. 10001-20000 and above Rs.20000.

Table No.2: Table Showing Experience, Nature of Family, And Monthly Income

Particulars		Number of Respondent	Percentage
Experience	Below 5 years	57	28.5
	5 to 10 years	100	50
	11 to 15 years	25	12.5
	Above 15 years	18	9

Nature of Family	Joint Family	34	17
	Nuclear Family	166	83
Monthly Income	Below Rs.5000	49	24.5
	Rs.5000 – 10000	128	64
	Rs.10001 – 20000	40	20
	Above Rs.20000	20	10

Source: Primary Data

The above table exhibits that, out of 200 respondents 50% of the respondents has 5 to 10 years of experience, 28.5 % of respondents has below 5years of experience and 12.5% of respondents has 11 to 15years of experience and remaining 9% has above 15years of experience. The above table indicates that out of 200 Respondents 83% of the respondents were under the nuclear family and 17% of the respondents are living together under joint family. Hence, the majority (83%) of the respondents falls under the nuclear family. The above table shows that, out of 200 Respondents 64% of the respondents earnings are above Rs.5000 – Rs.10000, 24.5% of the respondents were earning below Rs.5000, 20% of the respondents were earning Rs.10001- Rs.20000 and 10% of the respondents were earning monthly income as above Rs.20000.Hence, the majority of the respondents (64%) were earning above Rs.5000 – 10000.

Relationship between experience of the respondents and opinion on work-related conflicts of women employees The following table analyzes the relationship between the experience and opinion on work related conflicts of women employees, and Anova test was employed, and results and the tests are shown in the followingtable.

Table No: 3 (One Way Anova)

Experience	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below 5 years	57	2.8	0.679	0.07	2.01	2.33	1	3
5-10 years	100	1.89	0.672	0.067	1.74	1.97	1	3
11-15 years	25	2.7	0.564	0.102	2.38	2.83	1	3
Above 15 years	18	2.69	0.472	0.13	2.44	2.92	2	3
Total		2.17	0.712	0.04	2.03	2.23	1	3

Relationship between Experience of the respondents and Opinion on work-related conflicts of Women Employees

Table No: 4 (One Way Anova)

Particulars	Sum of	Df	Mean Square		
Between Groups	20.021	3	6.662	16.236	Significant at 5% level
Within Groups	79.979	195	0.413		
Total	100	198			

It is observed from the above table 4, that the calculated F value is greater the table value and the result is significant at 5% level. Hence the null hypothesis “experience and work related conflicts”, are accepted. From this, analysis it is identified that there is no work related conflicts based on respondents experience. Therefore there is no significant difference between the experience of the respondents and work related conflicts of working women teaching faculties.

CONCLUSION

The challenges of work-life balance have been brought to light by the growing range of family structures, including dual-career couples, single parents, nuclear families, and elder care duties. The interaction between work and life balance has become more complicated as a result of these cultural changes. The current research analyzed the influences on work-life balance components and the effects of a poor work-life balance. In the

Indian setting, women continue to shoulder the majority of household duties, while careers seldom take precedence. The survey found that the main variables that disturb work-life balance are excessive job pressure, meeting other people's expectations, and a lack of personal time. Working women thus often experience job burnout, high levels of stress and anxiety, and a lack of ability to reach their full potential. In-depth conversations with women also found that individuals who have flexible work schedules, effective organizational policies, and access to childcare facilities had better work-life balance. The results discussed above have implications for working women with a greater awareness of the causes of work-life balance disruption and the effects of having a poor work-life balance. It offers information on several recommendations made to management and working women to maintain a good work-life balance.

REFERENCES

1. Senthilkumar, S.Chandra kumar Mangalam and Manivannan, "An Empirical study on Teaching professionals work life balance in higher learning institutions with special reference to Namakkal District,Tamil Nadu",Bonfring international Journal of Industrial Engineering and Management Science, Vol. 2, No. 3, pp. 1-4, 2012.
2. Subha, "A study on work life Balance among Women Faculties working in Arts and Science college with special reference to Coimbatore city", Paripex- Indian journal of Research , Vol. 2, No. 12,pp.160-163,2013
3. Acganta, Raja (2004). The work life Balance.HRM Review March 2004, The ICFAI university Press
4. Frone,Michael R;Russel, Maria;Cooper,Lynne.M(1992) Prevalence of work family conflict :Are Work and Family boundaries asymmetrically permeable. Journal of organization Behaviour, Vol.21 No. 1, pp.9-11.
5. Reddy.N, Vrandam;Ahmed,Atiq;Nirmala (2010) Work life Balance among married women employees. Indian Journal of Psychological Medicine, NIMHANS, Bangalore.
6. Staines, Graham (1980).Spillover versus Compensation- A review of literature on relationship between work and non-work. Human Relations, Vol. 2(33), pp.7-9
7. Santhana Lakshmi and S. Gopinath Sujatha, (2013) "work life Balance of Women Employees- with References to Teaching Faculties", International Monthly Referred Journal of Research in Management and Technology, Vol. 2,pp. 53-62
8. Irfan and F.T.Azmi, "Work Life Balance among Teachers: An Empirical Study", IOSR journal of Business and Management, Vol. 17, No.2, pp.1-11,2015
9. Jeyaratham &Malarvizhi (2011)," Quality Of Work Life Among Sugar Mill Employees-A study in Tamil Nadu", ZENITH International Journal of Business Economics & Management Research, Vol. 1 Issue 3,December 2011,pp-89-96.
10. AlirezaBolhari et al (2011), The Relationship between Quality of Work Life and Demographic Characteristics of Information Technology Staffs, International Conference on Computer Communication and Management, vol5, IACSIT Press,Singapore
11. Ramesh Kumar, Miryala and Chiluka, Nagapriya, (2012) Work-Life Balance among Teachers (September 18, 2012). The IUP Journal of Organizational Behavior, Vol. 11, No. 1, pp. 37-50.

CONFLICTS OF ETHNICITY IN THE WORKS OF ARUDPRAGASAM'S THE STORY OF BRIEF MARRIAGE

Dr. Nancy Prasanna Joseph Dr. V. Jagadeeswari** Dr. Hemamalini****

**Associate Professor, Department of Career Development Centre,
SRM Institute of Science and Technology, Kattankulathur, Tamilnadu.*

***Assistant Professor & Head, Department of BA English,
Guru Nanak College (Autonomous) Velachery, Chennai.*

**** Assistant Professor of English,
Marudhar Kesari Jain College for Women, Vaniyambadi, Tamilnadu.*

ABSTRACT

This study examines the Sri Lankan civil war, which lasted for twenty-six years. An attempt is being made to focus on the postcolonial decadence of Sri Lanka's civil war between the minority Tamil Tigers (LTTE) and the majority Sinhalese Sri Lankan government. The State of Sri Lanka gained independence and subordinated its ethnic and religious minorities. In the analysis, it is clear that the Sri Lankan civil war was the result of a long-term conflict. The state collapsed in Sri Lanka after the end of colonialism. Dinesh's fictitious persona is the focus of the article. According to the research, the author's objective is to depict the extreme views of the Sri Lankan people in the novel. The Civil War was a purposeful endeavour to memorialise its devastations and enshrine them in the national consciousness. As a result, we have a "novelized testament" to Sri Lanka's worst era in history. Put the battle on the table finally for Tamils because of the Sri Lankan government's claim that Sri Lanka is a Sinhalese-only country. They have to locate a new place to dwell and restart their lives somewhere in the globe for survival than the state where they began their trip, Tamil Nadu. As a result, the Tamils of Sri Lanka are effectively stateless. In India, citizens and non-citizens, the conflict and Sri Lanka's bio politics were influenced by terrorism in the last 30 years. A feeling of unresponsive acceptance is explored in this work.

Keywords: Conflicts, ethnicity in the works and Marriage

Anuk Arudpragasam, winner of DSC award is a powerful narrator of the atrocities committed during the Sri Lankan civil war. When it comes to war, the finest writers aren't looking for the overtly brutal but rather the subtle ways life continues to flow despite the circumstances. While Sri Lankan writers in Sinhala and Tamil have chronicled the country's three-decade civil conflict in detail, English-language writers have lagged well behind their counterparts. Much too much of it takes the easy way out. It gives foreign readers a voyeuristic and ultimately unengaged validation of what they assume to be true about barbarous peoples in other nations. The bold debut "The Story of a Brief Marriage" of Anuk Arudpragasam takes the high path. An account of one refugee's experience escaping both government and Liberation Tigers of Tamil Eelem troops is depicted in lyrical terms. Sri Lanka went through a tumultuous period between 1989 and 2009 that is remembered in the annals of global history and Sri Lankan civil war history. The life of living is lost due to the historical occurrence on a vast scale. The Civil War claimed the lives of up to over 140,000 people (Raghavan 121), displacing an estimated one million people:

"Millions of Sri Lankan Tamils residing outside the country" (Hyndman and Amarasingam 560).

There was a core cause of the Civil War. By Bandaranaike's presentation of the Sinhala Only Bill in 1956 and its approval in 1961, generated a stir among the Tamil people in Sri Lanka. There were "the first-ever anti-Tamil riots" and a "rat-race" resulting from this event between the two major Sinhalese-Buddhist parties of Sri Lanka: The United States of America SLFP and the United National Party (UNP) (SLFP). While the Bandaranaike attempted, Chelvanayakam Pact (1957) and Senanayake-Chelvanayakam Pact (1965) were formed to counteract the looming threat of war. Despite the clamour of the civil war, nothing came of it. Sri

Lanka in the Modern Era is a study project by Wickramasinghe. According to *A History of Tamil Militancy, 1973–1977* were "the last years of Tamil militancy." Chelvanayakam led the acceptance of the Vaddukoddai Resolution in 1976 as the political party. "The dominance of extreme Tamil secessionism" is an often-used phrase (*A History*, 294). The year 1983 was marked by that, since independence, the Sri Lankan government has adhered to the theory of a unitary state. All of the Tamils, led by Vellupillai Prabhakaran, the group's teenage guerrilla commander, joined the Liberation Tigers of Tamil Eelam. The group used every kind of persuasion and coercion (LTTE) to escalate the long-running ethnic strife into a civil war in search of a Tamil Eelam, a state and territory of their own. In addition, he pointed out that the LTTE had established its control over large swaths of territory in Sri Lanka by 1987. Tamils dominate the populations of the country's northern and eastern regions. "Secret informers, mass arrests, and the government's style of dealing" became part of its strategy against its adversaries, and he detested the government's approach. Random searches, assassinations, massacres, disappearances, torture, and fear are examples of the violence that has plagued the country. *The Story of a Brief Marriage* by Anuk Arudpragasam portrays everyday lives of ordinary Tamil refugees as a place of enormous hardship and brutality in the latter days of the conflict between the Sri Lankan army and the Tamil Tiger rebels (*Conflict in Sri Lanka* (2009)). The novel's third-person narrative paints a picture of a ruined society. People suffered in a harsh environment during wartime. The novel's opening scene features the after being wounded by shrapnel, a six-year-old kid loses his leg and is described as "the oddest." As the writer revealed the details of the amputation, the picture became even more harrowing. The youngster had already lost a leg to the same shrapnel injury a glistening amputee's stump. The picture is projected with the goal of creating something like the glowing stump of an amputee. A picture of a kid whose right arm and leg had been severed leaves the reader perplexed. It is, nonetheless, the war's desolation. In Arudpragasam's mind, he imagines a more horrific combat scenario. As we bring to mind the pictures of ordinary Tamil refugees sheltering in overturned boats or canoes during the 4th of July celebrations, to a depth of six feet or more to avoid being hit by shrapnel, which may result in losing body parts and forming a mass. If a shell falls straight into their bunkers, they will be quickly buried in their trenches, which they conceal amidst the continuous loss of limbs and loved ones in a refugee camp of civilians. Arudpragasam, whose evenings and mornings begin with a set schedule of aircraft bombardment, views marriage as doomed, which is an unusual outcome under these circumstances but still a representation of human optimism and willpower. The protagonist of the tale Dineshkanathan (Dinesh), who has suffered due to the Sri Lankan civil war, he is promised marriage to Gangeshwari (Ganga). One of the thousands of civilians who have been forced to flee their homes due to the actions of Somasundarama central girls' school principal, Ganga's father, was forced to flee his home and family during the conflict. By his own belief that married women are less likely to be recruited by the Tamils. Camp—the Tigers and the Sri Lankan troops are less prone to rape tigers. He regards his daughter's marriage as a significant event in her life a key to her deliverance. The author's motivation looks quite positive; in other words, we might say that the author's explanation is positive. As there is an anticipation of an unusual occurrence, such as a marriage, representing hope and perseverance, it is motivating refugees like Tamilians, who are living in such appalling conditions, are losing their humanity. Dineshkanathan and his bride-to-be are getting married. Gangeshwari and Dinesh, the novel's protagonists (Ganga), have fled to safety as civilians from the Tamil Nadu region of India. He has been granted the chance to marry Gangeshwari despite her loss of family in the Sri Lankan Civil War. His mother was also separated from him during the mass exodus of Tamil civilians at Sri Lanka's southern coast. It wasn't long before he decided to leave the refugee camp, which had been torturing him for months. In the end, the Tamil Tigers were killed by the Sri Lankan Army. Throughout this time, he comes to terms with his situation that he started feeling like the world went quiet, like a silent picture, and as a consequence, the bombing frequently brought about a silence that lasted for a long time. At his former house, he was as peaceful as he was now. There were times when he was reminded of that existence, but only in fleeting, quiet visions. While the blasts leave a hushed quiet in their wake. The silences in Dinesh's recollection make his old life, before the conflict, more vivid. A severely dissociated experience of being at war as a result of this dual nature, he can express it in his relationships. Dinesh is taken off at first by Ganga's distant demeanour. The stillness between them, though, shifts with their moods and relationship. It was a far cry from the delicate and arduous stillness that had brought them together earlier instead of maintaining the tight stillness, they'd shared after their wedding, as they stood next to one

other. They noticed a difference in how the stillness made them feel: it was less oppressive. Dinesh's seclusion was shattered when Ganga suddenly appeared in his life. The author gives the reader a glimpse into the lives of those stranded in a makeshift camp amid pandemonium—the most ferocious expression on his face. A lack of security causes such civic unrest, and everyone feels the weight of that lack of security in particular by the ladies, particularly the unmarried girls. "If they came into touch with recruiters from the movement of troops from the government, they should portray a kind demeanour." After a year of marriage, the couple should be able to show a marriage certificate if necessary. As rape is a crime, they should pretend it was lost during the hamlet's evacuation while fighting takes place. According to "The Sri Lankan Civil War and Australia's Response" by Betts & Higgins, A Historical Case Study with Contemporary Implications: Migration Policy Response, thirteen troops were killed by the LTTE in the north itself a reprisal for the claimed rape of two Tamil schoolgirls. The disturbance started in Colombo and extended over the island, 'says a witness' (Betts & Higgins, 2017, 275). He intended to ensure that a perfect male would protect his daughter's virginity by finding a marriage partner for her. In light of the current Sri Lankan upheaval, he was already aware. It's a valuable tool. Dinesh is relieved. It seems that Ganga's experiences in this respect are significantly different, as she sees her mother's death and observes the same destiny for her sibling. It takes the Ganga some time to comprehend that her father has left her once and never returned for the benefit of everyone. Both have been forced to leave their families and their homes behind. As a result, Ganga accepts life as it is, without any emotion attached to it. As an example, consider the following: Instead, Dinesh walks outside to take a bath after his wife has gone asleep and starts to feel her presence. Ganga's corpse has been shattered and exploded after a lengthy period (number of days). I've got my shell. However, the majority of these individuals, including Ganga, dies. Even if they manage to get away on a boat, they'll meet the same tragic end as before. A war victim's effort to leave went somewhat like this:

For whatever reason, a tale from twenty or thirty years ago was still relevant today as an Abandoned fishing boat in India in the hopes of a successful surrender attempt. The ship was still there two days later. Numerous people and children were found shot to death inside, their corpses pallid and puffy as the boat arrived at the beach. (Arudpragasam, 2016, 11)

Politics has had a significant impact on both the Tamil and Sinhala communities. Sri Lanka was a country progressively dedicated to the Sinhalese culture. First, the Sinhalese language was given priority over other languages. Except for the Sri Lankan Tamils, the land was first granted to the Sinhalese peoples and the English. There has been a long history of prejudice and violence against the Tamil people. Since Sri Lanka's independence in 1948, many Sri Lankans thought the British had been crucial to the country's success. For Tamils, the mission schools they established in the north were beautiful. As they donated, they were able to see this impact as an opportunity for Tamils to work in government. When the British departed the land, they left behind a model of the country. Democracy that did not care much about minority rights utilised English as the official language. After all of this time, in 1956, the enactment of the official languages act known as the Sinhalese Only Act was made official. Government and education in Sri Lanka are now conducted in Sinhalese due to the Act. (Betts and Higgins, 2002) 2017 274) Following Sri Lanka's independence, according to Judith Betts and Claire Higgins, According to the 1953 census, the Tamil population in Sri Lanka was 11%, most of which resided in the North and East. The well-being of the Tamil population in Sri Lanka necessitated action. Unfortunately, a series of unfortunate events has rendered all attempts to safeguard and assist the local community ineffective because of the Sriperumbudur suicide attack that killed former Prime Minister Rajiv Gandhi. In India's Tamil Nadu, on May 21, 1991 Second, many Indian soldiers were killed or injured. When they helped arbitrate between the Sri Lankan government and the LTTE troops Sri Lanka's civil war ended, and the so-called campaign for a separate region was put to rest in 2009. Also, there was a time of conflict. Neither of the families who lost a loved one has been able to forget the 26 years of anguish and the authorities in place, who exercised unchecked jurisdiction over Sri Lanka's citizens. The novelist seeks to bring out those things that have faded in importance to the current generation, which has grown up without them. Values associated with American independence have been witnessed throughout history. Additionally, the work serves as a historical record for the island nation of Sri Lanka. Every episode in the story provides a clear picture of the victims and perpetrators of the crimes. Yuknavitch argues that the "novel has always been

ideally fitted to remember conflict" in the arts. And she embraces the power of war literature to extend "beyond the soldier's experience" as a communal memorial place. Tamil civilian casualties of Sri Lanka's civil war and other "dissimilar voices." Also, the Sri Lankan Civil War (125) is in their fictitious tales. Remembering a heinous wrong, in this instance. The fiction by Arudpragasam pays homage to the tens of thousands of Tamil civilians who perished during the Civil War. A 'novelised' method, serves as the mark of Cain that cannot be removed as it appears as an immortal memorial-Nayar's words- "testimony"-of the sin is even after being pardoned.

REFERENCES

1. Arudpragasam, Anuk. *The Story of a Brief Marriage*. London: Granta Books, 2016. Print. DeVotta, Neil. "Politics and Governance in Post-Independence Sri Lanka." In *Routledge Handbook of South Asian Politics: India, Pakistan, Bangladesh, Sri Lanka, and Nepal*. (ed.) Paul R. Brass. London and New York: Routledge, 2010. pp. 118–130. Print.
2. Edrisinha, Rohan. "Multination Federalism and Minority Rights in Sri Lanka." In *Multiculturalism in Asia*. (ed.) Will Kymlicka and Baogang He. New York: Oxford University Press, 2005. pp. 244–261. Print.
3. Freeman, Ru. "A Brave Debut Novel about the Sri Lankan Civil War." *The New York Times* 7 Oct. 2016. Web. 15 Feb. 2018.
4. Holt, John Clifford, (ed.) *Buddhist Extremists and Muslim Minorities: Religious Conflict in Contemporary Sri Lanka*. New York: Oxford University Press, 2016. Print.
5. Hyndman, Jennifer, and Amarnath Amarasingam. "Touring 'Terrorism': Landscapes of Memory in Post-War Sri Lanka." *Geography Compass* 8.8. 2014. pp. 560–575. Print.
6. Mohan, Rohini. "In the Midst of Brutal Violence, a Meditative Walk through a Man's Mind." *The Hindu* 3 Dec. 2016. Web. 15 Feb. 2018.
7. Nayar, Pramod K. *Postcolonial Literature: An Introduction*. New Delhi: Pearson Education, 2008. Print. ---. *Human Rights and Literature: Writing Rights*. New York: Palgrave Macmillan, 2016. Print.
8. Raghavan, Suren. "Ethnoreligious Nationalism and the Rejected Federalism of Sri Lanka." *Politics of Religion and Nationalism: Federalism, Consociationalism and Secession*. (eds) Ferran Requejo and Klaus-Jürgen Nagel. New York: Routledge, 2015. pp. 121-136. Print. Salgado, Minoli. *Writing Sri Lanka: Literature, Resistance and the Politics of Place*. New York: Routledge, 2007. Print. *Memorializing the Sri Lankan Civil War in Anuk Arudpragasam's The Story of a Brief Marriage* 139
9. Shapiro, Ari. "The Story of a Brief Marriage' Provides Intimate Look at Sri Lanka's Civil War." *NPR* 7 Sept. 2016. Web. 15 Feb. 2018.
10. Wickramasinghe, Nira. *Sri Lanka in the Modern Age: A History*. New York: Oxford University Press, 2014. Print. ---. "Sri Lanka's Independence: Shadows over a Colonial Graft." In *Routledge Handbook of South Asian Politics: India, Pakistan, Bangladesh, Sri Lanka, and Nepal*. (ed.) Paul R. Brass. London and New York: Routledge, 2010. pp. 41–51. Print.
11. Yuknavitch, Lidia. *Allegories of Violence: Tracing the Writing of War in Late Twentieth-Century Fiction*. New York and London: Routledge, 2001. Print.

HISTORIOGRAPHIC PRESENTATION IN THE WORKS OF SALMAN RUSHDIE

Dr. C. Shanmuga Priya Dr. M. Vijayalakshmi** Aliya Parveen A Mulla****

**Department of English, SRM Institute of Science and Technology
(Deemed to be University) Tiruchirappalli.*

*** Faculty in English, Department of English, Government Arts and Science College,
Komarapalayam, Tamilnadu.*

****Assistant Professor, Department of English,
Government First Grade College Khaza Colony Vijayapur, Karnataka.*

ABSTRACT

There are so many tales to be told about India's history, as well as its present and its future. It is correct to say that a country does not exist if its people do not consider it part of their consciousness. There is no such thing as a country in the physical sense; instead, it is the culture-soul that gives a nation its life and through which it communicates with us. Along these lines, Rushdie's "Midnight", novelists who write for children, are motivated to tackle this subject. Their works tend to centre on political and social issues—each nation's political and cultural climate. In this context, it has been taken two different works into account i.e., *Midnight Children* and *Quichotte*. The novel "Midnight's Children" is Salman Rushdie's reimagining of about seventy years of India's modern history, dealing with the events that led up to the partition of the country and much beyond. Within the scope of this book, a clear distinction between public and private threads may be seen. And this is what gives the narrative its sense of cohesion.

Keywords: *Historiography, Salman Rushdie, Cultural clashes, Politics, Partition.*

Author J. Mee thinks that current Indian literature and recent Indian history are concerned with rewriting modern Indian history and "the issue of who constituted the country." India's post-colonial settings have weighed heavily on Indian authors working in English, who have had to narrate and retell the country's story. There has been a rewriting of contemporary Indian history as a common issue in current Indian historiography, which means that both the historian and storyteller are complimentary. Unlike historians who write about the past, fiction writers write about human history. As a result, history and private life are inextricably linked, and there is no boundary between them.

Amitav Ghosh, Rohinton Mistry, and Vikram Seth followed in Rushdie's footsteps with their works of history. As Rushdie puts it, "everything has got to do with politics and the link between a person and history." He integrates "the individual component of society with the collective stream of history" in this manner.

The Post-Structuralist movement paved the way for literary and cultural historians to pore through various sources. Because historical events may only be inferred from writings and records, it is impossible to reconstruct them. One must avoid offending anybody when dealing with historical events in a nation with such a diverse cultural heritage as India. When establishing a specific event in history, one must take into account a variety of factors. The literary works and the textuality they contain established the foundations of history. I mean to suggest the cultural specificity and social embedment of all modes of writing by referring to the historicity of texts. Secondly, I mean to say that we cannot access a complete and authentic past, a lived material existence unmediated by the surviving textual traces of the society in question, and that those texts themselves are subject to subsequent textual mediations when they are construed."

(The Montrose 20) As a historian, Montrose advocates for a philosophy of history that focuses on the impact of external events on individuals. It is a total failure.

"The cultural and ideological representations in texts serve primarily to replicate, reinforce, and propagate the power-structures of dominance and subordination that define a particular society" (Abhrams 184).

As a result, history and literature do neither conflict nor complement one other. Both are thought to be the result of language. There is not a single historian who contends that history is only a representation of reality. Multiple historical identities were produced through the history of distinct cultures and nations. The premise of the day is that a country's history should be examined through the prism of different historical situations. Several ideas are entwined with the new notion of metahistory, including those of Barthes, Derrida, and Genette. This theory provides solutions to all historical representation concerns presented by historians. White's metahistorical theory proposes: "a theory of storytelling that draws a parallelism between history and literature." (1973:9)

By elevating the assessment process of texts to the point where one may be transformed into fiction, he furthers his notion of "historical text as literary artefact.

"Part of the explanation impact of histories comes from their effectiveness in creating tales out of just chronicles" (2001: 223).

People generally believe in history based on what they read in books or documents. A secondary evidence-based argument is made here. As a literary boost to all academic disciplines, historical events are transformed into historical fiction and included in the historical record. History is "abstracted, transformed, enhanced, and rendered realistic via representation of the associated context and psychology of the human world" by Rushdie, as it is structured in time and place or with facts and statistics.

An anthropologist's eye for detail and a historian's command of historical context, Amitav Ghosh is the most globally minded Indian English writer working today. He approaches his work with a storyteller's curiosity, mastery of storytelling techniques, and an abundance of creativity. Indian novels in English have seen a radical shift because of Salman Rushdie's "Midnight's Children." By collecting and collating odd objects from the past, the author attempts to convey the history of the world. An essential feature of post-modern fiction is the creative use of incomplete material to speculate about the past. In Rushdie's and Amitav Ghosh's works, history and private life collide, and reality and imagination coexist. Authors like Salman Rushdie and Amitav Ghosh use this strategy of blurring the line between private and public life to create global fiction. They use this self-generated method of autobiography and personal narratives to react to the country's diversity since India comprises various cultures, religions, beliefs, and faiths. In Rushdie's *Midnight's Children* and Ghosh's *The Shadow Lines*, national history is woven into human storylines. Public events and private lives are skillfully intertwined in each of the books. History has a hand in determining the individual fates of the main characters. Rushdie's *Midnight's Children* depicts the country through a child's eyes as a metaphor for India and its history. In *Midnight's Children*, Saleem, the main narrator, aligns himself with the destiny of his nation. At midnight on August 15th, 1947, India became an independent country. A native-born alien is helpless and unlucky in the face of time and the past. He lives a haphazard existence. In the middle of Saleem's existence is a perforated piece of paper, and he feels a void. The Indian-Pakistan conflict of 1965 reduced Saleem to a piece of history. The conflict has left him and his family in shambles. Throughout the story, the self-aware narrator, Saleem, shifts back and forth between historical events and his life story. He does not have a consistent self-identity; instead, he takes on several guises. He is a shard, yet he is whole. His inner existence is a product of the historical events that have shaped his current circumstances. Saleem is a very self-conscious storyteller. His life is an allegory for India's freedom, and Rushdie's Rushdie is an alter ego for that independence. With all his contradictory personality traits—aggressive and sly at times, strident and fatalistic at others—he is also a bit of a troublemaker. There are no full stops in the enormous paragraphs of the narrative he is writing in frenzied haste. This is a sign of his frantiness and uncertainty. In order to make his omniscient reports of a dozen separate lives and the country's life convincing as coming from a single witness, Rushdie is forced to give him superhuman eyesight and tremendous powers of intellect. A reference is made to the political disintegration of Indian politics in the past and present by Saleem's literally 'disintegrating and fissured body' from which history spills forth. In reality, the novel's topic and style are dominated by fragmentation, which is the misery of Indian society and politics. Through the perforated bed sheet, Saleem's

life spans from independence to the lifting of the emergency, but there are also delightful areas from the past that may be seen. Saleem is tied to history in various ways, real and symbolic, via several connections. It is not that he does not have an identity; instead, he is a microcosm of Indian society's fragmentation and plurality, as well as its muddled identities due to its many socioeconomic, religious, and geographic factors and ethnic groups. There is a vivacity about *Midnight's Children*, a *joie de vivre* that is infectious. Compared to a "magnificent circus show," it has the same impact on the senses. The vocabulary is as expansive and plentiful as a raging inferno. In terms of scope and diversity, the book's ability to illuminate the English language through metaphor, myth, and the sheer legalities of Indian writing, as well as its combination of radical aesthetic experimentation and political courage, made it a noteworthy intervention. Its style ranged from free-floating fantasy to murderous social invective. "*Midnight's Children*" has been described as a "fantastic epic of India," an "exuberant epic," a "multi-voiced combination," an "authentic history," and an "extravagant ecstatic book" that is "full of virtuosity," "excessively extravagant," and "full of virtuosity." There is no better example of the breadth and depth of the material that may be pulled together in one broad sweep than this. This is a complicated web in which Maya and Karma and Sufism and private/personal and public/political history of the Indian subcontinent are interwoven in this narrative of India.

Authors in the postcolonial period were embroiled in the controversy surrounding the politics of rewriting history while reducing the canon. Rushdie met a Cambridge literature professor in 1983, after his literary career had taken off, who pointed out to him that he had "a position on the fringe," according to Commonwealth Writer.

Rushdie, a few days later, since "Commonwealth literature does not exist," issued an article claiming authors from all across the world were inspired by a wide range of settings in *The People's Commonwealth of Pennsylvania* (Rushdie, 1992, p.61).

Rushdie, although knighted, is not considered a canonical writer.

"he would never" dawn on him at this point be orthodox" (Rushdie, 2019, p.215). It is simple for a writer to manipulate and distort history, infuse it with folklore, epics, and legends, and reshape its boundaries to the point that literature may be seen in it. When it comes to freedom of speech, Rushdie portrayed himself as Don Quixote to make fun of his chivalry. As described by Rushdie, the titular character in Cervantes's novel "*The Margins*." The guy is ludicrously out of touch, tenaciously out of step, and unquestionably out of sync with the times; what it means to be a modern-day immigrant writer is embodied in "thought" (281). Since the novel *Don Quixote* has been reworked, so has its history. *Quichotte*, Rushdie's fourteenth and most recent book, is examined in this article. First, it explains why Rushdie was so controversial and made a valiant effort to take on Cervantes, the man who established the book as a genre. An author who is a migrant wants the reader to situate him or her (Rushdie, 1992, p. 21). In his attempt to rework the traditional *Don Quixote*, Rushdie used various techniques, including hybridisation. The essay claims that Rushdie can alter the political, social, and cultural landscapes via this fictional canvas.

The loss of historical memory is traced back to a cosmopolitan Bombay before it was transformed into Mumbai, which Rushdie revives in his remembrance of Brexit, the historical erasure of Native American culture and enslavement, as well as the past imperial racism, the restriction on Muslim immigration, gun violence, the opioid epidemic, and media consumerism, are all examples. There are still a lot of unexplored areas of America, yet there is a patriotic and idealised narrative of American history. The official story is being told, and a global perspective is provided through the intertwining of Indian and American History via the Indo-American diaspora. Indeed, he equates his ageing self with the diminishing earth. Rushdie Sets up *Quichotte* and *Sancho* as a fictitious couple to claim that love might be a remedy to the inevitable end of history.

Rushdie began reading future science fiction while still an Eton student searching for inspiration. He needed a way out of his boarding school because of bullying from other students.

History was one of his later interests. In his first work, he tried his hand at science fiction. Rushdie rose to celebrity in the 1970s after writing a fictionalised account of postcolonial India's History. This was followed

by a political parody of the History of Midnight's Children (1981) and Shame in postcolonial Pakistan (1983). These pieces of historical metafiction are not the only ones. In *The Moor's Last Sigh*, Rushdie reinterpreted the history of contemporary Indian art (1995). The contemporary world's rapid pace of time travel and the significance of history have been at the forefront of his writing and skill.

Several tales from *The Arabian Nights* profoundly impacted Rushdie's life. It is all about how his youth in Bombay shaped his creativity. Human life is a race against death, and the only way to win is through ingenuity and innovation. When *The Satanic Verses* was published, Rushdie attempted to deal with the early criticism of his work. Islam's long history has only made him more acutely aware of life's value and the need to protect it. Rushdie equates the future with America and the past with oblivion in India, where he once roamed as a youngster. It is an attempt to compete with the release of *The Great Gatsby*, by Scott Fitzgerald, in 2017. Where "Suddenly lying and hate and racism became humorous" in Trump's America, "hilarious" (Garner, 2017).

Quichotte, a more strong follow-up, follows it. It is *Quichotte*, a parody of the modern guy who cannot think because he is always watching television. He no longer had a permanent residence, which is the pinnacle of contemporary mobility.

His residence was on the road, the "living room" of his automobile (9). When Rushdie employs the "mise en abyme" trick, he uses an escapist trick. Ismail and *Quichotte*'s mission is disguised as the narrative of another book created by the author. Sam DuChamp, a low-brow espionage novelist, wrote this. Mispronunciation of his name: "Sam the" Sham (25), making him a doppelganger of Marcel Duchamp, the famous conceptual artist. Later in the narrative, Marcel's son claims his father's heritage by taking on Marcel himself. Anachronistic remakes of *Pinocchio* as Sancho and the *Arabian Nights* genie as speaking bug *Grillo parlante*, able to miraculously manufacture banknotes, ID, and credit cards to aid the imaginative little child come of age in the consumer paradise of America, disturb the reader's literary world. The relationship between individuals and the history of the blue fairy is laid bare during the Sancho subplot.

"All of us are in two stories at the same time... Life and Times. There is our own personal story, and the bigger story of what is happening around us. When both are in trouble simultaneously, when the crisis inside you intersects with the crisis outside you, things get a little crazy." (351)

As he pursued a career as a writer, Padma Lakshmi ended their marriage. Two issues plagued Rushdie at the time.

Negative review. It would be great if every novelist's work could be compared to one another; as Milan says, "If the work of every novelist contains an implicit vision of the history of the novel, an idea of what the novel is" (Kundera, 1986, p. 9).

As a result, the post-independence period is a primary focus for these authors. Subcontinental realities are familiar to them, and they link man to the existential consequences of these facts. Partition, the emergency of 1975, and the anti-Sikh riots of 1984 were all cataclysmic events. The political and cultural realities of the time prompted these literary historians to develop a critical perspective on the period. The writers' diverse narratological excellence involves employing various techniques such as the power of imagination, fantasy, myth, and analogies. Violence, repression, abuse of religion, bigotry, lack of freedom, and faith are all themes in both stories. In his works, Rushdie uses imagination and fiction to reimagine historical events. He used the study of the ontological situation of man within the post-modernist framework where history is used, and every historical tale is seen as a form of a book,"

REFERENCES

1. Attar, F. (Reissue edition 1984). *The Conference of the Birds*. Penguin. (Original work published in 1177).
2. Blue, C. (May 6, 1996). *The Folger Perambulation*. *The New Yorker*. <https://www.newyorker.com/magazine/1996/05/13/the-folger-perambulation> Cambridge Dictionary (n.d.). Post-truth. In [dictionary.cambridge.org](https://dictionary.cambridge.org/fr/dictionnaire/anglais/post-truth). Retrieved October 30, 2020 from <https://dictionary.cambridge.org/fr/dictionnaire/anglais/post-truth>
3. Cervantes, M. (2003). *Don Quixote*. (Edith Grossman, Trans.). Ecco. (Original work published between 1605 and 1615).

4. Eliot, T.S. (1934). *Poems 1909-1925*. Faber and Faber.
5. Fukuyama, F. (1992). *The End of History and the Last Man*. Freepress.
6. Garner, Dwight. (Sept 4, 2017). Salman Rushdie's Prose Joins the Circus in 'The Golden House'. *New York Times*. <https://www.nytimes.com/2017/09/04/books/review-golden-house-salman-rushdie.html>
7. Hegel, G.W. (1975). *Lectures on the Philosophy of World History*. (H. B. Nisbet Trans.). Cambridge University Press. (Original work published in 1857).
8. Joyce, J. (1904. Reissued 2008). *Ulysses*. Project Gutenberg Ebook. <http://www.gutenberg.org/files/4300/4300-h/4300-h.htm>
9. Kasparov, G. (2008). *How How Life Imitates Chess: Making the Right Moves, from the Board to the Boardroom*. Bloomsbury Publishing. Kundera, M. (1986). *Art du roman*.
10. Nabokov, Vladimir (2012). *The Real Life of Sebastian Knight*. Penguin Books. (Original work published in 1941).
11. Obama, Barack (Nov. 16, 2020). 60 minutes interview. Retrieved from <https://www.cbsnews.com/news/barack-obama-60-minutes-interview-trump/>
12. Oliver, Tim. (March 14, 2017). *Theory and Brexit: can theoretical approaches help us understand Brexit?* Retrieved from <https://blogs.lse.ac.uk/brexit/2017/03/14/theory-andbrexit-can-theoretical-approaches-help-us-understand-brexit/>
13. Rajan, Rajeswari Sundar. (2000) *Righting Wrongs, Rewriting History?* *Interventions*, 2(2), 159-170. <https://www.tandfonline.com/doi/abs/10.1080/136980100427289> Rushdie, S. (1996). *Grimus*. Vintage. (Original work published in 1975).
14. Rushdie, S. (1982). *Midnight's Children*. Picador. (Original work published in 1981). Rushdie, S. (1984). *Shame*. Picador. ((Original work published in 1983).
15. Rushdie, S. (1988). *The Satanic Verses*. Viking.
16. Rushdie, S. (1992). *Imaginary Homelands*. Granta Books. ((Original work published in 1991).
17. Rushdie, S. (1995). *The Moor's Last Sigh*. Jonathan Cape.
18. Rushdie, S. (1999). *The Ground beneath Her Feet*, Jonathan Cape.
19. Rushdie, S. (2012) *Joseph Anton, A Memoir*. Random House.
20. Rushdie, S. (2015). *Two Years Eight Months and Twenty-Eight Nights*.
21. Rushdie, S. (2017). *The Golden House*. Jonathan Cape.
22. Rushdie, S. (2019). *Quichotte*. Random House.
23. Rushdie, S. (Autumn 2020). *Le grand entretien Rushdie. Propos recueillis par François Busnel*. America. 20-40.
24. Salmon, L. M. (Feb. 1912). *Why is History Rewritten?* *The North American Review*, 195 (675), 225-237, <https://www.jstor.org/stable/25119698>
25. Turkel, Stanley. (May 2006). *From Rags To Riches Part I: A Wonderful American Immigrant Success Story*. Hotel Interactive. Retrieved October 30, 2020 from: <https://ishc.com/wp-content/uploads/From-Rags-To-Riches-Part-I.pdf>
26. Vest, G.G. (August 27, 1891). *Doctrine of Session Existing*. *Abilene Weekly Reflector*. <https://chroniclingamerica.loc.gov/lccn/sn84029386/1891-08-27/ed-1/seq-1/>
27. Winterson, J. (Sept3, 2019). *Salman Rushdie Updates 'Don Quixote' for the Digital Age*. *New York Times*. <https://www.nytimes.com/2019/09/03/books/review/quichotte-salmanrushdie.html?searchResultPosition=9>

AN EMPIRICAL STUDY ON IMPACT OF EMPLOYEE RETENTION IN IT COMPANIES ON THE EMPLOYER BRANDING WITH REFERENCE TO CHENNAI CITY

Santosh Ram Pagare Dr. Venkata Harshavardhan Reddy Dornadula**
Dr. S. Kavitha****

**Professor, Department of Commerce, K.J Somaiya College of Arts,
Commerce and Science, Ahmednagar, Maharashtra.*

***Director, IT & ITES, Startups Mentoring Society,
Reddy & Reddy Colony, Tirupati.*

****Assistant Professor, Department of Commerce,
Padmavani Arts and Science College for Women, Salem, Tamilnadu.*

ABSTRACT

The technology market is overwhelmed making the bid for talented employees is higher and shows no sign of slowing down. Companies need to alter their strategies for attracting and keeping the finest employees. Information technology has levelled the playing field for nations and improved millions of people's lives. It's crucial for a nation to have strong IT capabilities if it wants to compete on the world stage and grow its GDP. India's internationalization has been greatly aided by the IT sector. The Indian economy has benefited greatly from the IT sector's expansion, and this sector's USP is its ability to provide IT services at reasonable prices. It played a key role in the nation's transition from an agrarian to a knowledge-based economy and had a huge impact on the social development of the nation. The study has the following objectives to study the retention strategies followed in the IT companies and to measure the impact of the strategies of retention of employees in the IT companies on the employer branding. This is an empirical study carried out in Chennai city. Employer branding helps the companies to improve and efficient management of the human resource in the IT sector. Recruitment and retention of employees are strongly influenced by the employer branding. In this view, 300 employees have been selected for this study based simple random technique. The primary data have been collected through the Google forms. The author concluded that the employer brand is authentic only if it reflects the business and enlightens its identity, mission and values.

Keywords: Employer Branding, Employee Retention, employer image, employer culture and IT companies

INTRODUCTION

For many years, there have been enough of employment and available skills to meet the demands of employers. India is fast assuming its proper position on the international scene. Indians are predicted to make up 25% of the global workforce by 2025, and this scenario may continue for the next 25 years till 2050. Both labour force optimization and corporate productivity depend on keeping personnel. Increasing retention rates and enhancing employer brands and reputations is crucial for most businesses since employee turnover often results in disruption, costs, and recruiting charges. According to the majority of studies, 3 out of 5 workers would quit their employment for a better offer. The smartest and brightest people are always in demand, even in the toughest labour markets. A greater focus is placed on organizational effectiveness and efficiency in the competitive economy, where human resources are crucial. Because human resources are essential to the business, the human resources manager's job is more dynamic and demanding than ever. Profitability is the goal of the company owners. The performance of each employee affects the organization's success; subpar performance is detrimental. A human resources leader's skills and the backing of the company's senior leadership are required to develop a comprehensive strategy to managing and coaching the workforce.

1. **Onboarding and orientation:** Every new recruit has to be prepared for success right away. In addition to the work, your onboarding process should educate new hires about the corporate culture and how they may contribute to and succeed in it. Don't shortchange this important initial action. The orientation you give new hires, whether in person or digitally, may set the tone for their entire employment with your company. Need to remotely onboard new employees? Make sure you have Trisha Plovie's onboarding checklist, which she created while serving as Robert Half's senior vice president for the future of work.
2. **Mentorship programs:** An excellent addition to your extended onboarding procedure, particularly in a remote work setting, is pairing a new hire with a mentor. Mentors may welcome new employees to the team, provide advice, and serve as a sounding board. And it benefits both parties since new team members get knowledge from seasoned workers while also providing their mentors with a different perspective.
3. **Employee compensation:** It's essential for companies to pay their employees competitive compensation, which means employers need to evaluate and adjust salaries regularly. Even if your business can't increase pay right now, consider whether you could provide other forms of compensation, such as bonuses. Don't forget about improving health care benefits and retirement plans, which can help raise employees' job satisfaction, too.
4. **Perks:** Offering benefits may help your company stand out to prospective new workers, re-engage your present workforce, and raise morale among staff members. Flexible schedules and remote work choices are the benefits that many professionals appreciate most, according to research for our Salary Guide. Additionally, a third of the professionals who responded to our study indicated that paid parental leave is a major benefit.
5. **Communication:** The transition to remote and hybrid employment has highlighted how crucial effective workplace communication is. Whether they are based on-site or remotely, direct reports should feel comfortable approaching you at any moment with suggestions, queries, or problems. Additionally, as a team leader, you must ensure that you are contributing in a good way to the team's overall goal of fostering timely, constructive, and effective communication. A team member's workload and level of job satisfaction, make sure to actively engage with them on a regular basis.
6. **Continuous feedback on performance:** The yearly performance review is being replaced with more regular meetings with team members by many businesses. Discuss your workers' short- and long-term professional objectives during these one-on-one sessions, and assist them in imagining their futures with the business. While it's never a good idea to make promises you can't fulfil, go through prospective professional progression situations with a partner and develop a practical strategy for achieving your objectives.
7. **Training and development:** Identifying opportunities for professional progress, such as the need for learning new skills, as part of offering ongoing feedback on performance. Nowadays, with the way we work being continually altered by technology, it's more crucial than ever to upskill your staff. People who up skill acquire new skills as the demands of the workplace change. Make supporting employees' professional growth a top priority. Give them time to participate in online conferences, pay for their continuing education, or reimburse them for their tuition. Don't overlook succession planning either, since it may be a very successful strategy for enhancing leadership abilities and professional growth.
8. **Recognition and rewards systems:** Everyone wants to feel valued for their efforts. And an employer's appreciation may have a particularly significant influence on today's "anywhere workforce." Therefore, make sure to commend your direct reports for going above and above and highlight how their efforts benefit the company. Some businesses create formal incentive systems to encourage creative thinking and innovation, but even with a small staff or little budget, you may implement effective recognition programmes.
9. **Flexible work arrangements:** Many companies understand that even though they have reopened their offices, some of their employees still prefer to work remotely, at least part-time. Not having that option

might even spur employees to resign. A recent Robert Half survey found that half of professionals working from home would look for a new job if they were required to return to the office full time.

10. **Effective change management:** Beyond all the recent disruption due to the pandemic, every workplace has to deal with change, good and bad. And employees look to leadership for insight and reassurance during these times. If your organization is going through a big shift, keeping your team as informed as possible helps ease anxieties and manage the rumor mill. Make big announcements either individually or in a group call or meeting, and allow time for questions.

NEED FOR THE STUDY

Employers' "efforts to establish an atmosphere that engages employees for the long-term and guarantees that they retain attractive people in order to fulfil commercial goals" are referred to as "retaining talent." Therefore, it is accurate to say that Information technology organizations have lately given employee retention more attention. The information technology industry in India has helped to fulfil its duties as the country's economy's most reliable growth generator. Service, software exports, and BPO continue to be the sector's mainstays. The IT and ITES sector has seen rapid growth over the last several years. Different national and state government agencies have provided standard operating procedures (SOPS) for the sector in recognition of the significance of IT and its role in the growth of India. According to several assessments, Chennai alone contributes to around 15% of India's software exports. With a specific emphasis on information technology workers, the current research was done to analyze the numerous aspects that affect employee retention and to test a framework for improving retention of these experts. This study will enable the organization to take the necessary steps to improve employee performance, increase their satisfaction and intention to stay with the company for a longer period of time, and increase overall productivity of the organization by letting them know the current level of intention of employees to stay with the company.

SIGNIFICANCE OF THE STUDY

In a fast changing globalized Information technology economy, it is very difficult to find and recruit a right kind of people. But more critical and challenging job is retaining the people with the organization. This is especially in the case of Information technology companies. The growth and success of any organization depends on its employees. Attracting the talented employees is not a problem with information technology companies but to retain employees is the biggest challenge. Around the world, the concept of employee retention has become very important during last decade and various research surveys shows that employee turnover in Information Technology companies is very high compared to all other industries. Due to its significance in improving workplace performance and profitability much interest has been shown towards employee retention. Retention of employees is a very critical issue facing information technology companies as a result of shortage of skilled labour, economic growth and employee turnover. Numerous studies have been conducted using Information Technology employees as the subjects in Human Resource Management (HRM). Many research studies suggested various strategies for retaining employees. But the role of employee retention in work performance has not explored extensively. This study focuses on factors that affect retention of employees and impact of employee retention on their work performance

STATEMENT OF THE PROBLEM

Information technology as a sector has grown considerably in past decade in India and made its presence felt worldwide. This emerging sector has its own human resource challenge that needs to be identified. One among them is high turnover rate of Information technology employees. Turnover basically arises from the unsatisfactory job place for individual employee. But being unhappy in a job is not the only reason why people leave one company for another. If the skills that they possess are in demand, they may be lure away by higher pay, better benefits or better job growth potential. That's why it is important to know and recognize the difference between employees who leave the job because they are unhappy and those who leave for other reasons. There are number of factors that contribute to employee turnover though there are number of reasons for leaving the organization, interventions to control is difficult. The scarcity of the employees, the competition among the Information Technology companies for the talented employees, the growing global

market for the Information Technology companies Products and the client's requirements, the Information Technology companies are in search of new and newer strategies to retain their employees. Critical analysis of workforce trends points to an impending shortage of highly-skilled employees who possess the requisite knowledge and ability to perform at high levels, meaning that organizations failing to retain high performers will be left with an understaffed, less qualified workforce that ultimately hinders their ability to remain competitive. Instead, it is better to implement retention strategies for employees so that they are retained in the organization for a longer period of time. Therefore, it became important to address this problem, and examine the factors that affect employee retention and also analyze how it is increasing overall productivity of the organization.

OBJECTIVES

The study has the following objectives

1. To study the retention strategies followed in the IT companies
2. To measure the impact of the strategies of retention of employees in the IT companies on the employer branding

METHODOLOGY

This is an empirical study carried out in Chennai city. Employer branding helps the companies to improve and efficient management of the human resource in the IT sector. Recruitment and retention of employees are strongly influenced by the employer branding. In this view, 300 employees have been selected for this study based simple random technique. The primary data have been collected through the Google forms.

FINDINGS

Socio-Economic Characteristics

The study is indented to analyze the employer branding in the IT companies and the influence of the retention strategies on the employer branding. The opinion of the employees towards the employer brand values is measured. Their opinion of the employees may differ based on the nature like age, gender, educational status, experience and the income. In this context, the details of the respondents are summarized below.

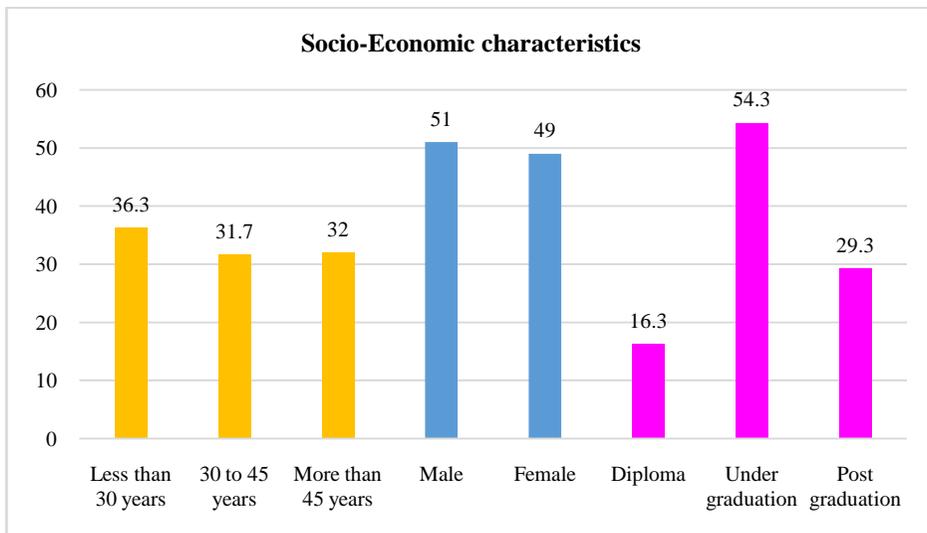
Socio-Economic characteristics		N	%
Age group	Less than 30 years	109	36.3
	30 to 45 years	95	31.7
	More than 45 years	96	32
Gender	Male	153	51
	Female	147	49
Educational Qualification	Diploma	49	16.3
	Under graduation	163	54.3
	Post graduation	88	29.3
Experience	Below 5 years	110	36.7
	6 to 10 years	92	30.7
	More than 10 years	98	32.6
Income Level	Less than Rs. 1 Lakh	106	35.3
	Rs. 1 Lakh to Rs. 2 Lakhs	101	33.7
	More than Rs. 2 Lakhs	93	31
Desination	Senior Level	104	34.7
	Junior Level	100	33.3
	Middle Level	96	32

Domain Area	BFS	55	18.3
	Insurance	52	17.4
	Manufacturing	55	18.3
	Health care	51	17
	Logistics & SCM	45	15
	Others	42	14
Total		300	100.0

Age is a key demographic factor in research on retention. Chronological age is often used as a stand-in for age-related differences in human development (Physical, social, emotional and cognitive). The experiences of the respondents differ according to their age, and these experiences have an impact on how they see the world. Age often signifies a person's degree of maturity, thus it becomes more crucial to look at the reaction when considering age. TheTable 1 shows that most of the respondents (31.7%) belong to the age group between 30 years and 45 years, 96 (32.0%) respondents are aged more than 45 years 109 (36.3%) are aged less than 30 years.

While age and skill diversity in the workforce has always been to some extent present, gender diversity has greatly increased during the last several decades. The emergence of a vibrant, competitive global marketplace has resulted in a noticeable rise in the number of women in the labour force. Given the variety of the workforce by gender, it becomes sense to infer that there may be variances in opinions and attitudes, which justifies looking at gender demographics. 153 (51%) respondents are male and 147 (49%) are female.

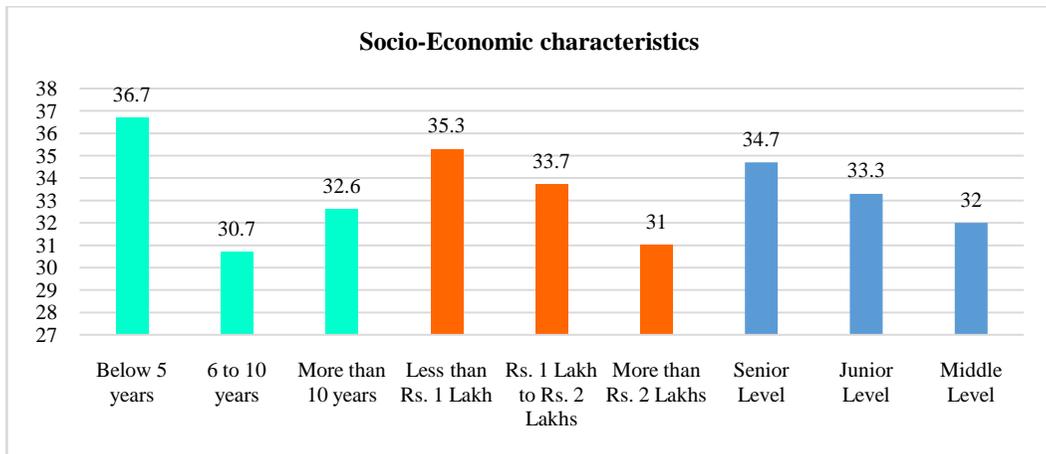
One of the key factors that might influence someone's opinions is their level of education. It is essential to comprehend the respondents' educational backgrounds since each person's answer is likely to be impacted by their educational standing. To identify the educational background and its impact on Employer Branding, which will result in Employee Retention, information is collected from respondents in three scales, viz., UG, PG and Professional. Majority (54.3%) of the respondents is under graduates and 29.3% of the respondents are post graduates.



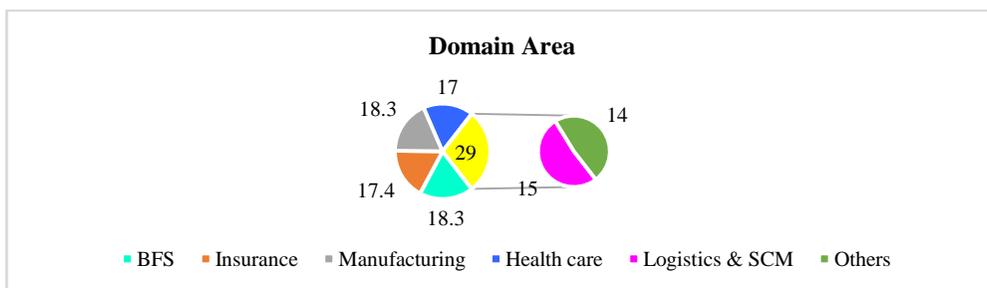
As they develop expertise in their industry, employees' assessments of their work experiences change. As a result, this variable was selected for use in this research as a demographic variable. The distribution of IT workers in Chennai according to level of industry experience is shown in the table below. The length of time a person spends working for a company serves as a proxy for their connection with that company. Shared knowledge and experience get more developed the longer a person works for a company. This demonstrates the effectiveness of the organization's retention tactics. To establish the number of years of experience with their current organization, information was collected under three categories: below 5 years, between 5 and 10 years, above 10 years Level of experience shows that 92 (30.7%) respondents have experience between 6 to 10

years, 110 (36.7%) respondents experienced less than 5 years and 98(32.7%) respondents have more than 10 years of experience

In light of their experiences, which represent the accumulation of knowledge, abilities, skills, and social capital relevant to a certain sort of job or line of work, workers' designations might be regarded to be significant. Employee perspectives may differ depending on the degree of work they have. For instance, top level personnel could see a procedure from an entirely different angle than a lower level employee would. Hence, designation is considered in this study as an important demographic variable. Details of Designation are collected under three categories namely senior level, Middle level and junior level. From the above table, it is found that 34.7% of the sample IT employees belong to the senior level, 33.3% belong to Middle level and 32% belong to junior level.



The IT industry has different business verticals also known as domain areas. Employees work in different domain areas. The major domain areas are Banking and Financial Services (BFS), Insurance, Manufacturing, Healthcare, Logistics and Supply Chain Management (SCM). The table above indicates that 18.3% of IT employees work in the BFS and Manufacturing area, 17.4% in Insurance, 17% in Health care, 15% in Logistics and SCM and 14 % in areas other than the ones mentioned. Mostly, the employees remain in their domain area as they build their competencies in their domains. The ‘others’ category in the above table includes domain areas such as retailing, education.



RETENTION STRATEGIES OF THE IT COMPANIES

IT workers often have advanced degrees and are intelligent and skilled. One of the finest service sectors for producing a lot of jobs and foreign cash. They have a competent and efficient human resource management division, which develops a competent employee retention plan. The study's main focus is on retention and employer branding strategies for IT organizations.

Salary	No of Respondents	Percentage
Career advancement	29	9.7
Continuous feedback on performance	22	7.3
Employee compensation	23	7.7
Feeling overworked and/or unsupported	19	6.3
Flexible work arrangements	25	8.3
Mentorship programs	33	11
Onboarding and orientation	19	6.3
Perks and benefits	28	9.3
Recognition	17	5.7
Supportive work environment	30	10
Training and development	31	10.4
Work-life balance	24	8.0

The following retention strategies are looked at in light of respondents' perspectives. Among other things, Mentorship programs (11%) followed by Training and development (10.4%) and Supportive work environment (10%) are first three highest percentage measured the respondents' perception of the various retention techniques used by IT organizations.

CONCLUSIONS

Employee turnover is a major problem in the industry. The main causes of turnover are pay satisfaction, other benefits obtained from the company and alternative employment opportunities. The employees were also curious about their work environment and the working atmosphere. Employee turnover effects the organization as well as the other employees who were part of it. It increases the workload of the other employees. The firm may experience difficulties as a result of lower production and a scarcity of trained workers. It also causes challenges in teamwork and might make it difficult to manage the task. Client dissatisfaction leads to less work progress, which in turn leads to a rise in building costs. As a result, organizations should promote an environment that encourages adequate possibilities for advancement, gratitude for completed work, and a pleasant cooperative climate that makes an employee feel linked to the firm in every way. Currently, it appears that not enough importance is being attributed to this concept. In an economic climate where business is tough there is pressure to cut costs and increase productivity. This arouses the need to get the right people in the right job which is even more crucial. Employer branding then becomes the only strategy, which helps in positioning the organization as the most attractive one in the corporate ecosystem. An attractive employer is the one who creates the image that there are no choices for their employees outside the organization and thus being the most desirable employer for potential employees. So in a marketplace like India, where there are high attrition levels, employer branding is very important as it provides a prevalence to attract and retain top talent. The employer brand is authentic only if it reflects the business and enlightens its identity, mission and values. This can only happen if the process of building employer brand initiates within the people of the organization and not just when recruiting. Companies will gain an emulous advantage by taking a long-term approach of investing in employer branding and developing their brands aligning to their future business needs.

REFERENCE

1. Foong-ming, Tan(2008), "Linking Career Development Practices to Turnover Intention: The Mediator of Perceived Organizational Support", *Business and Public Affairs* Volume 2, Issue 1, , pp.6-9.
2. Henry Ongori, (2007), "A Review of The Literature On Attrition Rate", *African Journal of Business Management* pp. 049-054. :
3. Indranil Banerjee (2008), "Attrition: From Corporate Nightmare to Competitive Advantage " *HRM Review,* ICFAI University Press, Hyderabad, pp.68-72
4. Jnana Ranjan Pati (2009), "A Study on Employee Attrition and Retention in BPO Sector" *Project report of IILM Institute of Higher education,* Gurgaon, pp.3-5

5. Mohan and A. Astalin Melba(2015), “A Study on Women Employee Attrition in IT Industry with Special Reference to Techno park, Thiruvananthapuram”, *International Journal of Management Research & Review*, Vol. 5 Issue 7,pp 528-534
6. Muhammad Aminu Bawa and Muhammad Jantan (2005),“Human Resource Practices as Determinants of Attrition Rate: An Empirical Investigation”,*Asian Academy of Management Journal*, Vol. 10, No. 2, pp.69-80.
7. Raon V.S.P (2011), “Human Resource Management, Second Edition, *Excel Books*”, New Delhi.
8. Saira Yousaf (2014),“Factors Affecting Retention of Female Employees in Organizations”, *Journal of Basic and Applied Scientific Research*, Vol.4 Issue 7, pp .98-106.
9. Sharda Singh(2017), “Women Workforce Attrition Dynamics in Indian IT/ITES Sector”, *The Qualitative Report*, Vol. 22 Issue 5, pp 1211-1226
10. Sharma A.M.,(2010), “Understanding Wage & Compensation System”, Tenth Revised Edition, *Himalaya Publishing House*, Mumbai.
11. Zeynep Ton, Robert S. Huckman,(2008), “Managing the Impact of Attrition Rate on Performance”: *The Role of Process Conformance*, Vol. 19, No. 1, pp. 56-68.

A STUDY ON INVESTORS PERCEPTION TOWARDS ONLINE TRADING

Kumar. S Kiran. J***

**Assistant Professor, Department of Commerce, Government First Grade College,
Tarikere, Chikkamagaluru.*

***Assistant Professor, Department of Management, Government First Grade College,
Tarikere, Chikkamagaluru.*

ABSTRACT

Online trading can be done by process of an individual and traders buying and selling securities over an electronic network with a brokerage. The study aims to identify the preference of the respondent towards online trading in Kerala. Online trading has developed as one of the biggest and simplest methods to invest in shares by the investors. The main aim of the Study was to examine the opinion on Charges imposed for Trading and to overview the investors preference towards Online Share Trading. The study on the investors' perception towards online share trading a study in Kerala with 250 sample respondents who have been selected using convenient sampling technique. The data from the selected sample respondents have been collected through the Google forms. Results exhibited that more number of investors find the order management as an easy process. Results also revealed that investment tips and confidence of investors on the trading system are the important factors motivating online share trading. The research concluded that there are lots of challenges there are overcome by a successful implementation of online share trading.

Keywords: Online Trading, Shares, Investors, Firm, brokers, stock exchange, etc

INTRODUCTION

The stock market is an important aspect of a country's economy. It is extremely important since it contributes significantly to the expansion of industry and commerce, which in turn promotes the total growth of the economy. As a result, the government, industry, SEBI, stock exchanges, and the country's central bank all keep a tight eye on what happens in the stock markets. From the perspectives of both industries and investors, stock markets are necessary and significant. Recent events show that stock markets are the most potent and vital medium for stimulating and promoting economic progress. Many good ventures require a long-term investment of capital, but investors may be hesitant to give up control of their savings for an extended period of time. Liquidity is the most essential and desired benefit that equity markets provide, making investments more appealing. The Indian stock market responds to changes in global markets in an unpredictable and volatile manner, particularly changes in global crude oil prices, commodities prices, and foreign institutional investor (FII) participation in Indian stock markets. India has had rapid economic growth in recent years, resulting in huge inflows and outflows of cash by foreign institutional investors (FIIs) into the Indian market. These findings shed light on how online trade platforms work and how they satisfy their customers. Its goal is to find out what investors think about online stock trading and to determine the current level of service provided by suggesting areas that need improvement. These inflows and outflows of foreign funds induce uncertainty and volatility in the Indian stock markets, as well as fluctuation in exchange rates.

PREFERENCE TOWARDS ONLINE SHARE TRADING – AN OVERVIEW

The allocation of monetary resources to assets that are projected to provide a positive return over a specific period of time is known as investment. These assets include anything from safe investments to risky investments (also known as financial investments). People who invest their money are called "Capital Suppliers" because they commit their money to earn future income in the form of interest, dividends, rent, premiums, pension benefits, or an increase in the value of their initial capital. It makes no difference to a financial investor whether money is invested for productive purposes or for the acquisition of secondhand

instruments like existing shares and stocks listed on stock exchanges. The majority of investments are considered to be financial asset transfers from one individual to another. The financial services sector is facing severe obstacles in gaining a better grasp of the perceptions of investors involved in online share trading. Lack of knowledge about the best available financial services products, recurring scams despite strict rules and regulations, erratic volatility, and punishments inflicted on market intermediaries indulging in non-compliance of rules and regulations, among other factors, have shattered the confidence of online share traders to a significant extent. Investors engaging in financial products through online share trading have a negative opinion of regulatory authorities such as SEBI's ability to exercise absolute control over the operations of intermediaries, as well as unclear government policies and legal loopholes. Despite these ongoing issues, investors favour online stock trading.

REVIEW OF RELATED LITERATURE

Rajarajan (2011) found that there was a correlation between the number of people living in a home and the amount of money spent, earned, and invested. The active investor group was controlled by officers, the individual investor group was dominated by clerical cadre, and the passive investor group was controlled by professionals. The rate of return that was anticipated from investments differed depending on the investing strategy. According to the findings of the research, factors such as the market performance of the shares, the operational level of the firm, the performance of the company's capital, and the expectations of the investors all have an effect on the investors' perception of risk.

MandakiniGarg and KamnaKatiyar (2013)¹ carried out in various locations in order to expand the practical understanding of online share trading, and they recommended that retail investors concentrate on steady income and regular investments. They also focused on the need of having a variety of commercials that should be broadcast across a variety of media, such as TVs, radios, and newspapers.

Bhuvanam and Sivarethina Mohan (2015)² concluded that ease of use, followed by customers' goals about their behaviour, and perceived utility are the three factors that most strongly predict how consumers will opinion about online share trading. According to the findings of this research, perceived trust and security were the least effective predictors. Customers' conceptions of their own level of privacy were negatively affected by their experiences with online stock trading. The results also showed a vast majority of respondents are in agreement that online trading platforms have the technological ability to guarantee that the data cannot be manipulated by any third party.

Jeet Singh and Preeti Yadav (2016)³ emphasized that most male and female investors consider past dividends paid by companies when investing in equity shares, past bonuses paid by the company to its shareholders, give more weight to advice given by friends and relatives, look for the security of their investments, look for the efficiency and capability of the company's management, and get motivated by successful share investors

IMPORTANCE OF THE STUDY

The majority of Indian investors tend to be more conservative in their investment strategies. However, only a small percentage of potential investors choose to put their money into these high-risk ventures in the belief that they would provide a larger return. The amazing expansion of this high-risk market in the last twenty years may be attributed, in large part, to the expansion of the online trading system offered by the National Stock Exchange (NSE), which has taken India by storm in recent years. Even though a number of studies have been conducted on the topic of online trading, the industry will always have a requirement for new and additional studies because of the ever-evolving nature of its political, legal, economic, and global conditions, as well as changes in the perception and behaviour of investors, the development of technology, and the

¹ MandakiniGarg and KamnaKatiyar, 2013, "Customers' Perception towards Online Share Trading in Kanpur", Periodic Research, Vol. II, No.1, August, 1 - 4

² Bhuvanam S. and Sivarethina Mohan R., 2015, "A Study on Customers' Behavioral Intentions towards Online Trading System in Tiruchirappalli City", International Journal of Management, Vol. VI, No. 4, April, 19 - 34.

³ Jeet Singh and Preeti Yadav, 2016, "A Study on the Factors Influencing Investors Decision in Investing in Equity Shares in Jaipur and Moradabad with Special Reference to Gender", Amity Journal of Finance, Vol. I, No. 1, 117 - 130

effectiveness of brokers. The current study focuses on the preferences of investors toward the online share trading system at NSE, investors' perceptions on order management processes at NSE, investors' opinions regarding the fees charged at NSE for various transactions, factors motivating the investors to prefer online share trading and the investors' opinions on the importance of those factors, investors' satisfaction on online share trading regarding trading procedures, charges, facilities, and benefits, and the major telecommunication companies.

STATEMENT OF THE PROBLEM

The success of an online trading system is dependent on a variety of factors, including the efficiency with which investors handle their orders and ensure that there are no errors, the promptness and accuracy with which price and investment information is provided to investors, the fees that are charged for various transactions in online trading, and so on. Depending on their experience and level of education, individual investors face a variety of challenges while engaging in online share trading. In online trading, two of the most important questions to ask are whether or not investors are allowed to make investments according to their own preferences, and whether or not all orders are carried out only after receiving consent from investors. When investors engage in online share trading, the greater the number of technical and other challenges they experience, the lower their level of satisfaction will be, and vice versa. Ensuring satisfaction of investors with the online trading procedures, online trading charges, online trading facilities and online trading benefits offered is the primary need of the day to keep the growth momentum of stock market and to increase the returns of investors.

OBJECTIVES OF THE STUDY

The main aim of the Study was

1. To examine the opinion on Charges imposed for Trading: Descriptive Analysis.
2. To overview the investors preference towards Online Share Trading.

RESEARCH METHODOLOGY

The study on the investors' perception towards online share trading a study in Kerala with 250 sample respondents who have been selected using convenient sampling technique. The data from the selected sample respondents have been collected through the Google forms.

The profile of the investors are the information about the respondents and their association with online share trading behaviour and the market conditions of the investments in online trading. The present study includes the profile of respondents like gender, residential city, level of education, occupation, marital status, family size, personal income, and number of earning members per family, family income and years of experience and the like. The investment behaviour of the investors is examined through a discussion on the factors leading to investment preference, sources of finance, awareness of investment, risk factors to invest money in online share trading and the problems faced by the investors while investing money in online trading and the prospects of online trading and so on.

FINDINGS

Nature of the sample respondents

The study has been conducted with 250 sample respondents from different categories. The age, gender and annual income of the respondents are considered as nature of the customers of the banks in the study. They are given in Table 1.

Table 1: Demographical nature of the respondents

Nature		N	%
Age group	Below 25 years	94	37.6
	25-40 years	101	40.4
	Above 40 years	55	22.0
Size of the Family of the Investors	Upto 3 Members	78	31.2
	3 – 4 Members	127	50.8
	More than 4 Members	45	18.0
Total		250	100.0

The Table 1 depicts that 101 (40.4%) respondents are from the middle age group (25-40 years), 94 (37.6%) are from young age group (less than 25 years) and 55 (22.0%) respondents are aged more than 45 years. the size of the family of the investors, 66.20 per cent of the investors have up to 3 members in their families, 22.44 per cent of them have 3 to 4 members and the remaining 11.36 per cent of them have more than 4 members. It is inferred that a vast majority (66.20%) of the investors belong to families up to 3 members.

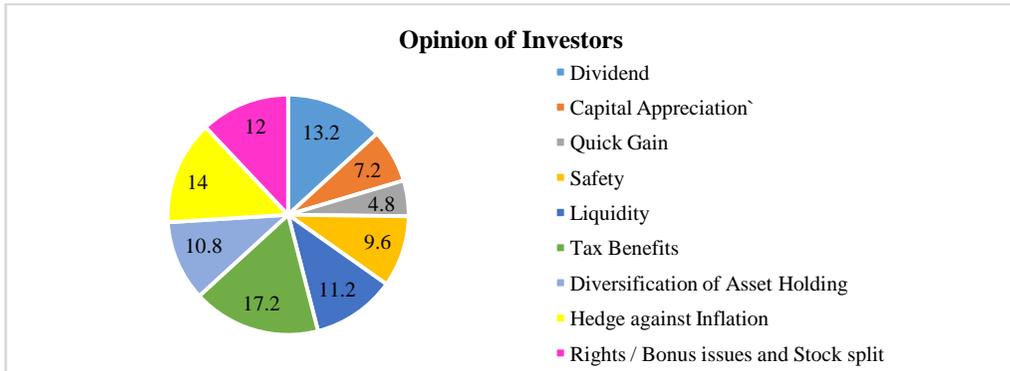
OPINION OF THE INVESTORS ON SOME OF THE OBJECTIVES OF INVESTMENT IN ONLINE TRADING

The main aim of the investors is to bet more benefits from short-term investments in online trading. This attitude is leading to online share trading being viewed as the launch pad to realize their dreams and visions. Some investors take a long-term approach to the same. The various segments of investors are motivated by diverse goals; knowing the requirements and purpose among the classes allows for effective learning about the behaviours of different classes. The research explores the aspects that influence investors' final choice on their unique investment interest.. Table 2 shows the classification of investors on the basis of their objectives.

Table 2

Opinion of Investors	N	Percentage
Dividend	33	13.2
Capital Appreciation`	18	7.2
Quick Gain	12	4.8
Safety	24	9.6
Liquidity	28	11.2
Tax Benefits	43	17.2
Diversification of Asset Holding	27	10.8
Hedge against Inflation	35	14
Rights / Bonus issues and Stock split	30	12
Total	250	100

Source: Primary Data.



Age-wise investors are divided into three Categories. age is one of the major characteristics of self-development that must be taken into consideration. In general, young people have an interest in acquiring new knowledge, and they are willing to take chances in their life, both of which are very important qualities for successful online trading. In the same vein, older people often have greater expertise and experience in their respective fields.

Table 2: Perception according to Age group

Age group	Perception			Chi-Square (df)	Sig.
	Below 25	25-40	Above 40 years		
N	94	101	55	0.049 (2)	0.983
Mean rank	125.63	126.27	123.85		

The Table 5 indicates an insignificant difference in the mean ranks according to the age group. The perception is found higher with middle age group (126.27) followed by the young age group (125.63). But the Chi-Square value (0.049) shows that the difference in the perception towards the internet banking services according to the age group is not significant (0.983).

Qualifications of the Investors in Terms of Education Education is one of the most essential factors that may influence a person's perspectives, the way they look at and make sense of any given social phenomenon, and their overall attitude toward the phenomenon. The level of education that a person has is likely to have some influence on the answer that he provides.

Table 3: Perception according to the Size of the Family of the Investors

Level of income	Perception			Chi-Square (df)	Sig.
	Upto 3 Members	3 – 4 Members	More than 4 Member		
N	78	127	45	2.507 (2)	0.289
Mean rank	118.21	125.02	139.49		

The Table 6 explicit that the perception of the high income group respondents (139.49) is higher than other income group respondents. Middle income group (125.02) and less income group (118.21). But the Chi-Square value of the mean rank difference (2.507) is not significant (0.289). Hence, it is concluded that there is no significant difference in the perception of the customers toward internet banking according to the annual income of the respondents. Size of the family has been identified as one of the variables that influence the investors of online trading. The researcher has divided the whole sample investors into through groups such as up to 3 members, 3 – 4 members and above 4 members .The details regarding the size of the family of the investors are presented

CONCLUSION

An investigation of the attitudes of investors regarding internet trading in the context of stock exchanges has been carried out. The return of screen-based trading on stock exchanges is being done to increase transparency and facilitate a more streamlined investment experience for customers, who will benefit from shorter trading

times. Because it encourages the accumulation of savings and their subsequent investment in the market for capital, online trading is an extremely important contributor to the economy. This activity creates a connection between savings and the market for capital. Investors have access to data on shares that is current and updated in real time via a variety of websites available on the internet. The findings showed that a greater majority of investors consider order management to be a straightforward operation. The findings also showed that investment advice and investor faith in the trading system are the most significant variables influencing online share trading.

REFERENCE

1. Apparao and Kishore babu (2017) ,"A survey on Investors Perception towards Investment Avenues in Godavari Districts of Andra Pradesh" Acme Intellects International Journal of Research in Management, Social Sciences & Technology, Vol-9(7), pp.1-3.
2. Srinivasaand.Rasure (2011) " Factors Influences and Individual Investor Behaviour: The Study of Indian Stock Market" International Journals of Research in Commerce, Economics & Management, Vol.(7), pp.6-9
3. Harikanth .Pragthi ,"Role of Behavioural Finance in Investment decision making" International Journal in Multidisciplinary and Academic Research, Vol.1,pp.3-5
4. Parimalathakanthi and .Ashok kumar, (2015)"A Study pertaining to investment behaviour of Individual Investor in Coimbatore City. "International Journal of Advance Research in Computer science and Management studies, Vol 3, pp..3-5
5. Navya, CH Deepthi, (2020)," Investor Attitude Towards Online Trading And Offline Trading" International journal of creative research thoughts, IJCRT-, Vol-8 issue-3 ,pp.2-3
6. Ha, H. Y. (2004). Factors influencing consumer perceptions of brand trust online. *Journal of Product & Brand Management*, 13(5), pp.329-342
7. Hair, A.H. Money, P. Samuel and M. Page, *Research Methods for Business*, John Wiley and Sons Ltd, England, 2007, p.241. S.P. Gupta, *Statistical Methods*, Sultan Chand and Sons, New Delhi, 31st Edition, 2003, p.954.
8. Kathleen W. Brown, Daniel W.Kee and Particia E. Worden, *Research Methods in Human Development*, May Field Publishing Company, California, London, 1999, pp,340-355. 4.
9. Gupta, *Statistical Methods*, Sultan Chand and Sons, New Delhi, 31st Edition, 2003, p. A-3.31-A-3.38.
10. David Garson, *Testing Statistical Assumptions*, Statistical Associates Publishing, Blue Book Series, (www.statisticalassociates.com), U.S.A, 2012, p.21
11. Fred N. Kerlinger, *Methods of Factor Analysis, Foundations of Behavioral Research*, New York, Holt Rinchart and Winston Inc., 1973, pp.667-670.
12. Siegel and N.J. Castellan, *Non-parametric Statistics for the Behavioral Sciences-2*, New York, McGraw Hill, 1988. 2. 3. 4. 5. 6. 7. (5 8. D.C. Howell, *Statistical Methods for Psychology th CA: Duxbury*, 2002

A STUDY ON PERCEPTION OF ENTREPRENEURS TOWARDS CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

Dr. Ganesh K Chavhan* Santosh Ram Pagare Shailendra Kashinath Bansode*****

**Associate professor, K. J. Somaiya College of Arts Commerce and Science, Kopargaon Dist, Ahmednagar, Maharashtra.*

***Professor, Department of Commerce, K.J Somaiya College of Arts, Commerce and Science, Kopargaon, Dist-Ahmednagar, Maharashtra.*

****Assistant Professor, Department of English, K.J Somaiya College of Arts, Commerce and Science, Mohiniraj Nagar, Kopargaon, Ahmednagar, Maharashtra*

ABSTRACT

The advancement of Information Technology and computerization, IT industry became one of the emerging industries in 1990s and India became an important Information Technology service provider hub to the global community, which was supported by encouraging parameters like knowledge know-how, fresh talent availability due to the increased number of engineering graduates in India and the emergence of knowledge workers which was lacking in the western world. After the Year 2000, these technology Service providers extended their services to various industries and domains with the ever-changing and emerging technologies. In the early 2000s, IT industry witnessed dotcom boom and while IT as an industry by then had become a cri backbone of many businesses, it became defect a goal of organizations to survive and grow in economy with other competitors in the global world. The specific objectives of the study are to overview the growth prospects of startups in India to find out the socio economic characteristics of the sample respondents. The research at hand employed the quantitative technique using survey methods to attain this purpose. 250 sample respondents have been eventually chosen for the research. The researcher concluded that the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction

Keywords: Support services, Start-up Enterprises, Challenges and Entrepreneurial Ecosystem

BACKGROUND TO THE RESEARCH STUDY

Entrepreneurship takes a woman entrepreneur into a totally different sphere in life. Women not just creates an opportunity for herself to bring her dreams to reality but, she also plays a vital role to bring in significant transformation in the society. This has been a challenge for a lot of women in the initial juncture forcing them to surrender their interests or sacrifice their dream of becoming a business woman halfway due to the discouragements and lack of perseverance in overcoming the challenges. Entrepreneurial venture has been defined by the Government of India in 2006, as 'A business that is owned and managed by a woman, in which the woman has at least a 51 percent financial stake in the company's capital. A entrepreneur has hidden potential that realizes due to the demanding role in the society and economic conditions. She has to overcome many challenges to fulfill her dreams and become financially independent.

NEED FOR WOMEN ENTREPRENEURS IN THE ECONOMY

The role of women in our society has changed drastically in the past few decades. The business ventures that were considered as masculine are now conquered by the women entrepreneur. The gender stereotypes are breaking in the society slowly. Women participation in the economic activity is just 25% wherein they constitute around 48% of the total Indian population. In India, compared to other countries, the gender gap in the overall workforce is the poorest. This inequality unswervingly distresses the economic development of the

country. Therefore, there is a need to understand business challenges faced by startup during the initial stage and growth stage to sustain the business venture.

1. **Economic Growth:** The invasion in the entrepreneurial ventures by the women leads to the significant economic growth and development. Women entrepreneurs have exceptional predisposition to build and uphold long term business relationships. Compared to their male counterparts, women entrepreneurs have more effective organizational and communicational skills. This ability helps them to network more appropriately that result in the reduced risk of failures of the organization. Thus the untapped potential of the women entrepreneurs has to be employed towards the innovation, job creation and economic growth. Generally, more number of women entrepreneurs validates for the improved economic growth and stability within a country.

2. **Narrowing Gender Gap:** A recent McKinsey Global Institute reports that by minimizing the gender gap in the labour force participation holds the potential to add \$12 trillion to global GDP by 2025. ⁷ This gives us a fair idea as to how the narrowing gender gap by empowering women entrepreneurs. This is achieved by bringing in the social and economic equality and inspiring more women to take up entrepreneurial ventures. When women become successful, the next generation of women also imitate their success, which results in their continuous economic participation and rapid growth in the economy.

3. **Organizational Culture & Safety at Workplace:** Women led organizations have a tendency for better organizational culture, transparency and high values by maintaining a healthier employee relationships across the organization. This is possible for the simple reason being the struggle of the women to maintain a work – life balance have taught them to be more flexible, sensitive to the health and safety issues of the employees. Women entrepreneurs have the ability to resolve employee grievances effectively.

4. **Social Change:** When a women entrepreneur is successful, her happiness and the levels of confidence is increased with a boost in their self-esteem and overall well-being. The financially empowered and independent women invest a substantial amount of their income for the health and education of their children, thus building a healthier and educated future generation. This leads to an incredible social change. In the words of Former President Dr APJ Abdul Kalam, "Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation." Thus, the Indian economy needs more women entrepreneurs. The successful women in business encourages and attracts more women to become entrepreneurs themselves.

CHALLENGES FACED BY WOMEN ENTREPRENEURS IN INDIA

In India, there is a huge difference in the variety of opportunities available to women as compared to men. The most of the business opportunities come from their home and lifestyles. The women entrepreneurs are at a disadvantage because they are doubted with their skills and personality traits required to be an entrepreneur. This affects their confidence making it difficult for them to walk on an unknown and unpredictable path as compared to the male entrepreneurs who are mostly more confident and are able to take and bear the business risks. Forbes/ Entrepreneurs magazine says that 90% of the new ventures of the women entrepreneurs fail as there is a difference about the perception of failure by men and women. Women take failures more personally and possibly avoid taking any further risks. Indian women face challenges right from ideation, mentorship, fund raising to finding the right team. Often, there are too many social barriers in the way of networking or bouncing of ideas. It becomes almost imperative for women to convince bankers, for example, that they are indeed creditworthy. Convincing families that they are on the right track is another hurdle. Women entrepreneurs face difficulty in availing sufficient finance. The major reason for this is gender bias. Women cannot give collateral security to the financial institutions to avail the credit facility as they do not usually have any property on their names. Thus, their access to the external financing is restricted. Also, the banks contemplate that women do not priorities on their business and thus can any day quit from it, thus consider them as a little less credit worthy and discourage them to borrow funds.¹

¹ Dun and Bradstreet. 1999. _The challenges of managing a small business: Small business talks to small business'

Travelling for the business is always been difficult for women. It is not easy for them to move around with safety and without being questioned. A single woman is mostly looked with an awfully suspicious eyes in India. Also the humiliation the women have to undergo by the unsupportive family, the officials, and the society at large forces them to forego their dreams of becoming an entrepreneur. This is mainly because the women here lead a more secured life within the four walls of their homes as they are not very well educated and also not financially independent. Thus, their business risk bearing ability is reduced, which is the most important ingredient in the successful entrepreneurship. In the recent years, there have been significant efforts from both the private and public sectors to improve the entrepreneurial ecosystem resulting in positive changes; however, there are still gender gaps in entrepreneurship which puts the female population at a disadvantage.

Women still remain underrepresented among the business owners and face disproportionately high barriers when trying to start and grow their businesses. Challenges of women entrepreneurs are myriad and often the result of complex entrepreneurial ecosystems, their motivations, attitudes and the socio-cultural environment in which they exist. Women entrepreneurs face additional barriers related to custom due to the social norms that dictate their role in the society. They have less time available due to the existing gender division of labour and child care activities. Norms around mobility are also restrictive for women entrepreneurs.²

STARTUP STRATEGIES ADOPTED FOR BUSINESS SETUP AND GROWTH OF BUSINESS

Madireddy (2010)³ has conducted a phenomenological study on Management and Leadership Challenges in achieving success by technology Start-ups with the sample data based in Silicon valley, CA, USA with the sample of 22 participants. He has captured the success factors in technology startups relevant to Silicon Valley. The findings are organized and presented in the order of categories of the successful start-up phenomenon: (a) project planning and execution strategies factor, (b) project monitoring strategies factor, (c) project reporting strategies factor, (d) hiring strategies factor, (e) product strategies factor, (f) patenting strategies factor, and (g) outsourcing strategies factor. The results indicate that patenting tactics, outsourcing techniques, and product strategies such as concurrent multi-products might be successful for technological start-ups. The consequences for leadership included the rise of transactional and transformational leadership as the most significant success criteria to achieving success in a given endeavor. The interview procedure was restricted to participants from a certain geographic region, namely Silicon Valley in California. The current study was restricted to only focusing on start-ups in Silicon Valley. This helped to identify the reasons for start-up failures or successes that were unique to Silicon Valley while excluding the reasons for start-up failures or successes in other locations. As a result, the results cannot be generalized to all start-ups in the same sectors located in other regions or to all start-ups in other sectors worldwide.

Varit (2014)⁴ has conducted a research study based on case studies key aspects of startup and innovation strategies for high-tech small and medium-sized enterprises in Thailand. The purpose of this study is to investigate the link between start-up variables, innovation methods, and the business performance of high-tech entrepreneurs in Thailand. The research utilizes a qualitative approach and uses descriptive statistics. For the purpose of computing results, a case study of four entrepreneurial businesses as well as in-depth interviews with their CEOs and founders were carried out. According to the findings of the survey, three out of four businesses rely on an imitation approach, while just one business utilizes a first mover strategy. They all utilize a tactic of forming alliances. Although every firm has seen growth over the previous three years, the first mover company has had the greatest growth rate. Every entrepreneur has a high readiness of company start-up factor, but the pace at which their companies expand is unique to them. There are just four examples total, which is a small number that prevents a generalization of the entrepreneurial theory from being made.

² Kathleen M. Eisenhardt, Jeffrey A. Martin. 2000. _Dynamic capabilities: what are they? 'Strategic Management Journal, Volume 21, Issue 10-11, Pages 1105-1121

³ JayaramMadireddy. 2010. Management and leadership challenges in achieving success by technology startups: A phenomenological study', PhD Dissertation, University of Phoenix.

⁴ VaritIntrama. 2014. _Business Start-Up Factors and Innovation Strategies Case Study: HiTech SME in Thailand'. International Journal of the Computer, the Internet and Management Vol.22 No.1, pp .53-61.

It's possible that the sample firms, which are all part of the Information Technology cluster, aren't the best representations of high technology clusters.

NEED FOR THE STUDY

It is more crucial than ever to make choices for your money that are deliberate and well-informed. Because of the increasing responsibility that is being placed on people to make wise financial choices, the significance of having a solid understanding of personal finance is something that cannot be minimized. To be able to pay their living expenses for a longer period of time and the fact that the financial climate seems to be changing at a quicker rate, individuals must have collected more cash prior to retirement. Costs and earnings have usually continued to climb to the point that having an income or retirement nest fund that a few years ago would have been lavish now looks to be just about acceptable. This is because there are more financial possibilities and there are more choices of financial services. Therefore, the purpose of this study is to gather evidence regarding the level of financial literacy held by university students in Ethiopia, present that evidence to the government in the form of recommendations for areas of improvement, and incorporate those recommendations into the process of designing a curriculum that will most effectively raise the level of financial literacy held by students. As soon as students reach a high level of financial literacy, the nation's economic growth will increase since these students are the future generations who will have the capacity to govern the country.

STATEMENT OF THE PROBLEM

Financially knowledgeable individuals know how to manage activities related to money, how to save and invest, how financial institutions do their business and own analytical abilities to make informed decisions. Furthermore, they would know how they should handle their financial affairs and how to be responsible financially for their self and family. Financially literate persons are able to prepare financial budget, understand the importance of saving and protect their savings, when they spend they do it wisely, when they make big purchase they do it for items that are worthwhile. Financial knowledge helps in differentiating the advantages and disadvantages of debt, pay attention to portfolio, income, expense, saving and investment.

OBJECTIVE OF THE STUDY

The primary purpose of the research is to analyze the difficulties that information technology services Startups in India encounter throughout the early setup and development stages of their businesses. The specific objectives of the study are:

1. To overview the growth prospects of startups in India
2. To find out the Socio economic characteristics of the sample respondents
3. To investigate which finance mode is common among the sample population.
4. To overview the challenges in technology adoption in Startups

OBSERVATIONS AND FINDINGS

Research Design

Technology seems to be the industry of choice for many of today's aspiring business owners. It's a broad, fast-growing field that attracts investors and venture capitalists, and if you succeed, the payout potential is enormous. The allure of launching a tech startup is easy to understand, but some entrepreneurs fail to consider the unique risks they'll face in the competitive world of technology. After completing a literature analysis, the research discovered that various studies have supported each of the identified characteristics of entrepreneur. The next stage was to acquire an empirical proof of the same. The research at hand employed the quantitative technique using survey methods to attain this purpose. 250 sample respondents have been eventually chosen for the research.

FINDINGS

1. Socio economic characteristics

The socio-economic characteristics of the entrepreneurs are important factors to influence startups. In this perspective, the nature of the sample respondents is given below. The age, gender, income level and level of spending are the variables considered in the study.

Table 1: Gender

Gender	Frequency	Percent
Female	128	51.2
Male	122	48.8
Total	250	100

The above table shows that out of 250 sample respondents, majority of the respondents are male (48.8) and female are 51.2%.

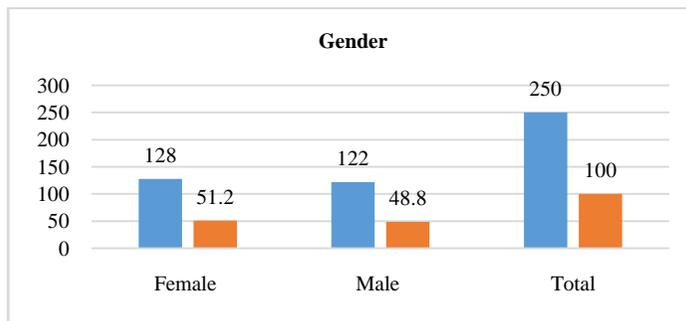
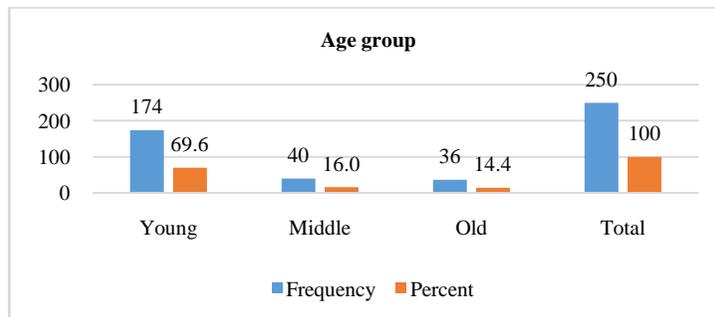


Table 2: Age group

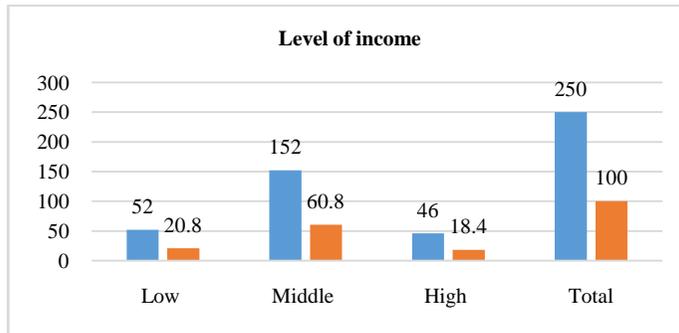
Age group	Frequency	Percent
Young	174	69.6
Middle	40	16.0
Old	36	14.4
Total	250	100



According to the age group, 40 (16.0%) respondents belong to the middle age group, 174 (69.6%) are from the young age group and 36 (14.4%) respondents are from the old age group.

Table 3 Level of income

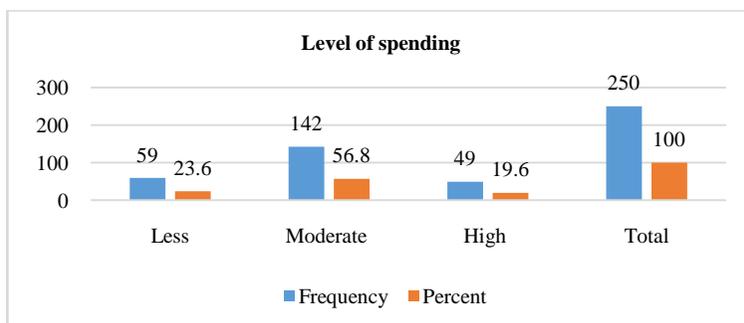
Level of income	Frequency	Percent
Low	52	20.8
Middle	152	60.8
High	46	18.4
Total	250	100



The respondents are grouped based on their level of income as given in the above table. 152 (60.8%) respondents are from middle income family, 52 (20.8%) respondents belong to the low income group and 46 (18.4%) from high income group.

Table 4 Level of spending

Level of spending	Frequency	Percent
Less	59	23.6
Moderate	142	56.8
High	49	19.6
Total	250	100



Mode of Finance Opted By the Start-Ups

Mode of finance opted from the data collected through online questionnaire showed that the most common mode of finance opted by the start-ups is followed by Bootstrapping (10.4%), bank loans (24.8%), Seed funds (15.2%), Venture Capital (9.2%), Crowd Funding (6.8%), Microfinance (16.4%) Government schemes (9.2%) and others (8%)

Table 5 Mode of Finance

Mode of finance	Frequency	Percent
Bootstrapping	26	10.4
Bank Loans	62	24.8
Seed Fund	38	15.2
Venture Capital	23	9.2
Crowd Funding	17	6.8
Micro Finance	41	16.4
Government Schemes	23	9.2
Others	20	8.00
Total	250	100

CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

The wealth and poverty of developing countries is entirely dependent on the entrepreneurial nature of their economies. The entrepreneurship has played an important role in economic growth, innovation, and competitiveness and it may also play a role over time in poverty alleviation (Landes 1998). Entrepreneurial women were polled on the difficulties they faced while establishing their businesses as well as those they face now; these two sets of issues are distinct from one another. The most often cited difficulties are those associated with finances and marketing in either case. However, people-related obstacles are more difficult now than they were when the company was just getting started, demonstrating that as teams develop, so do the difficulties connected with them. Personal challenges, such as bandwidth and time management, on the other hand, drastically decrease, which suggests that women's confidence in their own abilities as business owners has increased over the course of their experience.

Table 6: Challenges in technology adoption in Startups

Factors	Mean	Std. Deviation	Mean Rank
Marketing	3.28	1.179	6.39
Financial	3.16	1.146	6.02
Product	3.14	1.021	6.70
People	3.42	1.087	6.26
Technology	3.58	1.234	6.86
Process	3.29	1.237	6.27
Knowledge	3.26	1.189	6.52
Personal	3.21	1.099	6.47
Legal	3.13	1.102	6.84
Innovation Hubs	3.35	1.258	6.89
Strategy and Planning	3.26	1.259	6.52
Team Building and Leadership	3.07	1.098	6.09

From the above table, it is found that technology adoption in Startups, Innovation Hubs(6.89) one from the respondents point of view. Secondly, Technology considered as most important factor (6.86). Legal(6.84). Another feature of the technology adoption in Startups is Personal(6.47). The significance of the result of ranking is tested with the help of Friedman ranking.

Table 7: Friedman Test

N	250
Chi-Square	25.582
df	11
p	0.006

The ranking result from 250 sample respondents shows the difference in the ranking for each factor is significant. The calculated Chi-Square value is 25.582 for the degree of freedom 11 is more than expected level. The value of probability is 0.006. It shows that the ranks given by the respondents are significant.

CONCLUSION

In a nutshell, the current study contributes significantly to the body of knowledge that may be usefully used by academics, policymakers, and practitioners. This study contributes to start-up entrepreneurs, universities, academic researchers, and nations that are working towards knowledge-based, innovation-driven economies, where entrepreneurs play important roles, by addressing the need to improve entrepreneurial support in order to avoid wasting the R&D efforts of researchers. In other words, the study addresses the need to improve entrepreneurial support in order to avoid wasting the R&D efforts of researchers. Theoretically, this study adds value to the existing body of literature by bringing up important factors such as mentoring support, links to industry, social networks, the prior work experience of the entrepreneur, the feasibility of technology, the product, and the market, etc. that deserve more research attention to better understand start-up success as well as dealing with the challenges that are associated with being an entrepreneur. In a subsequent study, maybe this facet will be included into the process of constructing a prototype for market research. It is possible to do research on each stage of the life cycle of financial analysis for a startup. When it comes to designing a financial plan for the introduction of a product, there are a few different measurements that can be established that might be beneficial. In further research, the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction. It is possible to carry out research in order to learn which programme or policy is used by the vast majority of new businesses and the factors that contribute to this phenomenon.

REFERENCE

1. Abdullah, F. Hamali, J. Rahman, D. A. Saban, G. and Zainoren, A. A. (2009), "Developing a framework of the success of Bumiputera entrepreneurs," *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 3, No. 1, pp. 8-24.
2. Ariff, M., and Abubakar, S. Y. (2002), "Strengthening entrepreneurship in Malaysia," *Malaysian Economic Outlook: 1st Quarter 2002 Update*, pp.1-22.
3. Astebro T., & Bernhardt I. (2003). Start-up financing owner characteristics and survival. *Journal of Economics and Business*. 55. 303-309
4. Benbasat, I., Goldstein, D.K. and Mead, M. (1987), "The case research strategy in studies of information systems," *MIS Quarterly*, Vol. 11, No. 3, pp. 369-386.
5. Bhide, A. (2000), "The Origin and Evolution of New Businesses," *New York: OUP*. Boyatzis, R. (1998), "Transforming Qualitative Information: Thematic Analysis and Code Development," Sage, Thousand Oaks,
6. Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, Vol. 13 No. 3, pp. 442-453
6. Brekke, T. (2015), "Entrepreneurship and path dependency in regional development," *Entrepreneurship & Regional Development: An International Journal*, Vol. 27, No. 3-4, pp.202-218.
7. Bridge, R. (2012), "How to start a business without any money," *United Kingdom: Virgin Books*. Certo, T.S. Moss, T.W. and Short, J. (2009), "Entrepreneurial orientation: An Applied Perspective," *Business Horizons*, Vol. 52, pp. 319-324
8. Cassar G. (2004). The Financing of Business Start-ups. *Journal of Business Venturing*, 19(2), 261-283.
9. Chemmanur, T.J and Fulghieri, P. (2014). Entrepreneurial Finance and innovation: An introduction and agenda for future research. *Review of Financial Studies*, Vol.27 No.1, pp.1-19
10. Denis, D. (2004). Entrepreneurial finance: An overview of the issues and evidence. *Journal of Corporate Finance*, Vol. 10 No. 2, pp. 301-326.
11. Mazzorai, T., Volery, T., Doss, N. and Thein, V. (1999). Factors influencing small business start-ups: A comparison with previous research. *International Journal of Entrepreneurial Behavior & Research*, Vol.5 No.2, pp. 48-63.
12. Nofsinger, J.R. and Wang, W. 2011. Determinants of start-up firm external financing worldwide. *Journal of Banking & Finance*, Vol. 35 No. 9, pp. 2282- 2294.
13. Virgin Books. Certo, T.S. Moss, T.W. and Short, J. (2009), "Entrepreneurial orientation: An Applied Perspective," *Business Horizons*, Vol. 52, pp. 319-324

A STUDY ON ADOPTION OF ICT TOOLS BY STUDENTS IN HIGHER EDUCATIONAL INSTITUTIONS

Dr. Ganesh K Chavhan Kajal D. Jaisinghani** Dr. M.A. Barote****

**Associate Professor, K. J. Somaiya College of Arts Commerce and Science, Kopargaon, Ahmednagar, Maharashtra.*

***Assistant Professor, B. K. Birla College (Autonomous), Kalyan West, Maharashtra.*

****Associate Professor, Department of Physics, Azad Mahavidyalaya Ausa Dist. Latur (MS)*

ABSTRACT

In recent years, the use of technology in educational settings has grown to become an increasingly crucial component. In recent years, there has been a lot of upshift in several sectors due to the pandemic COVID-19. During this period, working in many of these industries has either come to a halt or has slowed down. This has caused a lot of recent upshift. Even more advanced educational institutions were confronted with the challenge of mapping to digital transition from traditional to online models of education. ICT has played a significant part in providing us with a variety of solutions through the internet in the form of IOT-enabled devices, cloud platforms, and apps in order to overcome this delay. The aim of the article is to study the adoption of ICT Tools by students in higher educational institutions in arts and Science College in Chennai city. It is an attempt to study the relationship between the performance management and the competency mapping in the Arts and Science colleges in Chennai city during the month of December, 2021. Using convenient sampling, 250 sample respondents were selected. The required primary data was collected using the Google forms.

Keywords: *ICT Tools, students and higher educational institutions*

INTRODUCTION: HIGHER EDUCATION AND ICT CHALLENGES

In the last half century, higher education institutions have seen phenomenal expansion in order to satisfy the rising demand for excellent education for everyone. Because of the rapid developments that have taken place in information and communication technology, this facet has received even more traction (ICT). In today's increasingly globalized environment, there is an ever-increasing need for labour that is both trained and competent. Given these circumstances, the availability of high-quality higher education for all people has emerged as a critical determinant in determining economic growth and development. The contribution of open and distant learning facilities is growing, which is helping to promote access to higher education and improve its reach to the most rural areas of the nation. In addition to this, it fulfils the dreams of individuals to continue their education throughout their lives at a price that is reasonable. In the last twenty years, there has been a global trend toward incorporating advances in information and communication technologies (ICTs) into higher education institutions. Even Nevertheless, the problem of developing a system for higher education that is adaptable and dynamic in order to completely incorporate technology in the administration and delivery of learning programmes is a formidable one.

Training in technology that just focuses on the teaching of fundamental skills is not likely to be sufficient to enable the proper integration of technology into the classroom. Teachers need to participate in intensive curriculum-based technology training that moves them beyond the attainment of basic computer skills and into activities that teach them how to seamlessly integrate information and communication technology (ICT) into the curriculum. Only then will they be able to effectively infuse technology into the curriculum. A successful integration did not need instructors to be adept in a wider array of software programmes; rather, teachers needed to be comfortable and confident in the instructional approaches of incorporating ICT into the classroom. Teachers required to be proficient in a few applications of information and communications technology (ICT), but knowledge of instructional techniques of integration was a bigger determinant of success; this suggests that there is a need to concentrate more on instructional ways of integrating technology.

ADOPTION OF ICT TOOLS

First and foremost, those in charge of formulating education policy need to have a crystal clear understanding of the desired educational results. The selection of the technology to be employed and the manner in which it is to be used should be guided by these overarching aims. The likelihood of any technological advancement changes depending on how it is put to use. At least five different levels of using technology in the classroom have been identified by Haddad and Drexler. These levels include presentation, demonstration, drill and practice, interaction, and cooperation. Presentation and demonstration, the most fundamental of the five levels, may make use of any and all information and communication technologies (ICTs), including audio and video cassettes, radio and television broadcasts, printed material, computers, and the Internet. In addition to the use of video technologies, other forms of practice and drill may also be carried out using the whole of currently available technology. The Internet and networked computers are the ICTs that enable interactive and collaborative learning best; their full potential as educational tools will remain unrealized if they are only used for presentation or demonstration. Further, the Internet and networked computers are the ICTs that enable interactive and collaborative learning best. Research has proven that the proper use of information and communication technologies (ICTs) has the potential to accelerate a paradigm shift in both the subject matter and the teaching methodology that is at the core of education reform in the 21st century. Education that is aided by information and communication technologies to encourage the development of knowledge and skills that will equip students to be lifelong learners. When information and communication technologies are utilised effectively, particularly computer and Internet technologies, they enable new forms of teaching and learning rather than merely allowing instructors and students to perform what they have done in the past in a more effective manner. Learner-centered pedagogy represents a shift away from teacher-centered pedagogy, which in its most extreme form is characterized by memorization and rote learning. These new traditions of teaching and learning are supported by constructivist theories of learning and represent a shift away from teacher-centered pedagogy.

ICT TOOLS FOR COLLABORATION AND USER-GENERATED CONTENT

It is clear that learner-centered learning has always been beneficial to learners in terms of achieving the goals of the curriculum, and on top of that, it adds to their abilities to successfully operate as learners in the 21st century. When it comes to a teacher's contribution toward a more productive society, competition at the individual level should be discouraged in favour of encouraging collaboration. According to the findings of studies, a rise in the degree of pleasure and motivation felt by learners is directly correlated with their active engagement in the co-creation of new information. Cooperative learning strategies, group work, and group projects in the classroom environments help teachers in the creation of the conducive learning environments. On the other hand, collaborative information and communication technology tools prove to be a great aid to the teacher in the co-creation of knowledge by learners. There is a possibility that BL will not result in classroom situations that are focused on the instructor, both in face-to-face and online settings. On the other hand, the learners have the opportunity to participate in a variety of creative and productive activities thanks to the various ICT tools. Utilizing free resources provided by ICT, educators are able to prepare for the collaborative contributions of students. The following is a list of some of the illustrative ICT technologies as samples; however, instructors are encouraged to investigate a vast array of other tools in order to achieve student co-operation.

Bloggng: The instructor has the option of launching a blog, after which the students have the opportunity to participate in the blog as authors. The student may be presented with a subject, theme, or issue along with a few resources, and the learner's perspectives, thoughts, opinions, examples, situations, etc. may be asked to be contributed as part of the blog. Bloggng is a great activity that can be assigned as an asynchronous assignment, and the instructor may serve as a facilitator to help students with the posting process.

Sticky notes: Online brainstorming may be accomplished with the use of sticky note applications such as IdeaFlip, Lino.it, Jamboard, and others. In the live online 17 class, the activity of brainstorming may be done as a synchronous activity, or alternatively, an assignment of this kind of idea generating can be provided as an asynchronous activity..

Shared documents: After the students have worked in groups of two to five, the teacher may ask them to present a product that they have created. It is possible to teach students how to use various tools, such as Google Doc, Google Slides, Ether Pad, Scatter Spoke, and idea boards, and so on. Students have the opportunity to be online at their own leisure and within the context of their own internet access, and the majority of these tools are free of charge.

Concept-mapping: Tools for mind mapping and info graphs Learners are able to come together online to discuss and establish relationships between concepts that are related to a topic or theme with the assistance of collaborative concept-mapping and mind mapping ICT tools. Some examples of these tools include Micro, Google Drawing, Concept board, Goggle, and Bubble.us. The capabilities of uploading movies, photographs, drawings, hyperlinks, and connections to other files are all available to users of online tools.

Comprehensive activity tools: It's possible that comprehensive activity platforms like Padlet, Miro, and Whimsical, among others, may prove to be useful as virtual workplaces. Learners of the 21st century will need to be able to build skills like project management and working in teams, and features like wireframe will help them do so. It is possible for both students and instructors to investigate and experiment with a great deal more ICT tools and platforms. It's possible that you'll be encouraged to use tools that are free and open source. Mobile applications of many different tools would be helpful for providing students with convenient access and availability. Students who are in financial need may get access to the campus's computer laboratories in order to participate in online activities. In the next chapter, several applications of these tools are discussed in detail.

NEED AND IMPORTANCE OF ICT IN HIGHER EDUCATION

Students' education may benefit from the use of ICT. Learning has been aided by the use of a wide variety of ICTs, including electronic as well as traditional forms of media. Every single day, one may get their hands on technology such as the internet or online. Through the Internet and the World Wide Web, an unlimited number of students may have access, at any time and from any location, to a wide variety of educational materials that cover nearly every subject imaginable. The Internet and personal computers have become the primary tools for education and the advancement of skills. According to Hayes, the role of the teacher "has to transform from that of the information provider to one of the catalyst, model, coach, innovator, researcher, and collaborator with the student throughout the whole learning process."

Not only is it changing the method in which education is delivered, but it is also laying the groundwork for many years to come. Some of the most essential aspects of education include the level of instruction provided, its accessibility, and its adaptability. The field of information and communications technology is in a state of constant flux. The term "Information and Communication Technology" (ICT) refers to several facets of modern life that have grown more commonplace. The usage of information and communications technology (ICT) throughout the course of the last twenty years has resulted in major changes to the methods and processes of practically all fields of endeavor within business and government. Because the use of information and communications technology in education lends itself to more student-centered learning situations, this often results in certain conflicts for some instructors and the students they educate.¹ The assessment of learning styles included a total of six subscales, which were categorized as autonomous, collaborative, competitive, avoidant, participatory, and dependent..

BENEFITS OF ICT IN EDUCATION

Use of ICT in education is indeed the need of the hour. It offers enormous benefits to students as it has a wider reach and offers low-cost education. There has been growing blend of ICT tools with the conventional teaching methods in order to impart quality in education. It offers the benefits of greater access, flexible content, learning while working and new ways of interaction to students on one hand. On the other hand to employers get high quality, cost effective professional development, upgraded employee skills, increased

¹ Iniesta-Bonillo, R. Sánchez-Fernández, and W. Schlesinger, "Investigating factors that influence on ICT usage in higher education: a descriptive analysis," *International Review on Public and Nonprofit Marketing*, vol. 10, no. 2, pp. 163–174, 2013.

productivity, a new learning culture, increased portability of guidance through the use of ICT-enabled tools in education. Access and Equity in Higher Education. The demand for higher education is expected to shoot up in the coming years due to increasing Gross Enrolment Ratio at school-level as proposed by the Eleventh Five Year Plan Document which seeks to achieve the target of 15 per cent Gross Enrolment Ratio by 2012 via the dual mechanism of increasing both the intake capacity of existing institutions as well as enhanced institutional capacity. The use of ICT in higher education institutions tends to bridge this gap by supplementing the formal education system with distance learning. The major role toward the fulfillment of the said goal is played by e-learning which is an emerging strategy for the provision of widespread and easy access to quality higher education. Although, at present the initiatives for development of e-learning in India are intermittent, UGC is advocating and making efforts to enhance the quality of higher education by framing policy guidelines for their integration in classroom and other activities.

In the context of this study, the term "ICT adoption" refers to the gradual transition toward the automation of the educational process. This includes not only the administrative tasks associated with the education of students, such as admission, registration, and evaluation, but also the creation of an individualized learning management system (LMS) and the transfer of all of the courses and the data associated with them onto the LMS. Blackboard is the learning management system (LMS) that has been implemented across all of the institutions that were part of this research. Access to the Learning Management System (LMS) as well as all of its services and specialized online learning tools is granted to both the teaching staff and the students of the institution. The widespread use of LMS in Saudi Arabia has made the educational procedures very easier to navigate.

Ellis and Loveless (2013)² indicated that pedagogy in higher education cannot be separated from either academic accomplishment or the process of teaching and innovation. According to the findings of the research, the potential contribution that information and communication technology might make to higher education cannot be ignored. Chan et al. made a similar discovery and ascribe a great deal of weight to the essential role that ICT plays in democratizing the education provided by universities and addressing the evolving and ever-changing expectations of graduate students.

Sari and Mahmutoglu (2013)³ observed that a paradigm shift is necessary in order to bring about a change in the teaching style that is used at a university. This shift should suggest the adoption of methods that are focused on the students. According to the authors of the study, the objective of the new technique should be to transform the student from a passive to an active participant in the learning process. This should be accomplished by providing the student with enough and efficient assistance from the tutorial team. The findings of Iniesta-Bonillo and colleagues, the use of information and communication technology has a key role in putting students in an active role and boosting the efficacy and efficiency of the tutorial assistance..

THE SCOPE OF ICT TOOLS BY STUDENTS IN HIGHER EDUCATIONAL INSTITUTIONS

Technology is becoming a more significant force in today's educational system. In industrialized nations, computers and mobile phones are utilised not only to supplement the traditional educational practices that are already in place but also to generate new methods of learning such as online education. Students will benefit from this since it provides them the option to pick subjects that are relevant to their interests. Students are required to develop new competencies and ways of thinking as a result of the tremendous learning tools that technology provides. The introduction of new information and communication technologies ushers in profound and rapid shifts in almost every facet of education, training, and instruction. These instruments are making a difference in the situation on a daily basis. The following is a list of the many applications of ICT in education:

² Ellis and A. Loveless, *ICT, Pedagogy and the Curriculum: Subject to Change*, Routledge, London, UK, 2013

³ Sari and H. Mahmutoglu, (2013) "Potential issues and impacts of ICT applications through learning process in higher education," *Procedia-Social and Behavioral Sciences*, vol. 89, pp. 585–592

Teaching learning process: ICT tools are helpful to teachers in the classroom since they facilitate the teaching and learning process. The use of traditional tools is becoming more archaic. The Interactive Board, LCD projector, online class, and tele-conferencing are some of the modern technologies available to teachers to help them foster an environment that is favourable to creative thought in the classroom. Because of these tools, instructors may now overcome the challenges that they have in the classroom, such as the individual peculiarities of their pupils, difficulties with language, and barriers to successful connection. Because of the usage of ICT tools, class becomes participatory and accommodating, which ultimately results in students receiving more stable information. Virtual laboratories have made it possible to conduct many difficult and perhaps dangerous experiments in educational settings. This method is completely risk-free and reliable, and it does not have any adverse effects. Students who engage in activities such as these are more likely to develop reading habits that are beneficial to their health.

Publication: The discovery of printing in earlier times had a profound impact on the educational system as a whole. Because books could now be printed, storing and spreading information was much simpler than it had been in the past. Because of advancements in information and communication technology, doing so is now simpler and more convenient. Publishing is an essential activity for students in higher education. Use of the Internet has gotten more complete in its readability. There are a lot of services based on the Internet that provide plenty of options for researchers and authors to express their ideas.

Evaluation: Evaluation is the most vital component of any procedure. If the evaluation method is flawed, then all of the efforts may as well be wasted. The introduction of ICT technologies into the education sector has made the assessment process far more efficient and trustworthy. Students who are unable to attend a traditional system might benefit much by taking their exams online. The dissemination of new technologies as well as the preparation of their outcomes happens extremely quickly. There will be no delay in publishing the results of the study online. Because of advances in information and communication technology, both formative and summative assessment methods are now feasible.

Research: The educational system revolves on research as its primary focus. The development of information and communication technologies has led to an increase in the breadth and depth of research. The collecting of data has now been simpler. Anyone has the ability to acquire data from a diverse spectrum of people through the internet. Several statistical software, when combined, create multidimensional findings that may be effectively presented. There is no longer a need to visit the libraries of each institution for the purposes of academic research. With the use of the internet, a researcher may now access the library of not just a home institution but also one located in another country.

Administration: Administration is exactly like a skeleton. At every stage, from the marketing of admission to publishing the results and distributing certificates, instruments of ICT aid considerably more. This includes the distribution of certificates. ICT takes on an incredible amount of responsibility, since it is responsible for online admission, online payment of fees, online registration, online class, online assessment, and finally online certificates. Simple administration, low costs, and significant time savings⁴

PROBLEM STATEMENT

The Indian higher education system has undergone a sea shift as a result of the introduction of information and communications technology (ICT), which has led to the integration of various forms of technology into the more traditional methods of instruction. ICT plays a crucial part since it enables every student to access the information resources at their own pace and in accordance with their preferences at any given moment. E-learning, blended learning, and distant education are just a few of the ways that the availability of information and communications technology has significantly improved the standard of education. It has widened access to higher education and made it more equitable by expanding the use of digital technology and improving the quality of teaching and learning, which has benefited not only the education of students but also made it easier to enhance the capacity of educational staff. The purpose of this paper is to provide a descriptive analysis of

⁴ University News (2011), 'Use of Technology in Education: A Paradigm Shift from little media to M-Learning', University News, PP. (1-8)

the increasing use of and various initiatives in the field of education in India pertaining to the use of ICT, as well as an examination of its contribution in the provision of quality education and the benefits that have resulted from this contribution.⁵

RESEARCH OBJECTIVE

The aim of the article to study adoption of ICT Tools by students in higher educational institutions in arts and Science College in Chennai city, Tamil Nadu.

RESEARCH METHODOLOGY

It is an attempt to study the relationship between the performance management and the competency mapping in the Arts and Science colleges in Chennai city during the month of March, 2022. Using convenient sampling, 250 sample respondents were selected. The required primary data was collected using the Google forms.

ANALYSIS OF LEARNING STYLE WITH ICT MEAN SCORES OF THE DEMOGRAPHIC VARIABLES

It may be remembered that the present study attempts to find the level of the Information and Communication Technology of Student teachers in relation to certain demographic variables namely, gender, type of college, marital status, optional subject, educational qualification, computer knowledge, type of college, nature of college, locality of the college, E-mail Id and use of blog.

FINDINGS, RESULTS AND CONCLUSION

Learning Style with ICT of Student Teachers with reference to Demographic Variables

The paper studies the influence of the Adoption of ICT Tools of the respondents among the students of the Arts and science colleges in Chennai City. The year of study of the sample respondents is as follows.

Table 1

Demographic Variable	Sub-Groups	No.of. Respondents	Percentage
Gender	Male	178	71.2
	Female	72	28.8
Branch of study	Arts	156	62.4
	Science	94	37.6
Educational Qualification	Graduate	97	38.8
	Post Graduate	132	52.8
	Others	21	8.4
Marital status	Married	37	14.8
	Unmarried	213	85.2
Total		250	100

Table 1 indicated that out of total 250 student respondents 178 (71.2%) are male respondents and 72 (28.8%) are female respondents. Out of the total students respondents, in the branch of study majority of them (62.4%) belong to Arts and 37.6% are from Science. Under the branch of study majority of the respondents are from the education wing, followed by the business administration, arts, computers and the library sciences.

The paper studies adoption of ICT Tools of the respondents among the students of the Arts and science colleges in Chennai City. The Year of study of the sample respondents is as follows.

Table 1: Year of study

Year of study	N	Percentage
First	72	28.8
Second	95	38.0
Third	83	33.2
Total	250	100.0

⁵ NCERT; "Innovative practices in elementary Teacher Education Institutions in India" Vol. No.1, New Delhi

In the year of study category 28.8% of the students belong to the first year of their study, while 38% belong to the second year of their study, while 33.2% respondents belong to the third year of their study. Further, 12 statements were used to measure the performance management using 5 point Likert scale. The result is given below.

Table 2: ICT Tools

Dimensions	Mean	Std. Deviation
Blogs	3.69	1.192
Google Classroom	3.12	1.303
Google Doc	3.59	1.145
Google Forms.	3.35	1.208
Google Meet	3.43	1.284
Google slide	3.59	1.179
Learning Management System (Moodle)	3.64	1.009
Microsoft Teams	3.47	1.139
Spreadsheets.	3.46	1.307
YouTube	3.68	1.152
Zoom	3.83	1.024
Swayam	3.72	1.117

The Table 2 indicates the opinion of the respondents towards adoption of ICT Tools applied in their Colleges. From the result, it identified ICT Tools helps for the Zoom (3.83) followed by Swayam (3.72). Blogs (3.69) and **YouTube**(3.68) are also contributing much towards the performance.

RELATIONSHIP BETWEEN THE YEAR OF THE STUDY AND ADOPTION OF ICT TOOLS

The Adoption of ICT Tools of the respondents is measured with the qualities to be a faculty academic qualification and the skills of teaching. The mean difference in their competency according to level of experience is given below.

Table 3: Adoption of ICT Tools of the respondents according to their year of study

Experience level	Mean	Std. Deviation	N
First	28.931	8.7475	72
Second	30.894	5.9625	95
Third	34.569	8.0762	83
Total			250

The ICT score is found more among the Third year students (34.569). The mean score is 30.894 for the second year students and 28.9318 for the less experienced respondents. Significance in difference between the means is tested with the help of Levene's test of equality of error variance.

Table 4: Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
2.152	2	247	0.118

The Table 4 reveals that the F value is 2.152 and the significance is 11.8%. The probability value proves that the difference in the mean score according to the level of experience is not significant. It is concluded that though, the competency level increases proportionately according to the level of experience, the difference is not significant.

DISCUSSION AND IMPLICATIONS

After conducting a comprehensive assessment of the relevant literature, this article identifies the elements that influence students' use of information and communication technology (ICT) tools. According to a previous research that had been conducted by Venkatesh and colleagues (2003), there was a substantial association between the elements that included performance expectation, effort expectancy, and social impact on

behavioral intention. The present study reveals the similar association with the behaviour intention to embrace ICT tools among students. This finding is consistent with previous research. A direct and positive association exists between the facilitating circumstance and the use behaviour. As a consequence, we believe that the findings obtained in this investigation are consistent with the findings obtained in the first study.

CONCLUSION

The advancements in information and communications technology played a key part in raising educational standards, using them in lesson plans is a step in the right direction. The incorporation and use of ICTs in educational settings have a beneficial effect on the processes of teaching and learning. Rapid advances in technology indicate that the use of information and communication technologies (ICT) in educational settings will play an increasingly important role in the years to come. Additionally, it will boost the flexibility, making it possible for students to receive their education regardless of the time or location in the 21st century. It would give a prosperous environment and incentive for the teaching-learning process, which seems to have the potential to have a profound influence on the process of learning in education by presenting new opportunities for both students and instructors. It provides assistance for a wide variety of educational goals that are broader in scope, including autonomous learning, working with others, and improving communication skills. Only when it is preceded by careful planning and administration will the incorporation of information and communication technologies into educational settings bear fruit and be effective. Because of the cost savings brought about by the use of ICT tools in educational settings, one of the most significant benefits of doing so is an expansion of the demographics of students who can take advantage of excellent educational opportunities.

REFERENCE

1. Al-Hariri, M. T., & Al-Hattami, A. A. (2017). Impact of students' use of technology on their learning achievements in physiology courses at the University of Dammam. *Journal of Taibah University Medical Sciences*, 12(1), 82-85
2. Becker, H. J. (2000). Pedagogical motivations for student computer use that lead to student engagement. *Educational Technology*, 40(5), 5-17.
3. Collis, B. (1989). Using information technology to create new educational situations. *Higher education policy*, 2(4), 63-70.
4. Jonassen, D. (1999). Computers as mind tools for engaging critical thinking and srepresenting knowledge.
5. Lim, C. P., & Chai, C. S. (2004). An activity-theoretical approach to research of ICT integration in Singapore schools: Orienting activities and learner autonomy. *Computers & Education*, 43(3), 215-236.
6. Ophus, J. D., & Abbitt, J. T. (2009). Exploring the potential perceptions of social networking systems in university courses. *Journal of Online Learning and Teaching*, 5(4), 639-648.
7. Pegu, U. K. (2014). Information and communication technology in higher education in india: Challenges and opportunities. *International Journal of Information and Computation Technology*, 4(5), 513-518.
8. Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization. *Management Information Systems Quarterly*, 15(1), 125-143.
9. Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204.
10. Yusuf, M. O. (2005). Information and communication technology and education: Analysing the Nigerian national policy for information technology. *International education journal*, 6(3), 316-321
11. Zhao, Y., & Cziko, G. A. (2001). Teacher adoption of technology: A perceptual control theory perspective. *Journal of technology and teacher education*, 9(1), 5-30

A STUDY ON WORK LIFE BALANCE OF WOMEN EMPLOYEES WITH REFERENCE TO TEACHING FACULTIES DURING COVID 19

Dr. R. Indumathy* Dr. M. Esther Kalyani Asirvadam** Galiveeti Poornima***

**Senior Assistant Professor, Department of Management Studies,
Dr.N.G.P. Institute of Technology, Kalapatti, Coimbatore, Tamil Nadu, India.*

***Reader in History, Department of History,
CH.S.D St Theresa's College for Women (A), Eluru, Eluru District, Andhra Pradesh.*

****Assistant Professor, Department of Computer Science and Engineering,
Presidency University, Itgalpura, Rajankunte, Yelahanka, Bangalore.*

ABSTRACT

Finding a good balance between work and personal life might be difficult for the staff members. It is vital for companies as well as the family members of workers that employees be able to successfully balance their personal lives, their professional lives, and their commitments to their families and other loved ones. During the emergency scenario caused by COVID-19, a great number of individuals all over the globe were required to labour from a distant location. In the beginning, it was seen that certain expectations were held about the potential of working from home as a good aspect that would enhance work–life balance. The passage of time, however, showed that there were also some bad trends, such as the fact that workers were only ever a phone call or message away from their company, and the fact that uncertainty and spending leisure time with family often caused greater stress. The specific objectives of the study are to understand the factors those influence the work life balance among women teachers and to analyze the role of socio-economic and demographic variables on the work life balance. Based on a random sample of 300 female employees, this research study was conducted among women working in various public and private institutions. As a result of the fact that many businesses and people were not prepared for this unexpected transformation, a great number of errors were made, which further brought attention to the problem of maintaining a healthy balance between work and personal life.

INTRODUCTION

Each woman teacher places a lot of importance on finding work-life balance. Their natural character and capacity for thought, which are crucial for humans, are lost as a result of the environment. Each sphere requires them to play a particular function. It might be difficult for a woman teacher to combine her life at home with her life at work, and how she balances each position with other tasks that have been given to her. Pressures from both job and family have negatively intensified on women in recent days. It requires effort, time, and raises work-family friction all at once. The cultural opposition to motherhood, which is exacerbated by the fast growth in the number of working women to meet household responsibilities, is the cause of these disputes. They face enormous pressure to provide their kids with rigorous parenting in both their growth and full-scale child rearing. Additionally, finding enough time to care for children and the elderly is a challenge for working women. Policy responses must be prompt and take women's concerns into consideration. Governments should take into account implementing emergency measures to assist parents in juggling their work and caregiving obligations, bolstering and extending income support programmes, increasing support for microbusinesses and the self-employed, and enhancing programmes to assist women who have been the victims of violence. Fundamentally, all policy solutions to the crisis must include a gender lens and take into consideration the particular demands, obligations, and views of women.

WORKING WOMEN'S WORK-LIFE BALANCE: AN OVERVIEW

The majority of women in the early centuries remained in the kitchen, while those who found employment worked in factories, farms, or stores. Few women had access to higher education, and those who did had to rely on their fathers' or spouses' views on how to treat women who work. The rapidly evolving information economy has made it possible for more women to access higher education. Their education has given them not just more power but also more stable professions. Women employees seem to be flooding into every field on par with men because cerebral capacity, rather than endurance or physical strength, is the necessary talent in this information age. But since they must carry out several tasks at both home and work, this has in fact become a difficult problem for women. Working women are under more pressure to pursue careers while they continue to have more duties after they marry and become moms, managing the main care of children and extended family. Working women of today balance their many jobs by taking care of their families while still attempting to be completely engaged in their work. Working moms are under a lot of stress when their personal and professional commitments are mixed. Working women were under a lot of stress as a result of their attempts to integrate, coordinate, and balance the numerous issues and activities in their multiple responsibilities at the same time. As a consequence, the family becomes an organizational stakeholder, and this significant societal trend served as the catalyst for the paradigm shift toward work-life balance. It is one of the causes of women's health problems. Health issues may cause employees to be less productive and effective. This study focuses on the challenging existence of married working women who struggle to manage work and family obligations.

LITERATURE REVIEW - WORK-LIFE BALANCE OF WOMEN DURING COVID-19

The pandemic caused by the coronavirus disease 2019 (COVID-19) has resulted in a high level of disruption that has not been seen before in any aspect of our existence. Academic professors were immediately impacted by the stay-at-home directive, which had an effect on research activities, teaching obligations, and service commitments. As a result, any previously obtained equilibrium between work and life was disrupted. Many members of the academic faculty working in the health sciences have seen their job demands move away from research in order to support clinical and online training. When the positive benefits of work-life balance on social and economic sustainability are taken into consideration, the concept of work-life balance may be understood in a much larger framework. Improving the balance between work and personal life is connected to a number of higher-level goals, such as increasing participation in the labour market, ensuring gender equality, and addressing demographic challenges. When we become older, our needs and the needs of those who rely on us grow more demanding. In addition, the demand for a healthy work-life balance is becoming more urgent. An environment that is high in stress, the absence of support from management, and long workdays are all factors that may contribute to an imbalanced connection between work and life. The tensions that arise between one's professional and personal responsibilities have a bigger effect on one's career than they do on their personal lives. Self-management, time management, stress management, change management, technology management, and leisure management styles are the six key components of work-life balance that have been discovered. In most cases, in order to maintain a healthy equilibrium between one's professional and personal lives, it is necessary for an individual to satisfy their most essential physiological demands (sufficient sleep, balanced nutrition additionally as exercising). In addition, it is important to make a balanced effort to attend to both professional and personal matters throughout the allotted time. Achieving a healthy balance between one's professional and personal lives demands resolving any conflicts that may arise between the two spheres and bringing parity to one's various duties and obligations. A healthy work-life balance is not simply achieved by dividing one's time evenly between work and activities outside of work. Numerous data on the consequences of COVID-19 illustrate how the pandemic has a negative influence on the economic and productive lives of women. The ability of women to provide for themselves and their children is already being limited by the consequences of such factors. The challenges that women face are complicated and intertwined with one another. Inequitable distribution of home obligations may be a barrier to women's participation in the workforce.

Rantanen et al. (2011)¹, a strong dependent care system benefits employees by reducing stress and improving their health, which favourably impacts production. Additionally, a marker of an excellent work-life balance is health and eudemonia in the local region. Work-life balance programmes like "employee assistance programmes," "health promotion initiatives," "fitness centre membership," and "seminars with workers" are good examples. Structured assistance, like as paid and unpaid time off from work courses, is essential for a successful work-life balance. Finally, the workforce must be involved in structure community and adhere to structure culture to achieve tight alignment between worker and management to overcome hurdles to full involvement and productivity (AWLP, 2011). Work-Life Balance Policy Lazar (2010)² emphasises the advantages of strong work-life balance practises for both employers and workers. The business profited from staff skills and expertise, higher retention rates, and simpler service delivery, among other things. Employees, on the other hand, can enjoy quality time with their loved ones at home.

Work life balance programmes provide advantages for both individuals and organizations, according to Purohit (2013)³. A successful work-life balance programme helps the connection between the company and the workers for both parties' benefit. Work life policy and programme is described by Goyal and Agrawel (2015)⁴ as an investment for enhancing productivity, customer service, improved health, flexible working, lowering absenteeism, and pleased and motivated employees in the banking sectors. However, if a woman works, she is expected to do many tasks, such as caring for her family and doing duties around the home. Women who are employed for a living include professionals such as attorneys, nurses, physicians, teachers, secretaries, and daily wage workers Gouri Prabha, (2019)⁵. The purpose of the research by Rani et al. (2011)⁶ was to evaluate the relationship between employee satisfaction and work-life balance. The findings showed that job satisfaction is positively correlated with work-life balance and negatively correlated with task at work, connection with subordinate and supervisor, and work recognition. Work-Family Discord Women have greater trouble juggling work and life than males do since they are responsible for their families, have to care for children, and do household chores. This often prevents women from advancing in their careers. They emphasized the need for greater time for children and spouses among female workers. The sometimes have role conflicts that cause them to question how effective they are as mothers or as daughters-in-law. Support from your supervisor is crucial for maintaining work-life balance. In order to maintain work-life balance, excellent assistance is essential. It takes collateral management to lessen the work-life conflict Beutell and college (2010).⁷ According to the European Agency for Safety and Health at Work, work-family conflict is a result of mental or physical stress incurred via employment that compromises the stability of families .The conflict unit's findings confirmed the balances for time, engagement, and satisfaction. A high degree of work-life conflict may also increase the risk of depression, "physical maladies," "somatic symptoms," and "occurrence of hypertension"

WOMEN'S CARING RESPONSIBILITIES AT HOME

Women's unpaid labour obligations will increase as a result of COVID19. For instance, the widespread closure of schools and childcare facilities would not only require parents to spend more time caring for their children and supervising them, but will also compel many of them to oversee or manage home education. This added cost will certainly fall disproportionately on women. Similar to this, any lengthening of time spent at home as a result of confinement is likely to result in more regular housework, such as cooking and cleaning. Many parents may find it challenging to meet these responsibilities, particularly those who must continue working.

¹ Rantanen et al., (2011), Workplace support Creating Balance, Springer-Verlag Berlin Heidelberg. pp.27-28

² Lazar, I., Osoian, C., & Ratiu, P. (2010). 'The role of work-life balance practices in order to improve organizational performance', European Research Studies J., 13(1): 201-214.

³ Purohit M. (2013). 'A Comparative Study of Work Life Balance in Various Industrial Sectors in Pune Region', International Journal of Marketing, Financial Services & Management Research, 2(3): 198-206.

⁴ Goyal K.A., Agrawel A. (2015). "Issues and Challenges of Work Life Balance in Banking Industry of India", Pacific Business Review International, 8(5): 113-118

⁵ Gouri Prabha P.V. (2019). 'Challenges and Problems of a Working Woman' International Journal of Innovative Research and Advanced Studies (IJIRAS), 6(5): 118-119.

⁶ Rani et al. (2011). Work-Life Balance Reflections on Employee Satisfaction, Serbian J. of Management, 6(1): 85-96.

⁷ Beutell, N. and College, I. (2010). 'The Causes and Consequences of Work-Family Synergy: An Empirical Study in the United States', International J. of Management, 27: 650-664

SCOPE OF THE STUDY

The work-life balance of private school women instructors is shown in the current research. The results of this research may assist the institution in formulating policies to provide staff a decent work-life balance and help them solve challenges. This might boost the teacher's productivity in terms of delivering quality results. Having a harmonious family will make it easier to live a happy life and make a greater contribution to society.

STATEMENT OF THE PROBLEM

Certainly, the position of female instructors in society is larger. They have to fulfil a dual function at home and at work since they are female instructors. Their issues at work and at home need careful consideration, and their employers must look at a number of factors that have an impact on them. In order to provide working women teachers a balanced life and improve their overall performance and efficiency at work, it is necessary to do research on the issues they confront at home and at work. For the benefit of instructors, the organization must create situation-based policies and put them into action. Women instructors will feel more at ease at work and at home if there is a supportive atmosphere, which will increase production and benefit the institution as a whole. Thus, the researcher demonstrates that conflict resulting from problems with work-life balance cannot lower pleasure both at work and at home.

RESEARCH OBJECTIVES

The specific objectives of the study are

1. To understand the factors those influence the work life balance among women teachers.
2. To analyze the role of socio-economic and demographic variables on the work life balance.
3. To identify work-family conflict among the women teachers.

RESEARCH METHODOLOGY

Research technique refers to the specific actions or procedures that are used in order to locate, select, analyze, and evaluate information pertaining to a topic. The reader will have the opportunity to evaluate the general validity and dependability of a study when they reach the section of a research paper devoted to methodology.⁸The present study is descriptive in nature. Based on a random sample of 300 female employees, this research study was conducted among women working in various public and private institutions. On both primary and secondary data, this research is built. By polling working women, relevant information was acquired for the primary data collection. Relevant literature from books, journals, newspapers, and periodicals has been gathered for secondary study.

DISCUSSION AND RESULTS

Demographic variable of sample respondents

1. Age

The sample respondents are grouped based on their level of age. The respondents below the age of 30 are considered as young, aged between 30 and 45 as middle age and aged more than 45 are as old aged respondents. The classification of the total respondents based on the above age levels are given below.

Table 1: Age of the respondents

Age group	Young	Middle	Old	Total
Number of respondents	54	148	98	300
Percentage	18	49.3	32.7	100.0

The above table shows that 148 (49.3%) respondents are from the middle age group, 98 (32.7%) are old age group and 54 (18%) respondents are from young age group.

⁸ Flynn L., Laura A. and Harshika G. (2020). 'Seven Key Issues Affecting Women and Girls During the COVID-19 Pandemic-And What You Can Do About Them

2. Educational Qualification

Table 2: Educational Qualification

Educational Qualification	M.Phil	Ph.D	SET/NET	SET/NET with Ph.D	Total
Number of respondents	192	56	32	20	300
Percentage	64.0	18.7	10.7	6.7	100.0

The Table 3 indicates that 192 (64.0%) respondents have their qualification as M.Phil, 56(18.7%) respondents are doctorates, 32 (10.7%) respondents have passed eligibility test SET or NET and 20 (6.7%) respondents are Ph.D holders and passed SET / NET.

3. Level of Experience

The respondents are grouped according to the level of experience as less (upto 5 years), moderate (6 to 10 years) and more experienced (more than 10 years). The distribution of the respondents based on their level of experience is given below.

Table 3: Level of experience

Level of Experience	Less	Moderate	More	Total
Number of respondents	134	108	58	300
Percentage	44.7	36.0	19.3	100.0

The above table reveals that 134 (44.7%) respondents are from the less experienced group, 108 (36.0%) respondents from moderate experienced group and 58 (19.3%) respondents are more experienced.

FRIEDMAN RANK TEST

The Friedman test rates the scores in each row of the data file independently of every other row. The Friedman chi-square statistic examines the possibility that the rankings assigned to the variables do not deviate from the value that was predicted for them. If the size of the sample remains the same, then the value of this chi-square statistic indicates the extent to which the actual value of each variable's rank sum deviates from the value that would be predicted for it.

Table.No.4: Opinion Regarding Work – Family Conflict

Sl.No.	Factors	Mean	Std. Deviation	Mean Rank
1	Financial Aspects	3.62	1.209	4.89
2	Heavy workload	3.92	1.168	3.79
3	Lack of job security	3.54	1.148	4.43
4	Lack of promotion & Recognition	3.59	1.178	5.11
5	Lack of support from Family Members	3.58	1.234	4.83
6	Lack of work Culture	3.23	1.152	4.70
7	Partiality	3.33	1.127	4.05
8	Poor support from management	3.50	1.443	4.21

The table 5 lists the mean rank of each variable. Low rank corresponds to the higher values of the variables. Here “Lack of work Culture” has lower values than the other variables with the mean value of 3.92. “Heavy workload” have larger values than the other variables The Friedman test determines the average ranking differs across variables.

Table 5: Friedman Test

No of respondents	300
Chi-Square value	105.229
Difference	7
Asymp.Sig.	0.000

The result indicates that the calculated Chi-Square value is 105.229 for the degree of freedom 7. This is highly significant at 1% level. The p value is 0.0000. Hence, it is concluded that the rank given in the table 5. It is concluded that the teachers feel that heavy work, financial aspects and Lack of promotion & Recognition are considered in work life balance of women employees with reference to teaching faculties during COVID 19.

POLICY CHALLENGES

Given gender differences in caregiving responsibilities and the fact that many women were already working "double shifts" before the crisis, the widespread closure of childcare facilities and schools is likely to pose significant challenges for many working parents, and for working mothers in particular⁹. The closure of schools and childcare facilities will only exacerbate the challenges many women already face in juggling work and family. Grandparents, who are often depended upon to offer informal care, are also especially susceptible and are needed to limit intimate interaction with others, particularly with youngsters, which adds to the complexity. Many working parents won't have many alternatives other than raising their children at home if they don't have strong family support systems.

CONCLUSION AND RECOMMENDATIONS

Work-life balance is a concept that encourages employees' attempts to divide their time and attention between work and other important elements of their lives. In addition to the stress of the workplace, finding a work-life balance may include making time for family, friends, community involvement, spirituality, personal development, self-care, and other activities. Work-life balance is a concept that encourages employees' attempts to divide their time and attention between work and other important elements of their lives. In addition to reducing the stress from work, work-life balance may include making daily efforts to find time for friends, family, community involvement, spirituality, personal development, self-care, and other personal pursuits. When employees can balance the demands of work and life, they are happy. Relationships with employees are improved through management and skill. According to this research, women's work-life balance is often dependent on their level of job satisfaction, flexibility, and support during the COVID-19 pandemic. In addition, effective work-life balance guidelines will foster a healthy working environment if a company gives female workers greater opportunities to advance in the company. According to the findings of this study, the concept of maintaining a healthy balance between work and personal life can be extremely beneficial to an organization. This is typically the case because achieving a healthy work-life balance can improve the overall job satisfaction and productivity of female employees, as well as lower their levels of stress and the number of conflicts that arise between their work and their families, and make the working environment more flexible. According to the findings of this study, in order to have a good workplace culture that will boost employee productivity and job satisfaction, every company requires a policy that addresses the need of maintaining a healthy work-life balance. Management support for workers.

REFERENCES

1. Adikaram, D.S.R. (2016). 'Impact of work life balance on employee job satisfaction in private sector commercial banks of Sri Lanka', *International J. of Scientific Research and Innovative Technology*, 3(11): 17-31.
2. Amstad, F., Meier, L., Fasel, U., Elfering, A., Semmer, N. (2011). 'A Meta-Analysis of Work-Family Conflict and Various Outcomes with a Special Emphasis on Cross-Domain versus Matching-Domain Relations', *Journal of Occupational Health Psychology*, 16: 151-169.
3. Beutell, N. and College, I. (2010). 'The Causes and Consequences of Work-Family Synergy: An Empirical Study in the United States', *International J. of Management*, 27: 650-664.
4. Bloom et al., (2006). 'Management Practices, Work-Life Balance, and Productivity: A Review of Some Recent Evidence', Centre for Economic Performance. The London School of Economics and Political Science.
5. Chandola, T., Bartely, M., Marmot, M. and Michikazu, S. (2004). Does Conflict between Work and Home Explain the Effect of Multiple Roles on Mental Health? A Comparative Study in Finland, Japan and the UK. *International J. of Epidemiology*, 33(4): 884-893.

⁹ OECD (2016), *Be Flexible! Background brief on how workplace flexibility can help European employees to balance work and family*,

6. Deery, M. and Jago, L. (2015). Revisiting talent management, work-life balance and retention strategies, *International J. of Contemporary Hospitality Management*. 27(3): 453- 472.
7. Doble N., Supriya M. V. (2010). 'Gender Differences in the Perception of Work-Life Balance', *Econ Papers, Management* 2010, 5(4): 331-342.
8. Doherty, L. and Manfredi, S. (2006). "Action research to develop work-life balance in a UK university", *Women in Management Review*, 21(3): 241-259.
9. Fapohunda, Tinuke. M (2014). 'An Exploration of the Effects of Work Life Balance on Productivity', *Journal of Human Resources Management and Labor Studies*, 2(2): 71-89.
10. Goyal K.A., Agrawal A. (2015). "Issues and Challenges of Work Life Balance in Banking Industry of India", *Pacific Business Review International*, 8(5): 113-118
11. Gouri Prabha P.V. (2019). 'Challenges and Problems of a Working Woman' *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 6(5): 118-119
12. Mazerolle and Barrett, (2018). 'Work-Life Balance in Higher Education for Women: Perspectives of Athletic Training Faculty', *Athletic Training Education J.*, 13(3): 248– 258.
13. Purohit M. (2013). 'A Comparative Study of Work Life Balance in Various Industrial Sectors in Pune Region', *International Journal of Marketing, Financial Services & Management Research*, 2(3): 198-206
14. Beutell, N. and College, I. (2010). 'The Causes and Consequences of Work-Family Synergy: An Empirical Study in the United States', *International J. of Management*, 27: 650-664
15. Lazar, I., Osoian, C., & Ratiu, P. (2010). 'The role of work-life balance practices in order to improve organizational performance', *European Research Studies J.*, 13(1): 201-214.

REVIEW ON BLENDED LEARNING: IDENTIFYING THE KEY TO THEMES

Dr. T. Manichander Dr. Kanika Handa** Dr. Dushyant Nimavat****

**Assistant Professor, Department of Education,
Assam University (A Central University), Silchar, Assam, India.*

***Assistant Professor, Department of Education, P.G. Center,
Gandhi Bhawan, H.P. University, Shimla, Himachal Pradesh, India.*

****Associate Professor, Department of English, Gujarat University,
Navrangpura, Ahmedabad, Gujarat*

ABSTRACT

The phrase "blended learning" refers to the educational strategy of integrating digital learning resources with more conventional face-to-face instruction in a classroom. Both the student and the instructor should be physically present in the same area for a blended learning environment to be effective. Despite this, the students should have access to the digital tools in order to exert some influence on the pace or subjects of their study. The flipped classroom model is a related initiative that tries to use technology to reorganize the educational process and maximise the value of precious face-to-face time in the classroom. Students would be encouraged to use a cloud-based learning platform to access digital learning resources on their own time as part of a flipped classroom programme.

Index Terms: Blended learning, review, themes and categories

INTRODUCTION

The educator of the future would design the learning environment so that pupils might develop their skills and capacities. Successful and effective teaching requires two essential components. The teacher has to be certified to teach the subject matter. He or she must also adhere to the right teaching technique and technology. A successful blended learning approach has equipped them to adapt to new teaching methods. There are several opportunities to adapt to blended learning in the classroom and enhance teaching abilities. The development of teaching skills in this setting requires exposure to both face-to-face interactions and the individualized instruction that is unique to online learning. Collaboration and information analysis skills are more important than ever. However, despite growing interest in technology, little work has been done to come up with innovative ways to increase teachers' and future teachers' participation in higher education programmes. By looking at student projects and learning outcomes, the present study hopes to get a deeper understanding of the benefits and downsides of the mixed combination. The information was acquired from three different sources: the phases of curriculum creation for the master's programme, the design and effectiveness of the virtual communities that the programme generated, and the research partnerships that emerged during the project. The focus on the graduate was embraced as a core organizational element in the curriculum design for this master's degree in order to better link to characteristics of the knowledge society. Numerous online tools and services may aid in the shift to a truly student-centered approach. The emphasis on the individual student's interests and skills speaks to the need of improving the effectiveness and efficiency of learning. This new focus led the classification of the academic disciplines more on the basis of the internalization of learning than on the cultural epistemological tradition during the establishment of the master's degree curriculum. Blended learning incorporates online learning activities and supports students in gaining meaningful education by using flexible online information and communication technologies, fewer students in crowded classrooms, and organized teaching and learning experiences. Blended learning combines traditional in-person instruction with online learning. Since it enhances academic standards, increases test pass rates, provides students greater scheduling freedom, and removes geographic barriers, this kind of education is gaining popularity at several prestigious universities throughout the world.

BLENDED LEARNING (BL): THEORETICAL BACKGROUND

The world is always changing, and such changes have an impact on other spheres as well. Even in the field of education, there is no exception. The development of digital learning platforms has had a significant influence on educational institutions, ultimately pushing conventional approaches to the sidelines. Both technology and conventional teaching approaches are needed, however. As a consequence, the term "Blended Learning" was created to describe the practice of integrating digital learning resources with more conventional classroom face-to-face instruction. This chapter discusses the changes in education and the need for blended learning. BL refers to a well-planned mixture of worthwhile activities in both online and face-to-face modes, not just a simple blend of the two. The mix necessitates taking into account a number of variables, with a primary emphasis on learning objectives and the learner-centered instructional environment.¹

ROLE OF TEACHERS IN BL ENVIRONMENT

By using BL, teachers become coaches and mentors rather than just knowledge providers. This change does not imply that instructors are any less active or crucial to students' education. Contrarily, using BL, instructors may actually have a more significant impact on pupils' learning. With the introduction of BL, classroom teaching has shifted from being mostly teacher-directed, top-down, and one-size-fits-all to being more student-driven, bottom-up, and individualized, with differentiation as a key component. This new learning dynamic is largely a result of the expanded role that technology now plays in education.

BL strikes the right balance between teacher-led instruction, which individualizes the learning experience and adds the human elements of encouragement, compassion, and caring guidance that only teachers can provide, and online instruction, which offers the interactive, tech-based learning, individualized pacing, and privacy that keep students continuously engaged and motivated. Both students and instructors gain from this unique learning dynamic. Students may take some control over their learning and become more independent when given the opportunity and freedom to become active, direct learners. As more students work independently, instructors have more time to provide more pupils targeted education and face-to-face assistance, which significantly improves differentiation. BL gives instructors a more complete, precise view of each student's performance. As a result of BL, instructors are able to engage with each student more often and personally, fostering closer bonds between them and their charges. Close connections and the trust they foster may provide instructors insights into the needs and problems of individual students, enabling them to support and guide those students as they overcome difficulties that often stand in the way of their ability to learn. In conclusion, BL combines the finest elements of both direct teaching and online learning, making it simple for instructors to satisfy more student requirements without adding to their already heavy burden.²

FACTORS INFLUENCING BLENDED LEARNING

There are 13 research papers in all that look at different facets of blended learning. Eight of these studies concentrate on learner factors, while four of them look at students' perceptions of the blended learning format. Maulan and Ibrahim³ found, there was no discernible difference between students who participated in blended learning and those who did not participate in this kind of learning. At a university in the south-west of England, Glogowska⁴ and her colleagues established a novel model of continuing professional development (CPD) for health care practitioners based on an approach called blended learning. Owston⁵ and colleagues investigated the link between students' perceptions of their performance in blended learning classes and their

¹ Lim, C. P., Wang, T., & Graham, C. (2019). Driving, sustaining and scaling up blended learning practices in higher education institutions: A proposed framework. *Innovation and Education*, 1(1), 1-12.

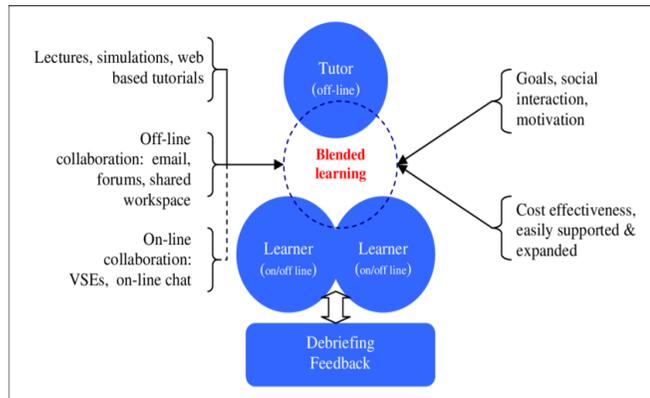
² Lima, R. M., Da Silva, J. M., van Hattum-Janssen, N., Monteiro, S. B. S., & De Souza, J. C. F. (2012). Project-based learning course design: a service design approach. *International Journal of Services and Operations Management*, 11(3), 292-313.

³ Maulan and R. Ibrahim, —The teaching and learning of English for academic purposes in blended environment,| *Procedia — Social and Behavioral Sciences*, 2012

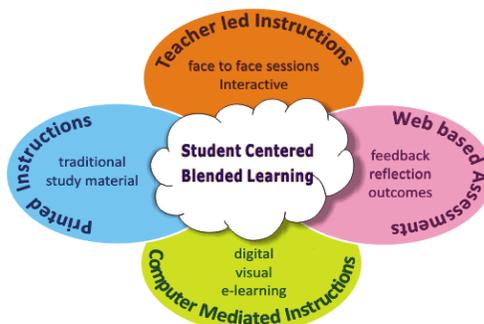
⁴ M. Glogowska, P. Young, L. Lockyer, and P. Moule, —How 'blended' is blended learning?: Students' perceptions of issues around the integration of online and face-to-face learning in a continuing professional development (CPD) health care context,| *Nurse Education Today*, 2011.

⁵ Owston, R., York, D., & Murtha, S. (2013). Student perceptions and achievement in a university blended learning strategic initiative. *The Internet and Higher Education*, 18, 38-46

actual performance in such classes. Taplin⁶ et al. conducted research to determine the monetary value that students put on being able to access recorded lectures in a mixed learning environment via the use of the internet. The article included a description of the students' experiences while enrolled in a postgraduate programme that used blended learning at a nursing and midwifery school. Smyth et al. indicated that blended learning as a pedagogical technique has the potential to contribute and improve nursing and midwifery practice as well as boost student learning. Blended learning is a combination of traditional classroom instruction with online and hybrid components. This article presented evidence that gender disparities indeed exist in the influence that playfulness has on a student's attitude about a technology and their inclination to utilize it. The purpose of this research was to investigate the connection between students' individual variables and their level of satisfaction with blended learning.



This paper investigated personality characteristics, different learning styles, and levels of satisfaction, as well as the association between those factors and educational results in a blended learning environment. Institutional considerations are the focus of articles. Graham et al. conducted an investigation of six different instances of institutional adoption of blended learning in order to identify the major problems that might lead university administrators interested in this effort. Bottom-up managed change processes were established by Carbonellet al⁷. These procedures give the benefit of using the creative potential of faculty to create and execute blended learning programmes. Bottom-up managed change processes were introduced by Carbonell et al. examined the similarities and differences between the institutional strategies, structures, and support measures taken in the United States toward the adoption of BL. Porter et al. investigated whether or not the innovation adoption category of a faculty member at a higher education institution has an effect on whether variables support or hinder BL implementation. There is just one article that discusses teacher factors. In their article, Jokinen and Mikkonen⁸ highlighted the experiences that instructors had while developing and executing teaching and learning in a blended-learning adult nursing programme.



⁶ Taplin, R. Kerr, A. M. Brown, —Who pays for blended learning? A cost–benefit analysis,| The Internet and Higher Education, 2013
⁷ Carbonell, A. Dailey-Hebert, and W. Gijsselaers, —Unleashing the creative potential of faculty to create blended learning,| The Internet and Higher Education, 2013
⁸ P. Jokinen and I. Mikkonen, —Teachers' experiences of teaching in a blended learning environment,| Nurse Education in Practice, vol. 13, issue 6, pp. 524–528, 2013.

Skills training Lack of training is identified as a considerable risk Beadle and Santy, (2008)⁹. New skill sets may be required by staff and students from basic information technology (IT) skills to learning new ways of interacting. Important skills training for trainers revolves around IT, information literacy, and e-learning development. Skills training for learners will involve IT, e-learning study skills, time management, and advice on organizing e-learning tasks Childs et al., 2005). Stewart (2002)¹⁰ notes that given the growing need for technological expertise, such as multitasking during synchronous online sessions in a virtual learning environment or handling the subtleties of multi-cultural appropriateness without face-to-face contact, training should be taken into consideration for the trainers. It could be necessary to get skills training in order to create and use certain blended learning content components. If there is a skills deficit, enough time and funds should be expressly set aside to offer the required training. The choices made regarding content development are of the utmost importance in this situation, and a cost-benefit analysis should suggest either in-house content generation or outsourcing to an e-learning provider.

Generating ideas: Higher education students are mature learners who bring their own life experiences, prior knowledge from their previous educational experiences, exposure to other sources of information, etc. to the classroom. Even the pre-session materials that instructors recommend provide students some knowledge and information. It is no longer the accepted technique for teachers to lecture to students as if they are empty boxes. Instead, students may participate by imparting their information, opinions, and viewpoints in the classroom or online. This chance may be given to learners in BL mode to a large degree. Prior to class, resources may be uploaded and external links can be provided on learning management systems. These extracurricular resources are at least helpful for learning new facts. Once the students have completed their research using the tools, conversations in class may be productively used. They might utilize online tools like blogs, shared papers, discussion forums, etc. to facilitate the sharing of their thoughts and information.

Concept-mapping/Mind-mapping: The ideal cognitive activity for learners is to mentally construct a cognitive framework or scheme for any subject. These assist students in comprehending the subject from all angles and in independently establishing the linkages between ideas. These tools include features that make the exercise exciting and engage students in the process of meaningful learning. These features include the ability to enter photographs, sticky notes, and doodles.

Exposure to the real world: Students in higher education are just a few steps behind the working world. Their exposure to the real world while in college or university will help them prepare for it. They will be able to engage with the actual world more intimately via field trips to learn the processes, stakeholder interviews, case studies, short polls, etc. Allow students to visit the business to grasp the procedures rather than teaching them all; alternatively, they might get information via websites and portals. Explaining the rules and regulations of any organization in the classroom on own will prevent the students from understanding them. Instead, encourage them to visit the organization in person or to read the laws and regulations on its website.

PROSPECTS OF BLENDED LEARNING IN INDIA

In order to reduce the amount of time students spend sitting in class in a face-to-face setting, blended learning combines online and offline learning activities and resources, which is very advantageous for universities. It may help university administrations enhance under registered programmes, complete educational objectives, and boost cost effectiveness. With the help of blended learning, students may access and participate in the curriculum from any location at any time. The participants might actively learn without being on campus. Blended learning offers young people the chance to make studying more enjoyable and fulfilling.¹¹ This implies that exposing children to technology at a young age might encourage them to choose careers that include technology. Additionally, young children will develop cooperative learning habits to get them ready

⁹ Beadle, M. and Santy, J. (2008), "The early benefits of a problem-based approach to teaching social inclusion using an online virtual town", *Nurse Education in Practice*, Vol. 8 No. 3, pp. 190-6

¹⁰ Stewart, J.M. (2002), "A blended e-learning approach to intercultural training", *Industrial and Commercial Training*, Vol. 34 No. 7, pp. 269-71.

¹¹ Maccoun, Hussein Salem. (2016). The Effect of Using Blended Learning on the Achievement of Students and Information Retention of Fifth Graders in the Biology Course, *Faculty of Education Journal*, 22 (95) ,PP..209-240

for their future careers and participation in democracy. A sense of investment from the government and communities may also enhance involvement and engagement in mixed-learning schools. Students may believe they have a genuine chance of defining long-term goals for their personal and professional lives as a result of the new style of thinking (such as brainstorming) required for integrating learning in schools. The Internet is sometimes accessible and dependable and other times it isn't. When there are Internet resources accessible, blended learning enables students to utilize them, while still allowing them to use more conventional techniques when there are network disruptions or difficulties. Additionally, instructors have access to student data so they may make choices that will assist kids meet standards for competency. Several cognitive processes that support communicative, self-assured, creative, and cooperative learning are included in learner-centered teaching and learning activities. In BL contexts, students are seen as active learners who generate ideas and assimilate information both on their own and in groups. Students seated in a classroom no longer have to pay attention to the lecturer if learning materials are made available on an online platform. The time might then be used to include them in activities. Even their online time may be creatively used to enhance the utility and appeal of online meetings.



COMMENTING ON PREVIOUS STUDIES

The goal of blended project-based learning is to combine the benefits of project-based learning with conventional online lectures. Through online tools like recorded lectures or live classrooms, students are able to study conceptually. The students also develop their practical abilities by participating in face-to-face supervised projects. The artefacts created during these projects are intended to augment the students' conceptual learning as a part of the overall learning process.

Alebaikan (2010)¹² aimed at identifying the benefits, difficulties and future of mixed learning for Saudi female undergraduate students and teachers. The key factors affecting professors' and students' attitudes were evaluated, and recommendations for further research, practice, and strategy were given. To facilitate the investigation of the phenomenon, qualitative methodologies were used to collect a large amount of descriptive data. Based on interpretative philosophy, the findings were reviewed in terms of explanation and interpretation for the participants' opinions on mixed learning. The study discovered that blended learning may provide Saudi Arabian students a beneficial educational experience. Research has provided insights into how to address the challenges of implementing blended learning in Saudi Higher Education since adaption has always been difficult when a new approach is adopted. To describe the factors impacting the implementation of mixed learning, a theoretical framework for mixed learning was constructed. One of the key conclusions was that Saudi women could be able to finish their higher education in a classroom with other genders while maintaining their own cultural norms and traditions.

¹² Alebaikan (2010), "Perceptions of Blended Learning in Saudi Universities", *Research in Learning Technology*, Vol. 18(1), PP. 49-59

Kintu, Zhu and Kagambe (2017)¹³ investigated the effectiveness of a blended learning environment through analyzing the relationship between student characteristics/background, design features and learning outcomes. The study looked at student characteristics as independent variables and learning outcomes as dependent variables to identify the key elements influencing the effectiveness of mixed learning. To gather information on student backgrounds, design components, and learning outcomes, 238 respondents were polled. As a result, the final results of the semester evaluation were used as a performance indicator. The inventory of intrinsic motivation data, the online self-regulatory learning questionnaire, and other self-developed tools were used to collect data on the other components. Multiple regression analyses showed that student satisfaction was a predictor of both student characteristics (attitudes and self-regulation) and design aspects (quality of technology, online resources, and face-to-face help). The results demonstrate that certain student characteristics/backgrounds and design components are significant predictors of mixed learning outcomes.

Eryilmaz (2015)¹⁴, titled “The Effectiveness of Blended Learning Environments”, The purpose of the study was to assess a mixed learning environment's effectiveness using factors specific to in-person and online contexts. 110 students who were enrolled in the Computer Course Introduction at Atilim University in Ankara, Turkey, participated in the study. The course was taken in-person, online, and in a hybrid format by the students. The mixed learning environment was created using forums, exams, text, graphics, and courses together with video-supported online content sharing. The effectiveness of the mixed learning environment was evaluated for the students after the training. The results showed a significant difference in the opinions of students in face-to-face and online learning settings, as well as in blended learning environments. Students said that they learn more successfully in a mixed-ability environment in their replies.

Numerous studies have demonstrated the effectiveness of blended learning in comparison to traditional methods such as (Maccoun, 2016)¹⁵; there are studies that demonstrate a statistically significant difference in student achievement as a result of the blended learning method such as Al-Rimawi, (2014)¹⁶, studies focusing on trends and skill development such as studies focusing on the fundamental stage such as (Shahin, 2008)¹⁷, studies focusing on the high level. This research, like several others before it, focuses on blended learning. These investigations aided in the approach and design of the current study, as well as the organization of its instruments'. This study varies from past research in that it focuses on third graders who view blended learning as a critical source for studying science and a primary entry point for their mental and physical development.

IMPLICATIONS OF THE STUDY

The present research was carried out within the framework of combining online and in-person instruction in scientific education. The study's conclusions have an array of repercussions for the way education is now run, especially for initiatives that include incorporating ICT into lesson plans. The implications of the current research may be important for curriculum designers, administrators, teachers, and students. The research shows how online instruction and in-person instruction may coexist in secondary schools. The research shows how blended learning outperforms conventional methods in terms of helping secondary school students build higher order thinking skills and scientific knowledge. Therefore, the results of the present study have consequences for the development of government programmes intended to raise the standard of education generally and scientific education specifically. The research can encourage discussion in the education sector about creating fresh educational programmes to enhance students' metacognition and equip them to become "Global Learners." It will be possible to make considerable efforts that are compatible with the results of this

¹³ Kintu, Zhu and Kagambe (2017), “Blended learning effectiveness: the relationship between student characteristics, design features and outcomes”, *International Journal of Educational Technology in Higher Education*, Vol. 14(7), PP. 15-17.

¹⁴ Eryilmaz (2015), “The Effectiveness of Blended Learning Environments Contemporary Issues in Education Research”, Vol. 8(4), PP. 253-254

¹⁵ Maccoun, Hussein Salem. (2016). The Effect of Using Blended Learning on the Achievement of Students and Information Retention of Fifth Graders in the Biology Course, *Faculty of Education Journal*, 22 (95) 209-240

¹⁶ Al-Hasan, Idris Kamatur. (2013), “The Effectiveness of Using the Blended Learning on the Academic Achievement in the Biology Course among the Second Graders in the Private Secondary Schools in Um Aldurman and their Trends towards it, *Psychological and Educational Research Journal*, (36),pp.59- 85.

¹⁷ Shahin, Suad Ahmed. (2008), “The Effect of Blended Learning on Achievement and the Development of Science Operations among the Students of the Elementary Level and their Trends towards it. *Faculty of Education, Tanta University*

research to enhance students' critical thinking and problem-solving skills via scientific education after it has been shown that higher order thinking can be encouraged.

CONCLUSION

According to the current systematic study, blended learning is a successful method of course delivery in higher education that effectively improves students' learning experiences across a range of topic fields. The review emphasizes how blended learning improves performance over online and face-to-face instruction, lowers course drop rates, and boosts retention. Additionally, it offers organizations, instructors, and student's flexibility. As was already said, it gets students more engaged in the learning process by raising their level of happiness with their educational experience. Finally, via the use of numerous communication channels, blended learning fosters the development of students' social and communication skills. These findings imply that institutions of higher learning should think about using blended learning strategies and modern technology tools into their course delivery. However, for the implementation of blended learning to be effective, institutions need to have clear objectives for it, do adequate planning for it, and set up the necessary technology infrastructure and resources. In order to fully grasp how blended learning improves many areas of learning, researchers and practitioners may use the review's results to look into the benefits and features of blended learning that have been emphasized. Additional research is required to determine the impact of blended learning in other topic fields and learning environments.

REFERENCE

1. Alebaikan (2010), "Perceptions of Blended Learning in Saudi Universities", *Research in Learning Technology*, Vol. 18(1), pp. 49-59.
2. Al-Hasan, Idris Kamatur. (2013), "The Effectiveness of Using the Blended Learning on the Academic Achievement in the Biology Course among the Second Graders in the Private Secondary Schools in Um Aldurman and their Trends towards it, *Psychological and Educational Research Journal*, (36),pp.59- 85.
3. Banci M and Soren H., (2008), "Students' opinion on blended learning", *Turkish Online Journal of Distance Education*, Vol. 10(1), PP. 21-35.
4. Deepak. K. Srivastava and Anval (2008), "E-Learning: A New Way of Education", *University News*, vol. 43(26), pp. 12-18.
5. Deivam, M. (2015), "Promoting Computer Knowledge among D.T.Ed. Students", *International Journal of Applied Research*, Vol. 1(13), pp. 735-738.
6. Eryilmaz (2015), "The Effectiveness of Blended Learning Environments Contemporary Issues in Education Research", Vol. 8(4), PP. 253-254.
7. Finger, G., and Trinidad, S. (2002), "ICTs for learning: An overview of systemic initiatives in the Australian states and territories", *Australian Educational Computing*, Vol. 17(2), pp. 3-14.
8. Georage. P.G. (1994), "The Effectiveness of cooperative learning strategies in multicultural university classroom", *Journal on Excellence in College Teaching*, Vol. 5(1), pp. 21-30.
9. Gotschall, M. (2000), "E-learning strategies for executive education and corporate training", *Fortune*, Vol. 141(10), pp. 5-59.
10. Graff, M. (2003), "Individual differences in sense of classroom community in a blended learning environment", *Journal of Educational Media*, Vol. 28(2-3), pp. 203-210.
11. Heyman, G.D., and Legare, C.H. (2005), "Children's evaluation of sources of information about traits", *Developmental Psychology*, Vol. 41(4), pp. 636-647.
12. Jeya Shanmugaraja, J., Karthikeyan, K., and Jayaraman, K. (2012), "A study of effectiveness of e- content on teaching zoology at higher secondary Level", *International Journal of Current Research*, Vol. 4(9), pp. 205-206.
13. Khaleel, M. Al-said. (2015), "Students perception of Edmodo and Mobile Learning and their Real Barriers towards them", *The Turkish Online Journal of Educational Technology*, Vol. 14(2), pp.169-180.
14. Kintu, Zhu and Kagambe (2017), "Blended learning effectiveness: the relationship between student characteristics, design features and outcomes", *International Journal of Educational Technology in Higher Education*, Vol. 14(7), PP. 15-17.
15. Kirkgoz, Y (2018), "A Blended Learning Study on Implementing Video Recorded Speaking Tasks in Task-Based Classroom Instruction", Vol. 10(4), PP. 1-13.

16. Korsunsky, B.M. (2003), "Exploring the cognitive components of solving non-trivial physics problem", *Dissertation Abstracts International*, Vol. 64(8), pp.2830-235.
17. Leh, S.C. (2002), "Action research on hybrid courses and their online communities", *Education Media International*, Vol. 39(1), pp. 31-37.
18. Osguthorpe, R. T. and Graham, C. R. (2003), "Blended learning systems: definitions and directions. *Q. Rev. Distance Educ.*, Vol. 4(3), pp. 227–234.
19. Prasart, Nuangchalerm., Sakkumduang, K., Uhwha, S., and Chansirisira, P. (2014), "Implementing E-Learning Designed Courses in General Education", *Online Submission*, Vol. 2(4), pp. 259-263.
20. Reay, J., (2001), "Blended learning: a fusion for the future", *Knowledge Management Review*, Vol. 4(3), PP. 6-8.
21. Shahin, Suad Ahmed. (2008), "The Effect of Blended Learning on Achievement and the Development of Science Operations among the Students of the Elementary Level and their Trends towards it. Faculty of Education, Tanta University.
22. Singh, H., (2003), "Building effective blended learning programs", *Educational Technology*, Vol. 43(6), PP. 51-54.

EFFECTS ON HRM PRACTICES ON LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Dr. John E P* Dr. Kiruthiga V Dr. S. Mahalakshmi*****

*Assistant Professor (Sr. G), Department of Management Studies,
SRM Institute of Science & Technology, Chennai.*

*Assistant professor, Department of Management studies, SRM institute of Science and
Technology, Chennai.*

*Assistant Professor, Department of Corporate Secretary Ship,
Salem Sowdeswari College, Salem.*

ABSTRACT

The human resource management of logistics enterprises has become an essential and important part of their operation and management process, which is directly related to the healthy, sustainable and stable development of logistics enterprises and the maximization of social and economic benefits at the lowest cost. Therefore, logistics enterprises must establish advanced concepts of human resource management and take reasonable and effective measures in combination with their own problems in this outbreak, so as to enhance their core competitiveness. The specific objectives of the study are to study the factors affecting supply chain management and to measure the impact of the factors on the supply chain management. In order to gain better understanding about the phenomena of supply chain management, an empirical study was chosen as the research methodology. With 100 samples of small and medium scale manufacturing companies study was carried out in Chennai city. The study concluded that supply chain structure, inventory control management, customers demand and lead time of the supply chain management are highly influencing the performance of supply chain management.

Keywords: Supply Chain Performance, Determinants and factors affecting SCM in SMEs

INTRODUCTION - PRELIMINARY FRAMEWORK OF SUPPLY CHAIN

The 2020 COVID-19 is a double-edged sword for all enterprises: it breaks our inherent stable mode of survival, which makes people suffer a certain spiritual and material impact, and at the same time, it makes people soberly realize that they are always in a complex and changing environment, and the rule of "survival of the fittest" still applies, only the self! Iteration is the only way to move into the future. Since the occurrence of the new crown epidemic, the logistics enterprises actively and quickly take action to ensure that masks, protective clothing and other emergency supplies in place in a timely manner, good logistical support work, and made great contributions to the resolution of the crisis. However, while strengthening the construction of emergency logistics system and improving the supply chain management, the logistics enterprises seldom paid attention to the human resource management of emergency logistics. In the face of the crisis, the organizational structure began to be exposed, senior managers are full of worry and anxiety, at this time the human resources department to take the initiative to promote company change, so that the company through the systematic reengineering to survive and develop. As the main body and pillar of the emergency logistics, emergency logistics personnel can be efficient management often becomes the key to deal with sudden safety and health events. The current emergency logistics personnel team construction still exists a lot of problems, the need to continue to improve the development. How to build a professional and efficient emergency logistics talent team, become the logistics enterprises and even the whole society have to consider the important issue.

OVERVIEW OF THEORIES RELATED TO HUMAN RESOURCES FOR EMERGENCY LOGISTICS

Human Resource Management (HRM) refers to the rational allocation of human resources according to the needs of the organization's survival and development, and the systematic implementation of a series of work such as recruitment, training, use, assessment, motivation, adjustment and so on, to stimulate the work potential of employees, according to the requirements of the organization's development strategy. Improve the quality of the staff themselves, mobilize the enthusiasm of the staff, thereby enhancing the efficiency of work and ensure that the enterprise to achieve the set goals.¹ Human Resource Development (HRD) is a management activity aimed at improving the quality of human resource management. Domestic scholars of human resource development understanding of research vary. Scholar Song Xiaowu uses the economic point of view to describe human resource development, that is, the organization through investment to achieve the process of human capital appreciation. The author believed that HRD is the use of existing resources and services to transform the training of the original human resources, so that they become human resources with a certain level of health, knowledge and social skills, and contribute to the achievement of organizational goals. Hu Chun² believes that HRD is an activity to improve economic efficiency by improving the quality of human resources, i.e. using a variety of effective methods to fully explore the potential of human resources, adjust the structure of human resources, improve the quality of human resources, so as to maximize the use of material resources, and then maximize the economic benefits of all activities. Xiao Mingzheng believes that human resources development refers to an organized and purposeful learning activity, the purpose of which is to improve their own quality and work performance. It is also a formal education, vocational training and social enlightenment service for all personnel involved in the state and enterprises, including education, training, deployment, use and other processes.³

HUMAN RESOURCE MANAGEMENT MEASURES IN THE LOGISTICS INDUSTRY IN AN EPIDEMIC SITUATION

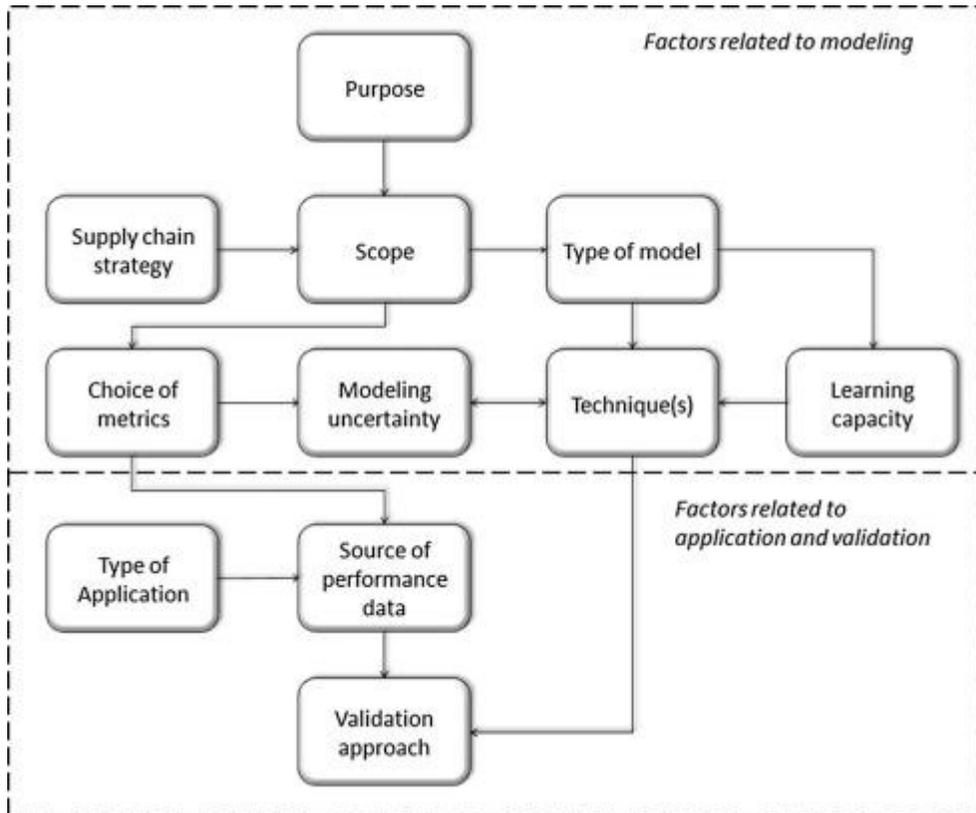
During the new crown epidemic, a large number of logistics enterprises actively engaged in the fight against the epidemic, playing a leading and exemplary role. In order to accurately grasp the problems encountered by A-class logistics enterprises in the resumption of work, in February of this year, the China Federation of Logistics and Purchasing conducted a survey among the 546 A-class logistics enterprises. Before February of this year, 141 companies joined the epidemic prevention logistics services; early February, three companies joined the anti-epidemic activities; mid-February, 66 companies to participate in epidemic prevention services; as of the end of February, the number of companies involved in logistics epidemic prevention work increased by 30. The survey also showed that more than 94% of the enterprises surveyed were willing and very willing to join the national emergency logistics service system. The timely delivery of all kinds of emergency supplies is a crucial part of the process of fighting epidemics under sudden public safety and health events, and the logistics enterprises play an irreplaceable role.⁴

¹ Gowen, C.R. and Tallon, W.J. (2002), "Enhancing supply chain practices through human resource management", *Journal of Management Development*, Vol. 22 No. 1, pp. 32-44.

² Huo, Y. Paul, and M. Von Glinow. 1995. "On Transplanting Human Resource Practices to China: A Culture-driven Approach." *International Journal of Manpower* 16 (9): 3-15.

³ Wu, F., S. Yenyurt, D. Kim, and S. T. Cavusgil. 2006. "The Impact of Information Technology on Supply Chain Capabilities and Firm Performance: A Resource-based View." *Industrial Marketing Management* 35 (4): 493-504.

⁴ Basu, D.R. and Miroshnik, V. (1999), "Strategic human resource management of Japanese multinationals: a case study of Japanese multinational companies in the UK", *Journal of Management Development*, Vol. 18 No. 9, pp. 714-32



THEORETICAL UNDERPINNING –REVIEW

The findings of this research demonstrate that the kind of HRM practice providers created is directly related to the degree of integration they have with their clients' SCM systems. It was discovered that suppliers with moderate and high degrees of customer connectivity have created certain HRM practices that closely reflect the kind of HRM practice suggested by different researchers. In their training procedures, there is an exception. Only Crescent Industrial and Crescent Machining showed signs of emphasizing training on problem-solving and leadership abilities, contrary to what we had anticipated. The study also demonstrates that businesses with few links have evolved a considerably more basic HRM approach. This is presumably because their primary clients are located abroad and are thus less able to carefully examine their management system. As a result, their clients often concentrate on the cost or quality of the offered goods. In a sense, these businesses may keep expenses down by establishing a basic HRM approach. This is particularly true of Sigma, who purposefully chose not to follow their customer's advice to implement the lean manufacturing method in order to save costs. The cost of rubber affects the pricing of Sigma's product, which Sigma thinks it has little influence over. However, such a basic HRM strategy gives these businesses a limited range of competencies and restricts their possibilities for the future. Its competitive position over the long run might suffer from this posture. Its resistance to changing to meet consumer demands and its shaky HRM procedures might lead to a lockout. The inflexibility of Sigma's workforce will limit its choices for adapting to changes in its competitive environment.

The HRM system that a business now uses gives it flexibility to respond to new possibilities. The development of an HRM system that makes use of job rotation, multi-skilling, and comprehensive training results in the creation of this flexibility. Such an investment gives businesses what are referred to as genuine alternatives Adner and Levinthal(2004)⁵. Sigma could maybe see the request from its Japanese client as a sign of what its customers would likely anticipate in the future and start building the necessary capabilities, including its HRM

⁵ Adner, R. and Levinthal, D.A. (2004), "What is not a real option: considering boundaries for the application of real options for business strategy?", *Academy of Management Review*, Vol. 29 No. 1, pp. 74-85

system, to meet these expectations. Given that the corporation acknowledges that competitors from India and Thailand who have a greater cost advantage are posing a serious threat to its market, this is required. Sigma claimed that it did not find the lean production system to be helpful in cutting costs, although one can surmise that their denial was really motivated by a lack of internal resources to support the system's implementation. In other words, Sigma's HRM system may already have shut it out of the company.

OBJECTIVES OF THE STUDY

The specific objectives of the study are

1. To study the factors affecting supply chain management
2. To measure the impact of the factors on the supply chain management

RESEARCH METHODOLOGY

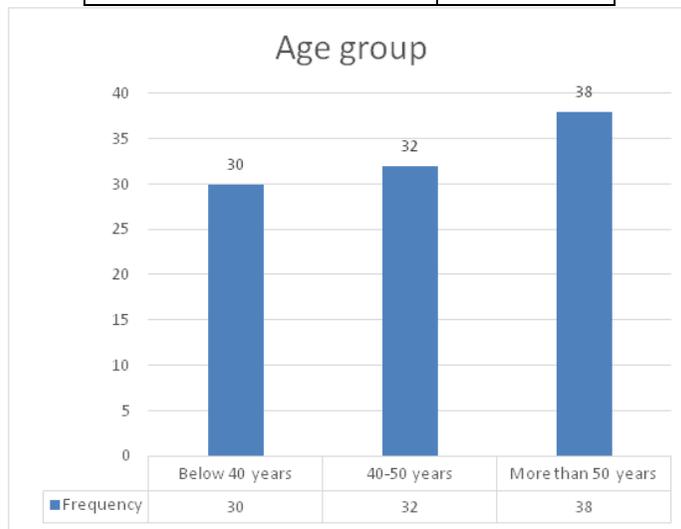
In order to gain better understanding about the phenomena of supply chain management, an empirical study was chosen as the research methodology. With 100 samples of small and medium scale manufacturing companies study was carried out in Chennai city

FINDINGS, DISCUSSIONS AND RESULT

The socio-economic nature of the respondents selected for the study is given below.

Table 1: Age group

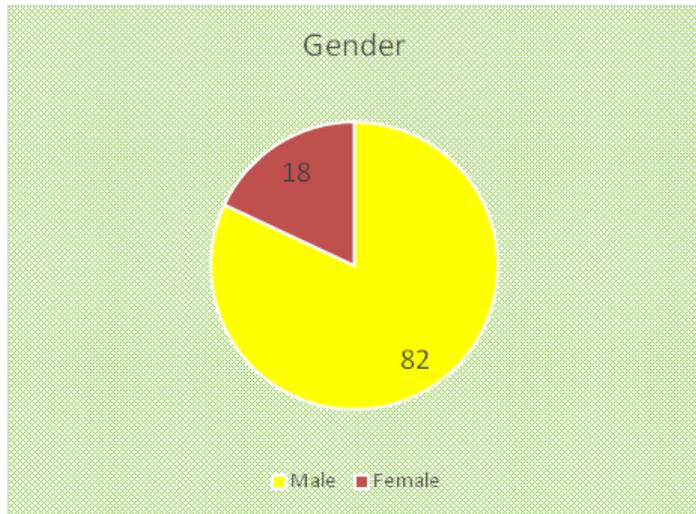
Age group	Frequency
Below 40 years	30
40-50 years	32
More than 50 years	38
Total	100



The Table 1 depicts that high percentage of the respondents 32 belong to the middle age group. 30 respondents are young and 38 respondents are from the old age group

Table 2: Gender

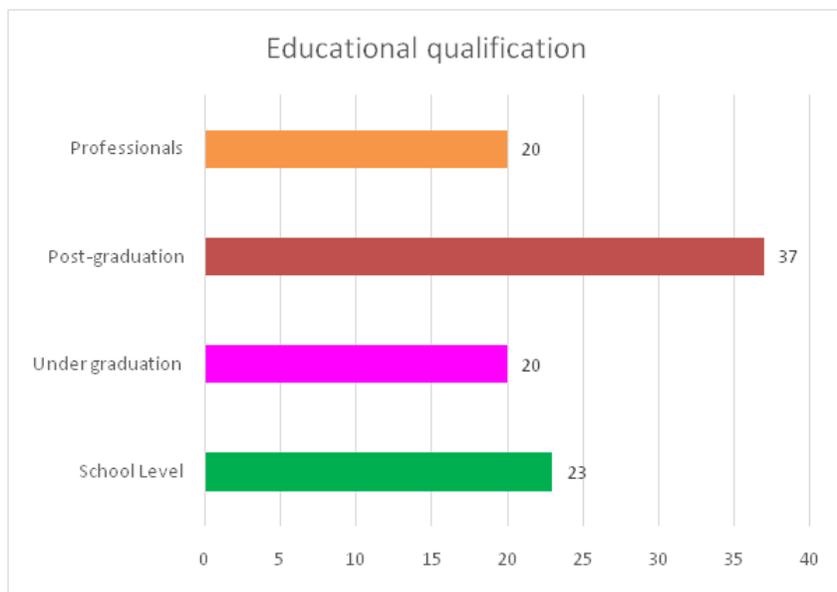
Gender	Frequency
Male	82
Female	18
Total	100



Out 100 sample respondents, majority 82 respondents are male and the rest of the 18 respondents are female.

Table 3: Educational qualification

Educational qualification	Frequency
School Level	23
Under graduation	20
Post-graduation	37
Professionals	20
Total	100



The above table shows that most 23 respondents are school Level and 20 respondents have completed under graduation. 37 respondents have studied upto Post - graduation. 20 respondents are professionals.

FACTORS AFFECTING THE PERFORMANCE OF THE SCM

The experts' opinion and theories explain various factors related Supply Chain Management (SCM) influencing its performance. They are structure of the supply chain, inventory control policy of the company, information sharing within the team, customer demand, forecasting method, lead time and review period length. Opinion of the respondents towards these factors is ranked using Friedman technique.

Table 4: Descriptive Statistics

Factors	Mean	Std. Deviation	Mean Rank
Supply chain structure	3.21	1.192	4.57
Inventory control policy	2.98	1.044	4.11
Information sharing	2.81	1.269	3.81
Customer demand	2.64	1.425	3.54
Forecasting method	2.76	1.215	3.71
Lead time	2.91	1.129	3.99
Review period length	3.03	1.283	4.28

The above table indicates that supply chain structure (4.57) is the most considering factors on the performance of the SCM. Review period length (4.28) in the supply chain system has also been considered by the most of the respondents. Inventory control management is also considered by the sample respondents (4.11). Fourthly, lead time taken in the supply chain (3.99) is ranked. Information sharing (3.81), forecasting methods (3.71) and customers demand (3.54) are ranked fifth, sixth and seventh respectively.

Table 5: Friedman Test

N	100
Chi-Square	23.989
df	6
Asymp. Sig.	0.001

The result of the Friedman ranking technique shows that the calculated value of the Chi-Square for the degree of freedom 6 is 23.989 which is significant at 1% level. Hence, it is determined that supply chain structure, the factors reviewed period length and inventory control management as considered most by the sample respondents.

DISCUSSION AND CONCLUSION

The prior chapter's findings will be used to provide suggestions, recommendations for more research. The proposals should result in the ability to incorporate performance-related supply chain features. Along with the ideas discussed extensively throughout this text, this section highlights other aspects impacting supply chain effectiveness. The combination of earlier research and current research findings will be beneficial to both the organization and the broader community. To incorporate elements, the following considerations should be made: i) Awareness of the magnitude of change; ii) Consensus on the SCM vision and key procedures; iii) Commitment of resources and empowerment essential to achieve the stated goals. Continuous information exchange enables managers to make more informed decisions, which enhances the supply chain's performance. Customer demand is very volatile, which raises the bullwhip effect and inventory costs across the supply chain. Forecast accuracy has a significant impact on supply chain performance. Reduced lead times contribute to the supply chain's efficiency. A longer review time should be chosen to minimise the supply chain's total inventory cost. The optimal selection of settings for all aspects leads in improved supply chain performance. The study concluded that supply chain structure, inventory control management, customers demand and lead time of the supply chain management are highly influencing the performance of supply chain management.

REFERENCES

1. Zinkhan, (1994), "Two contributions from sociology to marketing thought: a qualitative and a quantitative perspective", *Journal of Marketing Research*, Vol. 31, pp. 312–314
2. Cooper, Lambert, Pagh, J.D. (1997), "Supply chain management: more than a new name for logistics", *International Journal of Logistics Management*, Vol. 8 Issue 1, pp. 1-15.
3. Gunasekaran (2004), "A framework for supply chain performance measurement", *International Journal of Production Economics*, Vol. 87, pp.333-347
4. Mentzer (2001), "Defining Supply Chain Management", *Journal of business logistics*, Vol.22, No.2.
5. Rogers (2001), "The Supply Chain Management Processes", *The International Journal of Logistics Management*, Vol. 12, No 2, pp. 13-36.
6. Shepherd, C., Günter, H. (2006), "Measuring supply chain performance: current research and future directions", *International Journal of Productivity and Performance Management*, Vol. 55, No. 3-4, pp. 242-258
7. Stewart, G., (1995), "Supply chain performance benchmarking study reveals keys to supply chain excellence", *Logistics Information Management*, Vol. 8, No. 2, pp. 38–44.
8. Yin, R.K., (2003), "Case Study Research, Design and Methods", *3rd ed. Sage Publications*, Inc., Thousand Oaks, pp.3-5
9. Bottani and R. Montanari,(2010) "Supply chain design and cost analysis through simulation," *International Journal of Prod. Res.*, vol. 48, no. 10, pp. 2859–2886.
10. Dominguez, S. Cannella, and J. M. Framinan, (2015) "The impact of the supply chain structure on bullwhip effect," *Appl. Math. Model.*, vol. 39, no. 23–24, pp. 7309–7325,
11. Steckel, Gupta, and Banerji, (2004) "Supply chain decision making: will shorter cycle times and shared point-of-sale information necessarily help?" *Manage. Science.* vol. 50, no. 4, pp. 458–464.
12. Chaharsooghi and Heydari, (2010) ,"LT variance or LT mean reduction in supply chain management: Which one has a higher impact on SC performance?," *International Journal of Prod. Econ.*, Vol. 124, no. 2, pp. 475– 481
13. Khosroshahi, Husseini, and Marjani,(2016) "The bullwhip effect in a 3-stage supply chain considering multiple retailers using a moving average method for demand forecasting," *Journal of Appl. Math. Model*, vol. 40, no. 21, pp. 8934–8951
14. Adner, R. and Levinthal, D.A. (2004), "What is not a real option: considering boundaries for the application of real options for business strategy?", *Academy of Management Review*, Vol. 29 No. 1, pp. 74-85.
15. Basu, D.R. and Miroshnik, V. (1999), "Strategic human resource management of Japanese multinationals: a case study of Japanese multinational companies in the UK", *Journal of Management Development*, Vol. 18 No. 9, pp. 714-32.
16. Chandra, C. and Kumar, S. (2000), "Supply chain management in theory and practice: a passing fad or a fundamental change?", *Industrial Management & Data Systems*, Vol. 100 No. 3, pp. 100-13
17. . Cox, A. (1999), "Power, value and supply chain management", *Supply Chain Management: An International Journal*, Vol. 4 No. 4, pp. 167-75.

SOCIAL ENTREPRENEURIAL TRAITS AMONG YOUTH IN INDIA

S. Sam Santhose Dr. Anviti Rawat** Dr. M. Prakash****

**Associate Professor, Department of Management Studies, Nesamony Memorial Christian College, Marthandam, Kanyakumari District, Tamil Nadu*

***Assistant Professor, Maharaja Surajmal Institute, C-4, Janakpuri, Delhi*

****Assistant Professor & Head, Department of Corporate Secretary Ship, Salem Sowdeswari College, Salem.*

ABSTRACT

The potential to be a change agent for a variety of economic, environmental, social, and political challenges at both the local and global levels is what we mean when we talk about social entrepreneurship. It is considered that introducing young people to the ideas and practices of social entrepreneurship at educational institutions of higher learning may have an effect on this development. Students at a variety of educational institutions may be encouraged to consider social entrepreneurship as a potential line of work following completion of their formal education if they are provided with the opportunity to participate in an entrepreneurial culture and environment while they are enrolled in those establishments. There was a modest correlation between social entrepreneurial interests and proactive personality, entrepreneurial attitude, perceived behavioral control, and entrepreneurship education. The research also highlighted three variables that hinder the intention of students towards beginning a social entrepreneurship venture. These three elements include fear of risk, a lack of financial and moral support, and a lack of understanding about social entrepreneurship. Fear of potential harm emerged as one of the most significant barriers faced by pupils as a direct result of this.

Keywords: Entrepreneurship; Entrepreneurship Education; Career Intentions and Social Entrepreneurship.

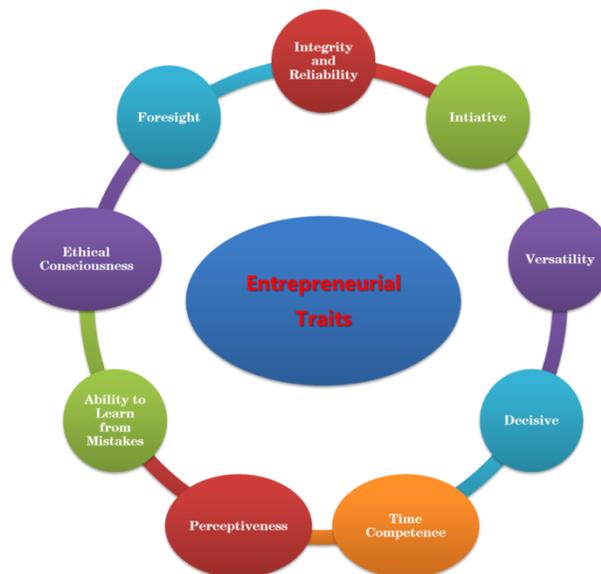
INTRODUCTION

The well-being of society and/or the natural environment is the primary concern of a social entrepreneur. They take action in the direction of helping to address a problem whenever they discover one in the community, the environment, or the ways that people live their lives. The acquisition of riches or financial security is not the primary objective of a social entrepreneur. Instead, they place a greater emphasis on catering to the requirements and preferences of the community in a manner that makes better use of available resources. They will sometimes go on with their ideas despite having little funding and resources, yet they will still have an effect on the community. Social entrepreneurs are those who run businesses with the goal of making the world a better place to live. They are more concerned with the welfare of society as a whole. Their initiatives may or may not provide value and money. There are times when people put a significant amount of effort and time into improving society yet get little reward for their efforts. The most dynamic and effective way to make progressive wealth is via the process of entrepreneurship. People who are willing to take risks in terms of equity, time, or giving value for a relatively small number of products or services are the ones that create wealth. The formation of small to medium-sized businesses, which constitutes entrepreneurship, plays an important part in the process of wealth creation for an individual, the expansion of employment opportunities, the enhancement of the standard of living, and the provision of a platform for innovation and the enhancement of productivity in any nation¹. Researchers in the field of entrepreneurship have recognized the importance of the subject of entrepreneurship adoption of entrepreneurial behaviour in universities. Students are preparing themselves for the next phase of their working lives when they attend an institution known as a university. Students make decisions on the next steps in their lives immediately after their graduation. The endeavors of entrepreneurs are very important to the development of a nation's economy as well as its social wellness.

¹ Renu Arora and S.K. Sood, "Fundamentals of Entrepreneurship and Small business", Kalyani Publishers, New Delhi, 2003, p.8.

WOMEN ENTREPRENEURSHIP AN OVERVIEW

Women account for almost half of the entire population of the planet. The same is true in India. Because of this, many consider them to be the most upstanding members of society. In more traditional civilizations, they were expected to undertake tasks related to the family and were limited to the confines of the home. They have emerged from their cloistered existence in contemporary civilizations to take part in a wide variety of extracurricular activities. The data from throughout the world suggests that women have been doing very well in a variety of fields, including academia, politics, administration, and social work, amongst others. Now, they have begun venturing into the industrial sector as well, and they are effectively operating their businesses. Consequently, in the course of the discussion on the growth of entrepreneurship, it seems to be appropriate in the context to investigate the development of women entrepreneurs in the nation². Entrepreneurs provide new employment possibilities, boost innovation and competition, and are able to adapt quickly to shifting economic opportunities and trends. Other beneficial externalities may result from entrepreneurial activity. When a young person starts their own company, they may give demonstration or learning externalities to other young people in the sense that they may serve as a role model for other young people. Young people should think about starting their own businesses, regardless of their level of entrepreneurship or experience. The trend of youth entrepreneurship, which is currently prevalent not only in wealthy nations but also in emerging countries like India, is becoming more common³. This concept is also being supported by the government of India, which is putting forth persistent efforts and enacting a number of different employment generation programmes in order to increase the number of job opportunities available to young people in India, regardless of their level of education. When developing a strategy for one's professional life in this field, one must first have a solid understanding of their own personality type.



BACKGROUND OF ENTREPRENEURSHIP SCENARIO

The entrepreneurial process is a dynamic one that involves vision, adaptation, and creativity. It necessitates the application of energy and enthusiasm toward the conception and execution of original ideas and creative approaches. A willingness to take calculated risks, whether in terms of time, equity, or career; the ability to effectively form a venture team; the creative skill to marshal necessary resources; the fundamental skill of building a solid business plan; and, finally, the ability to recognize opportunity where others see chaos, contradiction, and confusion are all essential ingredients. The French individuals who planned and oversaw military operations were known as "Entrepreneurs." "Around the year 1700 A.D., the word "entrepreneur" was

² V.G. Patel, "Entrepreneurs are Made Not Born", Economic Times, July 1990, p. 16

³ NalinakshaMutsuddi, "You Too Can Become an Entrepreneur", Wheeler Publishing, New Delhi, 1996, p. 183

given to architects and contractors who worked on public works projects. In many parts of the world, the word "entrepreneur" is most often associated with a person who launches their own company. Companies in the transportation, manufacturing, and retail sectors, as well as those in the service industry that are run by self-employed professionals. Entrepreneurship may be defined as the mental ability to accept calculated risks while maintaining a high level of self-confidence in order to accomplish planned business goals. The following is a list of successful businesspeople and public policymakers who have offered numerous thoughts and points of view on the subject of entrepreneurship. These ideas and perspectives will help us comprehend the notion more clearly.⁴

ESSENTIAL LEADERSHIP CHARACTERISTICS OF A SOCIAL ENTREPRENEUR

It is becoming more widely acknowledged that entrepreneurship is both an essential method and a beneficial option for the creation of money, and that it plays an especially important role among younger generations. This is because of the fact that younger generations are especially likely to engage in entrepreneurial endeavors. Entrepreneurship among young people is increasingly being acknowledged as an additional route for preparing young people for formal employment in small firms as a kind of self-employment. This is due to the decline in popularity of traditional career paths that include holding one job for one's whole working life. Enhancing the social and economic potential of young people is an absolute need in view of the worldwide demographic patterns that have emerged in recent decades. It helps to reduce some of the socio-psychological issues and delinquency that emerge as a result of joblessness by developing work alternatives for children who are self-employed. This may be done by establishing work options for children who are already working. According to the findings of a number of studies carried out in a wide range of countries, the age at which young people first participate in activities related to entrepreneurship varies. Even though this kind of categorization can only serve as a broad suggestion, it becomes obvious that observing and recognizing the various stages and transitions is essential for evaluating and designing appropriate policies and strategies to foster youth entrepreneurship.⁵

Being Revolutionary: Social entrepreneurs are those who are able to question the status quo that is already in place and come up with better and more original solutions to address social or environmental problems. They are willing to break out from the established conventions of society in order to bring about good change, and they believe in the idea of improvement at the same time as they are ready to do so. B.R. Ambedkar is a perfect illustration of this idea of improvement, and the work he did to bring the backward classes of India to the forefront of society continues to have enormous consequences even now. Numerous groups of people owe him a debt of gratitude for making it possible for them to enjoy fundamental freedoms and lead dignified lives..

Compassion: The practice of social entrepreneurship is, by its very nature, a line of work that requires a compassionate and generous attitude. It is about having the capacity to find solutions to societal issues and to inspire societal change. In contrast to traditional entrepreneurship owners, whose major motivation may be financial gain, social entrepreneurs are driven by a strong desire to have a positive impact on people's lives and find solutions to pressing societal issues. When it comes to finance, profit is important; nevertheless, in the grand scheme of things, it plays a function that is more analogous to that of an accessory actor.

Build a strong management layer: To get the ball rolling and get the show on the road when a business is just starting out, all that is required is for the creator or founders to have a crystal clear vision. However, when it comes to a company expanding its operations, a much larger number of people will be needed. A powerful social entrepreneur will have the capacity to inject others with their enthusiasm and establish a dynamic team of people who are capable of juggling several responsibilities at once. When it comes to being able to operate a successful social entrepreneurship enterprise, delegation is another crucial factor that must be mastered. If the company's founders do not trust their personnel to handle routine responsibilities and instead decide to

⁴ Harvard Business Review (March/April 1985):p.85-94; and J. Barton Cunningham and Joe Lischeron, "Defining Entrepreneurship:" Journal of Small Business Management (January 1991): p.45-61.

⁵ swarajyaLakshmi (ed.), Development of Women Entrepreneurship in India, Discovery Publishing House, New Delhi, 1998, pp.188-193

micromanage every aspect of the business, there is a considerable risk that they may overlook important responsibilities. Risk Taking: Social entrepreneurs are prone to be risk takers. They are not afraid to experiment with new things or take chances, but they always do it in a thoughtful manner. Social entrepreneurs are never deterred by the existence of a danger; in fact, they regard it as a challenge. Whereas other people may back off when they detect a risk in a given circumstance, social entrepreneurs are never deterred by the presence of a risk. However, they do not make rash judgments; rather, effective social entrepreneurs are able to make reasoned choices based on an analysis of the potential benefits and drawbacks of their endeavors.

Persistence: Social entrepreneurs are aware that, just like the founders of any other firm, it is essential for them to maintain a steady path and a dogged determination. However, there are a wide variety of obstacles to overcome when it comes to social entrepreneurship. There is virtually always some pushback or opposition from local community leaders or other unscrupulous forces in society. This may take many forms. Therefore, the difficulty for social entrepreneurs is to explain why their solution is any better than what has been done in the past to relieve a social issue. Hence, the phrase "social problem." Social entrepreneurs are required to have the ability to chart out the course of action, make any necessary course adjustments, and maintain a constant focus on the organization's overarching objectives.⁶

SOCIAL ENTREPRENEURIAL TRAITS AMONG YOUTH

Kamala Balachandran (2005)⁷ stated that the only way we could expect to take all of the people living in India on the economic climb up is to increase the number of job providers. This is especially true for a nation like India that is rich in personnel. On the other hand, there was a widespread belief among parents with paid jobs that an initial investment of a significant sum of money was essential. In point of fact, given that we are living in times where the new economy reigns supreme, the fundamental investment that is necessary for entrepreneurial endeavours is not so much money power as it is a compelling concept. She concluded by recommending that the present generation of parents abandon their antiquated attitudes of commercial enterprise and urge their children to pursue careers in that field. Nirmala Mary (2001)⁸ took into account ten different characteristics of entrepreneurs when conducting her research. These characteristics include innovation, perseverance and hard work, leadership and the ability to motivate others, a need for achievement, the ability to take risks, decision-making, planning, foresight and problem solving, information seeking and receiving feedback, positive self-concept, interpersonal skills, and information seeking. The author came to the conclusion that the areas of study had an effect on the degree of entrepreneurial characteristics such as the capacity to take risks and make decisions. Regardless of the field of research, the vast majority of respondents showed a medium degree of entrepreneurial tendencies, indicating that they need drive in order to become successful business owners. She also discovered that there was not a significant association between the amount of entrepreneurial qualities and the employment of either the parents or the children. She also remarked that the many fields of study that are given at schools do not equip students who want to become entrepreneurs with the skills necessary to become successful businesspeople. She eventually proposed that entrepreneurship ownership should be included in the curriculum of degree programmes, but only as an elective course during the fifth semester.

Assurance: The family's experience with children and teenagers influences their desire to start their own business. In recent years, a rising corpus of literature has provided evidence to substantiate this point. Numerous studies have pointed out the significance of providing young people with information about entrepreneurship and its influence on the likelihood that they would one day decide to launch their own company (Dunn et al.2007)⁹. In addition to the benefits associated with counselling, the family exposure

⁶ <https://timesofindia.indiatimes.com/blogs/voices/5-traits-of-a-successful-social-entrepreneur>

⁷ Kamala Balachandran, "Minding One's Own Business", The Hindu, Madurai, Tamil Nadu, December 25,2005, p.14

⁸ Nirmala Mary, " Assessment of Entrepreneurial Skills among Women College Students in Madurai City" , Unpublished PhD Thesis submitted to Madurai Kamaraj University, Madurai, 2001

⁹ Dunn, T., & Holtz-Eakin, D. (2000). Financial capital, human capital, and the transition to selfemployment: Evidence from intergenerational links. *Journal of labor economics*, 18(2), 282-305.

assistance makes it simple to interact with the parent's firm (Kim et al., 2006)¹⁰. In addition to this, it helps young people have less anxiety about making mistakes and a higher opinion of themselves (Bosma et al., 2012)¹¹. Young people's vocation choices are significantly influenced by the exposure and support they get from their families. (Whiston and Keller, 2004)¹².

Emotional Intelligence: Emotional intelligence may be defined as a person's ability to alter their behaviour via the use of privately held information (Salovey and Mayer, 1990)¹³. The ability of a person to properly identify and recognize the emotions of others, as well as the capacity to make effective use of both their own feelings and the feelings of others, is referred to as emotional intelligence. The capacity to understand and respond to the feelings of others is an important skill for leaders to possess because it enables them to motivate followers to be more innovative and creative in their work. As a direct result of this, the social repercussions, which are usually acknowledged to be an important aspect of being an entrepreneur, will inevitably improve (Kolvereid 1996)¹⁴. It is likely that the failure to maintain this standard may result in the dissolution of the family business.

Education: A key obstacle that has been presented to prospective businesspeople in developing nations is the dearth of educational opportunities in the field of entrepreneurship (Lee et al., 2005)¹⁵. It is well acknowledged that knowledge is a crucial sociocultural aspect that plays a role in determining the goals and objectives of social entrepreneurs. Education is the single most essential factor in determining an individual's level of entrepreneurial ambition in emerging countries like India (Gillespie 2003)¹⁶.

Financial Bodies Support: The ability of any company to efficiently manage its finances is important to the organization's ability to continue existing in some form or another. Without the assistance of financial institutions and the encouragement provided by educational institutions, entrepreneurs are unable to establish their firms. A person's propensity to engage in entrepreneurial activity is significantly and significantly influenced by the assistance made available by these organizations (Dohse and Walter, 2012)¹⁷. The quality of the educational opportunities offered by colleges and universities is a significant factor in determining whether or not young people will pursue their dreams of launching their own companies. Obtaining financial support from colleges may be quite beneficial for any sort of company, but having sufficient funds is also necessary. It is probable that a deficiency in available financial resources is the single most critical issue that is preventing the spread of entrepreneurial endeavors (Henderson and Robertson, 2000)¹⁸.

Self-Efficacy: Young people who are able to create their own enterprises, act in a manner that is beneficial to society, and have strong principles will be the ones to bring about the change that is desired. According to the results of Aslam and Hasnu (2001)¹⁹, an individual's sense of self-efficacy is a key factor in predicting whether or not they would explore entrepreneurial chances. [Citation needed] [Citation needed] The objective of social entrepreneurship is established at the precise time when a potential company owner has unwavering belief in

¹⁰ Kim, D., Jeong, S., & Moon, J. (2006). Synthesis of silver nanoparticles using the polyol process and the influence of precursor injection. *Nanotechnology*, 17(16), 4019.

¹¹ Bosma, N., Hessels, J., Schutjens, V., Van Praag, M., & Verheul, I. (2012). Entrepreneurship and role models. *Journal of economic psychology*, 33(2), 410-424.

¹² Whiston, S. C., & Keller, B. K. (2004). The influences of the family of origin on career development: A review and analysis. *The counseling psychologist*, 32(4), 493-568.

¹³ Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3), 185-211.

¹⁴ Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and practice*, 21(1), 47-58.

¹⁵ Lee, Z. P., Darecki, M., Carder, K. L., Davis, C. O., Stramski, D., & Rhea, W. J. (2005). Diffuse attenuation coefficient of downwelling irradiance: An evaluation of remote sensing methods. *Journal of Geophysical Research: Oceans*, 110(C2)

¹⁶ Gillespie, L. D., Gillespie, W. J., Robertson, M. C., Lamb, S. E., Cumming, R. G., & Rowe, B. H. (2003). Interventions for preventing falls in elderly people. *Cochrane database of systematic reviews*, (4)

¹⁷ Dohse, D., & Walter, S. G. (2012). Knowledge context and entrepreneurial intentions among students. *Small Business Economics*, 39(4), 877-895.

¹⁸ Henderson, R., & Robertson, M. (2000). Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career. *Career development international*, 5(6), 279-287.

¹⁹ Aslam, S., & Hasnu, S. A. F. (2016). Issues and constraints perceived by young entrepreneurs of Pakistan. *World Journal of Entrepreneurship, Management and Sustainable Development*.

himself and confidence in his abilities (Mairet al.2012)²⁰. Previous research has shown that a person's degree of self-efficacy acts as a mediator between a number of other factors, such as their personality and their level of risk-taking, their experience, and their lifestyle, amongst others.

Policies of the Government: At the level of government, an entrepreneurial mindset has to be ingrained in order to encourage young people to take risks and start their own businesses. The institutional assistance provided by regulatory agencies is helpful for the entrepreneurial aspirations of young businesspeople (Bruton, Ahlstrom, and Li 2010)²¹the development of a company is stunted when there is insufficient support from institutions (Krueger and Brazeal, 1994)²². The policies of the government may serve as a stimulant for the growth of entrepreneurial activity because of the essential role they play in the process.

Social Exposure: According to previous studies on business owners, having a close relative or family member who is or was a business owner increases the chances of self-employment because these people can serve as role models. The reason for this is that having a close relative or family member who is or was a business owner increases the chances of self-employment. According to Feldman and colleagues' research, business owners "often come from households in which a parent runs a firm. Recent research on the subject of entrepreneurial self-awareness has also shown this possibility. According to the findings of several studies, one's sense of self-efficacy may be improved via various types of exposure. As a consequence of this, ESE will benefit from interactions with other business owners. This is true not just for a person's immediate family and other close relatives, but also for that person's inner circle of friends and acquaintances. People who spend time with entrepreneurs not only get knowledge with the world of business but also have access to a network of seasoned advisers. Because of the cutthroat competition that prevails in today's society, it might be challenging to demonstrate empathy for other people. Empathy is a disposition toward the emotions and experiences of other people, and another synonym for empathy is compassion. Empathy is described as a disposition toward the feelings and experiences of other people (Goetz, Keltner, and Simon-Thomas, 2010)²³. These factors have a direct bearing on the choices that individuals make on whether or not they will engage in social entrepreneurship. Young individuals who are engaged in business should always be on the lookout for fresh opportunities.

Autonomy: The goal of achieving one's own independence has, for a much extended period of time, been considered an argentic choice. Independence, according to this theory, is defined as the power to choose the time, location, and kind of labour that one does (Douglas 2021 et al)²⁴. It is a popular belief that individuals who seek independence do so for a number of reasons. However, the underlying factors that drive entrepreneurs' quest for independence are seldom addressed, despite the fact that this notion is widespread. Individuals that are able to provide original answers to the social issues faced by a society are referred to be social entrepreneurs. Creativity: (Jain and Chamola, 2019)²⁵. They also contribute to the advancement of the economy by inventing new or improved methods to carry out previously performed tasks. Social entrepreneurs are leaders of regular people who achieve extraordinary levels of success in their endeavours (Morse and Dudley, 2002)²⁶. Both social entrepreneurs and typical businesspeople divide the alms they get. On the other side, social entrepreneurs are agents of change in their own societies. A social entrepreneur, for instance, is someone who seizes possibilities that other people miss and who tries to enhance societal structures, inspire

²⁰ Mair, J., Marti, I., & Ventresca, M. J. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal*, 55(4), 819-850.

²¹ Bruton, G. D., Ahlstrom, D., & Li, H. L. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future?. *Entrepreneurship theory and practice*, 34(3), 421- 440

²² Krueger Jr, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice*, 18(3), 91-104.

²³ Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: an evolutionary analysis and empirical review. *Psychological bulletin*, 136(3), 351

²⁴ Douglas, E. J., Shepherd, D. A., & Venugopal, V. (2021). A multi-motivational general model of entrepreneurial intention. *Journal of Business Venturing*, 36(4), 106107

²⁵ Jain, V. K., Kumar, P., Dube, P., & Rawat, M. P. (2020). Decision-Making Framework using Interpretive Structural Modeling (Ism) and Analytic Hierarchy Process (Ahp) Methods: Millennials & Sustainable Consumption

²⁶ Morse & Dudley, L. (2002). Civic entrepreneurs and collaborative leadership. *PA Times*, 25(8), 3.

new methods, develop new ways to serve the society, and consistently endeavor to better socioeconomic situations.

Duty and Responsibility: When faced with ethical dilemmas, a person has a sense of obligation to behave in a manner that is consistent with society standards. It is the conviction that, as a consequence of one's own moral standards, one is ethically required to contribute to the solution of societal issues (Hockerts, 2015)²⁷. A heightened sense of social awareness and responsibility that places a focus on one's moral obligations. The extent to which an individual's moral judgment contributes to his or her moral purpose is contingent on the individual's choices. Some people believe that social entrepreneurs have a higher moral fiber that they are driven to satisfy the needs of other people, and that they radiate moral awareness (Nga and Shamuganathan, 2010)²⁸. In addition to this, social entrepreneurs are expected to have both a high level of moral knowledge and personal moral courage.

Job Opportunities: The mismatch between the demands of the labour market and the requirements of production is connected to the lack of emphasis placed on the development of talents and personalities. When individuals are "forced" into self-employment because they are unable to find alternative work possibilities or those opportunities have been lost, there is a greater likelihood that the results will be less favourable (Block and Koellinger, 2009)²⁹. According to the Global Entrepreneurship Monitor, which is arguably the largest entrepreneurship research group in the world, a gap is being created between highly educated people and employment opportunities as a direct result of the decline in employment opportunities as well as the automation of previously human-operated processes (Brich et al., 2017)³⁰.

IMPLICATIONS OF THE STUDY

The article will be useful to policymakers in India as they work to develop measures to encourage the expansion of social businesses. The study will serve as a resource for decision-makers in policymaking, rising social entrepreneurs, academics, angel investors, and venture philanthropists, amongst other groups. The expansion of social businesses would provide chances for the underprivileged to participate in the economy by way of the creation of new markets and new manufacturing processes. People living at the very base of the pyramid would be able to profit from innovations with minimal costs and environmentally friendly solutions. Social entrepreneurship, when combined with the efforts of the government, has the ability to radically alter the destiny of the nation. In all, thirty individuals took part in the survey that was conducted for the study. The study was carried out in India, a country with a culture that is distinctive compared to that of other emerging and industrialized countries. As a direct consequence of this, a second analysis has to be carried out in order to generalize the results of the first.

CONCLUSION

The focus of this study is on the perspectives held by young people with regard to engaging in social entrepreneurship. This is a topic that piques the curiosity of a sizeable number of younger people nowadays. One may get the conclusion that the mindset of young people in today's society toward social entrepreneurship is fairly positive and encouraging. When starting a social enterprise, however, you will face a number of challenges that need to be addressed. As a result, it is necessary for young people to triumph over all of the challenges, and the government has a responsibility to assist them as they engage in corrective actions to address their problems. The pace at which social development can be observed is directly proportionate to the rate at which social entrepreneurship is becoming more prevalent. This is because social entrepreneurship contributes to the growth and betterment of society. Students who generate novel concepts need to get support, encouragement, and motivation from our community (family and friends), and our society as a whole ought to

²⁷ Hockerts, K. (2015). A cognitive perspective on the business case for corporate sustainability. *Business Strategy and the Environment*, 24(2), 102-122.

²⁸ Nga, & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of business ethics*, 95(2), 259-282

²⁹ Block, J., & Koellinger, P. (2009). I can't get no satisfaction—Necessity, entrepreneurship and procedural utility. *Kyklos*, 62(2), 191-209.

³⁰ Brich, J., Walch, M., Rietzler, M., Weber, M., & Schaub, F. (2017). Exploring end user programming needs in home automation. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 24(2), 1-35.

provide aid to students who really want to achieve their goals. The idea of social entrepreneurship has shown that it is both a potentially major and substantial international phenomenon. As such, it surely warrants rigorous academic examination since it has proved that it is a worldwide phenomenon that has both promise and significance. In light of the findings of this study, it has been proposed that educational institutions provide aid to students who have the goal of becoming social entrepreneurs so that these students may realize their desire. It is very necessary for the obstacles that stand in their way to participate in social entrepreneurship to be eliminated. The attributes of an entrepreneur are the ones that are absolutely necessary for a person to have in order for them to be able to think for themselves and freely act. Since a result, it is necessary for them to cultivate these qualities while they are still in the stage of being a student, as this is the sole task at that moment. As a consequence of cultivating these traits of entrepreneurship, the individual grows into an entrepreneur and matures into a more developed version of themselves.

REFERENCE

1. Daru, Mahesh and Gaur, Ashok, "Social entrepreneurship- a way to bring social change", *Innovative journal of business and management*, ISSN No.22774947, 2013.
2. European Commission, "Peer review on „social entrepreneurship to tackle unmet social challenge“", derived at Oslo, Norway, 12-13, December, 2017.
3. Jain, Khushpat. & Naik, Vinaya, "Developing Social Entrepreneurship among the Indian Youth", a conference paper, published on February 2016.
4. Müller, S., & Neck, H. (2010, January). Generation impact: Student preferences to start social or traditional ventures. In *United States Association for Small Business and Entrepreneurship. Conference Proceedings* (p. 157). United States Association for Small Business and Entrepreneurship.
5. Nga, J. K. H., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of business ethics*, 95(2), 259-282.
6. Nian, T. Y., Bakar, R., & Islam, M. (2014). Students' Perception on Entrepreneurship Education: The Case of Universiti Malaysia Perlis. *International Education Studies*, 7(10), 40-49.
7. Nian, T. Y., Bakar, R., & Islam, M. (2014). Students' Perception on Entrepreneurship Education: The Case of Universiti Malaysia Perlis. *International Education Studies*, 7(10), 40-49.
8. Othman, Norasmah & Wahid, Hariyaty, "Social entrepreneurship among participants in the students in free enterprise program", *International journal of entrepreneurial behavior and research*.
9. Rawal Tripda, "A study of Social Entrepreneurship in India", *International Research Journal of Engineering and Technology (IRJERT)*, volume. 5, issue-1: ISSN: 2395- 0072
10. Salamzadeh, A., Azimi, M. A., & Kirby, D. A. (2013). Social entrepreneurship education in higher education: insights from a developing country. *International Journal of Entrepreneurship and Small Business*, 20(1), 17-34.
11. Singh, Pratap (2012) "Social Entrepreneurship: A Growing Trend in Indian Economy", *International Journal of Innovations in Engineering and Technology (IJIET)*, Vol. 1 Issue 3. ISSN: 2319 – 1058
12. Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). Predictors of social entrepreneurial intention: an empirical study. *South Asian Journal of Business Studies*, 6(1), 53-79
13. Pearson, C.A., & Chatterjee, S.R. (2001). Differences and similarities of entrepreneurial characteristics in a diverse social setting-Evidence from Australian and Singaporean managers. *Journal of Enterprising Culture*, 9(3), 273-298.

AWARENESS TOWARDS GOVERNMENT INITIATIVE SCHEMES FOR FINANCIAL INCLUSION: WITH REFERENCE TO RURAL PEOPLE

Dr. Balaga Sahadevudu* Bharat Maurya** Dr. Suman Roy Barman***

**Lecturer in Commerce, SVLNS Government Degree College, Bheemunipatnam*

***Assistant Professor, Department of Political Science, Chaudhary Bansi Lal University
Bhiwani Haryana*

****PGT, Department of Commerce, K.B.Institution, Udaipur, Gomati.*

ABSTRACT

Inclusion in the financial system refers to the provision of financial services or goods to disadvantaged and low-income segments of the population at prices that are affordable to them. It is possible for a government to realise its aim of achieving financial inclusion if it makes these financial services available to those who do not have access to the operations of banks. The Reserve Bank of India (RBI) and the Government of India have both taken a number of measures and implemented a number of programmes in order to bring those who live in unbanked areas inside the purview of financial inclusion. Recently, the government has introduced a number of different programmes aimed at increasing financial inclusion. The Pradhan Mantri Jan Dhan Yojana stands out as one of the programmes that has made a significant contribution to increasing financial inclusion in the nation. After it came two plans for life insurance that had modest premium amounts, and then there was one plan for a pension. The primary purpose of this research was to investigate the levels of knowledge about financial inclusion programmes that are held by the clients of the Mangaluru branch of a nationalised bank. The objectives of the study to understand the awareness level about Financial Inclusion of the sample respondents and to study awareness about Government Initiatives of Financial Inclusion. This research is mainly focus on rural people perception. Convenient sampling Technique was been used for the study. The sample size of the study was 150 rural respondents who are members of financial inclusion. Secondary data have been collected from various sources including websites, newspapers, and various published articles. The study concluded that Indian government places a high premium on financial inclusion. The government wants to expand financial services to many facets of society via financial inclusion, particularly to the underserved or unbanked people of the nation to maximise their potential for economic development.

Keywords: *Financial inclusion, PMJDY, Financial Literacy, Economic Gr Financial inclusion, PMJDY, Financial Literacy and Economic Growth*

INTRODUCTION

The process of making banking and financial products and services available to every member of a society without regard to gender, race, religion, or any other basis for discrimination." Its primary objective is to integrate absolutely everyone into society by providing them with fundamental financial services regardless of whether or not they have any savings or income. The primary objective of the financial inclusion movement is to provide economically disadvantaged segments of the population access to trustworthy financial solutions without subjecting them to any kind of discrimination. Its goal is to create answers to financial problems that do not exhibit any symptoms of inequity. In addition to this, it is dedicated to maintaining complete openness while providing financial aid free of any shady dealings or additional expenses. Inclusion in the financial system refers to the provision of financial services or products to underserved and lower-income sectors of the population at prices that are affordable. On the other hand, in contrast to financial exclusion, these financial services or goods are either inaccessible to certain segments of society or beyond their financial means. According to a report published by the United Nations, it was estimated that more than two billion people

around the world who are of working age do not have any access to any types of formal financial services which are delivered by financial institutions of their country¹. In India, a new socio-economic concept known as "financial inclusion" is working toward the goal of bringing about a change in the existing state of affairs by making affordable financial services available to those who are now unable to access such goods. It is also regarded to be a component of the financial inclusion strategy to educate these individuals about the many financial products that are now available to them. Recent events on a global scale have demonstrated that, in order to realize the objective of financial inclusion and achieve all-inclusive growth and development in underprivileged societies, it is necessary to broaden access to financial services across the board in order to reach the target population. It is vital to assist these individuals in the management of their finances and in the processing of their receipts and payments since the levels of income among the people of the nation are growing subsequently, as well as a growth in the habit of saving among the rural people. The promotion of an inclusive approach to finance in rural areas, along with the relaxation of know-your-customer norms and the direct crediting of subsidies and other benefits to account holders, will lead to the accomplishment of the goal of financial inclusion. This will be accomplished by allowing individuals to open accounts with few restrictions and no extra features, as well as by relaxing these norms.

BACKGROUND OF THE INVESTIGATION

People from lower socioeconomic classes may achieve greater economic integration and empowerment with the help of a well-developed financial system. It protects against the adverse effects of economic shocks. Inclusive finance helps vulnerable groups, such as weaker sections of society, to increase income, required capital, manage risk, and work their way out of poverty by providing secured savings accounts, affordable credit, insurance products, and payment facilities. Inclusive finance also helps vulnerable groups work their way out of poverty. In their article, Carbo et al. (2005)² explain how financial exclusion has become a serious problem in both rich and developing nations. In recent years, policymakers, government officials, and central bankers all around the globe have begun to pay greater attention to financial inclusion. The developed economies have increased their interest in economic growth, with a particular focus on the factors that lead to higher levels of saving and investment. These factors are recognized as important economic growth determinants, and the developed economies' interest in economic growth has increased as a result. It is rapidly becoming vital for a person to have access to fundamental financial services such as savings, loan, and insurance in order for them to be able to participate economically and socially meaningfully in the community. (Leyshon and Thrift, 1995)³. In the same way that microfinance gained popularity fifteen years ago as a solution for reducing poverty, financial inclusion is gaining popularity as a solution. But despite its early promise, microfinance has not been able to completely deliver on its potential; it has not been successful in lifting the poor out of poverty (Conroy, 2005)⁴. As long as it is assumed that being excluded from the financial system leads to poverty, various theories advocate that every individual should be involved in the official financial system by having a bank account at the very least, whether it be a basic account or one with additional features. Individuals who are economically susceptible may participate in economic activity if they have access to banking services; nevertheless, the majority of people in society do not have access to financial services such as savings accounts, credit, or insurance. The primary challenge is figuring out how to provide access to financial services for those who are now excluded from the financial system

Numerous empirical investigations have shown, as a matter of fact, that there is a considerable connection between financial development and economic expansion. Establishing dominating fundamentals for economic growth and development activities requires a financially stable environment that is both effective and efficient. Significant scientific and literary works using a variety of sophisticated methodologies have been used to

¹ Tamilarasu, (2016) "Role of Banking Sectors on Financial Inclusion development in India - An Analysis" *Galaxy International Interdisciplinary Research Journal*, vol. 2, issue 2, pp. 39-45.

² Carbo, S., E. P. M. Gardener, P. Molyneux (2005), *Financial Exclusion*, Palgrave MacMillan.

³ Leyshon, A. and N. Thrift (1995), *Geographies of Financial Exclusion: Financial Abandonment in Britain and the United States*, *Transactions of the Institute of British Geographers, New Series*, Vol. 20, No. 3, pp. 312-41

⁴ Conroy, J. (2005), *APEC And Financial Exclusion: Missed Opportunities For Collective Action?*, *Asia-Pacific Development Journal*, 12(1), June 2005

countries that powerfully corroborate this claim (Sharma 2008)⁵. Delvin (2005) began a study project with the goal of understanding various facets of a wide range of banking services and financial services in the UK. The findings showed that some features constitute consistent and important impacts across all types of financial services, despite the fact that certain aspects vary depending on the kind of financial service being considered. It revealed that that occupied, yearly income, and housing tenure were the variables that had an influence on the dependent variable simultaneously. The study concluded that the issue of remittance inflows presents a barrier to financial inclusion for a variety of developing countries. In terms of dimension, remittances are not only primary investment inflows in developing nations but also have an effective and favourable influence on financial inclusion and, collectively, on financial development. This is because they are sent back to the countries where they were originally earned.

FINANCIAL INCLUSION: NEED AND IMPORTANCE

Financial inclusion is often regarded as an important measure of a society's level of development and overall health and wellbeing around the world. It is an essential precondition for ensuring that fair development can be sustained. In light of this, financial inclusion is commonly seen to be a preventative strategy within policy circles, and it is even considered to be a top goal by the majority of countries, including India. Because financial inclusion is such a crucial factor in achieving sustainable economic growth, it guarantees that each member of a country puts his or her money to work for the nation as a whole, so contributing to the expansion of productive areas of that nation's economy. The gathering of financial resources via these methods would be beneficial to the development of industrial firms, which would in turn serve to speed up economic advancement. Because of this underlying principle, the idea of financial inclusion has been thrust into the spotlight and has established itself in a pivotal role in the field of financial intermediation. Therefore, the objective of financial inclusion is to free economically disadvantaged segments of the population from the myriad of obstacles that obstruct their access to financial services. This will enable economically disadvantaged people to become financially self-sufficient without having to rely on charity or other sources of funds that are actually unsustainable. This goal is attainable if all types of financial institutions, including banks, insurance companies, mutual fund firms, and other types of financial organizations, embrace and put into effect inclusive financial principles. In this view, the notion of financial inclusion is more essential from a rural perspective, since there is a strong presence of financial institutions in the metropolitan areas of many countries. Therefore, the concept of financial inclusion is primarily understood from a rural viewpoint, as well as from the standpoint of socially and economically marginalized and excluded people. In this context, the term "financial inclusion" refers to the provision of access to fundamental banking services, such as the receipt of deposits, the payment of cash, the inquiry of account balances, and the provision of account statements, to previously excluded masses on demand, in an easy and nondiscriminatory manner. As will be shown in the next section, financial inclusion confers a number of advantages on the general populace.

DIMENSIONS OF ECONOMIC AND SOCIAL PARTICIPATION

It is a common misunderstanding that financial inclusion refers just to the creation of a bank account or the usage of certain banking services. The true definition of financial inclusion encompasses a considerably wider range of financial services, including insurance, equity instruments, and pension plans, amongst others. At the present day, financial institutions have established a variety of channels via which they may provide consumers with banking goods and services at prices that are within their financial means. Banks provide a wide variety of financial products and services, some of which include the following: various types of bank accounts, such as savings bank accounts, fixed deposit accounts, and recurring deposit accounts, etc.; insurance services; investment services; payment services; credit facilities, loans, and advances, etc.; insurance services; investment services; payment services; payment services. All of these different services together make up the many different aspects or components of financial inclusion. In this sense, the concept of financially included a person encompasses much more than just establishing a bank account.

⁵ Sharma, M. (2008), Index of Financial Inclusion, ICRIER Working Paper, August 2008.



AN OVERVIEW OF THE CONCEPTS:

Venugopal Reddy, who was serving as Governor of the Reserve Bank of India at the time, is credited as being the first person in India to introduce the term "financial inclusion" in April of 2005. In later years, the idea of financial inclusion began to get more attention and was eventually adopted on a widespread scale, not just in India but also in other countries throughout the world. It was recognized that the banking practices in the nation were more likely to exclude huge parts of society from participating in the banking practices than to invite these parts of society to participate in the banking. Because of this, banks in the nation were forced to assess the effectiveness of their current banking procedures and determine whether or not they were in line with the goal of expanding access to financial services. The Reserve Bank of India (RBI) issued a directive in January 2006 that authorized banks to utilize the services of nongovernmental organizations, self-help groups', and micro finance institutions as intermediaries for the purpose of providing financial and banking services, particularly in rural areas. The commercial banks' plan is to use these middlemen as business facilitators, so they can better serve their customers. The Reserve Bank of India (RBI) gave the commercial banks located in the various areas of the nation the suggestion to begin a pilot programme for complete financial inclusion. As a direct consequence of this effort, some states and union territories, including as Himachal Pradesh, Kerala, and Puducherry, have declared that all of their districts would be fully included in the financial system. The Central Bank of India's (RBI) Part in the Promotion of Financial Inclusion in India In order to expand the availability of financial services across the nation, the Reserve Bank of India has recently taken a number of measures and begun a number of new programmes. 10 Journal of Management Studies and Academic Research Recently, the Reserve Bank of India (RBI) has been issuing licenses to payment banks and small banks, which will help individuals living in rural areas have access to the financial resources they demand. The Reserve Bank of India (RBI) has implemented a number of programmes and policies in order to achieve greater financial inclusion across the country.

FINANCIAL INCLUSION SCHEMES IN INDIA

The Government of India has been introducing several exclusive schemes for the purpose of financial inclusion. These schemes intend to provide social security to the less fortunate sections of the society. After a lot of planning and research by several financial experts and policymakers, the government launched schemes keeping financial inclusion in mind. These schemes have been launched over different years. Let us take a list of the financial inclusion schemes in the country:

1. Pradhan Mantri Jan Dhan Yojana (PMJDY)
2. Atal Pension Yojana (APY)
3. Pradhan Mantri Vaya Vandana Yojana (PMVVY)
4. Stand Up India Scheme

5. Pradhan Mantri Mudra Yojana (PMMY)
6. Pradhan Mantri Suraksha Bima Yojana (PMSBY)
7. Sukanya Samridhi Yojana
8. Jeevan Suraksha Bandhan Yojana
9. Credit Enhancement Guarantee Scheme (CEGS) for Scheduled Castes (SCs)
10. Venture Capital Fund for Scheduled Castes under the Social Sector Initiatives
11. Varishtha Pension Bima Yojana (VPBY)

Pradhan Mantri Jan Dhan Yojana (PMJDY)

Hon'ble Prime Minister announced Pradhan Mantri Jan Dhan Yojana as the National Mission on Financial Inclusion in his Independence Day address on 15th August 2014, to ensure comprehensive financial inclusion of all the households in the country by providing universal access to banking facilities. Under this, a person not having a savings account can open an account without the requirement of any minimum balance and, in case they self-certify that they do not have any of the officially valid documents required for opening a savings account, they may open a small account. Thus, PMJDY offers unbanked persons easy access to banking services and awareness about financial products through financial literacy programmes. In addition, they receive a RuPay debit card, with inbuilt accident insurance cover of Rs. 2 lakh, and access to overdraft facility upon satisfactory operation of account or credit history of six months. Further, through Prime Minister's Social Security Schemes, launched by the Hon'ble Prime Minister on 9th May 2015, all eligible account holders can access through their bank accounts personal accident insurance cover under Pradhan Mantri Suraksha Bima Yojana, life insurance cover under Pradhan Mantri Jeevan Jyoti Bima Yojana, and guaranteed minimum pension to subscribers under

PRADHAN MANTRI JEEVAN JYOTI BIMA YOJANA (PMJJBY)

The PMJJBY is available to people in the age group of 18 to 50 years having a bank account who give their consent to join / enable auto-debit. Aadhar is the primary KYC for the bank account. The life cover of Rs. 2 lakh is for the one year period stretching from 1st June to 31st May and is renewable. Risk coverage under this scheme is for Rs. 2 lakh in case of death of the insured, due to any reason. The premium is Rs. 436 per annum which is to be auto-debited in one instalment from the subscriber's bank account as per the option given by him on or before 31st May of each annual coverage period under the scheme. The scheme is being offered by the Life Insurance Corporation and all other life insurers who are willing to offer the product on similar terms with necessary approvals and tie up with banks for this purpose. As on 31.05.2022, cumulative enrollment is over 12.89 crore under PMJJBY.

PRADHAN MANTRI SURAKSHA BIMA YOJANA (PMSBY)

The Scheme is available to people in the age group 18 to 70 years with a bank account who give their consent to join / enable auto-debit on or before 31st May for the coverage period 1st June to 31st May on an annual renewal basis. Aadhar would be the primary KYC for the bank account. The risk coverage under the scheme is Rs. 2 lakh for accidental death and full disability and Rs. 1 lakh for partial disability. The premium of Rs. 20 per annum is to be deducted from the account holder's bank account through 'auto-debit' facility in one installment. The scheme is being offered by Public Sector General Insurance Companies or any other General Insurance Company who are willing to offer the product on similar terms with necessary approvals and tie up with banks for this purpose. As on 31.05.2022, cumulative enrollment is over 28.63 crore under PMSBY.

ATAL PENSION YOJANA (APY)

APY was launched on 9th May, 2015 by the Prime Minister. APY is open to all saving bank/post office saving bank account holders in the age group of 18 to 40 years and the contributions differ, based on pension amount chosen. Subscribers would receive the guaranteed minimum monthly pension of Rs. 1,000 or Rs. 2,000 or Rs.

3,000 or Rs. 4,000 or Rs. 5,000 at the age of 60 years. Under APY, the monthly pension would be available to the subscriber, and after him to his spouse and after their death, the pension corpus, as accumulated at age 60 of the subscriber, would be returned to the nominee of the subscriber. The minimum pension would be guaranteed by the Government, i.e., if the accumulated corpus based on contributions earns a lower than estimated return on investment and is inadequate to provide the minimum guaranteed pension, the Central Government would fund such inadequacy. Alternatively, if the returns on investment are higher, the subscribers would get enhanced pensioner benefits. In the event of pre-mature death of the subscriber, Government has decided to give an option to the spouse of the subscriber to continue contributing to APY account of the subscriber, for the remaining vesting period, till the original subscriber would have attained the age of 60 years. The spouse of the subscriber shall be entitled to receive the same pension amount as that of the subscriber until the death of the spouse. After the death of both the subscriber and the spouse, the nominee of the subscriber shall be entitled to receive the pension wealth, as accumulated till age 60 of the subscriber. As on 31st July, 2021, a total of 321.02 lakh subscribers have been enrolled under APY.

Stand up India Scheme: Government of India launched the Stand-up India scheme on 5th April, 2016. The Scheme facilitates bank loans between Rs.10 lakh and Rs.1 crore to at least one Scheduled Caste/ Scheduled Tribe borrower and at least one Woman borrower per bank branch for setting up Greenfield enterprises. This enterprise may be in manufacturing, services or the trading sector activities allied to agriculture. The scheme which is being implemented through all Scheduled Commercial Banks is to benefit at least 2.5 lakh borrowers. The scheme is operational and the loan is being extended through Scheduled Commercial Banks across the country.

Pradhan MantriVayaVandanaYojana: The ‘Pradhan MantriVayaVandanaYojana (PMVVY) has been launched by the Government to protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions, as also to provide social security during old age. The scheme is implemented through the Life Insurance Corporation of India (LIC) and open for subscription upto 31st March, 2023.PMVVY offers an assured rate of return 7.40% per annum for the financial year 2020-21 for policy duration of 10 years. In subsequent years, while the scheme is in operation, there will be annual reset of assured rate of return with effect from April 1st of the financial year in line with applicable rate of return of Senior Citizens Saving Scheme (SCSS) up to a ceiling of 7.75% with fresh appraisal of the scheme on breach of this threshold at any point. Mode of pension payment under the Yojna is on a monthly, quarterly, half-yearly or annual basis depending on the option exercised by the subscriber. Minimum purchase price under the scheme is Rs. 1, 62,162/- for a minimum pension of Rs. 1000/- per month and the maximum purchase price is Rs. 15 lakh per senior citizen for getting a pension amount of Rs. 9,250/- per month

STATEMENT OF THE PROBLEM

The purpose of financial inclusion is to improve the accessibility of formal financial services to large unbanked inhabitants to release the growth potential and alleviate poverty. The opening of bank account directly and incentivising through the insurance plan clearly show that financial inclusion is an essential priority for the government. Some research has performed in other places for finding the status of financial inclusion. But no research has covered on an evaluation of government initiatives and its impact on deprived class of people. Hence it is felt that there is a need to undertake a study on the present subject.

THE OBJECTIVES OF THE STUDY

1. To understand the awareness level about financial inclusion of the sample respondents
2. To overview financial Inclusion Schemes in India

RESEARCH METHODOLOGY

These studies have been carried out on financial inclusion. Mainly on primary data collected through structured questionnaires (google form) .This research is mainly focus on rural people perception. Convenient sampling Technique was been used for the study. The sample size of the study was 150 rural respondents who

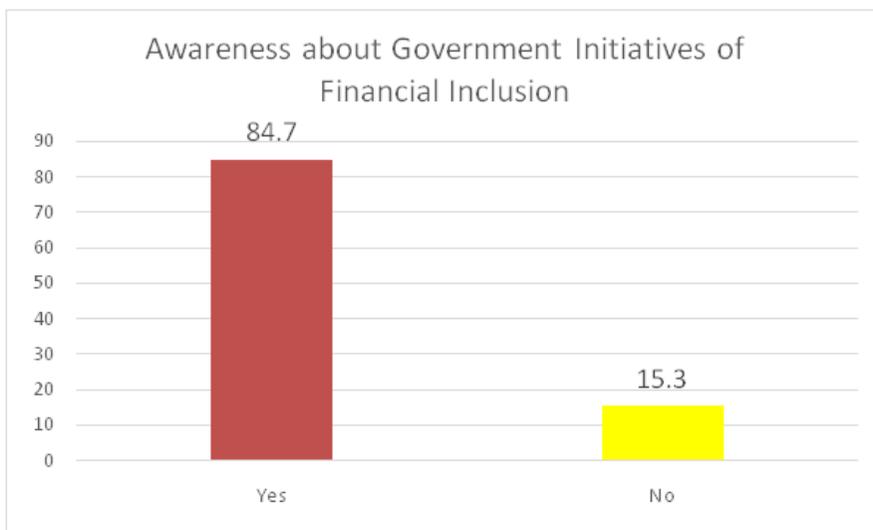
are members of financial inclusion. Secondary data have been collected from various sources including websites, newspapers, and various published articles

EVALUATION OF FINANCIAL INCLUSION INITIATIVES:

Financial inclusion helps the financial system of the country to initiate a chain reaction for the economic progress of the country. Most importantly, it strengthens the habit of savings among the poor people living in urban and rural areas and channelizes this saving into the productive channel. The traditional moneylenders and rich landlords cheat poor people by misguiding them and charging exorbitant rate of interest on loans. In addition to that they indulge in a number of malpractices. Financial inclusion can help to change the situation and reduces the dependence of poor people on traditional exploitative sources of credit. Financial inclusion helps the poor masses by including them in the formal financial mainstream. There are many poor farmers, artisans, small businessmen, and laborers who want to save money, but due to lack of bank account they are not in a position to park their hard earnings safely.⁶

Table No. 1
Awareness about Financial Inclusion

Sl.No.	Awareness about Government Initiatives of Financial Inclusion	No. of Respondents	Percentage
1.	Yes	137	84.7
2.	No	13	15.3
	Total	150	100



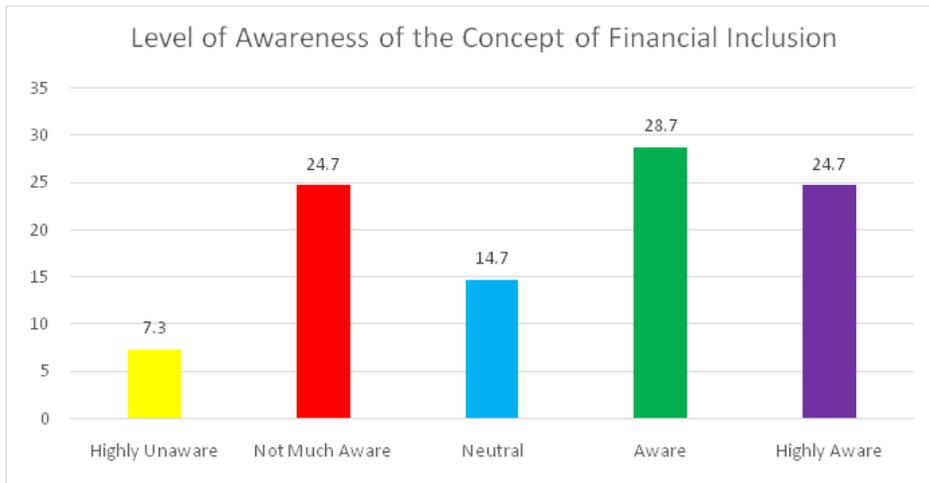
Awareness about financial inclusion is the first step towards achieving financial inclusion. Therefore, the researcher asked the respondents about their awareness of financial inclusion. It was found in the field survey that all 137 (84.7%) respondents were aware of the concept of financial inclusion. Only (15.3%) of the respondents were unknown. Although, the level of awareness differed from person to person.

Table No. 2
Degree of Awareness about Financial Inclusion

Sl.No.	Level of Awareness of the Concept of Financial Inclusion	No. of Respondents	Percentage
1.	Highly Unaware	11	7.3
2.	Not Much Aware	37	24.7

⁶ Karmar K.G., Banerjee G.D. and Mohapatra N.P. (2011 Publications Pvt. Ltd., September

3.	Neutral	22	14.7
4.	Aware	43	28.7
5.	Highly Aware	37	24.7
	Total	150	100



It is not only the awareness but the nature and extent of awareness about financial inclusion which is equally important for the economic integration of masses. This is also necessary for moving towards more equal distribution of income and wealth in the nation as unequal distribution of national income and wealth result in many social and economic evils. Therefore, the researcher asked the respondents to rate their awareness about financial inclusion on Five Point Likert's Scale. Of the 1500 respondents

- 11(7.3%) respondents reported that they are highly aware of the concept of financial inclusion.
- 37 (24.7%) respondents reported that they are not much aware of the concept of financial inclusion
- 22 (14.7%) respondents were neutral in this regard
- 37 (24.7%) respondents reported that they are aware of the concept of financial inclusion.
- 43 (28.7%) respondents reported that they are highly unaware of the concept of financial inclusion.

AWARENESS ABOUT GOVERNMENT INITIATIVES OF FINANCIAL INCLUSION

Table No. 3

Awareness about Government Initiatives of Financial Inclusion

No. Awareness about Government Initiatives of Financial Inclusion	No. of Respondents	Percent	Cumulative (%)
Atal Pension Yojana	9	6.0	6
Pradhan MantriFasalBimaYojana	18	12.0	18.0
Pradhan Mantri Jan DhanYojana	38	25.3	43.3
Pradhan MantriJeevanBimaYojana	11	7.3	50.7
Pradhan MantriSurakshaBimaYojana	9	6.0	56.7
Start Up India	25	16.7	73.3
SukanyaSamruddhiYojana	12	8.0	81.3
SwabhimanYojana	19	12.7	94.0
Varishta Pension BimaYojana	9	6.0	100.0

The Government of India has taken a number of initiatives for financial inclusion of excluded masses from time to time. It is interesting to know as to what extent the prospective beneficiaries of these schemes are aware of them. Amongst the financial inclusion schemes mentioned above, majority of the respondents were

aware of Pradhan Mantri Jan Dhan Yojana (25.3%), Start up India (16.7), the awareness about these schemes helps us to conclude that schemes are quite popular and highly beneficial for the rural masses. Along with awareness, the benefits of these schemes were reported to be availed by most of the eligible respondents. Apart from these few schemes cited above, there is a need to promote other schemes more aggressively in order to increase their awareness amongst the rural population as only with adequate awareness, people would be able to avail and gain the benefit of these Schemes.

CONCLUSION

The Indian government places a high premium on financial inclusion. The government wants to expand financial services to many facets of society via financial inclusion, particularly to the underserved or unbanked people of the nation to maximise their potential for economic development. The government has developed a number of programmes and plans to accomplish this goal, including plans to create a cashless economy and plans to bring everyone under the jurisdiction of formal banking institutions. These plans and programmes cover a wide range of topics, including housing, pensions, loans, insurance, and investments.

REFERENCES

1. Subramanya, PR. & Alfia, HN (2015). Awareness level towards Pradhan Mantri Jan Dhan Yojana. Research Hub- International Multidisciplinary Research Journal. Vol-2, Issue-2.
2. Kumar, Watts Hemant (2015). Implications of Pradhan Mantri Jan Dhan Yojana on financial inclusion and inclusive growth. European Academic Research. Vol-2, Issue-12.
3. Patnaik BCM, Patnaik., Ipsita, Satpathy. & Chandra, Avinash Supkar (2015). Pradhan Mantri Jan Dhan Yojana- A new direction for mainstreaming the financially excluded. International Journal of Management. Vol-6, Issue-2, pp.2-5
4. Vidyashree, DV. & Rathod, Pralhad (2015). Financial inclusion- A study on Modi's PMJJBY, PMSBY and APY. International Journal of Applied Research.
5. Kaur, Harpreet & Singh, Kawal Nain (2015). Pradhan Mantri Jan Dhan Yojana (Pmjd): A Leap towards Financial Inclusion in India. International Journal of Emerging Research in Management & Technology. Vol-4, Issue-1, pp.6-9
6. Hussain, Ahmed (2015). Pradhan Mantri Jan Dhan Yojana: The most intensive Financial Inclusion scheme in India. International Journal of Core Engineering & Management. Volume 2, Issue 3, pp.11-12
7. Purvi Shah and Medha Dubhashi (2015), Review Paper on Financial Inclusion -The Means of Inclusive Growth, Chanakya International Journal of Business Research, Vol 1(1), pp. 37-48.
8. Sonu Garg, Dr. Parul Agarwal (2014), 'Financial Inclusion in India - A Review of Initiatives and Achievements'; IOSR Journal of Business and Management (IOSR-JBM), e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 6.
9. Swapan Kumar (2012), Financial Inclusion in India: An overview, Asian Journal of Multidimensional Research Vol.1 Issue 5, October 2012, pp.134-141
10. Leyshon, A. and N. Thrift (1995), Geographies of Financial Exclusion: Financial Abandonment in Britain and the United States, Transactions of the Institute of British Geographers, New Series, Vol. 20, No. 3, pp. 312-41
11. Conroy, J. (2005), APEC And Financial Exclusion: Missed Opportunities For Collective Action?, Asia-Pacific Development Journal , 12(1), June 2005

A STUDY ON FINANCIAL LITERACY AMONG THE COLLEGE STUDENT

Dr. C. Radha Priya* Dr. Anviti Rawat Dr. Nilesh Uke*****

* *Lecturer, Department of Business Studies, University of Technology and Applied Sciences
Al Mussanah, Sultanate of Oman*

***Assistant Professor, Department of Commerce,
Maharaja Surajmal Institute (Affiliated to GGSIPU), C-4, Janakpuri, Delhi.*

****Professor, Department of Computer science,
Trinity Academy of Engineering Kondwa Pune.*

ABSTRACT

Financial literacy is becoming more and more significant as it has become necessary for people to learn the skills necessary to function in today's society and deal the complexity and range of the financial goods and services that are accessible. The capacity to make wise choices about the use and management of money is referred to as financial literacy. It helps people to enhance their overall wellness and make plans for their security in the future. The Objectives of the study was to find out the financial literacy of college students and to evaluate the influence of various demographic factors like gender and education level on the level of financial literacy; the study uses both quantitative and exploratory methods. The study uses both quantitative and exploratory methods. The sampling frame comprises of students from both undergraduate and post graduate courses. The study used systematic random sampling method. A questionnaire method was employed using a sample of 200 students of a private higher education institution. All the students are in the age of 18-25 years. The author concluded that India is a developing country with a long way to go, investments and financial instruments have a direct impact on how fast the economy is growing.

Keywords: *College students, financial literacy; financial inclusion and financial education*

INTRODUCTION

Financial literacy is becoming more and more significant as it has become necessary for people to have the skills necessary to function in today's society and deal with the complexity and variety of financial products and services. Financial literacy is the knowledge of numerous financial concepts, such as managing personal finances, handling money, and investing. The development of self-sufficiency via financial literacy enables people to attain financial stability. Personal financial management education has been prioritized by financial institutions, the student loan industry, financial experts, educators, and other groups. This research looks at the need for financial literacy classes on college campuses and the interest of present students in them.

FINANCIAL LITERACY IN INDIA: CURRENT STATUS AND INITIATIVES

Mahajan and Laskar (2009)¹ explained the labourers (agricultural, skilled and semi-skilled) in India are financially excluded. Over 40% of them have income but are unable to save. Numerous additional surveys conducted in India revealed that the general public lacks a fundamental understanding of financial concepts. In their research on young workers and old people in India, Agarwalla et al. (2012)² showed that less than one-fourth of respondents were financially literate. Joshi (2013) believed that financial literacy was crucial in a nation like India where more than one-fourth of the population did not have any formal education. As a result, they lacked appropriate knowledge of formal financial systems, access to them, and financial planning. The

¹ Mahajan &Laskar, (2009). "Measuring Financial Access--Some Lessons for India. The Journal of Indian Institute of Banking and Finance",pp.2-4

² Agarwalla.,Barua Jacob & Varma (2013). "Financial literacy among working young in urban India". Indian Institute of Management Ahmedabad, WP, Vol.10, pp.02-04

RBI is taking extra steps to make access to the populace and potential businesses a top priority (Ravikumar, 2013).³ Similar results, citing India's poor ranks in financial literacy among Asian-Pacific nations and efforts by the RBI and other financial organizations to improve financial literacy. Financial literacy is referred to as an effective instrument for financial. Even if the Indian economy is well-regulated, economic growth and wealth creation for all people are impossible without educated and financially knowledgeable citizens.

INITIATIVES OF GOVERNMENT TOWARDS FINANCIAL INCLUSION AND FINANCIAL LITERACY:

The Government of India has now realized the need of directing family savings into investments and consequently capital development, as seen by its expanding initiatives. To ensure income generation for families as well as individual and societal financial well-being, households in an economy must be well-educated and informed in order to mobilize their savings into investments⁴. The Indian government established a "Committee on Financial Inclusion" with Dr. C. Rangarajan as its chairman to address problems related to financial inclusion. Financial inclusion and financial literacy are now global concerns that affect economies in affluent and undeveloped countries alike. They are not only a problem in India. Building an inclusive financial sector is becoming more widely recognized, which highlights the necessity for development plans that affect everyone's life rather than just a chosen few.

REVIEW OF LITERATURE

Agarwalla et al. (2009)⁵ conducted A survey involving 3000 people discovered that Indians' financial literacy is well behind that of the rest of the world. However, it seems that both the employed and the retirees have a favourable mindset and financial conduct. The financial literacy of women is somewhat higher than that of males. The way that young workers handle their finances has changed as a result of easier access to consumption credits. A study of people's financial literacy revealed that it is poor and that less than one-third of young adults had a working grasp of interest rates, inflation, and risk diversification. Socio-demographic traits and family financial sophistication were both significantly correlated with financial literacy.

Lusardi, Mitchell et al. (2012)⁶ found that In Kenya, financial literacy is still poor. The findings show that household access to financial services depends less on financial literacy levels and more on variables including income levels, proximity to banks, age, marital status, gender, household size, and educational attainment. But the research found that the likelihood of a financially illiterate individual continuing to be financially excluded. The research suggests creating a financial education curriculum and implementing it in local, middle-level, and higher learning institutions. They discovered that students who majored in subjects other than business, were female, ranked lower in their class, were under 30, and had no job experience had lower levels of expertise.

Boon, Yee & Ting (2011)⁷ stated that the majority of Malaysians who have not begun personal financial planning have been hampered by a lack of financial understanding. Another measure of how prepared individuals are is their participation in various aspects of personal financial planning. Sabri (2011)⁸ research, Chinese students were less likely to learn about money matters from their classmates than Malaysian students because they were more likely to get financial education from their parents. By examining the kind and degree

³ Ravikumar (2013). "Perception towards Financial Literacy in India", Research Journal of Social Sciences and Management, Vol.2(9), pp.61-69

⁴ Mathivanan, D. R., & Mohanarajani, K. (2013). "Existing gap between the financial literacy and saving/investment behaviour among Indian women: An empirical study with special references to Coimbatore city". International Journal of Research in Commerce, Economics & Management, Vol.3(4), pp.2231-4245

⁵ Agarwal, , Driscoll, ., Gabaix, . & Laibson, (2009). "The age of reason: financial decisions over the lifecycle and implications for regulation"; Brookings Papers on Economic Activity, pp.51-57

⁶ Lusardi,., Mitchell, and Curto, V. (2010). "Financial literacy among the young". Journal of Consumer Affairs

⁷ Boon, Yee., & Ting (2011). "Financial literacy and personal financial planning in Klang Valley, Malaysia". International Journal of Economics and Management, Vol.5 (1), 149-168.

⁸ Sabri, Mh. Fazli; MacDonald, Hira, K. Tahira & Masud, (2011); "Childhood Consumer Experience and the Financial Literacy of College Students in Malaysia" Family & Consumer Sciences, Research Journal

of financial literacy among South African students. Bönthe&Filipiak (2012)⁹ discovered that the majority of Indian families are simply unaware of different financial instruments, and relatively few invest in them. Caste members are less likely to engage in financial markets and have less knowledge of financial products.

IMPORTANCE OF FINANCIAL LITERACY

Jappelli (2010)¹⁰, explored that household choices about saving and borrowing money on the financial markets at the individual level, financial literacy also has global implications that have an impact on the stability of the global economy. Concerning assets, the increasing variety and complexity of financial services and products, as well as origination and financial market since the end of the 1980s, had brought attention to the lack of literacy among the general population, as shown by individuals' ineffective risk diversification, inefficient portfolio allocation, and low saving rates. It's critical to have a minimal degree of knowledge and expertise to evaluate and choose from a variety of loan options and credit instruments as well as to spot potential instances of predatory lending. The author also offers a macro view, arguing that economic literacy helps markets and policy function well. Braunstein and Welch (2002)¹¹ focused on this aspect, asserting consumers contribute to a competitive market because they demand products that meet their financial needs; as a result, suppliers will compete to develop goods with features that best satisfy those needs.

SCOPE OF THE STUDY

Only Coimbatore college students, who represent the economy's future, are included in the study's limited audience. The researcher in this study assessed the degree of knowledge about financial instruments or products, and the result provides a clear picture of the roles played by individuals, schools, and universities in promoting financial literacy. The examination of the data gathered by researchers via conversation and questionnaires served as the foundation for the study's results and conclusions.

STATEMENT OF THE PROBLEM

The second phase of financial sector reforms is being implemented in the Indian economy, and as a consequence, the Indian economy will be integrated into the global economy at a faster pace, making it more susceptible to the potentially negative effects of the global economic crisis. This necessitates having an understanding of the financial markets, sophisticated financial goods and services, as well as a suitable mentality and the ability to behave in the appropriate manner. Due to the fact that these activities demand a budget, require planning, and entail saves and investments, an acceptable degree of literacy is essential for the people in order to achieve the level of financial safety and security that is required. It affects both day-to-day money management and long-term requirements like as purchasing a house, providing for the education of children, and ensuring a secure retirement¹². A consumer's conduct that renders them more vulnerable to a financial emergency might be the consequence of a lower degree of financial literacy as well as poor abilities in money management. The proportion of India's population that is still considered to be young is the world's highest (UN report, 2014). The young population of a nation had a sufficient degree of financial literacy for the economic growth of the country to be successful. In light of this, the current research investigated the extent to which college students are knowledgeable about financial matters¹³.

⁹ Bönthe, W., &Filipiak, (2012). "Financial literacy, information flows, and caste affiliation: Empirical evidence from India". *Journal of Banking & Finance*, Vol.36(12), 3399- 3414

¹⁰ Jappelli&Padula, (2010). "Cognitive abilities and portfolio choice." *European Economic Review*, Vol.54(1),pp. 18-38

¹¹ Braunstein, S., & Welch, C. (2002). "Financial literacy: An overview of practice, research, and policy". *Federal Reserve Bulletin*, 88, 445

¹² Bhavna Sharma &ReenuKumari (2017), "A Study of Financial Literacy Level Among College Students" *Intercontinental Journal Of Finance Research Review*, Vol.5(7),pp.111-112

¹³ Lusardi M and Mitchell O S (2009), "How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness", *National Bureau of Economic Research*, Working paper no. 15350

Objectives

The Objectives of the study are

1. To identify demographic variable of sample respondents
2. To find out the financial literacy of college students.

RESEARCH METHODOLOGY-

The study used both quantitative and exploratory methods. The sampling frame comprises of students from both undergraduate and post graduate courses. The study used systematic random sampling method. A questionnaire method was employed using a sample of 200 students of a private higher education institution. All the students are in the age of 18-25 years.

ANALYTICAL TECHNIQUE AND FINDINGS

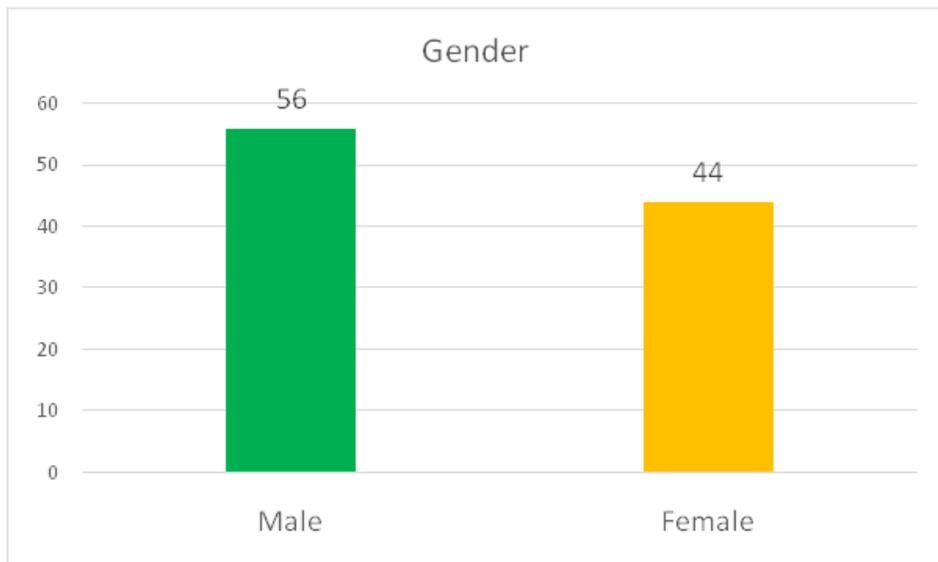
DEMOGRAPHIC VARIABLE OF SAMPLE RESPONDENTS

Financial literacy is the comprehension of fundamental financial ideas and competencies. A person's degree of financial literacy is an excellent predictor of their future financial success. Financial literacy is extremely crucial for college students. College students encounter distinct economic problems. They are at an age when acquiring fundamental financial skills and information may have a significant influence on their whole life. Demographic factors such as age, gender, education level, income levels and majors have been found to influence the financial literacy level (Shaari, et al. 2013)¹⁴. This study investigated the relationship between gender, branch, education level and year of the study on financial literacy

1. GENDER

Table 1: Gender

Gender	Number of respondents	Percentage
Male	112	56
Female	88	44
Total	200	100



¹⁴ Shaari A N, Hasan, Mohamed and Sabri (2013), "Financial literacy: A study among the university student", *Interdisciplinary Journal of Contemporary Research Business*, Vol. 5, No. (2), pp. 279-294

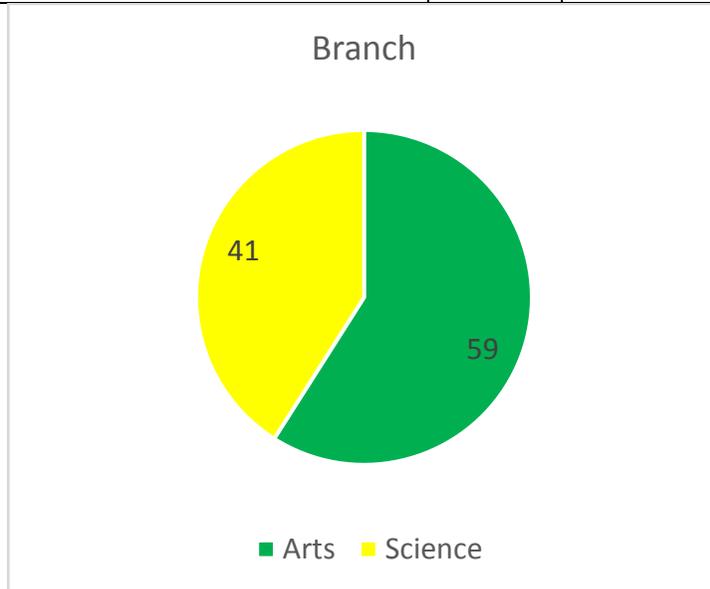
Out of 200 sample respondents, majority (56%) of the respondents are male and 44% of the respondents are female.

2. BRANCH

The paper studies financial literacy among the respondents among the students of the Arts and science colleges in Chennai City. The branch of the sample respondents is as follows.

Table 2: Branch

Branch	N	Percentage
Arts	118	59
Science	82	41
Total	200	100.0

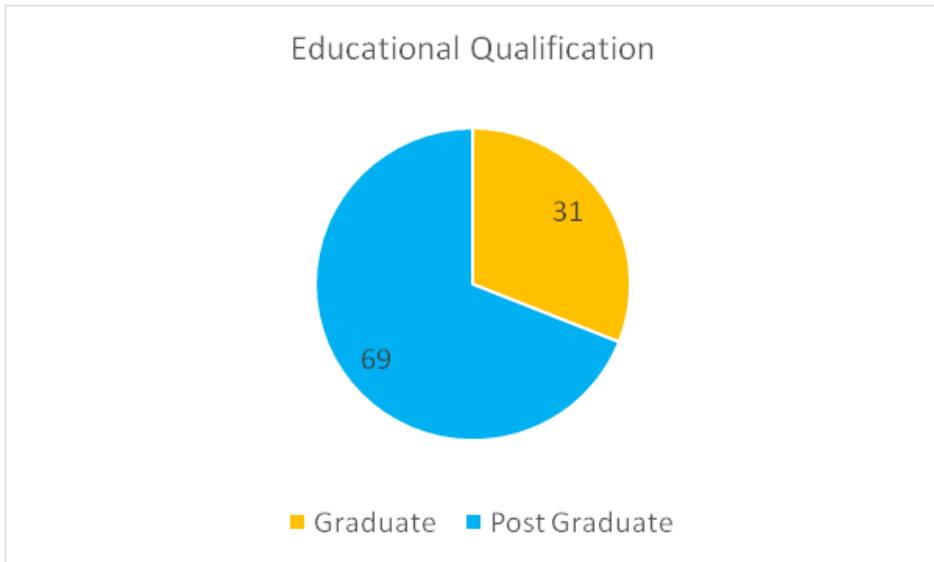


Out of the total students respondents, in the branch of study majority of them (59%) belong to Arts and 41% are from Science.

3. EDUCATIONAL QUALIFICATION

Table 3: Educational Qualification

Educational Qualification	N	Percentage
Graduate	62	31
Post Graduate	138	69
Total	200	100.0



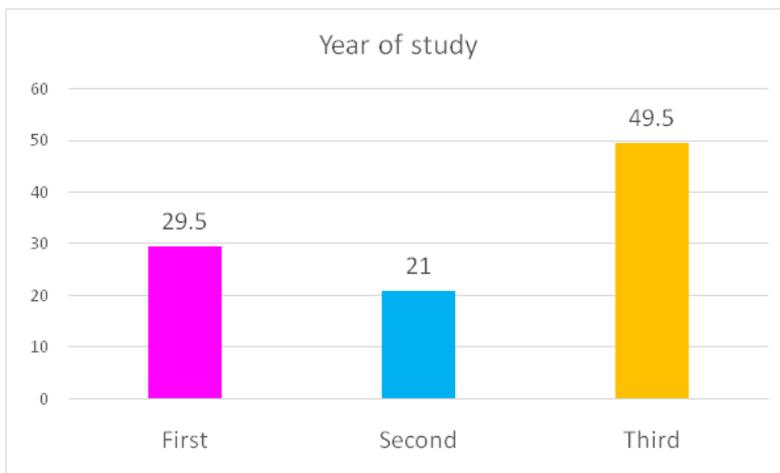
Out of the total students respondents, in the Educational Qualification majority of them (69%) belong to Post Graduate and 31% are Graduate

4. YEAR OF STUDY

The Year of study of the sample respondents is as follows.

Table 4: Year of study

Year of study	N	Percentage
First	59	29.5
Second	42	21.0
Third	99	49.5
Total	200	100.0



In the year of study category 29.5% of the students belong to the first year of their study, while 21% belong to the second year of their study, while 49.5% respondents belong to the third year of their study. Further, six statements were used to measure the Awareness of Financial Assets using 5 point Likert scale. The result is given below

5. AWARENESS OF FINANCIAL ASSETS

Financial literacy is the capacity to handle one's own money. People must have proper long-term investing plans in place for their future emergency needs. Students should desire to have a good understanding of personal finance and financial literacy in order to make investing choices once they start earning money. In addition, they are responsible for managing their own medical and life insurance needs. Members of the younger generation, especially students, are not very excellent at making prudent financial decisions in today's environment. Students should develop the habit of saving money with an eye toward the future, and they should be aware of the many financial services and facilities made accessible by banks.

There are six dimensions considered to measure the Awareness of Financial Assets of the sample respondents. The result is shown in the following Table 5.

Table 5 Awareness of Financial Assets

Variables	Mean	Std. Deviation
Credit Card	3.87	1.261
Checking Account	3.98	1.084
Deposit Account	3.82	1.069
Insurance	3.71	1.016
Pension fund	3.73	0.990
Mobile Payment	3.94	1.006

It can be seen from Table 1 that checking account (3.98) is the most used among the respondents in various dimensions considered for measuring the awareness of Financial Assets. Mobile Payment (3.94) is the second ranked dimension. Credit card (3.87) is also given importance by the respondents. Financial literacy is realized as a very useful tool to see how individuals cope with financial problems. If the individuals are confident with financial literacy, they might handle the financial problems a little bit better. Governments should pay attention to financial literacy of their populations in order to create policies, and solve the financial problems of the society

CONCLUSION

The study's findings indicated that the students' degrees of financial literacy vary by educational qualification as by gender, branch and year of the study. The students' financial literacy were shown checking account is the most used among the respondents in various dimensions considered for measuring the awareness of financial Assets and more financially knowledgeable people tend to be more integrated in the financial system and vice versa. Agarwalla et al. (2012)¹⁵, financial literacy among Indian youths is quite low compared to the international standards, which is cause for concern and necessitates raising awareness about the issue, the levels of financial literacy among college students in Bangalore ranged to a moderate level of knowledge. Because there is a positive relationship between financial knowledge, attitudes, and actions, it makes sense that pupils who have higher financial literacy likely to do so. Therefore, in order to have a better influence on improving financial literacy among Indian youngsters, adequate attention should be paid to formulating specific programmes as described in the proposals and recommendations of this research. Because they are the foundation of this economy and because India is a developing country with a long way to go, investments and financial instruments have a direct impact on how fast the economy is growing.

¹⁵ Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2013). Financial literacy among working young in urban India. Indian Institute of Management Ahmedabad, WP, (2013- 10), 02

REFERENCES

1. Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2013). "Financial literacy among working young in urban India. Indian Institute of Management Ahmedabad, WP, Vol.3, pp.2-3
2. Bashir, T., Ahmed, H. R., Jahangir, S., Zaigam, S., Saeed, H., & Shafi, S. (2013). "Investment preferences and risk level: Behaviour of salaried individuals". IOSR Journal of Business and management, Vol.10(1), pp.68-78
3. Bhushan, P. (2014), "An Empirical Study of Financial and Tax Literacy of Salaried Individuals (Doctoral Thesis)" Jaypee University of Information Technology, Solan, Himachal Pradesh, India.
4. Bönthe, W., & Filipiak, U. (2012). "Financial literacy, information flows, and caste affiliation: Empirical evidence from India". Journal of Banking & Finance, Vol.36 (12), pp.3399- 3414.
5. Braunstein, S., & Welch, C. (2002). "Financial literacy: An overview of practice, research, and policy." Federal Reserve Bulletin, Vol.88, pp.445-446
6. Chijwani, M. (2014), "A study of Financial Literacy among Working Women in Pune", International Journal for Scientific Research and Development, Vol.1(11), 2321-0613
7. Christelis, D., Jappelli, T., & Padula, M. (2010). "Cognitive abilities and portfolio choice". European Economic Review, Vol.54(1), pp.18-38
8. Mahajan, V., & Laskar, S. (2009). "Measuring Financial Access--Some Lessons for India". The Journal of Indian Institute of Banking and Finance, July-September, 2009
9. Navin B and Arnav C (2010), "Financial inclusion in the slums of Mumbai", Economic and Political Weekly, October 16, 2010, Vol. 45 (42), pp.2-4
10. Ravikumar, T. (2013). "Perception towards Financial Literacy in India", Research Journal of Social Sciences and Management, 2(9), 61-69, ISSN: 2251-1571.
11. Roy Morgan Research (2003), "ANZ Survey of adult financial literacy in Australia", ANZ Banking Group, Melbourne, Roy Morgan Research, pp. 1-77.
12. Shaari A N, Hasan A N, Mohamed H M and Sabri J A (2013), "Financial literacy: A study among the university student", Interdisciplinary Journal of Contemporary Research Business, Vol. 5, No. (2), pp. 279-294.

ROLE OF TECHNOLOGY IN PROMOTING DISTANCE ENGLISH LANGUAGE LEARNING PROGRAM

Indranee Borkar Dr Shivani Vashist** Dr. E.V. Ramkumar****

**Assistant Professor, Department of English, Government Engineering College, Bilaspur, Koni, Bilaspur, Chhattisgarh.*

***Professor, Department of English, Manav Rachna International Institute of Research and Studies, Sector – 43, Aravalli Hills, Delhi - Surajkund Road, Faridabad.*

****Assistant Professor, Department of English, Kalasalingam Academy of Research and Education, Anand Nagar, Krishnankoil.*

ABSTRACT

The students' exposure to the target language in a remote learning system is not as realistic and dynamic as necessary, distant language learning is a major problem for both instructors and students. A major decrease in student contact and support from the instructor and other students is another aspect of it that has an adverse effect on students' motivation and academic performance. Currently, a variety of technology tools are being used in an effort to improve the distant teaching-learning process of a language and address the disadvantages outlined before. The skillful management of the relevant technologies assuming the social changes brought about by micro electronic technologies would have more consequences for changes in educational programming than would the instructional potential of these technologies.

Keywords: *Distance language learning, technology, authentic materials, language acquisition, computer-mediated communication*

INTRODUCTION

In the same way that language laboratories, television, and computers have complemented the traditional classroom, distance learning technologies provide a variety of new possibilities for teaching foreign languages that will broaden the spectrum of instructional strategies. When examining these remote learning possibilities, it's critical to recognize the systems' varying degrees of capacity since they have an impact on how the educational process is constrained in many ways. One-way, presentation-only systems, for instance, have come under fire for offering nothing more than a video distribution system that students might duplicate by sending home video cassettes. Many distance education programmes' lack of instant two-way communication appears to go against the objectives of teaching foreign languages. However, when this contact is employed properly, distant learning tools may help achieve foreign language pedagogy's objectives. There are a lot of different forms of technology enhanced learning, but few have received as much attention as distance learning. Therefore, instructional strategies that promote student-teacher and student-student dialogue as well as learner autonomy in distance learning situations must be included. Researchers in ICT and education are continually trying to maximise technical resources and put them to the greatest possible pedagogical use. This effort is stimulated by the recent fast improvements in Web technologies. Many efforts have been made in the field of foreign language instruction to cover a wide range of global languages, but there are ongoing attempts to find innovative solutions, taking into account the unique demands of language learners.

Our society is ingrained with technology, and we are both surrounded by and reliant upon it. It changes so quickly and has such a wide-ranging effect that it truly shapes our civilization. Children and adolescents are the main consumers and recipients. In order to incorporate and take advantage of the tremendous learning possibilities that the internet, iPods, cell phones, podcasts, even social networking sites, and video game play provide, administrators and educators need to stay up with life outside the classroom. The didactic/lecture method of instruction is ineffective nowadays and does not make use of technology advancements. Teachers

must encourage pupils to use the technology they are most comfortable with to study. Technology used in education is evolving quickly and displaying numerous novel traits.

DISTANCE LANGUAGE LEARNING AND ITS CONSTRAINTS FOR LANGUAGE LEARNING

The idea of distance language learning is not new; it has been around for a decade. As a result of its adaptability, affordability, and versatility, it is sometimes the only practical choice for many individuals. For others, though, it is just a question of desire. However, classroom-based language learning has long been a favorite, perhaps due to the need of promoting contact, offering feedback, responding to inquiries, and making modifications to meet the requirements of the learners. Meanwhile, as White notes, significant changes are made and the distant context faces numerous difficulties and constraints, such as less options for instant assistance, direction, involvement, feedback, and accidental learning. The contends that the challenge of internalizing and establishing control of the language is presented to distant language learners without the same level of input contact and support offered by face-to-face lessons.

ROLE OF TECHNOLOGY IN PROMOTING DISTANCE

Distance learning has grown hand in hand with technology; it would not have been possible if there had not been at least a printing press and the postal system. In its widest meaning, media—particularly as it relates to the teaching and learning process—could range from simple mechanical aids like everyday items, flashcards, and magazine images to complex technological aids such gleaming audiovisual tools, computers, and the Internet (Brinton, 2001)¹. The subject of remote language learning has gradually shifted toward the use of newer, glossier technical tools, which has benefited course designers, instructors, and students. Since it has been discovered, for instance, that electronic discourse tends to be more lexically and syntactically complex than oral discourse and features a wide range of linguistic functions beneficial for language learning, Warschauer and Whittaker (2000)² explained that using the Internet for language teaching is based on the rationale that the linguistic nature of online communication is desirable for promoting language learning. Additionally, according to these experts, it gives writers a genuine audience and boosts student engagement since it enables both one-to-one and one-to-many communication, letting a teacher or student to communicate thoughts with an unlimited number of listeners. It is also important to consider the potential it presents for collaborative material generation, collaborative material learning, and collaborative material distribution. Finally, it is important to remember that just providing students with an advanced user-friendly system is insufficient when incorporating technology in our distant learning courses. Given a number of factors, including course design, curricular integration, moderator roles, teachers' and students' participation patterns and involvement, close interaction between providers and learners, and accurate market assessment, interactivity, collaboration, and flexibility are not inherent characteristics of the medium but can result from it. The only other method to utilize technology to improve distant learning and teaching is in this manner.

The subject of education known as distance education focuses on pedagogy/andragogy, technological integration, and the delivery of education to students who are not physically there to receive it. Instead, they may converse asynchronously by sharing written or digital materials or by using technology that enables real-time communication. Simonson (2006)³ adds that a distance education course is termed a hybrid or blended course or programme if it necessitates a physical on-site presence for any purpose, including the administration of exams. Since the early 1990s, remote education has seen a significant transition⁴. Teachers are leveraging technology to provide remote students more access to the local classroom, to make it easier for all students to access resources, and to make the remote student experience equivalent to that of the local student. Distance learning no longer substantially depends, as it formerly did, on the distribution of point and broadcast media technologies. Recent advancements in hardware, software, and internet technologies have

¹ Brinton (2001). *The Use of Media in Language Teaching*. In Marianne Celce-Murcia (ed.) *teaching English as a Second Language*. Third Edition. Boston, Thompson Learning

² Warschauer, M. (2000) "The changing global economy and the future of English teaching." *TESOL Quarterly*.34:3, 511-535

³ Simonson, M., Schlosser, C., & Orellana, A. (2011). Distance education research: A review of the literature. *Journal of Computing in Higher Education*, 23(2), 124-142

⁴ James L. Morrison (2009) --The role of Technology in Education today and Tomorrow. Volume 6, Issue 5.

increased the accessibility, simplicity, and affordability of communications-based distant education systems. In online education, technology is crucial. Different kinds of technology are utilised for communication. Print, audio, television, and computers, according to Rose (2004)⁵, are the four media that may be used for instruction in one way or another. The rise of electronic publication in distant learning will be significant. In the majority of European distance learning institutions, it would be anticipated that at least 70% of the different publishing procedures would be carried out electronically during the course of the following ten years. Every student is familiar with text books as a possible print-based study resource. The author concluded that it is helpful to distinguish between media and technology. A medium is a general term for a type of communication linked to specific methods of information presentation.

USE OF EDUCATIONAL TECHNOLOGY IN PROMOTING DISTANCE EDUCATION

Educational technology plays an important role in distance education system. By adapting new communication educational technologies in distance educational programmes their quality could be ensured. Instructions conducted through the use of technologies which significantly or completely eliminate the traditional face to face communication between teacher and students lead to distance education⁶. Now a days, media such as computer, artificial satellites, digital libraries, telephones, radio and television broadcasting and other technologies are presenting their potential for the purpose. Audio, video and print materials provide the base while internet is becoming cheap, fast and effective medium. Immense resources are already available on the web. In addition, technology is rushing to bring in revolution in the field of distance education. So in future, positive changes can be apprehended.

Riding and Rayner (1995)⁷ pointed out six characteristics of the superhighway and personal computers that are helpful to understand distance learning: (1) control of the mode of delivery and presentation rate; (2) control of the order of presentation, pace of instruction and selection of learning activities, (3) monitoring of learning performance, storing responses and conducting assessments (4) provision of simulations which supply learning experiences in a variety of low-cost and risk-free topics; (5) formation of a collaborative learning group by linking the learner to the instructor and to other students for support; and (6) access to learning resources and assessment materials. Moreover, distance education technology has the responsibility of following functions. Mccorn (1987)⁸ pointed ten educational functions of computer conferencing such as (1) the notice board, (2) the public tutorial, (3) the individual project (4) free flow discussion (5) the structured seminar, (6) peer conferencing (7) collective database (8) group products (9) community decision making and (10) inter-community network. Bola, (1994)⁹ educational technology consists of all modern media, methods and materials and needs to be used in a well-integrated manner of maximizing the learning experiences of students at various levels. It implies a behavioral science approach in teaching and learning and makes use of relevant scientific and technological methods and principles developed in psychology, sociology, linguistics, communication and other related areas¹⁰.

It further seeks to incorporate the management concepts of cost effectiveness, system approach and the efficient deployment and utilization of human as well as material resources. It helps in optimization of educational outcomes through the development application and evaluation of systems, methods, and techniques in the field of teaching and learning. It is not the electronic media only; it is a part of the whole and one of the components that constitute educational technology. On the other hand distance education is emerging as a viable and vital force in educational delivery system in recent years, especially in higher

⁵ Rose, E. (2000). An evaluation of online distance education course databases. DEOSNEWS, 10,(11)

⁶ Michael R. Simonson (2006) --Distance Education,Microsoft Corporation.

⁷ Riding, R.J. and Rayner, S. (1995). The information superhighway and individualized learning. Educational psychology, 15(4), 365-378.

⁸ Mc Corn R. (1984) New Technologies New opportunities? The potential of cable in Educational and social action broadcasting Journal of Educational Television 10 (1) 1984:1.

⁹ ola B (1994) Educational Technology with reference to multimedia approach to Distance Education Vol. 11, AIU.

¹⁰ Pea, R.D, Hoadley, C.M., Gordin, D.N. and Means, B.M. (2000). Changing how and what children learn in school with computer based technologies. The Future of children, 10:2, 76-101.

education. Much of the growth comes from a rapidly growing demand for educational opportunities directed toward and designed for some specific target groups (Garrison, 1987)¹¹.

Distance learning activities are designed to fit the specific context for learning, the nature of the subject matter; intended Learning outcomes, need and goals of the learner, the learner's environment and instructional technologies methods. Apart from distance education, the field of educational technology was a 20th century movement with the major developments occurring during immediately after World War II emphasis on audiovisual communications media focused on the systematic development of teaching and learning procedures that were based in behavioral psychology. The technology is capable of bringing fruitful results in short period of time. It is such a vehicle which leads learners as well as teachers towards more clarity of concepts and ideas. Moore, (2005)¹² further added that in England in school's 133,000 students receive instruction entirely at a distance through technology. More than 20 other countries have national Open Universities in which all instruction is provided by distance education methods.

USE OF DISTANCE EDUCATION AROUND THE WORLD

Distance learning has a significant and diverse global influence. In order to satisfy the demand of the public's passion for education, the educational system today really requires the assistance of distant learning. The specific instances in this situation are as follows. Sub-Saharan African nations unquestionably have serious issues with education. On the one hand, there is a scarcity of classrooms, and on the other, there are not enough instructors or educational resources. In light of this dire scenario, Michael Simonson¹³ suggested a course of action, asserting that —distance education has the ability to assist to national rebuilding by giving individuals in dispersed geographic areas access to economically viable educational possibilities.

In addition to the high expense of higher education, China has a very fast population growth rate. In the latter decade of the nineteenth century, the national distance learning programme for higher education was established as the sole answer to such issues. To achieve its high education ambitions, the Chinese government created a nationwide radio and television university system between the end of the 1970s and the beginning of the 1980s. Distance learning is now well-established in several European nations, including Spain, France, and the UK. In these nations, a wide range of programmes were made available to the general population for both training and educational purposes. As Michael Simonson noted, interactive computer networks and electronic bulletin boards increasingly supplement or replace letter carriers in providing course materials, text books, and exams to distant learners. As a result, distance education is trending higher in the United States. Interactive, one-way technologies are now being replaced more and more by transmission medium that can provide two-way full motion and live interaction between the learner and instructor.

HOW TO MAKE DISTANCE EDUCATION MORE EFFECTIVE BY BEST USE OF TECHNOLOGY

Students collaborate with their peers and teachers using the right technology, and they utilize feedback and consultation to build and polish their knowledge, abilities, and attitudes. They are in charge of their own learning. They should choose something they want to study, set a goal, do research on it, and then develop it. They may do current data study to find solutions to issues and to questions. They may encourage lifelong learning via technology and be familiar with how to utilize material when lessons are over. The instructor is the secret to success in online learning. The teacher gains knowledge through the resources used in his or her educational practice; there are several opportunities for work. Even the most alluring and comprehensive technical resource cannot take the place of a teacher, who serves as a bridge between the student and the information they will learn. The teacher's role in pedagogy is to understand the learning process of the students and to intervene to direct them in the right direction by employing the right instructional strategies and tools. The teacher's job is to act as a mediator between students and to utilize learning to the students' advantage. One such instance is the utilisation of interests, which is often considered to be a research technique for accessing information and data. The internet, however, may have another meaning and be used as a

¹¹ Garrison, D.R. (1987). The role of technology in continuing education. *New Directions for continuing Education*, 36, 41-53.

¹² Moore, M.G. *Distance Education*, Microsoft (r) Encarta (r) 2006 (DVD) Redmond, W.A: Microsoft Cooperation 2005.

¹³ Michael R. Simonson (2006) --Distance Education|| Microsoft (r) Encarta (r) 2006[DVD] 1993-2005 Microsoft Corporation

communication tool when a teacher mediates access. This allows students to take part in projects, forums, and debates where they can communicate, discuss, and share experiences. It is crucial to keep in mind that there are many opportunities to utilize technology as a crucial pedagogical resource for the teacher to employ as a means of student learning appropriation. Aside from the internet, technology provides access to free games and applications that are accessible for download, educational software, text editors, and picture editors. However, it is the teacher's responsibility to choose the materials and exercises in accordance with the pedagogical requirements and the individual needs of the pupils.

IMPORTANT TO USE TECHNOLOGY IN TEACHING

In the classroom, students are often inundated with data that they must strive to swiftly analyze and make sense of. But this can leave them feeling overloaded with ideas and bewildered. Technology gives students access to a wealth of online materials, which motivates them to do research and so develop more independence. Making things easier to understand, for instance via an instructional video, simplifies learning as well. It is crucial to understand that there are many different learning styles, and that standard schooling may not be able to accommodate them all. Having access to resources like online classes might help those who don't perform well in traditional classroom settings get credentials they otherwise would not have been able to. The use of technology is essential in keeping students' attention so they can better absorb knowledge since it might be challenging for them to stay interested in the lessons they are being taught. They might get better education thanks to technology.

Both the learner and the instructor gain from and are affected by its use and accessibility. For instance, a teacher may ask students to complete an online quiz to get immediate feedback, saving them the time it would have taken the instructor to mark and go over each work. With constant access to information, such as the ability to check deadlines or contact professors with questions at any time of the day, technology not only saves teachers' time and money but also enables students to stay on top of their studies¹⁴.

Students may now get credentials online and further their education by enrolling in institutions that provide online courses thanks to technology. Instead of spending money on transportation or moving far away to attend college, they may study from home. Professionals who are currently employed have the option to extend their education without having to quit their full-time work¹⁵. Learning remotely has revolutionized education since it has opened up access to all people. Whether it be via online learning or just playing a video in a classroom, technology is being utilised to change the way that education is delivered¹⁶. Technology has played a significant role in the evolution of teaching, which is now more than just a lecturer in front of a whiteboard. Education and how individuals learn and remember knowledge have been revolutionized. In order to preserve the expansion and development of the current economy, its involvement in education's future is crucial.

CONCLUSION

Because of the technological revolution, there is now a greater need for education among a much larger population. Gunawaedena (2008)¹⁷ acknowledged that distant education seems to provide a significant potential not just to its students but also to the facilitators of such programmes. It is able to provide an education of a very high standard by using a wide variety of technological and media mediums. Therefore, education through distant learning is crucial for the population that, for a variety of reasons, is unable to participate in conventional classroom-based programmes. In order to successfully implement distance education, one must carefully consider many aspects of distance education. These aspects include the following: the needs of the students must be carefully balanced with the curriculum and the learning

¹⁴ Traynor, P. (2003). Effects of Computer-Assisted-Instruction on Different Learners. *Journal of Instructional Psychology*, 30 (2), 137- 143

¹⁵ Schacter, J. (1999, June). The impact of education technology on student achievement: What the most current research has to say. Santa Monica, CA: Milken Exchange on Education Technology

¹⁶ George, G., & Sleeth, R. G. (1996). Technology-assisted instruction in business schools: Measured effects on student attitudes, expectations, and performance. *International Journal of Instructional Media*, 23 (3), 239-245

¹⁷ Gunawardena, Mclsaac & Jonassen (2008). Distance education Handbook of research on educational communications and technology: Project of the Association for Educational Communications and Technology (AECT series), pp. 355–396).

environment; the teacher must serve as a supportive element who can ensure the effectiveness of the distance learning module; and finally, the selection of the most appropriate technology should be done in order to exchange its materials¹⁸. The students who had access to any of a number of educational technologies, such as computer-assisted instruction, integrated learning systems, simulations and software that teaches higher order thinking, collaborative networked technologies, or design and programming technologies, showed positive gains in achievement. This was discovered by examining large-scale state and national studies as well as some innovative smaller studies on newer educational technologies¹⁹. The contents may be in any of the following formats: textual (print, e-mail, etc.), video or audio, or computer-based. Because of the skillful management of the relevant technologies assuming the social changes brought about by micro electronic technologies would have more consequences for changes in educational programming than would the instructional potential of these technologies.

REFERENCE

1. Brinton (2001). *The Use of Media in Language Teaching*. In Marianne Celce-Murcia (ed.) *teaching English as a Second Language*. Third Edition. Boston, Thompson Learning
2. Davis, J.N. (1988). Distance education and foreign language education: Towards a coherent approach. "Foreign Language Annals, (21)" 6, pp547-550.
3. Garrison, D.R. (1987). The role of technology in continuing education. *New Directions for continuing Education*, 36, 41-53.
4. Gaspar, R.F., Thompson, T.D. (1995). Current trends in distance education. *Journal of Interactive Instruction Development*, 8(2),21-27.
5. Johnson, M.S., & Van Iten, H.B. (1984). An attempt at televised foreign language instruction. "ADFL Bulletin, (16)" 1, pp35-38
6. Kataoka, H. (1987). Long-distance language learning: The second year of televised Japanese. "Journal of Educational Techniques and Technologies, (20)" 2, pp43-50.
7. Perraton, H. (1980). Overcoming the distance in community education. "Teaching at a Distance (18)."
8. Redmond, W.A. Microsoft Cooperation. Mc Corn R. (1984) *New Technologies New opportunities? The potential of cable in Educational and social action broadcasting* *Journal of Educational Television* 10 (1) 1984:1.
9. Riding, R.J. and Rayner, S. (1995). The information superhighway and individualized learning. *Educational psychology*, 15(4), 365-378.
10. Roschelle, J.M. Pea, R.D, Hoadley, C.M., Gordin, D.N. and Means, B.M. (2000). Changing how and what children learn in school with computer based technologies. *The Future of children*, 10:2, 76-101.
11. Rybak, S. (1984). Foreign languages by radio and television: A national support strategy for adult homelearners. "British Journal of Language Teaching, (22)" 3, pp151-159.
12. Warschauer, M. (2000) "The changing global economy and the future of English teaching." *TESOL Quarterly*.34:3, 511-535

¹⁸ Traynor, P. (2003). *Effects of Computer-Assisted-Instruction on Different Learners*. *Journal of Instructional Psychology*, 30 (2), 137- 143

¹⁹ Bruce, B. & Levin, J. (1997). *Educational technology: Media for inquiry, communication, construction, and expression*. *Journal of Educational Computing Research*, 17, 1, 79-102

AN EMPIRICAL STUDY ON HRM PRACTICES AND EMPLOYEE TRAINING IN PRIVATE BANKS HRM PRACTICE IN BANKING SECTOR; AN ANALYSIS OF EMPLOYEE TRAINING IN PRIVATE BANKS

Neha Choudhary B. Sakthimala** Dr. D. Dhanalakshmi ****

**Research Scholar, Department of Management, Birla Institute of Technology, Mesra, Ranchi. Jharkhand.*

***Assistant Professor, Department of Management, Marudhar Kesari Jain College for Women, Marudhar Nagar, Chinnakallupalli, Vaniyambadi, Tirupattur, Tamilnadu.*

****Assistant Professor, Department of Commerce, Annai Vailankanni Arts and Science College, Bishop Sundaram Campus, Pudukkottai Road, Thanjavur.*

ABSTRACT

The rapidly changing business environment in banking sector and the constant challenges it poses to organizations and businesses make it imperative to continuously enhance and improve knowledge and skill sets across the organization. Banks are facing several critical pressures, including a short supply of leaders, the need to develop and engage employees, and issues with turnover. One of the biggest challenge being faced by professionals in human resource management today is the development of an effective HR strategy that aligns with and supports organization's short- and long-term business goals. But even as high unemployment persists, employers are still facing a shortage of candidates with the right skills and experience to fill critical jobs. This paper discussed the impact of training and Development on the Employees of Banking Sector. The major objectives of study to assess the role of HRM in Banking Industry and to analyze perceptions of respondents towards training programme. Training programmes are offered by banks to help employees improve their knowledge and capabilities to better serve clients. The employees of the private sector banks in the manager cadres are considered as sample purposively. Total sample size is 250 from various private sector banks using convenient sampling technique.

The author concluded that expansion of the banking industry in India may be attributed to the country's trained labour force, which was achieved via various forms of training and development.

Keywords: *HRM practices, employee Training and private banks*

INTRODUCTION

Human Resource Development has assumed considerable importance in the recent years, be it business organization or a bank or an office, the development of human resource is necessary for its efficient and effective working. In an evolutionary process when developing economy struggles to attain higher levels of living it can hardly overlook the need of developing its human resources to meet the bigger and new challenges of raising the quality of the life of masses. The concept of HRD deals with the improvement of human quality in general and development of human skills, standards, comprehensions and

application in the production enterprises in particular. As such, HRD has become an important programme of all organizations not only for enhancing the production efficiency/productivity but also to bring about qualitative improvement among the workers at different levels. Human resource management is the back born of any organization and banking sector is not exception to it. Banking being a service sector is primarily dominated by people or customers. The success of the banking business more or less depends upon the effective and efficient human resource of the banks. The service quality and customers satisfaction can be enhanced by the behaviour and hospitality of the banking employees. This sector has undergone a metaphoric change during the last three decade with respect to their human resources management practices. Further, the importance of HR department in this sector also has increased over the years. Employee recruitment, training and retention are considered to be most challenging task of modern time. There are many studies have been made covering different aspects of human resource management in banking sector more specifically in Indian context¹.

ROLE OF HRM IN BANKING ORGANIZATION

Human Resources (HR) can include a broad spectrum of specialties within organizations. Some examples of specialties include recruiting, payroll, policy, safety, training and development, and performance management. In smaller organizations, the HR professional may handle all of those specialties and in larger organizations, each specialty is most likely its own department. Many banks in India were trying to hire the professionals with higher packages even when the GDP of country was quite high as they were not able to find the ready available talent. Few banks have taken steps to build the talent and one among them is ICICI Bank. They have tried to build the available resources on supply side to billable resources on demand side².

Banking is an important sector for any economy for catering to the financial needs of the people as well as the Government. Especially in a developing country like India, the need of the banking services should not be neglected. That is the reason why the government of India started the process of nationalization of banks in 1969. Since then the nationalized banks have played a vital role in providing various financial services to the people and in the development process of the country. After the introduction of New Economic Reforms viz., Liberalization, Privatization and Globalization, the scope of banking sector has been widened. As a result of this, the labour market for the aspirants of bank employment and bank employees has been widened, which forces the managements of the banks to adopt

¹ Jha, R., & Mishra, M. K. (2015). A study of HRM and employees performance in banking sector in India. *International Journal of Advance Research and Innovative Ideas in Education*, 1(3), 24–28.

² Lado, A.A. and C.M Wilson, Human Resource System and sustained Competitive Advantage: A Competency based Perspective, *Academy of Management Review*, Vol.19,1994, p.702

certain Human Resource Management Practices in order to sustain in the market and holding their discontented employees³

Our country is mainly dominated by medical and engineering colleges where bank industry finds it difficult to locate specific institutes who produce only pool of talents for banks. This made the banking industry to look beyond top cities for talent and moved to small town and rural India that need to be polished on social and corporate skills. The roles within HR can vary greatly as well as with many departments from the purely administrative to the executive. Another related and perhaps more important question that is often discussed is, “what should HR be doing?” For me, HR’s primary purpose is to ensure that the right people are working in the right places to accomplish the organization’s goal. In other words, HR is responsible to develop programs that will attract, select, develop, and retain the talent needed to meet the organizational mission. So whether you are an HR department of one or a combination of multiple departments that include hundreds of employees, your primary responsibility is talent management.

THE PRACTICE OF TRAINING AND DEVELOPMENT IN BANKING SECTOR

Both the efficacy of organizations and the quality of people's working lives are significantly influenced by the training and development opportunities available to them. Training is the development of abilities that are often essential to execute the duties associated with a particular career. The ability to do their tasks more effectively and to bring about a behavioral shift in individuals who have received training are both outcomes that may be achieved with the assistance of training. Training allows freshly hired staff to become completely productive in the shortest amount of time possible, while also allowing more experienced personnel to easily accept new concepts. To be successful, training and management development programmes need to take into consideration that workers are adult learners (Forrest & Peterson, 2006). According to the findings of the researchers, firms who spend in training get a return in the form of strategic advantages Sisakhti, (2007)⁴. The ever-learning nature of the business world makes it imperative for progressive companies to invest in the education of their workforces in order to strengthen their capacity to positively adapt to the changing business environment Bernadin (2007)⁵. To produce outcomes that will last, it is essential to place a strategic emphasis on training, acquire new skills based on the firm's anticipated future requirements, get training in both hard and soft skills, and evaluate the success of training (Khan, 2010)⁶. This results in increased staff

³ Guest, D.E., Human Resource Management and Industrial relations, Journal of Management studies , Vol.24,1987,p.504

⁴ Sisakhti, R. (2007) “Sales training: what makes it work”? Training and development, A handbook for managers and supervisor” Sydney.

⁵ Bernadin, H.J. (2007), “Human resource management: An exponential approach”, 4th ed. NewYork: McGraw-Hill Irwin. P. 253-277,

⁶ Khan, M.A., (2010), “Effects of Human Resource Management Practices on Organizational Performance – An Empirical Study of Oil and Gas Industry in Pakistan”, European Journal of Economics, Finance and Administrative Sciences, 24, pp. 157-75

productivity and dedication, as well as a reduction in turnover. The planning of workers' professional futures might also be supported by their employers. Companies that do this urge their workers to take a greater responsibility for their own professional growth, which may include the acquisition of skills that are important for the organization (Doyle, 1997). Therefore, it is very important for any organization to place a strong emphasis on training and development practices in order to ensure that the other sets of practices are successfully aligned with them.

TRAINING AND DEVELOPMENT IN BANKING SECTOR

The major impacts of effective training and development in the banking sector may be given as below:

- i. **Motivating the workforce:** Because of the expansion of the global market, having a technical advantage that is backed up by a talent pool has become an essential component for continued success in the market. The organization places a high focus on projects that aim to develop technological capabilities. These days, HR managers are expected to play the role as motivators for their companies' knowledge employees in order to encourage them to embrace new innovations.
- ii. **Managing people:** As a result of the growing amount of competition, there is a need for knowledge workers inside the company; thus, businesses are always searching for individuals who have the potential to influence the outcome. However, there is a shift in perspective toward individuals who are taking on duties at a younger age and with less experience because of the reason that acquiring the correct knowing person had become a pricey deal for the firms. As a direct consequence of these considerations, there has been a discernible change in focus from organizational career commitment to personalized career management.
- iii. **Competency Development:** Human capital is the true asset of every firm, the Human Resources department plays a crucial role in recruiting, managing, and keeping the most talented employees. Any organization's rate of progress toward its goals is directly proportional to the HR department's ability to fulfil its responsibilities in this process. Having a human resources (HR) pool that is inventive and skilled, as well as being solid in HR management techniques and having good business expertise, is an essential concern for the majority of firms.
- iv. **Developing Trust factor:** In the business that is founded on knowledge, having low levels of trust makes it difficult to share tacit information. It is very necessary for businesses to expand their efforts in order to raise the degree of safety enjoyed by their workforce.
- v. **Work life BalanceFactor:** This facet of the situation brings with it the issue of a more seamless absorption and the cultural tying of the newcomers into the fold of the organization. The stress of having to provide the highest possible level of service within a condensed time period makes it imperative that employers make sure their workers have a healthy work-life balance.

vi. **Attrition/Retention of the Talent Pool:** Dealing with the widespread high employee turnover rates is one of the most difficult difficulties that human resource managers in any sector face. Even if there is a sufficient supply of skilled workers in entry level positions, there are significant labour shortages in the industry's medium and senior level management positions. In addition, there is a lack of clarity on how each employee's wage would increase over time. As a consequence of this circumstance, there has been an increase in the amount of poaching and attrition across firms.

LITERATURE REVIEW

Chinnadurai (2014)⁷ studied the HRM practices in Indian banks belonging to the private sector that are located in the Cuddalore area of Tamil Nadu. The author had decided to focus on the following aspects of human resource management for the study: recruiting and selection, training and development, performance assessment, career development, motivation, compensation management, and grievance handling. As responders for this study, a sample of 260 bank officers was recruited, with each of the 52 private banks contributing five officers total. A percentage analysis, a one-way analysis of variance (ANOVA), and a t-test were used to analyze the data. According to the findings, the vast majority of respondents were pleased with the overall human resource management procedures used by the different private sector banks that were taken into consideration for the research.

Jeet and Sayeeduzzafar (2014)⁸ studied a case study technique will be used to investigate the influence of HRM practices on employee job satisfaction among workers working for HDFC bank. A structured questionnaire was used to collect information on HRM practices at HDFC bank from a total of 52 respondents who agreed to participate in the survey. The degree to which an individual is happy in their job was referred to as the dependent variable, and the degree to which other factors, such as training, performance assessment, teamwork, employee engagement, and remuneration, were regarded to be independent variables. The findings of the regression analysis revealed that, with the exception of performance reviews, all of the other independent variables displayed a substantial influence on the level of work satisfaction experienced by employees.

Sinha (2015)⁹ conducted a comparative study of the many HRM aspects that contribute to employee satisfaction across a variety of banking organizations in India's public and private sectors. A systematic questionnaire was used to collect data from two different groups of bank workers—100 employees from the public sector and 100 employees from the private

⁷ Chinnadurai, P. (2014). HR practices in private sector banks - An empirical evidence. *International Journal of Marketing*, 3(4), 30–37

⁸ Jeet, V., & Sayeeduzzafar, D. (2014). A study of HRM practices and its impact on employees job satisfaction in private sector banks: A case study of HDFC bank. *International Journal of Advance Research in Computer Science and Management Studies*, 2(1), 62–68

⁹ Sinha, A. (2015). A comparative analysis of dimensions of public and private organizations on their employees' satisfaction. *Indian Journal of Applied Research*, 5 (7), 331 – 33

sector. The findings of the study led the researchers to the conclusion that there is a substantial disparity in the ways in which workers working for public and private banks see the socioeconomic and political elements that influence HRM practices in banks.

STATEMENT OF THE PROBLEM

The financial services sector currently includes banking as one of its sub-industries. As a result of an increase in both the number of market participants as well as the variety of services and amenities provided, there is an indication of a more intense level of competition. The changing state of the economy has presented the banking industry with both new obstacles and new possibilities. The rivalry that banks have faced in the past has mostly been focused on the provision of services; however, it is now showing itself in the form of competition that is based on technological advancements as well as competition that is based on prices. The entry into the market of new banks that are technologically well-equipped, structurally lean, and have strong capital reserves is going to cause a shift in the markets with regard to the variety of services provided, the prices that are charged for those services, as well as the rate at which customer expectations are satisfied. Banks need to improve their efficiency if they are going to be able to compete successfully in today's highly competitive market. Both market-related and internal factors are important, but the human resource component is particularly important, and it may have a significant impact on a bank's ability to compete effectively. In light of this situation, a multitude of HRM-related actions need to be implemented by Indian financial institutions. The banking industry must work to improve the knowledge and expertise of its workers. To better equip people to fulfil the ever-increasing demands of customers, it is necessary to modify attitudes. The banks immediately began the process of redesigning the HRM area once they became aware of the significance of developing a corporate culture that is focused on the needs of customers and committing to the ongoing training and education of their workforce in order to guarantee growth and preserve their preeminent position.

OBJECTIVES OF STUDY:

1. To assess the role of HRM in Banking Industry.
2. To analyze Perceptions of respondents towards training Programme.

RESEARCH METHODOLOGY

The information that is offered in sources, particularly considering that the material could have been obtained to address a different issue area. It is always necessary to be critical of the information that is presented in sources. In addition, many secondary sources do not provide a clear description of problems such as the objective of a study, how the data has been acquired, evaluated, or interpreted, which makes it challenging for the researcher to evaluate the value of the sources. The material pertaining to the issue has been gleaned from scholarly journals, trade magazines, annual reports published by financial institutions, and the internet. The employees of the private sector banks in the manager cadres are considered as sample purposively. Total sample size is 250 from various private sector banks using convenient sampling technique.

ANALYSIS AND INTERPRETATION

PERCEPTIONS OF RESPONDENTS ON EACH FACTOR TOWARDS TRAINING PROGRAMME:

The Perceptions of respondents on each factor towards Training Programme in the private sector banks are studied from the employee's point of view. The six factors are considered for training Programme employees in the bank i.e., Trainer Competencies, Training content, Presentation style, Trainee personal Characteristics, Training plan & schedule and Training facilities & environment. These factors are analyzed as below.

Table 1: Perceptions of Respondents on each Factor towards Training Programme:

Factors	Mean	Std. Deviation	Mean Rank	Rank
Trainer Competencies (TC's)	3.42	1.326	3.47	III
Training content (TC)	3.25	1.262	3.18	IV
Presentation style (TPS)	4.20	1.152	4.78	I
Trainee personal Characteristics (TPC)	3.70	0.797	3.81	II
Training plan & schedule (TPS)	3.28	0.796	3.12	V
Training facilities & environment (TFE)	3.05	1.099	2.85	VI

The result of the descriptive statistics shows that the respondents consider presentation style (TPS) (4.78) as a successful strategy for Perceptions of Respondents on each Factor towards Training Programme. Secondly, they feel that Trainee personal Characteristics (3.81) also helps them to retain with the existing bank. Naturally, the employees in the private sector banks are educated, talented and skillful. In this perspective, it has been identified that the respondents are Trainer Competencies to show their quality (3.47). Training content (3.18) helps to instill the employees continuously and mold their assertiveness for the better service. Training plan & schedule (3.12) and Training facilities & environment (2.85) are ranked fifth and sixth by the respondents.

CONCLUSIONS

There is sufficient data to suggest that workers who get ongoing training are more likely to provide services to clients that are of a better quality. Rather than relying on ad hoc programmes, it is necessary to have a consistent culture inside the company in order to be able to establish an integrated and proactive training and development plan. People are among the most significant assets in a service-oriented sector such as banking, and a bank has to manage its workers well throughout every aspect of the employment process in order to compete effectively in this competitive environment. It may be deduced that public sector banks provide their staff members with training and development opportunities in order to raise their levels of productivity. Training programmes are offered by banks to help employees improve their knowledge and capabilities to better serve clients. The expansion of the banking industry in India may be attributed to the country's trained labour force, which was achieved via various forms of training and development. According to the

findings of the research as a whole, banks place a significant amount of emphasis on the activity of training and development of their personnel, which benefits both the employees and the business.

REFERENCES

1. AnchalRastogi andGarima Srivastava, (2017). “E-HRM: Emerging HR Practices in Private Banks”. *International Journal of Engineering and Management Research*, 7(3), 111-116
2. Arcana Remit, (2017). “Human Resource Development: Policies and practices in private sector banks in Gujarat”. *Voice of Research*, Vol.6 (1), pp.44-49.
3. Islam et. al. (2018). Influence of HRM Practices on Employee Job Satisfaction: Evidence from Private Commercial Banks in Bangladesh. *Global Journal of Management and Business Research: An Administration and Management*, Vol.18 (3), 22-27.
4. Karthikeyan, and Karthi (2010), “Impact of Training in Indian Banking Sector – An Empirical Investigation”, *International Journal of Business and Management* Vol. 5, No. 7, pp.77 -83.
5. Kavita Rani and DikshaGarg (2014), “A Study on Training and Development in Public Sector Banks”, *International Journal of Management and Social Sciences Research*. Vol.3 No.1, pp. 33 -36.
6. Ramakrishna and Rao, K.S. (2017). A Comparative Analysis of Human Resource Practices among Public and Private Sector Banks inTelangana State. *International Journal of Advanced Scientific Research & Development*, Vol. 4(3), 65-75.
7. Suhasini, andSuganthalakshmi (2 015), “Emerging Trends in Training and Development”, *International Journal of Scientific and Research Publications*, Vol 5, No. 3, pp. 1-10.
8. Tajo kuku and Masha Ahmad Shah, (2016). “Innovative Human Resource Practices In Indian Banks: A Study from Hr. Manager’s Perspective. Bandana Sabena” *International. Journal of Engineering Research and Application*, Vol.6(3), pp.40-48
9. TapasyaJulka Malhotra and Shravasti Jain, (2017). “Impact of E-HRM Practices on Employee Satisfaction”. *International Journal of Science Technology and Management*, Vol.6 (02), 764-770.
10. Vignette and Madan Kumar (2016). “Human Resource Practices in international banks located in Poll chi, Coimbatore district”. *Intercontinental Journal of Human Resource Research Review* Vol. 4(3), pp.49-58

ANALYSIS OF INFLOWS OF FOREIGN DIRECT INVESTMENT IN INDIA PROBLEMS AND CHALLENGES

Dr. Ataur Rahman Farooqi Samuel Lalthanliana** Dr. M. Murali Krishnan****

**Assistant Professor, Department of Business Administration College of Applied Sciences
UTAS Nizwa Oman.*

***Assistant Professor, Department of Commerce, Govt. Hrangbana College, Chanmari, Aizawl
Mizoram.*

****Assistant Professor, Department of Management Studies,
Dr. N. G. P. Institute of Technology, Coimbatore, Tamilnadu.*

ABSTRACT

Countries around the world both developed and developing, are taking concerted efforts in a bid to attract greater flows of FDI into their economies. Indian government is leaving no stone unturned in its attempt to attract greater FDI flows into India. But despite the fact that India offers a large potential market, possesses pool of talented, educated and skilled workforce, has relatively low labor costs and liberal democratic political structure, the FDI inflows into India have remained low in comparison to other emerging markets. In this backdrop, this paper seeks to analyze the status of FDI inflows into India and identify the problems and issues that have made India less attractive destination as compared to other nations. The study is exploratory in nature and secondary data has been collected from various reports and publications of Government of India, World Bank, OECD, World Economic forum etc. The study will enable us to get an insight on the steps that Indian government can take and also some lessons that India can learn from countries like China to increase the attractiveness of India as an FDI destination. India has continued to remain among the top attractive destinations for international investors. An analysis of recent trends in foreign direct investment (FDI) flows at the global level and across regions/countries suggests that India has generally attracted higher FDI flows and continued to remain among the top attractive destinations

Keywords: Foreign Direct investment in India Problems and Challenges

INDIA AND INWARD FDI: AN OUTLINE

To accept foreign capital, Indian economy got ready decades ago. Newly freed India was cautious of foreign control over domestic economy. As a result, Indian economy kept its door almost closed for foreign investments. But soon the nation felt the necessity of foreign capital in the process of its development specially in developing domestic industrial infrastructure and in manufacturing goods to be consumed by native people. The nation's attitude towards foreign capital had started changing and, at the end of the last century, India became a participant in the global race for attracting foreign investment as a host country. There are empirical evidences that Foreign Direct Investment (FDI) plays a pivotal role in developing economies. It propels the economic growth of the recipient country as it is an investment of foreign assets into domestic structures, equipment and organizations. FDI generates new employment, enhances human resource, builds infrastructure and create business environment in the recipient country. It increases foreign exchange reserve and decreases current account deficit of the host economy. Hence, all the developing economies welcome FDI and offer different business advantages to the foreign investors. Liberalized India adopted many of the policies to attract FDI but India's performance in attracting inward FDI in the post-liberalized period still remains below expectation. Though the country has experienced a smart growth of inward FDI during the last two decades, the growth has not been seen to be very consistent. Among the emerging economies, China remains an attractive destination for the global investors. Although United Nations Conference on Trade and

Development (UNCTAD)¹ upholds India as another good destination for global investors India's performance in attracting FDI inflows is poor in relation to other emerging economies.

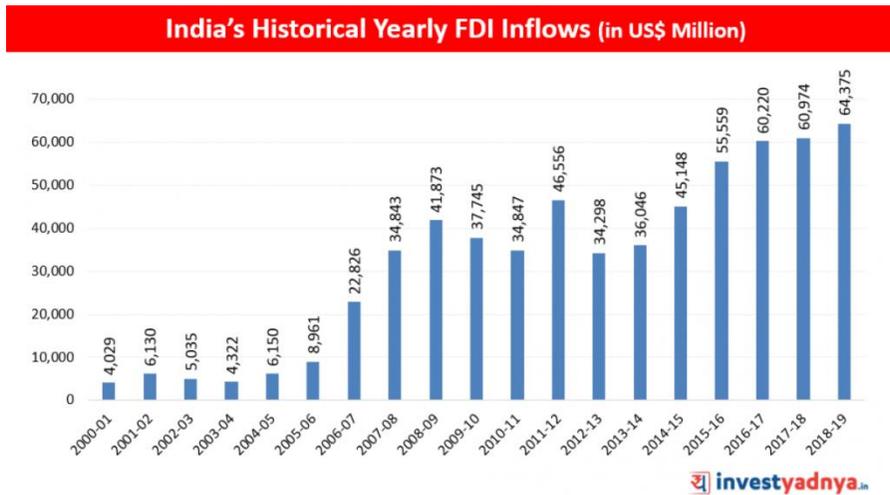


FDI AND EMERGING ECONOMIES

Cross-border investment made by transnational traders seeks opportunity of global business expansion or finds a room abroad from where they can harvest cost benefits. But the investment becomes a boon for the emerging economies when it bears the statutory status of FDI. This inward FDI enriches the host economy by accelerating GDP growth, influencing balance of payment positively and by generating new employment². Besides, FDI introduces new technology in the facilities laid on the host land and fetches global knowledge for the host country nationals. Emerging economies like Brazil, Russia, China and India are very much fond of foreign investment which participate in their home economy and propels the economic growth. There is a negative criticism that FDI has a favourable short term effect on the growth of emerging economies while it reduces the rate of growth in the long run. This is due to the repatriation of profit and recapitalization made by the foreign corporations. Yet, almost all the developing countries run after foreign investors to welcome their money, technology and knowledge as fresh investment and water the relationship with foreign corporations already in operation in the host countries with an intension to make them stay invested. Among the emerging economies, China experienced a smart growth of FDI during the last two decades. Brazil also attracts a regular inward FDI while the performance was derailed during the years 2001 to 2003. Performance of the Russian Federation geared up in 2006 but it has failed to sustain the uptrend.

¹ UNCTAD. World Investment Report 2013: Global value chains- Investment and trade for development, New York and Geneva: United Nation 2013

² Himachalpathy, R.. A Comparative analysis of FDI in India and China. Journal of Contemporary Research in Management 2010; 127-158



In the case of India, the growth of inward FDI inflow is not a uniform one. Background of the Study During the two decades immediately after India's independence, Government of India was cautious in welcoming foreign investment to the home economy, followed by a period of a selective FDI policy. FDI inflow in this period was low in comparison to other developing economies. The FDI stock was growing slowly but the growth was not a uniform one. The then Indian policy makers changed their attitude towards FDI and gradually opened the door for foreign investors. The government started offering numerous concessions, tax incentives and different subsidies to the foreign corporations for setting up their business operations and manufacturing facilities in India. The government encouraged the FDI in the field of high-end technology and in export oriented manufacturing sector. The initiative began with bilateral and multilateral tax treaties with countries having potential investors and India has already signed Double Taxation Avoidance Agreement (DTAA) with countries since 1958 (Mandal, 2016). Besides, Special Economic Zones (SEZs) and Tax Holidays are also offered to the foreign investors with an intention of accelerating the growth of export. Later, in the post-liberalized period, different announcements and legislations have exhibited India's business friendly attitude. Although the attitude moved the foreign investors initially, their interest in investing in this country did not remain constant over the years. India had experienced a smart but uneven growth of FDI inflows since the year 1990 to 2012, while the growth took a sluggish trend after 2012. But, according to UNCTAD, the economy still has high potential of attracting FDI inflows to it (UNCTAD, 2012)³.

FDI IN INDIA AND RECENT ISSUES

Amitabh Kant (2015)⁴, in his article 'Transferring India into a Global Manufacturing Hub' published in the Yojana (March-2015), advocates for 'Make in India'. 'Make in India' is not only a slogan but a combination of programmes taken or to be taken by the Government of India to promote manufacturing facilities in 25 sectors in India. From the backdrop of slow growth and lower FDI inflow, the government emphasizes on major policy change to get foreign investment attracted to India. The programme, Make in India, aims at raising contribution of manufacturing sector to 25% of GDP by 2020. Simplification of tax system, skill development of potential workforce, fast and hazardless process of establishing business in India are some of the initiatives taken by the government for making 'Make in India' successful. Artika Vats (2014)⁵, criticized the Indian government's policy of economic liberalization as the cost of globalization by opining that it is 'increasing inequality, social disruption, large scale displacement and jobless growth'. She points out the increasing number of middle class (income) Indians who have participated in making the high growth during the last decades while the growth did not create expected number of employments. She refers to the UNCTAD report on LDCs, 2013, to suggest the policy makers to encourage foreign investments giving high priority to

³ UNCTAD. (2012). Web table 32a. Country rankings by Inward FDI Potential Index, 2011. World Investment Report 2012. Retrieved from unctad.org/Sections/dite_dir/docs/WIR12_webtab32a.xls.

⁴ Kant, A. (2015). Transforming India into a Global Manufacturing Hub. Yojana, 59

⁵ Vats, A. (2014). Jobless Growth. Yojana, 58(April- 2014), 14-19.

employment generation. Karunakar Ram Tripathi (2010),⁶ in his book 'FDI and Export Promotion: A Case of Indian Manufacturing Industry', examined the effect of foreign ownership on the export performance of Indian manufacturing industry, especially of engineering, chemical and drugs & pharmaceutical industries. He focuses on the trade and industrial policies of India in pre and post liberalized period. The study has found that domestic firms are more efficient and successful in growing their exports during the new policy regime. In the post liberalized period, the performance of FDI in increasing exports remains below expectation. In the new policy era, both FDI and exports are promoted by the Government of India and both are increasing remarkably, but there is no cause-effect relation between the two variables.

NitiBhasin (2012)⁷, in her book 'Foreign Direct Investment (FDI) in India: Policies, Conditions and Procedures', focuses on current policies, conditions and procedures for FDI inflows into India. She gives a detailed account of policies regarding FDI taken by the government since 1948. The book shows how foreign investment was encouraged by Government of India in the course of economic liberalization initiated in 1991. The author makes a comparison of performance in attracting FDI between South Asian economies. India possesses a huge potential of attracting inward FDI but its performance in this field remains lower than China, Singapore, Indonesia, the Philippines and Thailand. The author also gives an account of recent policies developed by the government to attract more and more FDI.Reddy (2011)⁸, in his monograph 'Global Innovation in Emerging Economies', highlights the presence of Research and Development facilities in emerging economies. He shows how the MNCs are expressing interest in establishing their R & D facilities in BRICS countries in the new century. The author justifies the theories of internationalization of production in the context of FDI in R & D in the emerging economies like India. Besides, he observes that emerging economies have emerged in the world market with their own invented product and services.

FDI INFLOWS IN INDIA- PROBLEMS AND CHALLENGES

India and China are engaged in a fierce competition to increase their respective shares of global commerce and investment. Despite the fact that China remains India's primary opponent, a number of other emerging economies, such as Indonesia, Vietnam, and the Philippines, have emerged as formidable adversaries. The relatively cheap cost of labour and lucrative domestic markets in India are India's primary sources of competitive advantage. However, due to the fact that foreign direct investment (FDI) is migrating away from established development engines and towards new developing economies, India is rapidly losing its competitive edge to nations such as Indonesia and Vietnam⁹. There is no question that the Indian government has put into effect a number of reforms in order to attract a bigger amount of FDI; yet, there are a number of studies that have highlighted India's areas of weakness. One report of this kind is titled "Doing Business 2014," and it is an annual report that is co-published by the World Bank and the International Finance Corporation. This report examines the various ways in which nations' governments regulate business practices and put those regulations into practice. This research ranks 189 nations based on 11 different criteria, covering the globe. A stronger performance on these measures is typically correlated with bigger inflows of foreign direct investment (FDI). These indicators are used to measure the quality of the investment climate in a nation.Table.1

Quality of the investment climate

Sl.No.		Rank
1	Ease of doing business	134
2	Starting a business	179
3	Dealing with construction permits	182

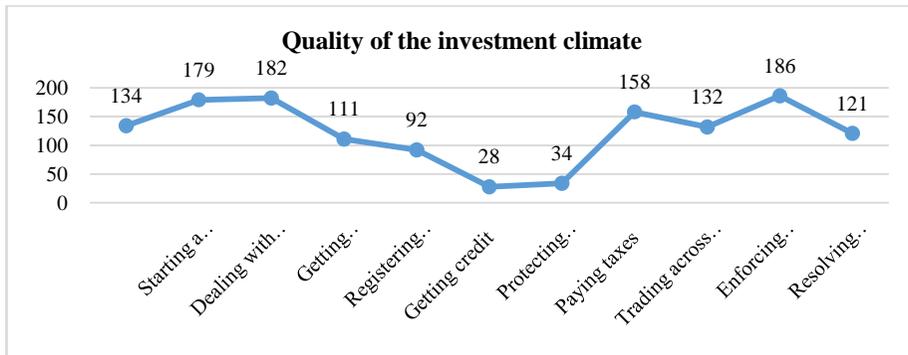
⁶ Tripathi, K.R. (2010). FDI and Export Promotion: A Case of Indian Manufacturing Industry. New Delhi: Shree Publishers & Distributors

⁷ Bhasin, N. (2012). Foreign Direct Investment (FDI) in India: Policies, Conditions and Procedure. New Delhi: New Century Publications.

⁸ Reddy, J. (2011). Country Risk Analysis in Emerging Markets: The Indian Example. IIM Bangalore, Working Paper No. 326

⁹ World Bank & International Finance Corporation. Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises, World Bank Publications, The World Bank, 2013

4	Getting electricity	111
5	Registering property	92
6	Getting credit	28
7	Protecting investors	34
8	Paying taxes	158
9	Trading across borders	132
10	Enforcing contracts	186
11	Resolving insolvency	121



The table 1 above indicates that India is performing well only on two indicators, namely, getting credit and protecting investors. The performance of India on three indicators, namely starting a business, dealing with construction permits, and enforcing contracts, shows a bleak picture of the investment climate in India. These indicators are: A further report titled "Global Competitiveness Report," which is published on an annual basis by the "World Economic Forum," ranks 148 economies on their competitiveness with respect to indicators such as infrastructure, institutions, macroeconomic stability, innovation, and so on. This report was compiled by the World Economic Forum. On the Global Competitiveness Index, India came in at position number 60 for the year 2013-2014. According to the survey, the most challenging constraints for doing business include an insufficient supply of infrastructure, corruption, ineffective government bureaucracy, policy instability, stringent labour restrictions, and tax regulation.

MAJOR IMPEDIMENTS

The major deterrents to larger flows of FDI to India are listed below:

Weak infrastructure: Infrastructural limitations continue to be a key source of worry in India. When it comes to competitiveness, India doesn't stand against other growing countries in terms of ports, roads, skills sets, education etc. Even after six decades of planned economic growth, India suffers from weak transport connections, insufficient electricity supplies, substandard roads, and frequent power interruptions, delays at ports, water and sewage difficulties and so on. A survey done by the Federation of Indian Chambers of Commerce and Industry in 2013, indicated that each day Indian enterprises are losing upto Rs. 40,000 because of power shortages; and owing to power disruptions, 61 percent companies experience more than 10 percent loss in productivity. Warehousing and cold storage facilities are also in insufficient supply, because of which 40 percent of the fruits, vegetables and other perishable items are damaged before reaching the marketplaces. In the World Competitiveness Index for 2013-14, India rated 85 out of 148 countries for its infrastructure, significantly behind China which ranked 48.

Complicated tax structure: Stability and transparency in tax system coupled with clarity in tax laws may have far reaching influence on investments in any nation. The taxes rules in India remain essentially complicated despite the fact that government has tried various measures to simplify and restructure them. In the recent years, India has experienced various tax issues with regard to cross border transactions involving huge MNCs. According to a survey in 2011-12, 30 firms who form the BSE Sensex had USD 7 billion stuck

in tax legal actions. Again, while corporate tax rates in most of the nations are in the range of 15 to 25 percent, in India foreign companies are taxed at a rate of 40 percent. The corporation tax rate for international enterprises is 25 percent in China together with tax breaks for qualifying tax payers. India's indirect tax system is also quite complicated, imposing many taxes such as central sales tax, VAT, service tax, central excise duty, octroi etc. and demands for a variety of compliances increasing the burden on enterprises. Moreover, there is a lack of consistency in the tax rates throughout the nation increasing the complexity for tax payers.

Restrictive labour regulations: India is recognized internationally for its harsh and inflexible labour rules and over- controlled labour market. Over the years, Indian government has enacted a large number of legislations to protect the interests of labour covering different aspects namely fixation and revision of wages, worker's health and safety, mode of payment of wages, payment of compensation in the event of industrial accident, provision of social security such as provident fund, gratuity, insurance and so on. Indian economy has gotten exceedingly rigid owing to these rules. These regulations feature rigorous requirements about overtime and imposes financial responsibility on the company upon worker retrenchment. Laws such as seeking prior authorization from the government before terminating any worker in a firm employing more than 100 people continues to hound companies. On multiple times OECD and World Bank research have underlined the necessity to implement improvements in Indian labour regulations.

CONCLUSION

During this time span, a variety of information bases on Foreign Direct Investment (FDI) Statistics for India have been accessible. The comprehension of the statistical procedures that countries use in the compilation of the data is facilitated by global ideas, and the statistics that are produced as a consequence may be used for comparisons between nations. There is little question that nations with open investment schemes have significant difficulties when trying to estimate their level of foreign investment. In this regard, India's FLA census, which is a part of the global CDIS initiative, has been a major step forward because it gives consistent annual data on face value as well as at market value of FDI in India based on complete enumeration. In addition, the census is a part of the global CDIS initiative. In line with its robust domestic economic performance and gradual liberalization of the FDI policy as part of the cautious process of capital account liberalization, India has continued to remain among the top attractive destinations for international investors. An analysis of recent trends in foreign direct investment (FDI) flows at the global level and across regions/countries suggests that India has generally attracted higher FDI flows and continued to remain among the top attractive destinations

REFERENCES

1. Government of India (2013) FDI Statistics. Ministry of Commerce & Industry, Department of Industrial Policy and Promotion 2013.
2. Himachalpathy, (2010) Comparative analysis of FDI in India and China. *Journal of Contemporary Research in Management* 2010; 127-158.
3. Kearney AT. (2013) FDI Confidence Index. Global Business Council, Vol. 13.
4. OECD. FDI Regulatory Restrictiveness Index 2013; 2014.
5. UNCTAD. World Investment Report 2013: Global value chains- Investment and trade for development, New York and Geneva: United Nation 2013.
6. World Bank & International Finance Corporation. *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*, World Bank Publications, The World Bank, 2013
7. World Economic Forum. *The Global Competitiveness Report 2013-2014*, 2013.
8. Division of International Trade and Finance of the Department of Economic and Policy Research, Reserve Bank of India (2010-11), "Foreign Direct Investment Flows to India", https://rbidocs.rbi.org.in/rdocs/Content/PDFs/FDIST_110412.pdf
9. International Monetary Fund (2008), "Balance of Payments and International Investment Position Manual", Sixth Edition (BPM6).
10. Reserve Bank of India, Press Release (2020). "Finances of Foreign Direct Investment Companies 2018-19

FDI IN BANKING SECTOR: AN OVERVIEW

Lalita Babul Malusare* Rakesh Bharat Ghode** Jaywant Ramdas Bhadane***

**Assistant Professor, Department of Commerce, Sangamner Nagarpalika Arts,
D.J. Malpani Commerce and B.N. Sarada Science College. Ghulewadi Ta:
Sangamner Dist: Ahmednagar.*

***Assistant Professor & Head, Business Economics. Kar. Ramraoji Aher Arts,
Science and Commerce College Deola, Dist. Nashik Maharashtra India*

****Associate Professor & Head of the Department of Economics. Kar. Ramraoji Aher
Arts, Science and Commerce College Deola-, Dist. Nashik Maharashtra India*

ABSTRACT

The banking system of a country is the center around which the economy of that country revolves. Any functioning banking system is essential to the stability of any economy. It is impossible to argue against the importance of banks and the roles they play in the expansion and development of any economy. This point does not need more emphasis on its own. Since the liberalization and reforms in 1991, the Indian banking industry has seen a dramatic transformation. As a result, Indian banks have come a long way and expanded their operations into areas that are traditionally outside of their purview. One of the most important decisions made as part of a more comprehensive agenda of reform was to make the Indian banking system accessible to involvement from other countries. Even though the decision to let foreign money into the Indian banking industry was met with a great deal of opposition, the fact that it was ultimately made demonstrates a significant shift from a conservative to a liberal outlook on the part of policymakers.

Keywords: *Foreign Direct Investment (FDI), RBI, Indian Banking Sector and Foreign Banks*

INTRODUCTION

Foreign Direct Investment (FDI), which is employed as a development stimulant in most emerging nations, including India, is used in an economic environment that is continually changing. The banking industry is an essential part of the global economy, which is why globalization has consumed all other industries as well. Foreign direct investment (FDI) in the banking industry of India presents a number of possibilities in addition to obstacles. This paper investigated the potential for foreign direct investment (FDI) in the Indian banking industry and highlighted the many different kinds of FDI presence in India. This study looks deeper into the patterns of foreign direct investment (FDI) into the Indian banking sector and seeks to calculate the influence that the presence of foreign banks has had on the Indian banking industry¹. In addition to this, the report sheds light on the RBI's revisions as well as current developments in India's foreign policy towards FDI.

FDI IN BANKING SECTOR: AN OVERVIEW

Foreign direct investment is a significant part of non-debt inflows, and it is increasingly being pursued as a mechanism for the movement of capital inside the nation as well as a way to achieve competitive efficiency by establishing a substantial network of global linkages. It is always the case that the financial sector is the most important sector for the entire growth of any nation, and the banking industry is the most important sector of them all. Since India began implementing its economic reforms in 1991, the country's banking sector has gone a long way. At this point in time, Indian banks have reached the same level of technological sophistication as their counterparts in wealthy nations. In order for a bank to attract and keep its clients, competitive and reform pressures have led to the development of the Internet, e-banking, automated teller machines (ATMs), credit cards, and mobile banking, among other financial innovations.

¹ Badade, K., & Katkar, M. (2011). Foreign direct investment in banking sector, A boon in disguise. *Professional Banker*, 3, 46 -49.

The Indian federal government has raised the maximum for foreign direct investment in Indian private sector banks to 49 percent, which has led to the opening of the country's banking industry to investors from other countries. However, the cap on foreign direct investment (FDI) in the country's public sector banks has not budged from its previous level of 20 percent. Foreign banks that already have a physical presence in India are eligible to buy interests of up to 49 percent in companies via a process known as "automatic channels."² It is important to note that under the "automatic route," new shares would not be offered to foreign investors who already have financial or technical partnership in the banking or allied industry. This is because the "automatic method" prohibits the issuance of fresh shares. They would need to get permission from the FIPB. However, certain statutory clearances from the Reserve Bank of India (also known as the RBI), which is the country's central banking regulator, would be necessary. There are 29 banks that are part of India's private sector. Additionally, RBI has clarified the voting rights afforded to overseas investors. There is also the potential for divestment of assets. Seeking more loosening of restrictions on investment the government is now proposing raising the cap on foreign direct investment (FDI) allowed in private banks from the current 74% to 100%. If foreign direct investment is permitted at a hundred percent in the banking sector, this will make it easier for current private sector banks and small financing institutions to access foreign markets and increase their capital base. Recent events have resulted in the Reserve Bank of India (RBI) granting in-principle clearance to 11 organizations for the establishment of payments banks and 10 for small banks. Recently, the government came up with the idea of composite caps; however, considering the sensitivity of the industry, this move was met with some resistance. However, the total amount that foreign institutional investors may invest in portfolios held by private sector banks is subject to a limitation or limit that cannot be exceeded.³

THE IMPACT OF FDI ON BANKING SECTOR

The Indian financial system has relatively limited exposure to foreign assets and the derivative products of those assets, and it is this quality that is likely to prove to be an antidote to the problems that have afflicted the financial sectors of many other rising nations. Both the sector's ability to provide employment and its overall financial health have significantly improved in India as a result of at least a decade's worth of changes in the banking industry. Even after a severe economic downturn, the banking industry remains a highly dominating part of the overall financial system.⁴ This is the case even when the economy has been in a slump. According to the laws of India, the total amount of foreign capital invested in a private bank from any and all sources might make up to seventy-four percent of its total value. The nation saw its first instance of negative net capital inflows during the third quarter of the year 2008. In spite of this bleak scenario, the investment pattern with regard to foreign direct investment (FDI) and inflows from nonresident Indians remains resilient.

Furthermore, FDI inflows into the country grew by an impressive 145 percent between fiscal 2006 and 2007, and by a respectable 46.6 percent between fiscal 2007 and 2008. The rise in foreign direct investment (FDI) inflows, however, dropped to 18.6 percent in fiscal 2009 compared to the previous fiscal year. This was due to the economic slump. The tight regulatory structure that governs foreign direct investment (FDI) has proven to be a considerable barrier, notwithstanding the rise in the number of investments. However, with regard to some industries, the standards for foreign direct investment (FDI) have been loosened to a significant degree. For example, private banking institutions. A variety of dangers come along with the introduction of new technologies and new forms of expertise when foreign investment is involved. It is certain that if there is an inappropriate expansion in the extent of foreign holdings in the banking and insurance sector, the nation would be exposed to risks that are not commensurate with those that an emerging market economy such as ours is suited to deal with. At the same time, it is essential to acknowledge that foreign direct investment (FDI) in the banking industry can help address a number of problems that are specific to the industry.⁵ These problems

² Organization for Economic Cooperation and Development. (2008). Benchmark definition of foreign direct investment (4th ed.). Paris : Organization for Economic Cooperation and Development.

³ Sharma, M., & Singh, S. (2013). Foreign direct investment in India: Regulatory framework, issues and current status. *International Journal of Management and Social Science Research*, 2 (8), 108-120

⁴ Laghane, K.B. (2007). Foreign direct investment & Indian banking sector. *Recent Advances in Management, Marketing, Finances*, 5 (3), 31-34.

⁵ FDI Data Cell. (2014). FDI inflows in Indian banking sector. DIPP, Ministry of Commerce & Industry, GOI (Under RTI).

include fostering the development of original financial products, elevating the level of productivity in the banking industry, enhancing the level of capitalization held by banks, and enhancing the capability of banks to adjust to shifting conditions in the financial market.

NEW FDI NORMS AND PRIVATE SECTOR BANKS

As a result of the decision made by the government to eliminate sub-limits for foreign investments in Indian enterprises, local banks, particularly those operating in the private sector, may be able to profit from more capital-raising possibilities from abroad investors. At the moment, the various kinds of investments made by foreign parties consist of foreign direct investment (FDI), foreign institutional investors (FIIs), foreign portfolio investors (FPIs), non-resident Indians (NRIs), qualified foreign investors (QFIs), and depository receipts. All of these terms refer to different categories of foreign investors (DRs). There is a sub-limit set for the amount of money that may be invested by each category of these investors in the capital of an Indian firm. Foreign investment of up to 74% is permitted in private sector banks, which includes investments made by FIIs and FPIs. This cap applies to the whole banking industry⁶. For public sector banks, this restriction, which includes both foreign direct investment and portfolio investment, is set at 20 percent.

Shrivastava (2015)⁷ examined the decision made by the government to eliminate sub-limits for foreign investments in Indian enterprises, local banks, particularly those operating in the private sector, may be able to profit from more capital-raising possibilities from abroad investors. At the moment, the various kinds of investments made by foreign parties consist of foreign direct investment (FDI), foreign institutional investors (FIIs), foreign portfolio investors (FPIs), non-resident Indians (NRIs), qualified foreign investors (QFIs), and depository receipts. All of these terms refer to different categories of foreign investors (DRs). There is a sub-limit set for the amount of money that may be invested by each category of these investors in the capital of an Indian firm. Foreign investment of up to 74% is permitted in private sector banks, which includes investments made by FIIs and FPIs. This cap applies to the whole banking industry. For public sector banks, this restriction, which includes both foreign direct investment and portfolio investment, is set at 20 percent.

Malla (2014)⁸ analyzed the Foreign Direct Investment that is coming into the Indian banking industry for the public sector banks. It has been more than a decade since the Indian banking system was opened up for foreign investment. This event occurred over a period of 13 years, beginning in January 2000 and ending in June 2013. According to the findings of the research, foreign direct investment (FDI) equity inflows into Indian participation since 2005 have shown an ascending trend; as a result, it has become crucial to the banking sector. It has been investigated, and the growing patterns of foreign investment in the Indian banking industry have led to the conclusion that FDI inflows may be beneficial to the Indian banking sector. As a result of this, the problem of ineffective management, a lack of adopting a descriptive and summative analytical approach to performing assets, unstable financial conditions, and inadequately analysing the patterns and trends of foreign capitalization are addressed and solved in this work. Beginning in 2005, investments made in the banking industry of India.

Rezvanian and Mehdian (2008)⁹ indicated that foreign ownership was significantly more efficient than public and private ownership. Panandikar (2013)¹⁰ observed that foreign banks have the highest average market based efficiency. Bhattacharya and Pal (2013)¹¹ also revealed that first phase of reforms in 1991-92 had a positive impact on banks efficiency, whereas the second phase of reforms in 1998 had a negative impact on

⁶ Garg, R. (2013). Role of foreign direct investment in the Indian banking sector. *International Journal of Research in Finance & Marketing*, 3(2), pp.63-68.

⁷ Sadhana Srivastava(2015), "The role of foreign direct investment in India's services exports: an empirical investigation, *The Singapore Economic Review (SER)*, Vol. 51, issue 02, pp.175-194

⁸ Malla Reddy (2014) Impact of FDI on Performance of Select Private Sector Banks in India, *Indian journal of Finance*, Vol.10,(6), pp.3-5

⁹ Rezvanian, R., Rao, N., & Mehdian, S. M. (2008). Efficiency change, technological progress and productivity growth of private, public and foreign banks in India: evidence from the post-liberalization era. *Applied Financial Economics*, Vol.18(9), pp.701-713.

¹⁰ Panandikar, S. C. (2013). Operational and Market based Efficiencies of Indian Commercial Banks: A Comparative Study. *The IUP Journal of Bank Management*, Vol.12(3), pp.9-11.

¹¹ Bhattacharyya, A., & Pal, S. (2013). Financial reforms and technical efficiency in Indian commercial banking: A generalized stochastic frontier analysis. *Review of Financial Economics* 22(3), 109-117

efficiency of banks. Ghosh (2012)¹² showed that foreign banks presence dampened spreads in Indian domestic banks, as foreign banks lend money through hard information and they give away loans at very lower rate than the domestic banks. The study also claimed that foreign banks also influence the maturity of credit portfolio of domestic banks. Kalluru&Bhat (2009)¹³ showed that foreign banks entry was associated with increasing profitability, growing overhead expenses and rising non-performing loans in Indian public sector banks. The study concluded that foreign bank entry in the Indian banking system adversely affects the operations of public sector banks

CONCEPTUAL CLARIFICATION: OPPORTUNITIES FOR FDI INTO INDIAN BANKING SECTOR

In 1991, the Government of India (GOI) began implementing economic reforms in an effort to eliminate the country's deficit and also made a suggestion to deregulate the banking industry as recommended by the Narasimham Committee. Even though the Hong Kong and Shanghai (HSBC) bank became the first foreign institution to open a branch in India in 1853, meaningful progress in attracting foreign investment did not occur until after liberalization 1991-92.¹⁴ The Government of India liberalized the banking industry in India with the intention of boosting efficiencies, productivity, and profits via increased levels of market competition. The Reserve Bank of India does not collect any statistics on foreign direct investment in the Indian banking industry. Therefore, foreign direct investment (FDI) into the Indian financial sector mostly refers to foreign banks. (Kim & Pant, 2009)¹⁵. As India was one of the founding members of the World Trade Organization (WTO), it is required to adhere to WTO guidelines and permit the creation of up to 12 branches of international banks in a single calendar year. In 2005, the Reserve Bank of India (RBI) presented India with its "Roadmap for the presence of international banks." During the first stage of the process, foreign financial institutions were given permission to either create their very own subsidiary or convert one of their existing branches into a wholly owned subsidiary (WOS). During this stage, the Reserve Bank of India (RBI) permitted banks to establish more than 12 branches in a single year, taking into account the concept of reciprocity. Following an evaluation of the first phase by April 2009, the Reserve Bank of India was expected to go on to the second phase, however this was put off because of the worldwide financial crisis in 2008. In order to boost the quality of the banking industry in India, the committee on the financial sector that Dr. RaghuramRajan chairs recommended supporting the admission of more international banks into the country. In addition to this, India is also in the process of negotiating bilateral trade deals with Singapore and Korea. The Comprehensive Economic Cooperation Agreement (CECA) that the Singaporean banks signed in 2006 gave them authorization to build 15 branches in India over the course of the next four years, starting from 2006. The Comprehensive Economic Partnership Arrangement (CEPA) that they had with Korean banks allowed them to establish ten branches within four years starting in 2010, and it was this agreement that allowed them to do so.

FDI POLICY IN INDIAN BANKING SECTOR

The Reserve Bank of India (RBI) published a paper titled "The mode of presence of foreign banks in India" in January 2011, as a follow-up to the roadmap that was published in 2005 and in response to the announcements that were made in the Annual Policy Statement for 2010-2011. The regulatory framework for the establishment of WOS by foreign banks in India has been finalized after taking into account the comments made on the discussion paper as well as the lessons learned from the financial crisis, which indicate that a subsidiary mode of presence is preferable from the point of view of maintaining financial stability (RBI, 2013). However, the Reserve Bank of India (RBI) has decided to leave it up to individual foreign banks to decide which of the two options—presenting themselves as branches or WOS—best suits their needs. The Reserve Bank of India, in the public interest and in the interest of banking policy, issued a "Scheme for Setting

¹² Ghosh, S. (2012). Foreign Banks in India: Liabilities or Assets? *The Economic Society of Australia*, 31(2), 225-243.

¹³ Kalluru, S. R., & Bhatt, S. (2009). Does Foreign Bank Entry Affect Operations of Domestic Banks? A Study on Indian Public Sector Banks. *The IUP Journal of Managerial Economics*, 40-51.

¹⁴ Singhania, M., & Gupta, A. (2011). Determinants of Foreign Direct Investment in India. *International Trade Law & Policy*, 10.1, 64-82

¹⁵ Kim, M., & Pant, M. (2010). Foreign Investment in the Banking Sector: A Case Study of India, 1986-2007. Ph.D. thesis, Jawaharlal Nehru University, New Delhi, India

up of Wholly Owned Subsidiaries (WOS) by foreign banks in India" in accordance with the powers conferred on it under Section 35A with Section 44A of the Banking Regulation Act, 1949. This was done in the public interest and in the interest of banking policy. Foreign financial institutions who started conducting banking operations in India after August 2010 were obliged to provide an assurance stating that they would transform their branches into fully owned subsidiaries if the Reserve Bank of India (RBI) demanded that they do so. The provision of a national treatment to the WOS of international banks has been an incentive offered by the RBI to overseas financial institutions. The limitation that previously only allowed WOS to be opened up in tier-1 and tier-2 cities has been lifted, and it may now be opened up in any city from tier-1 to tier-6. Therefore, the WOSs of foreign banks will be treated as "foreign banks," even though they may be locally incorporated. This is because these companies are foreign owned and controlled, and as a result, they will be classified as "foreign banks." Furthermore, they will be eligible to be listed on the Indian stock market for disinvestment of up to 26 percent of their shares. Financial stability is the primary objective of the incentive programmes and national treatment accorded to international banks by WOS. When the capital and reserves of foreign banks (also known as WOSs and foreign bank branches) in India surpass 20 percent of the total capital and reserves of the banking system in India, prior authorization is required so that the downsizing risk may be reduced. Moreover as per the WTO obligations licenses for new foreign banks may be rejected when the maximum percentage of assets in India both on and off balance sheet of foreign banks' branches to total assets both on and off balance sheet of the banking system surpasses by 15 percent.

CHANGING DYNAMICS OF FOREIGN DIRECT INVESTMENT IN INDIA

The growth of any economy throughout the globe is significantly aided by the injection of capital from other countries. It does this by closing the savings-investment gap in the economy, therefore satisfying the investment needs of a capital deficit economy and contributing to economic development. Along with their financial resources, many international investors also offer innovative technologies, best practices, and governance, all of which contribute to the transfer of skills and increases in productivity. While new businesses have the potential to provide new jobs, the increased competition that these businesses bring to an economy may also help that economy become more efficient. Equity and debt are the two forms that may be used to bring in foreign investment, which is a factor that goes into the national financial accounts of a country. It is connected to investors keeping a long-term managerial interest in the economy of the recipient, and as a result, it is a component that is more stable. Even if foreign portfolio flows are still very essential for funding the current account deficit, many nations continue to focus on and provide incentives for foreign direct investment (FDI), both in general and in specific industries.

EVOLUTION OF FDI POLICY IN INDIA

A Concise In 1948, when the Reserve Bank of India (RBI) conducted the first survey of India's international assets and liabilities, the stock of foreign investment in the country stood at 256 crores. The majority of this investment came from the United Kingdom, and the majority of it was invested in natural resource seeking and trading. In 1948, the stock of foreign investment in the country was valued at 256 crores. Almost immediately after it gained its independence, India set out on a path toward industrialization with the goal of reducing its reliance on foreign imports as part of its development planning framework. By March of 1950, the plan for industrialization had shifted to focus on the development of indigenous capabilities in heavy sectors, especially the manufacturing sector of machinery. Further liberalization in the government's attitude towards foreign direct investment (FDI) was brought about as a result of the foreign currency crisis that occurred in 1957–1958 as well as restrictions placed on the advancement of native technology, skills, and entrepreneurial activity. In 1961, the government published a list of sectors in which it would be acceptable to accept investments from outside companies. This list took into consideration the gaps in capacity that existed in connection to the plan aims. The stock of foreign direct investment in the nation more than quadrupled between 1948 and 1964, when it reached 566 crores, and it continued to rise until it reached 916 crores in

March 1974. (Hooda, 2011)¹⁶. The creation of locational advantages led to a rapid spike in the percentage of manufacturing in the FDI stock, which encompassed consumer, intermediate, and capital products, and increased from roughly 20 percent at the time of independence to over 40 percent now. The Foreign Investment Board was established in 1968 in order to handle any and all cases involving foreign investment or collaboration with up to 40 percent foreign equity. At the same time, the Cabinet Committee was established in order to screen cases involving foreign ownership of more than 40 percent of a company.

NEED AND IMPORTANCE OF THE STUDY

The increasing flow of foreign direct investment (FDI) into the Indian government sector is helping to propel the expansion of the Indian economy, with this sector making a significant contribution to the rising GDP of India. This sector is responsible for bringing in a significant portion of the total foreign direct investment (FDI) in the Indian economy, and it has been especially noticeable in the decade after the monetary reforms in India (2000-2010). If this information push of research researcher makes the passion for directing this study, it is because they are curious about whether or not this commitment of FDI in this portion is energizing the financial development. Significant progress in terms of foreign direct investment (FDI) has been made in a variety of domains to ensure that India continues to be an irresistibly desirable investment destination. Foreign direct investment has been beneficial to an economy like India's, which has huge untapped potential. Foreign direct investment (FDI) flows are a welcome addition to local capital, as are the innovative capabilities of already established businesses. In addition to this, it creates whole new organizations. These contribute to the expansion of the financial sector. This paper on "FDI in Service Sector" discusses the contribution of foreign direct investment (FDI) to India's economic growth as well as the challenges faced by the Indian government and corporate sector, including both local and foreign administration players, when it comes to making FDI decisions.

CONCLUSION

Foreign direct investment is often regarded as an essential component of economic growth in developing nations like India. The potential for greater liberalization of the banking sector in India was anticipated as a result of the fact that economic liberalization leads to the admission of foreign international banks, which improves the industry's levels of efficiency, productivity, and profitability. Along these lines, the Reserve Bank of India (RBI) started the second phase of liberalization for the Indian banking industry in 2014 when it introduced its new FDI policy. The recent changes to the foreign direct investment (FDI) policy on the Indian banking industry have made it abundantly evident that there is a significant amount of opportunity for international banks in India. In response to the opportunity presented by the Government of India, international banks have started operations in India. The finding that a significant number of international banks established operations in India during the Asian financial crisis and the global financial crisis was an important finding of the research. Even if the number of foreign banks operating in India has grown, the Reserve Bank of India's preferred WOS a mode of presence has not yet been seen. In addition, it is common knowledge that the Indian banking sector is looking for increased competition, which may be accomplished via the introduction of international banks. During this time, a variety of information bases on Foreign Direct Investment (FDI) Statistics for India have been accessible. The comprehension of the statistical procedures that countries use in the compilation of the data is facilitated by global ideas, and the statistics that are produced as a consequence may be used for comparisons between nations. There is little question that nations with open investment schemes have significant difficulties when trying to estimate their level of foreign investment. In this regard, India's FLA census, which is a part of the global CDIS initiative, has been a major step forward because it gives consistent annual data on face value as well as at market value of FDI in India based on complete enumeration. In addition, the census is a part of the global CDIS initiative.

¹⁶ SapnaHooda(2011), A Study Of FDI And Indian Economy , National Institute Of Technology, Kurukshetra, Deemed University, Haryana, India,pp.6-9.

REFERENCES

1. Bhattacharyya, A., & Pal, S. (2013). Financial reforms and technical efficiency in Indian commercial banking: A generalized stochastic frontier analysis. *Review of Financial Economics* 22(3), 109–117.
2. Claessens, S., Demirguc-Kunt, A. & Huizinga, H. (2001). How Does Foreign Entry Affect Domestic Banking Markets? *Journal of Banking and Finance*, 25(5), 891-911.
3. Clark, J. L. (2008). An Examination of Bank Sector Deregulation on Inbound FDI: Commercial Bank Acquisitions. *International Review of Business Research Papers*, Vol. 4(1), pp.85-100.
4. Dasrupta, R. & Paul, M. T. (2007). Banking and Financial Policy: An Independent View. *Economic and Political Weekly*, 42(13), pp. 1196-1200.
5. DIPP Report (2014). Consolidated FDI Policy. Ministry of Commerce and Industry. Government of India.
6. Dunning, J. (1977). Trade, location of economic activity and the MNE: A search for an eclectic approach. In: Ohlin B., Hesselborn P., Wijkman P., eds., *The international allocation of economic activity*, London:
7. Ghosh, S. (2012). Foreign Banks in India: Liabilities or Assets? *The Economic Society of Australia*, 31(2), 225-243.
8. Hermes, N., & Lensink, R. (2004). Foreign Bank Presence, Domestic Bank Performance and Financial Development. *Journal of Emerging Market Finance*, 3(2), 207–229.
9. Hurduc, N., & Nitu, A. (2011). Forms and Strategies of the Banks to Enter on a Foreign Market. *Theoretical and Applied Economics*, XVIII, 7(560), 43-52.
10. International Monetary Fund (2007). *Global Financial Stability Report (October)*. IMF, UNTAD, Washington DC.
11. International Monetary Fund (2013). *Global Financial Stability Report (October)*. IMF, UNTAD, Washington.
11. Kalluru, S. R., & Bhatt, S. (2009). Does Foreign Bank Entry Affect Operations of Domestic Banks? A Study on Indian Public Sector Banks. *The IUP Journal of Managerial Economics*, pp.40-51.
12. Kim, M., & Pant, M. (2010). *Foreign Investment in the Banking Sector: A Case Study of India, 1986-2007*. Ph.D. thesis, Jawaharlal Nehru University, New Delhi, India.
13. Lee, C., Hsieh, M. & Dai, H. (2011). How does foreign bank ownership in the Banking Sector affect Domestic Bank Behavior? A Dynamic Panel Data Analysis. *Bulletin of Economic Research*, Blackwell Publishing Ltd., MacMillan Press, pp.395–431.

A STUDY ON OCCUPATIONAL STRESS AMONG NURSES WORKING IN HOSPITAL

V. Gowrishankkar* Monika Devi NR Dr Deepu G P*****

**Assistant Professor, Department of Management studies (PG) & Research,
VLB Janakiammal College of Arts and Science, Kovaipudur Main Road,
Coimbatore, Tamil Nadu*

***Nursing Tutor, Govt Medical College and Hospital Jammu,
Jammu and Kashmir UT, India*

****Associate Professor, Department: Electronics, Sree Ayyappa College (TDB),
Chengannur*

ABSTRACT

The mismatch between expectations and workers' capabilities is the root cause of occupational stress. People are at danger of suffering increased job stress as a result of globalization and the shifting variables that are a part of the nature of work. The atmosphere is becoming more pressurized and unstable as a result of these factors. The nursing profession, in particular, seems to be subjected to a greater amount of stress on the job than other health care employees, despite the fact that occupational stress is present in every field. Stress that is not properly handled may result in high levels of employee unhappiness, sickness, absenteeism, high turnover, and poor productivity, all of which can jeopardize the quality of service that is provided to customers. Over the course of the last century, stress as a multidisciplinary notion has emerged as a topic of significant interest and has been the subject of a significant amount of study. Although the initial research on stress were mostly physiological in nature, psychological models of stress have since been produced. Specifically the objectives framed for the present study are to examine the relationship between nurses' job stress and socio-economic factors. The methodology is the fundamental component that has a determining role in the findings of the study. It takes in and guides the researcher through the process of doing the study in a methodical manner, which both guarantees and makes it easier to get accurate results. The basic statistics are from surveys filled out by 500 people randomly selected from the Coimbatore District. In order to compile the list of hospitals, the researcher contacted the Indian Medical Association in Coimbatore, which has its headquarters in the Coimbatore district. The study concluded that the management of the organization needs to take a necessary steps in order to assist their employees in overcoming the effects of stress.

Keywords: *Stress, Nurses, Workload, Determinants, Factors Associated, Psychological Effect and Work Environment.*

INTRODUCTION

The growth of any country is essentially dependent on its level of industrial development, since this area provides a significant contribution to the overall expansion of a nation. It is impossible to separate the function that women play in the economy from the overall framework of development. The majority of working women live in poverty and have much less legal protection than males. The part that women play in the process of societal and economic advancement has evolved noticeably throughout the course of recent history. The world of women is no longer limited to the activities that take place in the home¹. Today, in a variety of diverse positions, they make an active contribution to the advancement of economic growth. The percentage of working-age women is a useful indicator of the value that women provide to the process of economic growth. There are many different factors that contribute to the rising number of women who are joining the workforce. There is sufficient information available to prove that the engagement of women in the labour market in India is mostly a reaction to the requirements of the economy.

¹ Aktharsha, U. and Anisa, H. (2011) Job Stress and Job Satisfaction: An Investigation of Nursing Personnel. The International Journal of Human Resource Management, 9, 18-32.

BACKGROUND OF THE STUDY

Occupational stress refers to those harmful physical and emotional responses that occur when job demands do not match the resources, capabilities, and needs of an employee. It is a reaction to several adverse conditions related to work content, work organization, and working environment. Occupational stress can be defined as a situation wherein job-related factors interact with an employee, changing his/her psychological and physiological condition in a way that the person is forced to deviate from normal functioning. The WHO defines occupational stress as 'the physiological and emotional responses that occur when workers perceive an imbalance between worker effort and associated reward'. Moustaka and Constantinidis (2010)² examined occupational stress hampers a nurse's ability to deal with the problem and patient's condition. Nursing profession though is a gratifying profession is extremely challenging. Nurses are responsible for treatment and safety of patients, recovery of extremely sick patients and treatment of patients requiring palliative care. A person visits a hospital with the belief that he/she will be taken good care of by the nurses. Holmlund (2006)³ suggested nursing is seen as an inherently stressful occupation, as nurses not only assume the role of caregivers, administrators and supervisors for their patients, but they also become strong role models, advocates and educators for their families, their communities and work environments.

REVIEW OF RELATED LITERATURE

Many employees face a significant threat in the form of occupational stress. There are a wide variety of factors that might contribute to stressful working circumstances, some of which include increased workloads, downsizing, hostile work environments, overtime, and shift work. In recent years, occupational stress has become one of the most popular topics for applied research in psychology, as well as in wider areas of the social and medical sciences. Occupational stress has become one of the most serious health issues in the modern world and in recent years, it has also become one of the most popular topics for applied research in psychology. Occupational stress has been the subject of investigation by a growing number of scholars over the course of the previous three decades⁴.

Alhajjar (2013)⁵ assessed the levels of stress experienced by hospital nurses. According to the findings of the research, a significant proportion of nurses suffer from psychological anguish and depression. The phrases "not enough employees to fully cover the unit," "lack of pharmaceuticals and equipment's essential for nursing care," and "unpredictable staffing and scheduling," in that order, were regarded as the most significant occupational stresses. In addition, 'workload' and 'death and dying' were recognized as the occupational stressors that occur the most often and are the most severe. The study found a high prevalence of psychological distress, depression among nurses. The most severe occupational stressors identified were: 'not enough staff to adequately cover the unit', 'lack of drugs and equipment's required for nursing care', 'unpredictable staffing and scheduling', respectively. Further, 'workload', and 'death and dying' were identified as the most frequent and severe occupational stressors.

Sumangala et al. (2009)⁶ investigated whether or not there was a correlation between age and the amount of occupational stress experienced by workers in the information technology industry. The research was conducted with the participation of a total of 600 participants, all of whom belonged to distinct age brackets. According to the findings of the research, workers experience typical levels of stress. In addition, the research discovered a large age-related gap in the levels of stress experienced by workers of varying ages.

² Mosadeghrad, A. M. (2013): Occupational stress and turnover intention: Implications for nursing management, *International Journal of Health Policy and Management*, 1(2), pp: 169-176.

³ Holmlund-Ryttonen, M. & Strandvik, T. (2005): Stress in business relationships, *Journal of Business & Industrial Marketing*, 20 (1), pp: 12-22

⁴ Holmlund-Ryttonen, M. & Strandvik, T. (2005): Stress in business relationships, *Journal of Business & Industrial Marketing*, 20 (1), pp: 12-22

⁵ Alhajjar, B. I. (2013): Occupational stress among hospital nurses in Gaza-Palestine (Doctoral Dissertation). Retrieved from <https://www.escholar.manchester.ac.uk/item/?pid=uk-ac-man-scw:189872>.

⁶ Sumangala, C., Nagendrababu, K., & D'Souza, L. (2009): Relationship between age and occupational stress among IT employees, *Journal of Management Research* 1(1)

STATEMENT OF THE PROBLEM

Women in today's society have emerged from their cocoons, cracked their nutshells, and are testing the waters in a variety of professional arenas. They are active participants in every conceivable aspect of the activity. In the realm of employment, they have shown that they are on par with males, if not superior to them. Because of the significant relief that their income brings to their families' financial situations, today's society views working women as more acceptable members of society. Women's decisions regarding whether or not they will participate in the labour force are influenced by a number of personal and family-related factors, including the size of the family, the number of earning members, the number of dependents, the number of children who attend school, the nature and the type of family, such as joint or nuclear, as well as the educational and occupational status of the husband, amongst other things. Because the majority of research conducted on health care settings has a tendency to concentrate on nurses and other medical staff working in acute care settings, there is a significant knowledge gap about the challenges and concerns of health professionals working in long-term care settings. Studies of this size and scale may be very helpful in assisting administrators in better meeting the requirements of long-term care nurses working in their companies, which may have ramifications for the delivery of services⁷.

Participation of registered nurses in various economic endeavors is of the utmost significance in the context of the growth of the country as a whole. However, one of the most perplexing problems associated with their services is still the definition and measurement of the job that they do. They must also carry the burden of often enormous and sometimes unnoticeable home responsibilities, the majority of which are not taken into consideration in the same way that it is done for other working women⁸. The tedium of household labour is heightened when they arrive to their place of employment and are expected to face the load of their responsibilities along with the accompanying mental and physical strain. On the other hand, the wage that they receive is not thought to be proportionate to the amount of mental and physical labour that they put in.

Indian nurses have been traditionally unorganized, but recently they have come together to join a new union and have already established over 400 chapters in only two months. They have pledged to continue their strike until their pay is boosted by around 80% of what it was before. The courts have ruled that the strike is unlawful, and they have given the police orders to help scabs in getting back to work.⁹ According to the findings of the research, being subjected to torture is something that cannot be avoided by nurses. According to the findings of the research, nurses face this issue not just at the hands of their supervisors and physicians, but also at the hands of ward boys, relatives of patients, and other subordinate male employees in the healthcare system. According to the findings of the research, nurses working night shifts are the most susceptible to these kinds of dangers. The majority of these concerns are either disregarded, dealt with in a hazy manner, or are completely disregarded by the regulatory agencies in India.¹⁰

OBJECTIVES OF THE STUDY

Specifically the objectives framed for the present study are:

1. To examine the relationship between nurses' job stress and socio-economic factors.
2. To identify the stress level among the women nurses' in the study area.
3. To find out the problems faced by the women nurses' in Coimbatore District.

RESEARCH METHODOLOGY

The methodology is the fundamental component that has a determining role in the findings of the study. It takes in and guides the researcher through the process of doing the study in a methodical manner, which both guarantees and makes it easier to get accurate results. The validity of any study may be traced back to the

⁷ Edwards, D., & Burnard, P. (2003): A systematic review of stress and stress management interventions for mental health nurses. *Journal of Advanced Nursing*, 42(2), pp: 169-200.

⁸ Daivdson, M. J., & Cooper, C. L. (1981): A model of occupational stressors. *Journal of Occupational Medicine*, 23, pp: 564-575.

⁹ Nursing Education: Problems and Legal Rights of Nurses in India, *LIG Reporter*, pp 18:15

¹⁰ Sreelekha Nair and Madelaine Healey on February 2006, A study on "Profession on the margins: Status issues in Indian Nursing"

methodical approach used in the gathering and examination of the data. The current research makes use of both primary and secondary sources of information. The basic statistics are from surveys filled out by 500 people randomly selected from the Coimbatore District. In order to compile the list of hospitals, the researcher contacted the Indian Medical Association in Coimbatore, which has its headquarters in the Coimbatore district.

FINDINGS, DISCUSSION AND RESULTS

NATURE OF HOSPITAL AND LEVEL OF STRESS

With a view to find the degree of association between nature of hospital and their level of stress towards women nurses, a two-way table was prepared and it is shown in the following table.

Table – 1: Nature of Hospital and Level of Stress

Nature of hospital	Level of Stress			Total
	Low	Medium	High	
Corporate	27 (17.1)	111 (70.3)	20 (12.6)	158
Private	50 (16.0)	175 (56.7)	84 (27.3)	309
Govt.	5 (15.2)	24 (72.7)	4 (12.1)	33
Total	82	310	108	500

Source: Primary Data

It is explained from the above table that the percentage of high level of stress was the highest (27.3%) among the respondents worked in private hospital and the same was the lowest (12.1%) among respondents worked in government hospital. The percentage of medium level of stress was the highest (72.7%) among the respondents worked in govt. hospital and the same was the lowest (56.7%) among the women nurses worked in private hospital. On the other hand, the percentage of low level of stress was the highest (17.1%) among the respondents worked in corporate hospital and the same was the lowest (15.2%) among the women nurses worked in private hospital. From the analysis it is found that the maximum level of stress is experienced by women working in 'private hospital'. In order to find the relationship between the nature of hospital and level of stress,

an ANOVA test is used and the result of the test is shown in the following table.

H_0 : There is no significant difference between nature of hospital and their level of stress.

H_1 : There is a significant difference between nature of hospital and their level of stress.

Table – 2: Nature of Hospital and Level of Stress

Source	SS	df	MS	F value	Sig.
BetweenGroups	.630	2	.315	.491	Not significant
WithinGroups	339.511	498	.642		
Total	340.141	500			

It is evident from the above table that the calculated F value is less than the table value and the result is not significant. Hence, the hypothesis "nature of hospital and level of stress" is accepted. From the analysis, it is concluded that there is no significant difference between the nature of hospital and their level of stress.

PROBLEMS FACED BY THE RESPONDENTS IN THE PRESENT JOB

In every type of job the workers are facing some type of problems. For the purpose of this study, problems faced by the nurses are categorized into ten issues viz., (1) disturbance at work due to overcrowding, (2) insufficient equipment for working, (3) Insufficient Staff & training (4) lack of inter professional communication, (5) Lack of security in the work (6) Lack of team work, (7) Shift problems (8) Torture of the higher authorities, (9), unpredictable scheduling, (10) work overload. The problems are studied with the help of Henry Garrett Ranking Technique and the details are shown in the following table.

Table – 3: Problems Faced by the Respondents – Job Related

S.No.	Factors	Total Score	Mean Score	Rank
1	Disturbance at work due to overcrowding	25422	50.8	VI
2	Insufficient equipment for working	24709	49.4	VII
3	Insufficient Staff & training	22283	44.6	IX
4	Lack of inter professional communication	21378	42.8	X
5	Lack of security in the work	23550	47.1	VIII
6	Lack of team work	26105	52.2	V
7	Shift problems	29219	58.4	II
8	Torture of the higher authorities	27270	54.5	IV
9	Unpredictable scheduling	27613	55.2	III
10	Work overload	31714	63.4	I

Source: Primary Source

It is evident from the above table that the problem “work overload” was ranked first with the Garrett score of 31714 points. It is followed by the second and third ranks for shift problems” and “unpredictable scheduling” with the total Garrett scores of 29219 and 27613 points respectively. The fourth, fifth and sixth ranks were placed to the problems such as “torture of the higher authorities”, “lack of team work” and “disturbance at work due to overcrowding” with the Garrett scores of 27270, 26105 and 25422 points respectively. On the other hand, the problems such as “insufficient equipment for working”, “lack of security in the work” and “insufficient staff & training” were ranked in the seventh, eighth and ninth positions with the Garrett scores of 24709, 23550 and 22283 points respectively. Lastly “lack of inter professional communication” was ranked in the tenth position with Garrett score of 21378 points. From the analysis, it may be inferred that majority of the respondents sighted “work overload” and “Shift problems” as the two most crucial problems relating to job.

CONCLUSION

The levels of overall occupational stress experienced by nurses of varying ages was shown to be considerably varied. According to the findings of the study, the nurses who fell into the age category of "below 35" had much higher score averages than the nurses who fell into the other two age categories combined. On the basis of the findings of the analysis, it is possible to draw the conclusion that there is a need for the stress levels of the nurses to be brought under control, particularly those of the younger nurses, whose levels of occupational stress were significantly higher than those of the more experienced nurses. It has already been established, based on studies conducted in the past, that the health industry has a significant challenge in terms of occupational stress. (Beheshtifar&Nazarian, 2013)¹¹. The negative effects of occupational stress may be realized in the form of decreased efficiency, decreased capacity to perform the job, dampened initiative and reduced interest in working, increased rigidity of thought, lack of concern for the organization and colleagues, and a loss of responsibility and loyalty to the organization. Additionally, the negative effects of occupational stress may be realized in the form of a loss of responsibility and loyalty to the organization. As a result, the

¹¹ Beheshtifar, M., & Nazarian, R. (2013): Role of occupational stress in organisations. Interdisciplinary Journal of Contemporary Research in Business, 4(9) pp: 648-657

management of the organization needs to take a variety of steps in order to assist their employees in overcoming the effects of stress.

REFERENCE

1. Alhajjar, B. I. (2013): Occupational stress among hospital nurses in Gaza-Palestine (Doctoral Dissertation). Retrieved from <https://www.escholar.manchester.ac.uk/item/?pid=uk-ac-man-scw:189872>.
2. Antoniou, A.-S., Polychroni, F., Vlachakis, A.-N. (2006): Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece, *Journal of Managerial Psychology*, 21(7): pp: 682-690.
3. Bailey, J. T., Steffen, S. M., Grout, J. W. (1980): The stress audit: Identifying the stressors of ICU nursing. *Journal of Nursing Education*, 19(6), pp: 15-25.
4. Beheshtifar, M., & Nazarian, R. (2013): Role of occupational stress in organisations. *Interdisciplinary Journal of Contemporary Research in Business*, 4(9) pp: 648-657.
5. Ben-Bakr, K. A., Al-Shammari, I. S., Jefri, O. A. (1995): Occupational stress in different organizations: a Saudi Arabian survey, *Journal of Managerial Psychology*, 10(5): pp: 24-28.
6. Bryan, C. Fairbrother, G., & Fenton, P. (2000): The relative influence of personal and workplace descriptors on stress. *British Journal of Nursing*, 9(13), pp: 876-880
7. Chandraiah, K., Agrawal, S. C., Marimuthu, P., & Manoharan, N. (2003): Occupational stress and job satisfaction among managers. *Indian Journal of Occupational and Environmental Medicine*, 7(2), pp: 6-11. 8Comish, R., Swindle, B. (1994): Managing stress in the workplace. *National Public Accountant*, 39(9), pp: 24- 28.
8. Considine, G., & Buchanan, J. (1999): The hidden costs of understaffing: An analysis of contemporary nurses working conditions in Victoria. Victoria: Australian Nursing Federation.
9. Cooper, C. L., & Payne, R. (Eds.).(1988): *Causes, Coping and Consequences of Stress*. Chichester, UK: Wiley. Daivdson, M. J., & Cooper, C. L. (1981): A model of occupational stressors. *Journal of Occupational Medicine*, 23, pp: 564-575.
10. Dua, J. K. (1994): Job stressors and their effects on physical health, emotional health and job satisfaction in a university. *Journal of Educational Administration*, 32(1), pp: 59-78.
11. Edwards, D., & Burnard, P. (2003): A systematic review of stress and stress management interventions for mental health nurses. *Journal of Advanced Nursing*, 42(2), pp: 169-200.
12. Holmlund-Rytkonen, M. & Strandvik, T. (2005): Stress in business relationships, *Journal of Business & Industrial Marketing*, 20 (1), pp: 12-22.
13. Jagdish, & Srivastava, A. K. (1989): Perceived occupational stress and mental health: A case study. *Indian Journal of Industrial Relations*, 24(4), pp: 444- 452.
14. Linder-Pelz, S., Pierce, J. P., & Minslow, M. (1987): Nurses, work stressors in an Australian metropolitan teaching hospital. *Journal of Occupational Health and Safety- Australia and New Zealand*, 3, pp: 624-630.
15. Lu, L., Cooper, C. L., Kao, S. F., Zhou, Y. (2003): Work stress, control beliefs and well-being in Greater China: An exploration of sub-cultural differences between the RRC and Taiwan, *Journal of Managerial Psychology*, 18(6), 479.
16. Mosadeghrad, A. M. (2013): Occupational stress and turnover intention: Implications for nursing management, *International Journal of Health Policy and Management*, 1(2), pp: 169-176.
17. Sager, J. K. (1990): Reducing sales manager job stress. *The Journal of Consumer Marketing*, 7(4), pp: 5-14.
18. Srivastava, A. K., & Singh, A. P. (1981): Construction and standardization of an occupational stress index: A pilot study, *Indian Journal of Clinical Psychology*, 8, pp: 133-136.
19. Sullivan, S. E., Bhagat, R. S. (1992), Organizational Stress, Job Satisfaction and Job Performance: Where Do We Go From Here?, *Journal of Management*, 18(2): pp: 353-374.
20. Sumangala, C., Nagendrababu, K., & D'Souza, L. (2009): Relationship between age and occupational stress among IT employees, *Journal of Management Research* 1(1).
21. Vance, B. N., & Humphreys, S. (1989): Response of laboratory school teachers to the teacher stress inventory, *Perpetual and Motor Skills*, 68, (3), pp: 934- 944.
22. Wallis, C. (1983, June 6): Stress: Can we cope? *TIME*. 25. White, B., O'Connor, D., Garrett, L. (1997): Stress in female doctors, *Women in Management Review*, 12(8): pp: 325-334

A STUDY ON SATISFACTION LEVEL OF POLICY HOLDERS TOWARDS THE SERVICES OF LIFE INSURANCE COMPANIES

Dr. Malleswara Rao Dr Neeti Mathur** C.R. Vijay****

** Associate Professor, Department of Physics, Sri YN College, Narasapur,
West Godavari District, Andra Pradesh*

***Assistant Professor, School of Management, Sir Padampad Singhania University,
Udaipur-Chittorgarh Rd, Bhatewar, Rajasthan*

****Assistant Professor, Department of Management Studies,
Dr.N.G.P.Institute of Management, Kalapatti Road, Coimbatore.*

ABSTRACT

The insurance sector opened up and new players entered the space before 15 years. At present the industry has 24 life insurance companies, 28 general insurance companies and reinsurance Company. Satisfaction is an important milestone in insurance products, especially at a time when the industry's reputation has been spoiled by mis-selling and improper disclosures of returns by agents. In that LIC holds majority market share in life insurance industry. The study has made an attempt to study the policyholders' preference for selecting insurance company and to measure the satisfaction of the policyholders towards the services of the insurance companies. It is a qualitative study conducted in Chennai during the month of May 2022. The perception and satisfaction of the policyholders towards the services of the insurance companies is analyzed with a sample of 300 respondents. The sample respondents were selected using convenient sampling method. For which, the life insurance policy holders are purposively selected. To rank the factors, Garret ranking technique and measure the satisfaction, the mean difference tests are used.

Keywords: *Satisfaction level, policy holders and Life Insurance Companies*

INTRODUCTION

Indian Insurance Companies has a significant role to play in the economic development process. It acts as a risk protection against illness, natural disaster, theft, accident, fire etc. In India insurance has a long history. The life insurance business in India was started by Oriental Life Insurance Company Calcutta in 1818. Government of India nationalized insurance business in 1956. The liberalization policies resulted in a sudden change in insurance industry. IRDA was formed in 1999 and in 2000 IRDA opened up the market and allowed foreign companies to enter into Indian insurance sector. Health insurance is considered as a separate class of business by IRDA. In the last five years the health insurance industry has doubled the sales showing a significant jump from 15453 Crores to 30764.50 Crores in the period from 2012-13 to 2016-17. Because of increasing medical expenses health insurance plans help people in reducing risk factor related to economic shocks as a result of hospitalization. Multiple factors which contribute to the effective functioning of health insurance mechanism are hospitalization, healthcare service, third party administration, pharmaceuticals, surgical products, etc. Any imbalance in the system is a reflection of the discontent with health insurance services. Satisfaction is considered as the level of comparison between perceived performance and expected performance for an individual. If the performance fails to meet the customers' needs they will become dissatisfied and if the performance meets their needs they will become satisfied. Customers are always demanding in service industries. It is important to understand the needs of the customer, since it changes from time to time. In recent years (2014-16), the market shares of private limited companies have increased from 35.90 Crores in 2014-15 to 38.04 Crores in 2016-17. Public limited companies are gradually losing their market share to private sector companies. If the customer is not satisfied, there is a probability that he will choose another insurance company. So customer satisfaction has pivotal role in retaining the existing customer.

BACKGROUND OF THE STUDY

Insurance has become an essential part in the complex modern world as the scope for risk has increased enormously in every occupation. This has led to growth in the Insurance business and the evaluation of various types of Insurance covers. The Insurance sector also acts as a mobilizer of savings, financial intermediary, and a promoter of investment activities. It plays a significant role in economic development of a country, while economic development itself can facilitate the growth of the Insurance sector. An individual is exposed to various risks in daily life and it will surprise one to note how many of these can actually be insured. General insurance companies offer a variety of products covering different types of risks. Not only is there a dearth of knowledge about these but also most individuals are not aware of the value that Insurance, as an option, could add to their lives. While the affordability factor, and an individual's priority for Insurance are important aspects why some do not opt for insurance, the lack of awareness about the types of Insurances available and the inability to perceive Insurance as a protection tool are other reasons why a few have chosen to remain uninsured.

All stakeholders have the responsibility of creating this awareness. Insurance is an important tool in the overall financial planning purview of any individual's life. It assists in mitigating the financial impact of the risks faced by individuals. The stature of Insurance these days has risen that it is fondly termed as life assurance and has ceased to be only a "protection" or a "Legacy" for the family and has turned into an important investment option. Insurance is a professional service, which is characterized by high involvement of the consumers. Due to the importance of delivering customized solutions, it is mandatory to involve the consumers in every aspect of the transaction to accentuate variety into the products available and to define the complexity of the policies and processes. All these characteristic features cause customers to seek long-term relationships with their Insurance agents, their service providers, in order to reduce risks and uncertainties

INDIAN HISTORY OF GENERAL INSURANCE

Regrettably, the Indian insurance industry has lagged behind even amongst the developing countries of the world. Although general insurance services started in India about 150 years ago, their growth has been dilatory, as reflected by low insurance penetration and density. Several factors are responsible for this state of affairs, the chief being the monopoly status of the industry until recently. The life insurance business was nationalized in 1956 and the general insurance industry in 1973. The lack of competition has impeded the development of insurance industry in India, resulting in low productivity and poor quality of customer services. The process of liberalization and globalization of the Indian economy started in right earnest in mid-1980s. The market mechanism was the motivating factor underlying the new economic policy¹.

In consonance with the new economic policy, Insurance sector was opened up for the private sector in 1999. The new competitive environment is expected to benefit the consumers, industry and the economy at large. The consumer has a greater choice in terms of number and quality of products, low premium rates, efficient after sales services while the economy will benefit in terms of larger flow of savings, increased availability of investible funds for long-term projects, enhanced productivity and growth of multiple debt instruments. Life Insurance had its beginning in ancient Rome, where citizens formed burial clubs that would meet the funeral expenses of its members as well as help survivals by making its payments. The first stock company to get into the business of Insurance was chartered in England in 1720. In the year 1735 the birth of the first insurance, company in American Colonies in Charleston. In 1759, the Presbyterian Synod of Philadelphia sponsored the first Life Insurance Corporation in America. However, it was after 1840 that Life Insurance really took off in a big way. The 19th century saw huge developments in the field of Insurance with the newer products being devised to meet growing needs.²

¹ Ashfaque Ahmed and NeetuKwatra, "Level of Customers Satisfaction with Their Perception on the Quality of Insurance Services", *Galaxy International Interdisciplinary Research Journal*, Vol. 2, No. 3, pp. 1-13, 2014

² Kavitha, A. Latha and S. Jamuna, "Customers' Attitude towards General Insurance-A Factor Analysis Approach", *Journal of Business and Management*, Vol. 3, No. 1, pp. 30- 36, 2012

REVIEW OF LITERATURE

Kavitha, et al. (2012)³ examined the customer attitude towards the General Insurance. A study has been conducted at Erode district with the sample of 750 respondents to find out the influencing factor of the policy holders in the study area. The study revealed the respondents are highly satisfied with the factors like product price, accessibility of the officers/agents, notifications for the renewal of policy, response time, attitude of Surveyor, motivation given by the officials to buy the policy, after sales contact maintained by the development officers/agents, attitude of the agent while guiding the claim settlement, company's attitude in settling claims, amount settled by the company (relative worth of the amount), moral support, and convenient service. The respondents are satisfied with the factors like, courtesy of the staff, quick settlement of claims, knowledgeable contact persons, and the promptness in issuing the policy.

Ashfaque Ahmed, et al. (2014)⁴ evaluated the quality of insurance services in India through customers' assessment, with the objective of finding how this can be used to boost the demand for insurance, which is presently low in India. Questionnaire was administered to a wide spectrum of insurance policy holders in India to know their perception of the quality. Descriptive analysis such as percentage and table presentations was used to analyze the collected data. The study revealed that the customers of insurance companies in India considered the prompt claim settlements as the most important factor that determined the quality of the policies. The study therefore recommended that the culture of delay in premium payment or non-payment should be stopped and organizations should look inward to see the reasons why the payment of premium is a problem.

STATEMENT OF PROBLEM

The study analysis the consumer awareness and satisfaction level of Indian Insurance Companies policyholder. Consumers are keener about their satisfaction and in increasing stiff competitive and ruthless market lead the policyholders to become more aware about their policies availed. Consumer satisfaction is an important tool in Insurance Industry. Change in the taste and preference of the customer Indian Insurance Companies should identify and prioritize the customer's expectation, so that company can adopt a new business environment for avoiding the failures and provide more services to their customers.

OBJECTIVES OF THE STUDY

The study has made an attempt

1. To study the policyholders' preference for selecting insurance company
2. To measure the satisfaction of the policyholders towards the services of the insurance companies

METHODOLOGY

It is a qualitative study conducted in Chennai during the month of May 2022. The perception and satisfaction of the policyholders towards the services of the insurance companies is analyzed with a sample of 300 respondents. The sample respondents were selected using convenient sampling method. For which, the life insurance policy holders are purposively selected. To tank the factors, Garret ranking technique and measure the satisfaction, the mean difference tests are used.

FINDINGS, RESULTS AND CONCLUSION

PREFERENCE FOR SELECTING A INSURANCE COMPANY

The policyholders will consider various factors before taking a life insurance policy with a company. Both private and public sector companies are in the market to provide various life insurance coverage policies. The factors taken for the study are risk coverage by the policy, the interest of the policyholders or other peoples like agents, relatives and friends, performance of the insurance company in giving return, taking policy for the tax saving purpose, etc. the result is given below.

³ Kavitha, A. Latha and S. Jamuna, "Customers' Attitude towards General Insurance-A Factor Analysis Approach", Journal of Business and Management, Vol. 3, No. 1, pp. 30- 36, 2012

⁴ Ashfaque Ahmed and NeetuKwatra, "Level of Customers Satisfaction with Their Perception on the Quality of Insurance Services", Galaxy International Interdisciplinary Research Journal, Vol. 2, No. 3, pp. 1-13, 2014

Table 1: Factors considered by the respondents

Rank	1	2	3	4	5	6	7	8	9	Score	Rank
Garret value	81	69	62	56	50	45	38	31	19	21110	I
Coverage of risk	213	19	15	7	6	3	2	4	31		
Own interest	17253	1311	930	392	300	135	76	124	589	19139	II
	13	215	22	8	8	1	1	29	3		
Best performance	1053	14835	1364	448	400	45	38	899	57	17828	III
	19	13	201	20	6	6	29	2	4		
Tax purpose	1539	897	12462	1120	300	270	1102	62	76	16056	IV
	5	3	14	201	20	43	5	2	7		
Simple procedure	405	207	868	11256	1000	1935	190	62	133	14981	V
	3	4	5	17	240	17	7	3	4		
Better settlement rate	243	276	310	952	12000	765	266	93	76	13973	VI
	7	7	4	36	10	204	17	4	11		
Advertisements	567	483	248	2016	500	9180	646	124	209	11419	VIII
	1	5	28	6	3	9	114	124	10		
Better service	81	345	1736	336	150	405	4332	3844	190	11716	VII
	10	23	6	3	3	12	112	112	19		
For agents compulsion	810	1587	372	168	150	540	4256	3472	361	9078	IX
	29	11	5	2	4	5	13	20	211		
	2349	759	310	112	200	225	494	620	4009		

The above table shows the result of the Hendry Garret ranking technique analyzing the factors considered by the policyholders. Among the 9 factors, the ranking result reveals that risk coverage (21110) which is the main purpose of the insurance policy is mostly considered by the respondents. the interest of the policyholders (19139) is alone make then to chose the insurance company rather than the influence of agents, friends, relatives, advertisements, etc. Thirdly, the best performance of the funds is analysed by the policyholders (17828). Some of the salaried people, businessmen and others who pay tax prefer the insurance policy for ta saving purpose (16056). The simplified procedure to take a policy and convenience (14981), better settlement rate (13973), better service (11716) are subsequently ranked fifth, sixth and seventh respectively.

SATISFACTION TOWARDS THE SERVICES OF THE INSURANCE COMPANY

The satisfaction of the policyholders towards the services of the insurance companies is measured using 5 point Likert scale with 20 statements from different dimensions of the quality of the services. The difference in the satisfaction according to the nature of the respondents (Gender, age, educational qualification, occupational status and income level) is studied as below.

Table 2: Satisfaction of the policyholders towards the service of the insurance companies

Nature		N	Mean	SD	Z	Sig.
Gender	Female	139	81.8417	20.13694	0.811	0.418
	Male	161	80.0124	18.88352		
Nature		N	Mean	SD	F	Sig.
Age group	Young	88	85.7614	15.37650	4.765	0.009
	Middle	143	77.7273	20.14356		
	Old	69	81.1014	21.54076		
Educational qualification	School	32	83.0938	18.15944	0.769	0.512
	Graduation	124	79.4274	18.99430		
	Post graduation	90	80.3333	22.25592		
	Others	54	83.7037	16.07955		

Occupational status	Employed	128	77.4453	22.66490	3.402	0.010
	Business	57	85.8596	19.29511		
	Housewives	80	84.4000	14.29048		
	Profession	16	81.5625	10.20437		
	Others	19	73.3684	15.78400		
Income group	Low	98	81.2245	22.26899	0.329	0.720
	Middle	150	80.0533	17.18583		
	High	52	82.5000	20.24410		
Total		300	80.8600	19.46286		

The overall mean of satisfaction is found at 80.8600 which is better (between the range of 20 and 100 from 20 statements). According to the gender, the mean of satisfaction of female is (81.8417) is greater than the male (80.0124). the Z score is less than the critical value of 1.96. Hence, the difference in the mean is not significant.

The age group, educational qualification, occupational status and income of the family with the satisfaction is analysed with the help of ONE WAY ANOVA. The young age group respondents (aged less than 30 years) are highly satisfied (85.7614) than middle age and old age group respondents. The F value is 4.765 which is more than the table value. The significance is 0.009. Hence, it is concluded that the satisfaction of the young respondents is higher than the other age groups aged more than 30 years.

The educational qualification shows that the respondents from other category have more satisfaction (83.7037). The respondents have studied upto school level, graduation and post graduation have lesser mean. But the F value (0.769) indicates that the difference in the satisfaction according to the mean is not significant.

From the occupational status of the respondents, it is found that the satisfaction of the respondents doing business (85.8596) have high mean of satisfaction than other respondents. The F value (3.402) is significant (0.010). It is understood that the businessmen are highly satisfied towards the services of the insurance companies.

The respondents are grouped based on their family annual income as low income group (less than Rs. 5 lakhs pa), middle income group (from Rs. 5 lakhs to Rs. 10 lakhs pa) and high income group (more than Rs. 10 lakhs pa). The respondents from the high income family (82.5000) are highly satisfied. But the F value (0.329) is not significant. Hence, it is concluded that the satisfaction of the policyholders does not vary significantly according to their annual income.

REFERENCE

1. Kavitha, Latha and Jamuna, "Customers' Attitude towards General Insurance-A Factor Analysis Approach", Journal of Business and Management, Vol. 3, No. 1, pp. 30-36, 2012.
2. Ashfaque Ahmed and Neetu Kwatra, "Level of Customers Satisfaction with Their Perception on the Quality of Insurance Services", Galaxy International Interdisciplinary Research Journal, Vol. 2, No. 3, pp. 1-13, 2014.
3. Priya and Srinivasan, "A Study on Customer Awareness towards Health Insurance with Special Reference to Coimbatore City", Journal of Business and Management, Vol. 17, No. 7, pp. 50-54, 2015.
4. Mehul Desai and Nikita Kahar, "Factors Affecting Customer Satisfaction in General Insurance with Respect to Vehicle Insurance: A Study of Surat City", Indian Journal of Applied Research, Vol. 6, No. 4, pp. 239-241, 2016.
5. Agarwala Amar Narain, "Health Insurance in India", East End Publishers, 2007. [6] B.D. Bhargava, "Insurance Meaning and its Principles", Pearl Books, 2008.
6. Gupta, "Fundamentals of Insurance", Himalaya Publishing House, 2006. [8] S.L. Jackson, "Research Methods and Statistics: A Critical Thinking Approach", Cengage Publisher, 2011.
7. Kothari, "Research Methodology Methods and Techniques", New Age International Publishers, 2005.
8. Boyjoo and V. Ramesh, "A Study on Factors Influencing Performance of General Insurance Companies in Mauritius: An Empirical Evidence", International Journal of Conceptions on Management and Social Sciences, Vol. 5, No. 1, pp. 23-19, 2017.

9. Nhi and Thong, "Customer Loyalty in B2B Service in General Insurance Sector of Vietnam", *International Journal of Management Decisions*, Vol. 4, No. 1, pp. 85-95, 2018.
10. Kuo, Kweh, Ting and Azizan, "Dynamic Network Performance Evaluation of General Insurance Companies: An Insight into Risk Management Committee Structure", *Total Quality Management and Business Excellence*, Vol. 28, No. 5-6, pp. 542-558, 2017.
11. Huang, X. Yang and J. Zhou, "Robust Optimal Investment and Reinsurance Problem for a General Insurance Company under Heston Model", *Mathematical Methods of Operations Research*, Vol. 85, No. 2, pp. 305- 326, 2017.
12. Wang, Kim, Selvachandran, Smarandache, Abdel-Basset, Thong and Ismail, (2019). "Decision Making Methods for Evaluation of Efficiency of General Insurance Companies in Malaysia: A Comparative Study", *IEEE Access*, Vol. 7, pp. 160637-160649,
13. Uddin, Mazumder and Chowdhury, (2018) "Insurance Business and Risk Management: An Empirical Study on General Insurance Companies in Bangladesh", *Indonesian Management and Accounting Research*, Vol. 13, No. 2, pp. 62-81.

MOTIVATION AMONG EMPLOYEES OF PUBLIC SECTOR CONCERN

Dr. Carolin Golda.P* B. Sakthimala Jugal Kishore*****

**Assistant Professor, Department of Management Studies, (MAHRM),
Women's Christian College, No.51, College Road, Chennai.*

***Assistant Professor, Department of Management Studies,
Marudhar Kesari Jain College for Women, Marudhar Nagar,
Chinnakallupalli, Vaniyambadi, Tirupattur, Tamilnadu.*

****Assistant Professor, Department of Mathematics
Government College for Women, Udhampur.*

ABSTRACT

The idea of public administration has been given a scientific meaning in many social, political, and legal ideas, both in this country. There is, in general, an agreement on the two components of public administration, namely state administration and local government. These are the state and local governments. The idea of public administration has been construed in a variety of different ways over the years. Administrative law is predicated on the idea of public administration as its foundation. It is possible to trace its roots all the way back to Roman law, from whence it branched out into various languages. It is possible to object to the jurisdictional nature of the current approach to the interpretation of a phenomenon that is as complex and fluid as public administration. The main objectives of the Study to identify the socio-economic characteristics of the selected sample respondents and to analyze the factors motivating to stay in the present job It is a qualitative study conducted in Chennai during the month of March 2022. The sample respondents were selected using convenient sampling method with 300 respondents.

Key words Employees, manager, motivation, market, private company, public administration, and remuneration.

INTRODUCTION

Every company is trying to figure out how to make the most efficient use of its given human, financial, and physical resources. The level of interest that individuals have in the tasks that have been delegated to them will determine the amount of resources, both monetary and physical, that are used. People are able to transform their material and monetary resources into goods and services that are of value because they are motivated. It assists the company in maximizing the potential of its available human resources. Employees are prompted to accomplish their jobs with vigour when they are motivated to do so. The performance of workers and the results achieved are dependent not only on the individuals' skills and capabilities but also on their passion and desire. Individuals are able to correlate the total efficiency and output of any work-related task they do to their level of motivation, which is an action. Because of this move, the overall costs of the organization's operations and the jobs it does are being cut down continuously. Motivation is the source of committed behaviour among workers, supports employees in showing the chosen route in their career ladder, and ensures benefits for the employees as well. The business should have an understanding of the objectives and demands of its own personnel, as well as the ability to establish an appropriate remuneration and other incentive structure, and ensure the achievement of specified goals in an all-encompassing way. The fundamental managerial duties of planning, organizing, and staffing will fail to provide the required results if personnel are not adequately motivated to do their jobs. Employees are more engaged in their work and have a stronger connection to their firm when they are motivated. When fundamental requirements of workers are met, such as having defined career objectives, a pay package, and incentives, etc., their level of devotion to their job increases, which in turn leads to strong morale, loyalty, and a mutual tie with their employers. Employees give their jobs a great deal of devotion and are discouraged from quitting their current jobs by their employers. This results in fewer

employees leaving the company, more attention being paid to improving organizational performance, and fewer instances of absenteeism and the need for close monitoring.

Public administration and motivation have been dealt with by many authors both home and abroad. In any case, public administration is about managing the issues of public interest. The process is subject to public control within the public sector whose people are parts of. Kútik and (2011)¹ argued that public administration refers to real and work-related activities during its actual functioning in a given social system under certain historical circumstances, and to the structure of the organization and the management of state administration and self-government. For public administration and any other business entity to work smoothly and efficiently, employee motivation is a must. It is much more demanding to motivate public sector employees than private sector employees. The paper addresses the public employee motivation as opposed to private sector employee motivation, and the key role of managers. This is possible due to the fact that less attention is paid to opinions on the effectiveness of public administration and society as well as the necessity of addressing the problems that are related. When there is a crisis, businesses start cutting down on their workforce and cancelling customer orders. The public sector, on the other hand, is subject to a different set of rules and regulations. It is necessary to work for the public interest both when things are going well and when things are going badly. Because of this distinction, the missions of the public sector are different from those of the private sector. The importance of motivation cannot be overstated in any of these fields. One of the most important jobs of managers is to keep their people motivated.

THEORETICAL FRAMEWORK

It is necessary to specify public administration's connection to the public sector in order to establish the idea of public administration. In any event, the public sector is an area that has a significant amount of influence on the general improvement of people's living standards as well as the economic growth of societies. Ktik and Klierová (2013)², the public sector is either an element of the social reality or a subsystem of the many aspects of social life that are owned by the public and are open to the observation of the public. It is the responsibility of the public sector to find solutions to problems in the social, economic, and political spheres by using certain processes. As a result, public administration is a component of the public sector's overall structure. Administration is a term that is usually used to refer to public administration. Several writers in the field of professional writing have tackled the topics of public administration and motivation in their own works. The idea of administration has been studied by a wide variety of disciplines, including sociology and history. Researching early instances of administration techniques in ancient Egypt and China is necessary if one wants to discover the roots of administration and the management it employs. Such research is required if one wishes to trace the origins of administration and its management. Keller commented on this matter as well, saying that "we had not quite been successful in obtaining the quality of ancient Egyptian and Roman authorities or reports." Keller was the one who brought this matter up for discussion. At the tail end of the 20th century, many publications that addressed what was then known as the "New Public Management" gave birth to the idea of public administration.

Hasprová (2007),³ stated that public administration is a complicated and ambiguous social phenomena that addresses the interactions between the state, society, people, the state as a whole, and the territorial and regional institutions that make up the state. The importance of motivation cannot be overstated in any kind of organization, even public ones. The challenge of motivating workers is a difficult one; as a result, the topic of motivation requires careful consideration. Employees who are employed in enterprises, organizations, the health care and education sectors, as well as government or local government institutions desire to be motivated not only by their salary but also by some other types of incentives. There have been a number of different ideas developed in relation to motivation. They have focused mostly on the significance of attending to the needs of workers and analyzing the aspects that contribute to motivation. Employee motivation is an

¹ Klierová, M. – Kútik, J. (2017). From old public administration to the new public service. Social and Economic review. Trenčín: FSEV TnUAD. 2017, pp.86-93

³ Hasprová a kol. (2007). Marketing mist a obcívýbrané problem, Bratislava: Economy.pp.325-326

essential component for the success of any modern business. The ideas put forward by Maslow, Herzberg, Mclelland, and McGregor are among the most influential and well-known. Maslow claimed that theories of motivation should be founded on human needs and how well those needs are satisfied. Therefore, motivation is a sort of special psychic regulating activity and one of the greatest forms of psychological determination of actions. Motivation also ranks among the highest types of psychological determination of activities. The ability to be motivated enables one to develop their abilities, accomplish new objectives, and, most importantly, act and think actively in order for stimulus to occur. In addition to this, she contends that the word "motivation" originates from the Latin word "motio," which means "moving" or "passion." It paints a very accurate image of what a person is going through at the moment, including what he or she is yearning for, what they abhor, what they are working for, and what they want. Vojtovi (2008)⁴, motivation satisfies the demands of employees while also having the potential to boost the return on investment in the development of human resources. Many different elements, both internal and external, might have an effect on one's level of motivation. This notion is supported by the fact that effective employee performance requires these factors. Herzberg conducted study on this topic and compiled a list of the top 10 elements that impact the success of people in their jobs.

THE MOTIVATIONAL POWER OF A PUBLIC SERVICE MISSION

The majority of the time, managers are able to achieve their organizational objectives thanks to the efforts of their staff members. As a result, managers are required to have staff members that are both extremely efficient and productive. Even though there are a lot of things that might influence productivity, many people believe that performance on the job is the most important element. Ability, comprehension of the work, surroundings, and motivation are the four factors that contribute to an employee's overall job performance (Mitchell, 1982)⁵. Therefore, in order for workers to perform properly, they need to have the information and tools that are necessary for the job, in addition to the willingness to accomplish what is requested of them. Therefore, action may be typically linked with motivation, and the study of motivation reveals itself to be a critical component in the achievement of success for any business, whether it be public or private. Because of this, the study and application of motivation has long been considered one of the most important topics in both fields. In an effort to understand the nature of motivation in the workplace, a great number of different ideas and techniques have been established.

A small number of further studies were carried out with the purpose of determining whether or not workers in the public sector are motivated by factors that are distinct from those that motivate workers in the private sector. In point of fact, a specific theory of motivation known as Public Service Motivation (PSM) was conceived of in order to explain the ways in which individuals in the public sector are distinct from workers in the private sector in terms of the degree and nature of their innate desire to work and serve. Nevertheless, understanding motivation shouldn't be confined to only the theoretical components of it. Because managers do not often reside in ivory towers, they must be provided with practical means of translating the theoretical underpinnings of motivation into the actual practices of their jobs. This is particularly important to keep in mind with regard to the public sector, since the most recent financial crisis has put governments in an even more difficult position. On the one hand, the recession has led to a rise in the demands placed on public services, but on the other hand, it has led to a collapse in taxation revenues, which has, in turn, led to a reduction in financing for public services (Public Affairs Ireland, 2010)⁶. Therefore, managers in the public sector need to find ways to inspire their staff to achieve the best levels of productivity and efficiency possible while also achieving "more with less" (Perry, 1982)⁷. The challenge here is that inspiring public servants to work harder is far simpler stated than done. Wilson (1989)⁸, those employed by the government have a well-deserved reputation for being unmotivated and sluggish, and the civil service statutes that govern their

⁴ Vojtovič, S. a kolektív. 2008. Riadenie personálnych činností v organizáciách. Trenčín: FSEV TnUAD. 2008, s. 396

⁵ Mitchell, Terence R. (1982). Motivation: New Directions for Theory, Research, and Practice, *The Academy of Management Review*, Vol. 7, No. 1, pp.80-88.

⁶ Public Affairs Ireland (2010). Challenge and change in the Irish Public Service in 2010, A Public Affairs Ireland conference on morale, motivation, transformation and service delivery in the public sector in 2010,

⁷ Perry, James L. and Wise, Lois Recascino (1990). The motivational bases of public service, *Public Administration Review*, Vol. 50, No. 3, pp.367-373.

⁸ Wilson, James Q. (1989). *Bureaucracy: What Government Agencies Do and why They Do it*, Basic Books.

employment provide very little wiggle space for managers. In addition, the workforce in the public sector tends to be older and more stagnant, making it more difficult to inspire and encourage them. It should not come as a surprise, however, that one of the three issues that are deemed to be the "Big Questions of Public Management" is the subject of how public managers can encourage the personnel under their supervision. (Behn, 1995)⁹.

A physiological or psychological need is what initiates the process of motivation, which is a process that triggers behaviour or a drive that is oriented toward attaining a goal. Motivation may be defined as the process that triggers behaviour or a drive that is aimed toward reaching a goal. It is expected of each worker that they will show their management capabilities by producing better and more improved levels of output. To do this, the behaviour of the employee is essential, and the environment that they are a part of at any one instant has an effect on the behaviour that they exhibit in response to that environment. In the end, the behaviour of an employee will be a result of that person's innate drives or perceived requirements, in addition to the opportunities the employee has in the workplace to satisfy those drives or desires. When it comes to management, the idea of giving one's workers incentives to perform better is of the utmost significance. Managers view motivation as an intrinsic component of the performance equation at all levels, whereas researchers view it as a vital building element in the process of developing practical theories of efficient management practice. Motivation is viewed as a building element in the process of developing practical theories of efficient management practice.

The conceptual development that has been made in other aspects of management, such as leadership, decision making, negotiations, groups and teams, and organization design, is mirrored by the substantial theoretical progress that has been focused on motivation. The modern workplace in the public sector is characterized by an increasingly short-term focus, time as a critical performance variable, increasing interdependence among employees, evolving affective responses to the workplace experience, increasing value and motive conflicts on the part of employees, and a clear recognition of the transitory nature of careers. Existing motivational theories were able to adequately explain the modern workplace in this context.

OBJECTIVES OF THE STUDY

1. To identify the socio-economic characteristics of the selected sample respondents
2. To analyze the factors motivating to stay in the present job

METHODOLOGY

It is a qualitative study conducted in Chennai during the month of March 2022. The sample respondents were selected using convenient sampling method with 300 respondents

DISCUSSIONS AND FINDINGS

The socio-economic characteristics of the selected sample respondents are given below.

i. Socio-economic characteristics

Age, gender, income level and level of experience of the respondents are considered as important Motivation among Employees of Public Sector Concern.

Table 1: Socio-economic characteristics

Socio-economic Characteristics		Number of respondents	Percentage
Age group	Young	158	52.7
	Middle	124	41.3
	Old	18	6.0

⁹ Behn, Robert D. (1995). The Big Questions of Public Management, Public Administration Review, Vol. 55, No. 4, pp.313-324

Gender	Male	194	64.7
	Female	106	35.3
Income level	Less	150	50.0
	Middle	65	21.7
	High	85	28.3
Level of experience	Less	91	30.3
	Moderate	129	43.0
	High	80	26.7
Total		300	100.0

The table shows that number of respondents (41.3%) are from the middle age group, (52.7%) are from the young age group and remaining (6%) respondents are from the old age group. (64.7%) respondents are male, (35.3%) are females. (50.0%) are from the less income group, (21.7%) are from middle income group and rest of (28.3%) are from high income group. (43.0%) respondents have moderate level of experience, (26.7%) are highly experienced and 91 (30.3%) are less experienced. The researcher who carried out the current investigation made an effort, as part of the study, to evaluate the numerous motivational aspects of government employees, to match those aspects with content.

Factors motivating to stay in the present job

The factors motivating to stay in the present job are challenging jobs, good salary, stable growth, job security, interesting jobs convenient work schedules, good leader, pension plans increments, training opportunities, opportunities for promotion, offers job to the legal heir in case of death while in service, and feel honored of being a government employee. The level of each problem in repaying the educational loan has been measured through the ranking them using Kendall's W test. The result is given below.

Table 2: Factors motivating to stay in the present job

Factors	Mean	Std. Deviation	Mean Rank	Rank
Challenging Jobs	4.29	1.142	9.16	I
Convenient work schedules	3.86	0.806	7.57	III
Training opportunities	3.56	0.805	6.28	VIII
Good leader	3.23	1.115	5.57	XI
Good salary	3.82	1.214	6.56	V
Interesting jobs	3.45	1.076	6.29	VII
Environment	3.56	1.155	6.39	VI
Job security	3.47	1.314	8.25	II
Leave facilities	3.37	1.183	6.96	IV
Stable growth	3.56	1.132	6.12	X
Opportunities for promotion	2.89	1.192	6.24	IX
Recognition	2.92	1.178	6.11	XII

Among various factors, challenging Jobs (9.16) has been identified factors motivating to stay in the present job. Job security (8.25). Thirdly, convenient work schedules (7.57). Leave facilities (6.96), Good salary (6.56) and environment (6.39) are ranked fourth, fifth and sixth respectively while factors motivating to stay in the present job.

CONCLUSION

Recently a significant number of changes in the public administration, including the elimination of several positions. Those who remain after a round of layoffs are left with a heavier burden, which forces them to put in longer hours and increases their level of frustration. Employee unhappiness is the inevitable result of all of this. Personality traits that enable workers to adjust to the elevated expectations brought about by shifts in the workplace are one of the factors that contribute to overall job satisfaction. It is reasonable to believe that stable, intrinsic personality qualities lead persons to better or lower work satisfaction in public administration since these assumptions are supported by reliable evidence. The working circumstances of public officials are, on the whole, much superior than those of other types of employees. Jobs in public administration often run from nine in the morning to five in the afternoon, provide flexi-time options, greater training possibilities financed by public administration organizations, higher and more consistent earnings, job stability and other benefits.

REFERENCE

1. Alderfer, C. 1969. "An Empirical Test of a New Theory of Human Needs." *Organizational Behavior and Human Performance* 4(2): 142–175.
2. Allison, P. 2003. "Missing Data Techniques for Structural Equation Modeling." *Journal of Abnormal Psychology* 112: 545–557.
3. Alonso, P. and G. B. Lewis. 2001. "Public Service Motivation and Job Performance: Evidence from the Federal Sector." *American Review of Public Administration* 31(4): 363–380.
4. Cerase, F. P. and D. Farinella. 2006. "Explorations in Public Service Motivation: The Case of the Italian Revenue Agency." Paper presented at the European Group for Public Administration Conference, Milan, Italy, and September 6–9.
5. Delaney, J. T. and M. A. Huselid. 1996. "The Impact of Human Resource Management Practices on Perceptions of Organizational Performance." *Academy of Management Journal* 39(4): 949–969.
6. Delery, J. and D. Doty. 1996. "Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurationally Performance Predictions." *Academy of Management Journal* 39(4): 802–835.
7. Enders, C. K. 2001. "The Performance of the Full Information Maximum Likelihood Estimator in Multiple Regression Models with Missing Data." *Educational and Psychological Measurement* 61(5): 713–740.
8. Gailmard, S. 2010. "Politics, Principal-Agent Problems, and Public Service Motivation." *International Public Management Journal* 13(1): 35–45.
9. Garner, H., D. Me'da, and C. Senik. 2006. "La Place du Travail dans les Identity's" "The Role of Work for Identities" *EconomiesStatistiques* 393–394: 21–40.
10. Hu, L. and P. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives." *Structural Equation Modeling* 6(1): 41–55.
11. Hutchison, S. 1997. "A Path Model of Perceived Organizational Support." *Journal of Social Behavior and Personality* 12: 159–174

A STUDY ON HRM PRACTICES IN HEALTH CARE SECTOR

Mrs. Licy Varghese Dr. N. Rajesh** Mr. Ashish Kumar Pandey****

** Senior Lecturer and Research Scholar of Commerce,
M.K.Sanghvi College of Commerce and Economics, Mumbai*

***Assistant Professor, Department of Commerce,
Annai Vailankanni Arts and Science College Thanjavur.*

****Associate Professor, Faculty of Pharmadeutical Science, Shri Shankaracharya
Technical Campus (An Autonomous Institute), Bhilai, Durg, Chhattisgarh.*

ABSTRACT

Human resource management, often known as HRM or simply HR, is a function in businesses that aims to optimize employee performance in the service of the strategic goals of the employer. Human resources is largely concerned with the management of people inside businesses, with a particular emphasis on policies and procedures. Typically, firms have Human Resource departments and divisions that are responsible for a range of operations, such as employee recruiting, training and development, performance review, and awarding (e.g., managing pay and benefit systems). Additionally, human resources are involved with industrial relations, which refers to the balancing of organizational practices with rules resulting from collective bargaining and legislation enacted by the government. Human resources are a result of the human relations movement that started in the early 20th century. During this time, academics began researching methods to create commercial value via the strategic management of the workforce. This was the beginning of what is now known as HR. Transactional work, such as payroll and benefits administration, used to dominate the function when it was first established. However, as a result of globalization, company consolidation, technological advancement, and additional research, human resources now focuses on strategic initiatives, such as mergers and acquisitions, talent management, succession planning, industrial and labour relations, and diversity and inclusion. It is impossible to provide high-quality medical treatment without effective management of the available human resources. To effectively design new policies, the management of human resources in the health care industry has to get renewed attention, and further study is required. The implementation of efficient solutions for the management of human resources is very important if people all over the globe are to enjoy improved access to and results from medical treatment.

Keywords: *Employee performance, HR Department, Employee Recruitment, Training and Development, Performance Appraisal and Rewarding.*

INTRODUCTION

Without strong Human Resources, a company will be unable to put together a competent workforce consisting of working professionals. The Human Resources Management (HRM) team is responsible for a wide variety of tasks, some of the most important of which are the recruitment and training of workers, the evaluation of their performance, and the encouragement of their work, in addition to workplace communication and safety. One of the most important roles of the human resource staff is recruitment and training of new employees. Plans and methods for recruiting individuals with the desired characteristics are developed by HR managers. They design the standards that are most appropriate for a certain job description in its whole. Among the other responsibilities they have in relation to recruiting is the formulation of the duties of an employee as well as the extent of the activities that are allocated to that employee. The employment agreement that an employee has with the firm will be drafted taking into account these two considerations. In addition, they provide the staff necessary training in accordance with the standards of the firm whenever it is required¹. As a result, staff

¹ Harris, C., Cortvriend, P. & Hyde, P (2007), Human Resource Management and Performance in health care organizations, University of Manchester, Manchester, UK. Journal of Health and Organization and management 21(4/5)

employees have the chance to improve upon their present talents or to gain new skills that are more specialized, which, in turn, will make it easier for them to take on new responsibilities.

Human resource management (HRM) is the practice of encouraging employees of a company to perform to the best of their abilities and providing them with feedback and ideas that will assist them in doing so. The group has individual conversations with each member of the staff from time to time, during which they present all of the required information on the staff members' performances and also define their unique tasks. This is advantageous because it allows them to build an outline of their expected objectives in much clearer terms, and it also helps them execute the goals with the greatest possible efforts, so it is a win-win situation. Employees are more likely to be motivated when performance reviews are carried out on a regular basis. Because the performance of an employee in an organization is mostly influenced by the work environment or work culture that predominates at the workplace, the maintenance of a positive work atmosphere is an essential component of human resource management (HRM). One of the advantages that workers may anticipate receiving from an effective team of human resource professionals is favourable working conditions.²

An employee's full potential may be realized when they work in a setting that prioritizes their safety, cleanliness, and wellness. The work satisfaction of the staff members is increased when the environment is pleasant. There are many topics in an organization about which workers and their bosses might have disagreements, which can lead to conflict in the workplace. You may claim that disagreements are almost unavoidable. In a situation like this, it is the department of human resources that takes on the role of consultant and mediator in order to resolve such difficulties in the most efficient way possible. They begin by listening to the complaints of the staff members. After that, they devise appropriate remedies in order to straighten things out. In other words, they respond promptly and stop things from spiraling out of control by preventing this from happening³. To a significant degree, the Human Resources and Management department is accountable for developing positive relationships with the public. On behalf of the firm, they arrange for business meetings, seminars, and other formal get-togethers of many kinds in order to cultivate contacts with representatives of different business sectors. There are instances when the Human Resources department takes an active part in the process of developing the organization's business and marketing strategy as well. If a company does not have the appropriate infrastructure in place for human resource management, it is doomed to have significant difficulties in the management of its day-to-day operations. Because of this, businesses of today are required to devote a significant amount of time, effort, and energy into developing powerful and efficient HR departments.⁴

HUMAN RESOURCE MANAGEMENT PRACTICES IN HEALTHCARE INDUSTRY

To treat patients with curative, preventative, rehabilitative, and palliative care, many sectors of the economy come together to form what is known as the health care industry (sometimes known as the medical business). These industries supply products and services to patients. The current health care business is comprised of a large number of distinct sub-industries, each of which relies on inter-professional teams comprised of trained professionals and paraprofessionals to address the health requirements of people and communities. One of the most important and rapidly expanding sectors in the world is the medical and health care sector.⁵ Health care may constitute a significant portion of an economy, as shown by the fact that it accounts for more than 10 percent of gross domestic product (GDP) in most industrialized countries. The World Health Organization has officially certified that India is now free of the polio virus, and the country has been given the "Polio Free" classification as a result (WHO). India is included among the other nations in the South East Asian area that have been validated as having no detectable levels of the polio virus in their populations. Mr. Ghulam Nabi Azad, who served as the Minister for Health and Family Welfare for the Government of India, India has not

² Rao, M., Rao, K. D., Kumar, S., Chatterjee Sundararaman(2011). Human resources for health in India. *The Lancet*, 377, 587–598.

⁴ Al Kudhat, M. (2004). Staff selection methods in the King Abdullah Hospital founder in light of technological developments. Unpublished Master Thesis, Yarmouk University. Irbid, Jordan.

⁵ Jaeger, F. N., Bechir, M., Harouna, M., Moto, D. D., & Utzinger, J. (2018). Challenges and opportunities for healthcare workers in a rural district of Chad. *BMC Health Services Research*, 18(1),

had a case of polio since January of 2011. Current conditions in the healthcare industry in India provide incumbents and newcomers alike an once-in-a-lifetime chance to achieve innovation, differentiation, and financial success. In the next ten years, rising levels of consumer knowledge and the desire for improved facilities will reshape the industry that is currently the country's second biggest employment in the service sector. The enormous number of highly qualified medical experts that India has access to gives it a key edge over its rivals in this industry.⁶



The administration of human resources is garnering an increasing amount of importance within a variety of health care systems around the globe (HRM). To be more specific, human resources are one of three primary inputs that make up a health system. The other two primary inputs that make up a health system are physical capital and consumables. Human resources, physical capital, and consumables are the three primary inputs that make up the health system. It also demonstrates how the financial resources required to acquire these supplies have the characteristics of both a one-time capital expenditure and an ongoing recurring cost. As is the case in other sectors, investment choices in the health sector are of the utmost importance because they are often irreversible: they involve committing substantial sums of money to locations and activities that are difficult, if not impossible, to cancel, shut down, or reduce down.

When discussing medical treatment, the term "human resources" refers to the many types of clinical and non-clinical personnel who are responsible for the intervention of both the general population and specific patients. The individuals who are in charge of providing health services are largely responsible for the system's performance as well as the benefits it is able to provide. Because of this, the system's performance and benefits are largely dependent on the knowledge, skills, and motivation of these individuals. In addition to maintaining a healthy equilibrium between the system's human and material resources, it is vital to keep an adequate mix between the various kinds of health promoters and careers in order to guarantee the successful operation of the system. It is necessary that human capital and physical capital be handled and managed quite differently from one another. This is because of the evident and significant contrasts between the two. The connection between health care and human resources is quite intricate, and as such, it ought to be investigated and investigated further. As a result of the meteoric rise in the number as well as the cost of health care consumables (drugs, prostheses, and disposable equipment), the expenses of medical care have the potential to skyrocket. Expenditures in this area may have an influence on a system's capacity to attract and retain excellent practitioners when the system is publically supported. HRM practices need to be created in order to find the proper balance between workforce supply and the capacity of those practitioners to practice in an effective and efficient manner. This is true of systems that are financed by the government as well as systems that are paid for by employers. If a practitioner lacks the necessary tools, their practice will be just as ineffective as if they had the tools but not the practitioner.

⁶ Leonard Sayles, R. and Strauss, in *managing Human Resources*, practice Hall, Englewood cliffs. New Jersey, 1985, pp. 45 – 68.

Training for the workforce is yet another crucial concern. It is very necessary for those working in human resources to take into account the make-up of the health workforce in terms of the various skill categories as well as the training levels. To guarantee that the workforce is aware of and prepared to fulfil the current and future demands of a given nation, new alternatives for the education and in-service training of health care employees are necessary. These choices must be implemented immediately. It is impossible to have an effective health care system without a staff that is adequately educated and skilled. When analyzing health care systems throughout the world, one of the challenges that becomes apparent is the movement of healthcare professionals. According to research, the migration pattern of professionals in the health care industry seems to closely follow the migration pattern of professionals in general. This is due to the fact that the internal mobility of the workforce to metropolitan regions is something that occurs in all nations. Mobility within the workforce may lead to increased inequalities, which necessitates enhanced workforce planning, attention to problems pertaining to compensation and other benefits, and general management of the workforce that is strengthened. Because many health workers in developing countries are underpaid, have poor motivation, and are very dissatisfied with their jobs, developing countries use other strategies in addition to salary incentives to recruit and retain health professionals. These strategies include providing housing, infrastructure, and opportunities for job rotation. The movement of healthcare professionals is an essential problem concerning human resources that has to be tracked and managed with great care.

GOVERNMENT INITIATIVES IN HEALTH CARE SECTOR

Both in terms of income and job opportunities, the health care industry has grown to become one of India's most important economic sectors. Hospitals, medical services, clinic trials, outsourcing, telemedicine, medical tourism, medical equipment, and health insurance are all part of what's considered to be "health care." The Indian health care industry is expanding at a rapid rate as a result of its improving coverage offerings and the increased expenditures made by both public and private actors. The provision of medical services in Indian communities may be broken down into two primary categories: public and private. Primary healthcare facilities, also known as primary health care centers, are the primary focus of the government's public and private health care system, which is comprised of a limited number of secondary and territory care institutions in key cities and is primarily focused on the provision of primary healthcare facilities in rural areas. The bulk of secondary and temporary care facilities are run by the private sector, with a significant concentration in the cities that are classified as tier I and tier II. Existing health care organizations are now extending their operations by building hospitals in new service regions. At the same time, new health care organizations are entering the market equipped with the most cutting-edge technology and marketing tactics. Customers' rising money and knowledge level are leading them to seek superior health care, which in turn has led to an increase in the degree of competition within the healthcare industry. In turn, the service providers have a responsibility to be more inventive in their approach and to deliver excellent services at reasonable prices. All of this requires an organized approach to the management of human resources, carried out by managers and administrators who have received adequate training.⁷ The Planning Commission has allocated US\$ 55 billion under the 12th Five-Year Plan to the Ministry of Health and Family Welfare, which is about three times the actual expenditure under the 11th Five-Year Plan. The 12th Plan focuses on providing universal healthcare, strengthening healthcare infrastructure, promoting research and development (R&D) and enacting strong regulations for the healthcare sector.⁸

SOME OF THE MAJOR INITIATIVES TAKEN BY THE GOVERNMENT TO PROMOTE THE HEALTHCARE SECTOR IN INDIA ARE AS FOLLOWS

1. All India Institute of Medical Sciences (AIIMS) spends at least Rs 2 million (US\$ 33,271.51) annually on each faculty member, according to a study by the institute's hospital administration.
2. Sikkim has become India's first state with 100 per cent sanitation coverage, according to a report of the drinking water and sanitation ministry. "The state has also sensitized people to adopt a holistic

⁷ Directory of Hospitals in India central Bureau of Health Intelligence ministry of Health and family welfare, New Delhi 1988.

⁸ Anson BR: Taking charge in a volatile health care marketplace. Human Resource Planning 2003, 23(4):21-34.

approach to improve sanitation and hygiene for a clean environment while accelerating overall development in the state," according to the Government of Sikkim.

3. India and Maldives have signed three agreements after delegation level talks between Mr Abdulla Yameen Abdul Gayoom, President, Maldives, and Dr Manmohan Singh, Prime Minister of India, on January 2, 2014. The pacts include a Memorandum of Understanding (MoU) on health cooperation.
4. The Union Cabinet has approved the proposal for setting up of National Cancer Institute (NCI) at a cost of Rs 2,035 crore (US\$ 338.51 million). NCI will be set up in the Jhajjar campus (Haryana) of All India Institute of Medical Sciences (AIIMS), New Delhi. The project is estimated to be completed in 45 months.
5. Sis Ram Ola, Union Minister of Labour and Employment, Government of India, has inaugurated the state-of-the-art ESIC Model Hospital at Jaipur, Rajasthan

HRM ON THE QUALITY OF HEALTHCARE SERVICE

The goal of the ongoing reform in the healthcare industry is to raise both the overall level of patient satisfaction and the overall quality of the services that are delivered to them. In conversations on the "quality of health care," it is common practice to use the phrases "technical quality" and "sociocultural quality" interchangeably. The impact that a population's access to a variety of medical services may have on that population's general health is what is meant to be referred to as its "technical quality." Sociocultural quality is a measurement that takes into account not only how well therapies are received by patients but also how well they are able to fulfil the requirements set out by those patients⁹. Experts working in human resources need to overcome a significant amount of opposition in order to fulfil their responsibility of providing residents with high-quality medical treatment. Some examples of these restrictions are the lack of congruence between the values of the numerous stakeholders; high absenteeism rates; high turnover rates; and low morale among health workers. Another aspect are the budgets. In order to provide patients with curative, preventive, rehabilitative, and palliative care, the health care industry is comprised of many different sectors of the economy coming together to make a cohesive whole (sometimes known as the medical business). These industries provide patients with a variety of goods and services. The modern health care industry is made up of a huge number of various sub-industries, each of which depends on inter-professional teams to meet the health needs of individuals and communities. These teams are made up of trained professionals and paraprofessionals.

Salah Mahmoud Diab (2012)¹⁰ in his study entitled "measuring the dimensions of the quality of medical services provided in the Jordanian government hospitals from the perspective of patients and staff". The study found an increase rate to quit job among doctors and nurses working in hospitals and the Ministry of Health, and the low degree of satisfaction and low desire among the staff to continue working in the hospital, and this giving impact to the low quality of health services provided to patients.

Hassan Mohamed Elarabi1 and FuadahJohari (2014)¹¹ the impact of human resources management on healthcare quality the management of human resources in healthcare institution is essential to enable the delivery of efficient and effective medical services and to achieve patient satisfaction. This study aims to investigate the impact of practicing human resources management on the quality of healthcare service and achieving patients' satisfaction. The descriptive methodology was applied to demonstrate and analyze the previous literatures. The study shows that effective human resources management has a strong impact on healthcare quality and improving the performance of hospital's staff. The study suggests the need to measure the performance of the managers of human resources department in the hospital before starting performance development process as well as continuous development and training of staff performance.

⁹ Keating. (2011). *Managing Professionals: Exploring the role of the hospital HR function* Aoife Mc Dermott, Cardiff University Business School, Cardiff, UK. *Journal of Health organization and management* 25(6)

¹⁰ Salah, M. D. (2012). *Measuring the dimensions of the quality of medical services provided in the Jordanian government hospitals from the perspective of patients and staff.*

¹¹ Hassan Mohamed Elarabi1 and FuadahJohari (2014), *The Impact of Human Resources Management On Healthcare Quality*, *Asian Journal of Management Sciences & Education*, Vol.3(1)

CONCLUSIONS

The managers of human resources should constantly bear in mind that they work for health care, which need the most devoted and committed staff members possible to carry out their missions in the most honorable manner possible. As completely people-oriented organizations, their growth becomes the major focus of those in charge of human resource management. Therefore, it is important for them to foster a sense of team spirit among their personalities, who come from a variety of different social, educational, racial, and economic backgrounds. It is important for managers of human resources to keep in mind that workers in all types of organizations, including businesses and health care facilities, have progressive worldviews and are highly organized via their various trade unions. As a result, managing human resources has evolved into a competitive and demanding job.

REFERENCE

1. Al Khudat, M.(2004), Staff selection methods in the King Abdullah Hospital founder in light of technological developments. Unpublished Master thesis, Yarmouk University, Irbid, Jordan.
2. Harris.,Cortvriend, P. & Hyde, P (2007), Human Resource Management and Performance in health care organizations, University of Manchester, Manchester, UK. *Journal of Health and Organization and management* 21 (4/5).
3. Jamal, K. Adwan, A(2006), The reality of workforce Planning in the health sector hospitals the non-governmental sector in the province of Gaza.
4. Keating. (2011). *Managing Professionals: Exploring the role of the hospital HR function* Aoife Mc Dermott, Cardiff University Business School, Cardiff, UK.*Journal of Health organization and management* 25(6)
5. Lucas (2002). *Fragments of HRM in hospitality? Evidence from the 1998 workplace employee relations survey*. *International Journal of Contemporary Hospitality Management*.
6. Conville, (2003). *The filling in the Sandwich. HRM and middle managers in the health sector*, University of Plymouth Business School, Plymouth, UK, and Len Holden, Vol.28.No.5/6, MCB University Press.
7. Mukhaimar&Taamenh, (2004). *Recent trends for the hospital management: concepts and applications*.
8. Valverde, and Ryan (2006), *Distributing HRM responsibilities : A classification of organizations* UniversitatRoviraVirgili, Department of Business, Avinguda University Tarragona, Spain, Vol.35.No.6, Emerald Group Publishing Ltd.
9. Harris, C., Cortvriend, P. & Hyde, P. (2007). *Human resource management and performance in health care organizations*, University of Manchester, Manchester, UK. *Journal of Health Organization and Management*, 21(4/5).
10. Keating, M. (2011). *Managing professionals: exploring the role of the hospital HR function* Aoife McDermott, Cardiff University Business School, Cardiff, UK. *Journal of Health Organization and Management*, 25(6).

A STUDY ON HEALTH CARE SYSTEM IN INDIA ISSUES AND CONCERNS

Dr. Sunil E. Tambvekar Dr. Nitesh Pradhan** Dr. Neha Dubey****

**Assistant Professor, Department of Obstetrics & Gynecology, Nowrosjee Wadia Maternity Hospital, Affiliated to Seth GS Medical College, Mumbai.*

***Assistant Professor (Optometry), Department of Ophthalmology, Maharishi Markandeshwar Institute of Medical Sciences and Research, Mullana, Ambala, Haryana.*

****Physiotherapy Resident, Department of Physiotherapy, Faculty of Paramedical Sciences, UPUMS, Saifai, Etawah.*

ABSTRACT

In this study, we investigate the challenges that face India's healthcare system as well as its future potential. Since the implementation of New Economic Policy in 1991, India as a whole and the Indian economy specifically have been expanding at a breakneck speed, respectively. However, the quick expansion of the economy has not been mirrored by the development of other aspects of society, notably the development of the health sector. When it comes to the distribution of resources, the health sector has received relatively little attention or importance. In India, health care spending by the government accounts for less than one percent of GDP. In the years after the implementation of economic liberalization, it has continued its downward trend. Both access to and the quality of health services have suffered as a direct result of the inadequate resources that have been allocated to the health sector. The growth of both the economy and society go hand in hand and complement one another. The empirical data reveals that putting focus only on economic growth while ignoring social development leads to unbalanced development that, in the end, slows down the pace of economic development. When the economic sector is given the highest priority, while social sectors like education and health get just a small portion of the attention that should be given to policy, the outcome is economic success coupled with social deprivation. When it comes down to it, social deprivation, especially in areas such as education and health, inevitably trumps economic growth and, ultimately, quality of life. Therefore, a policy choice that prioritizes the maintenance of a healthy equilibrium in the distribution of resources between the economic and social sectors is of the utmost importance for a rising nation like India.

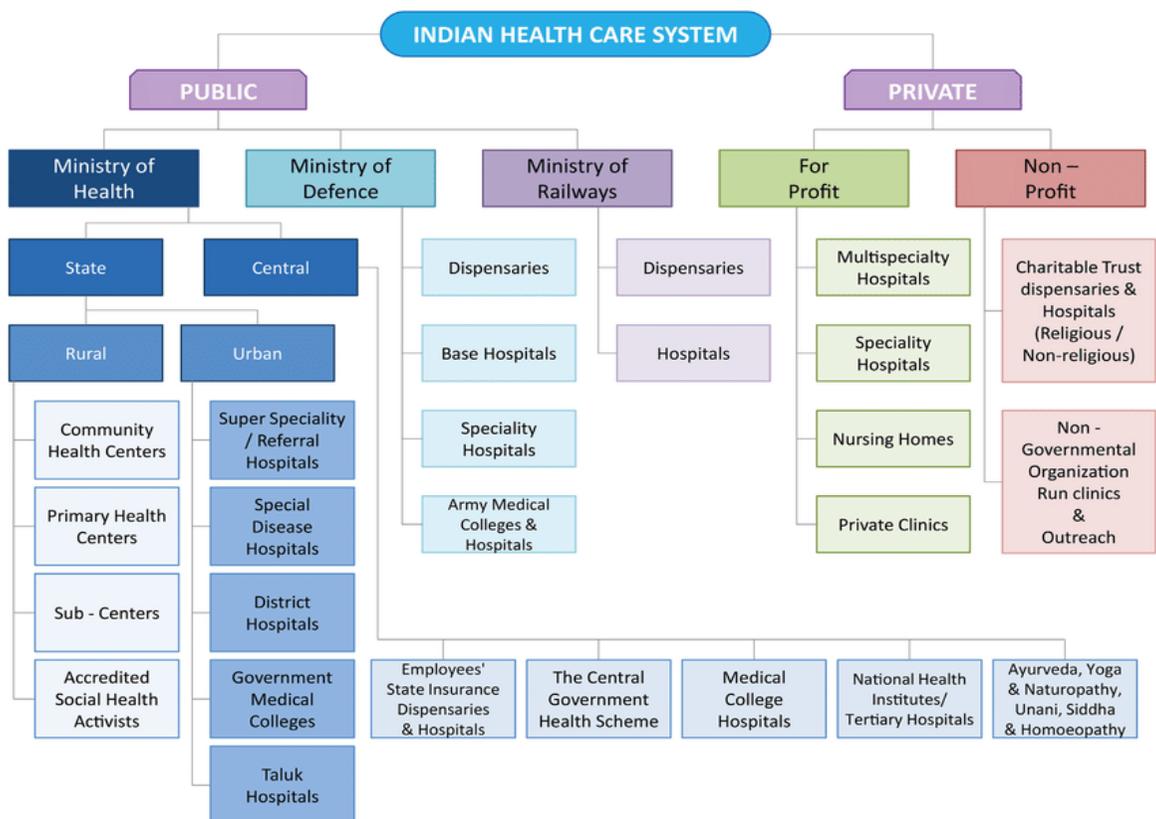
Keywords: Health care system, India, Issues, concerns and Health Care Sector

INTRODUCTION

Even though it's an old saying, "Health is Wealth" is a concept that's more relevant than ever in today's rapidly shifting environmental landscape. This phrase has been used as a common lingual concept for centuries, but the current state of life has turned it into an alarming idea in people's minds. It is also actively pushed among the people of India, although using language that varies according to the regional sect in India that one belongs to. A living thing's degree of functional or metabolic efficiency may be thought of as its state of health. It is the overall condition of a person's mind and body in humans, and it often refers to the state of being free from sickness, injury, or suffering (as in the phrases "excellent health" or "healthy")¹. Not just the absence of sickness or disability is considered to constitute health according to the World Health Organization (WHO), but also a condition of full bodily, mental, and social well-being. But after four decades, it reinterpreted health as a resource for daily life, rather than the goal of living, by stressing social and personal reasons in addition to physical capabilities. This led to a shift from seeing health as the purpose for living to viewing it as a resource (www.wikipedia.org). According to the World Health Organization, the primary factors that determine a person's level of health are their individual qualities and behaviours, as well as the social and economic

¹ Business Standard (2012). Victims of urbanisation: India, Indonesia and China. Available at Rediff.com. Accessed on June 15, 2012.

environment, the physical environment, and the political environment (WHO 2011)². To be more precise, researchers have identified a number of important elements that play a significant role in determining whether or not individuals are healthy (Lalonde 1974)³. The many states and territories that make up India each are responsible for operating their own version of India's universal health care system. According to the Constitution, each state is tasked with "increasing the quality of nutrition and standard of life of its people and improving public health as among its major tasks." This responsibility was given to each state in the form of a constitutional mandate. In 1983, the Indian Parliament gave its approval to the National Health Policy, and it was last revised in the year 2002. (Kishore 2005). The private medical industry in India operates in parallel with the public health sector and is really more popular than the public health sector. According to polls, Indian households in both urban and rural areas have a tendency to use private medical services more often than governmental medical services (International Institute for Population Sciences and Macro International 2007). Primary, secondary, and tertiary care are the three levels that make up India's public health system, which has evolved into a three-tiered structure throughout the course of India's history. This three-tiered public health infrastructure includes community health centers, primary health centers, and sub-centers spread over rural and semi-urban regions.



Additionally, multi-specialty hospitals and medical institutions are situated in metropolitan sections of the country. According to the 11th Five Year Plan (Annual Report 2008–09, Ministry of Health and Family Welfare),⁴ the goal of the National Health Policy 2002 is to achieve an adequate quality of health for the overall population of the nation. This goal was expressed as the primary objective in the plan. The Honorable Mrs. Indira Gandhi, the Prime Minister of India, launched her presentation on May 6, 1981 to the 34th World Health Assembly, which was held in Geneva. She said, "Life is not only living but living in health," and she used these words to introduce her speech. She went on to say that the health of the individual, as well as the

² World Health Organization (2011). The determinants of health. Geneva. Accessed on May 12, 2011.

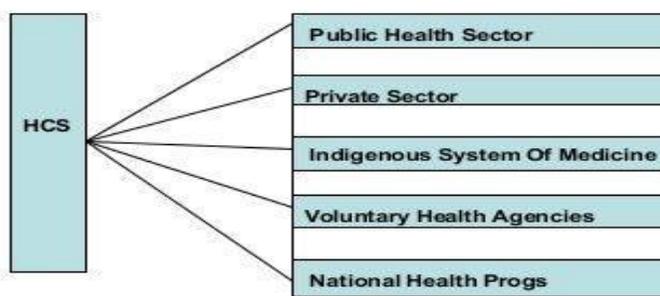
³ Lalonde, M. (1974). A new perspective on the health of Canadians. Ottawa: Minister of Supply and Services

⁴ Annual Report 2008–09, Ministry of Health and Family Welfare, Government of India

health of countries, should be of vital importance to all of us⁵. The absence of disease is not synonymous with health; rather, being healthy is characterized by a vibrant energy, a sense of completeness, and the ability to experience ongoing intellectual and spiritual development. To really live is to be in good health (Mogli 1983)⁶. The major purpose of the 12th Five Year Plan, which was advised by McKinsey & Company, which is a worldwide management consulting company, was to enhance health care in India by the year 2022. This was accomplished via the public–private partnership way in India. On December 18–19, 2012, at the 9th Indian Health Care Summit, the report was presented by Ghulam Nabi Azad, the Minister of Health for the Union of India. He said that while if public health systems need to be improved on all levels, health care also has to be supplemented by engagement from the commercial sector. (Sharma 2012)⁷

According to the report titled "Report 2020," the Indian health care industry may produce more than 40 million new jobs and revenues by the year 2020. Players in the private health care industry, both domestic and foreign, are speeding up their investment plans as they come to terms with the size of this potential. For instance, just recently, Fortis Healthcare made an announcement that it will be opening two new hospitals, one in Hyderabad and the other in Agra. This would bring the total number of hospitals in its network up to 68. As part of the strategy to integrate its domestic and international activities, Fortis also purchased its sister company, which is situated in Singapore and goes by the name Fortis Healthcare International. In 2001, Fortis opened its doors to its first hospital in Mohali, and since then, the company has grown its operations to become a network of hospitals throughout India with 4,000 beds in operation.⁸

HEALTH CARE SYSTEM IN INDIA.



BACKGROUND OF THE STUDY

The Alma Ata Declaration from 1978 asserts that the improvement of a nation's socioeconomic standing should be considered an essential component of overall progress. It presents the most comprehensive approach to health as well as the framework that states are necessary to apply in order to attain for the sake of the health of the people and the progress of the country. The declaration recommended that primary health care should at a minimum include the following: Education about existing health issues and the ways of finding, preventing, and controlling them; Awareness of basic food supply and appropriate nutritional requirements, sufficient supply of hygiene water, and basic cleanliness; care for mothers and children, including vaccinations to avoid major infectious diseases; prevention and control of locally widespread diseases; correct treatment of various diseases and conditions⁹; The proclamation reaffirmed the need for an equal distribution of the resources that are available (WHO, 1978). Recent years have seen an upsurge in the already steadily expanding demand for medical care services.¹⁰The idea of health has numerous overlapping and interdependent components, and it

⁵ The Indian Pharmaceutical Industry (2012) KPMG India. www.in.kpmg.com/pdf/Indian%20pharma%20outlook.pdf. Vol.7.

⁶ Mogli, G.D. (1983). Historical background of medical record administration in India, Int. Health Records Newsletter of International Federation of Health Records Organizations (IFHRO), Vol.3 (11).

⁷ Sharma, S. Childhood mortality and health in India. Institute of Economic Growth University of Delhi Enclave North Campus India. 9, 2011.

⁸ Kishore Jugal (2005). National health programs of India: National policies and legislations related to health. Century Publications. ISBN 978-81-88132-13-3. Accessed on September 2, 2012

⁹ Government of India, the National Health Policy, 2002, New Delhi

¹⁰ Reddy KS, Patel V, Jha P, Paul VK, Kumar AK, Dandona L, et al. Towards achievement of universal health care in India by 2020: A call to action. *Lancet*. 2011;377:760–8

may also be described in terms of other dimensions and method. According to the constitution of the World Health Organization (WHO), health is defined as "a condition of full physical, mental, and social well-being and not only the absence of sickness or disability." The Alma Ata has India listed as a signatory nation. It ratifies to accomplish the millennium development goals (MDGs) and to meet the objective of 'health for all' since it is a signatory member nation of both the United Nations and the World Health Organization (WHO)¹¹. As a result, the health sector is one of its primary areas of focus. The state of health care in India is a contentious topic, as the country has a dismal health index¹². It is well known that India is making rapid strides in terms of her economy; however, in terms of her health, she is not appreciated due to the inadequate level of healthcare services provided by the Indian healthcare industry, which is comprised of a variety of stakeholders, including those working in public medicine, private medicine, and traditional medicine.

HEALTH CARE SECTOR IN INDIA: A HISTORICAL PERSPECTIVE

In India, medical treatment has always been provided via the efforts of volunteers. Traditional medical practitioners have made important contributions to society's effort to meet its pharmacological requirements ever since ancient times. The acute knowledge of the medicinal characteristics of plants and herbs that was handed down from one generation to the next and employed as a therapy was used to cure a variety of conditions. The establishment of colonial control and British hegemony brought about the aforementioned changes. The focus shifted to Christian missionaries running hospitals around the globe. Even India's intellectual elite, with its pro-Western bent, embraced Western procedures and ways of doing things. Prior to India's independence in 1947, the country's healthcare system was in a complete state of disarray, resulting in a high number of fatalities and the spread of infectious illnesses. Following the country's attainment of independence, the Government of India placed a strong emphasis on Primary Health Care, and India has made ongoing efforts to improve its health care system on a national level. The initiative taken by the government was insufficient to satisfy the requirements posed by a rising population, whether those requirements pertained to basic, secondary, or tertiary health care. Finding new and reliable avenues of financial support was essential to ensuring the health industry's long-term viability¹³. The level of care that was offered was of an exceptionally high standard, particularly at hospitals that were operated by charity trusts and religious foundations. After coming to the conclusion in the 1980s that the government could not provide health care on its own, it opened the door to the private sector in an effort to close the gap that existed between the amount of supply and the amount of demand for healthcare. The management of private hospitals may be handled by for-profit corporations, philanthropic organizations, or non-profit groups. The development of the private sector has led to the introduction of new possibilities in the areas of medical equipment, the use of information technology in health services, business process outsourcing (BPO), telemedicine, and medical tourism. Five-star hospitals, which now dominate the area available to the high-end market, have been founded by wealthy people and large corporations. The private sector has produced remarkable advancements, but on the other hand, it is also to blame for the widening gap between the rich and the poor in the field of healthcare. It is imperative that efforts be made to broaden access to the private sector for less fortunate members of society and that the private sector become more socially relevant.

KEY LINKAGES IN HEALTH

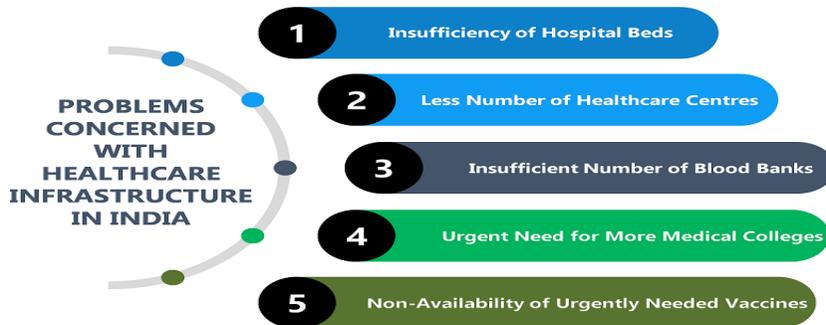
Health and health care need to be distinguished from each other for no better reason than that the former is often incorrectly seen as a direct function of the latter. Health is clearly not the mere absence of disease. Good Health confers on a person or group's freedom from illness - and the ability to realize one's potential. Health is therefore best understood as the indispensable basis for defining a person's sense of well-being. The health of populations is a distinct key issue in public policy discourse in every mature society often determining the deployment of huge society. They include its cultural understanding of ill health and well-being, extent of socio-economic disparities, reach of health services and quality and costs of care. And current bio-medical

¹¹ Roy S.(2018) Primary health care in India. *Health PopulPerspect Issues*. Vol.8,pp.135–67

¹² Krishna A, Ananthpur K. Globalization, Distance and Disease: Spatial Health Disparities in Rural India.

¹³ National Commission on Macroeconomics and Health (2005). Financing and delivery of health care services in India. New Delhi: Government of India

understanding about health and illness. Health care covers not merely medical care but also all aspects preventive care too. Nor can it be limited to care rendered by or financed out of public expenditure within the government sector alone but must include incentives and disincentives for self-care and care paid for by private citizens to get over ill health. Where, as in India, private out-of-pocket expenditure dominates the cost financing health care, the effects are bound to be regressive. Health care at its essential core is widely recognized to be a public good. Its demand and supply cannot therefore, be left to be regulated solely by the invisible hand of the market. Nor can it be established on considerations of utility maximizing conduct alone.¹⁴



Our overall achievement in regard to longevity and other key health indicators are impressive but in many respects uneven across States, The two Data Annexure at the end indicate selected health demographic and economic indicators and highlight the changes between 1951 and 2001. In the past five decades life expectancy has increased from 50 years to over 64 in 2000. IMR has come down from 1476 to 1477. Crude birth rates have dropped to 26.1 and death rates to 8.7. At this stage, a process understanding of longevity and child health may be useful for understanding progress in future. Longevity, always a key national goal, is not merely the reduction of deaths as a result of better medical and rehabilitative care at old age. In fact without reasonable quality of life in the extended years marked by self-confidence and absence of undue dependency longevity may mean only a display of technical skills. So quality of life requires as much external bio-medical interventions as culture based acceptance of inevitable decline in faculties without officious start at sixty but run across life lived at all ages in reduction of mortality among infants through immunization and nutrition interventions and reduction of mortality among young and middle aged adults, including adolescents getting informed about sexuality reproduction and safe motherhood. At the same time, some segments will remain always more vulnerable - such as women due to patriarchy and traditions of intra-family denial), aged (whose survival but not always development will increase with immunization) and the disabled (constituting a tenth of the population). Reduction in child mortality involves as much attention to protecting children from infection as in ensuring nutrition and calls for a holistic view of mother and child health services. The cluster of services consisting of antenatal services, delivery care and post mortem attention and low birth weight, childhood diarrhoea and ARI management are linked priorities. Programme of immunization and childhood nutrition seen in better performing states indicate sustained attention to routine and complex investments into growing children as a group to make them grow into persons capable of living long and well Often interest fades in pursuing the unglamorous routine of supervised immunization and is substituted by pulse campaigns etc. Which in the long run turn out counter-productive. Indeed persistence with improved routines and care for quality in immunization would also be a path way to reduce the world's highest rate of maternal mortality¹⁵.

CHALLENGES FACED BY THE INDIAN HEALTHCARE SYSTEM

Fund Allocation & Inadequate Infra: The disparity in the administrations' approaches to the management of funds has to be comprehended and brought into equilibrium. In India, the public healthcare system does not get enough funding, and it is common knowledge that urban and rural institutions differ greatly in quality. People often choose private healthcare owing to the absence of contemporary, high-quality healthcare in the

¹⁴ Gulliford M, Figueroa-Munoz J, Morgan M, Hughes Gibson, Beech (2002) what does 'access to health care' mean? *J Health Serv Res Policy*. 2002; 7:186-8.

¹⁵ Balarajan Y, Selvaraj S, Subramanian SV. Health care and equity in India. *Lancet*. 2011;377:505-15.

public sector. However, private healthcare is out of reach for the majority of the rural population due to lower incomes and a lack of basic insurance policies. The majority of people in India are unable to afford the premium and high costs associated with private medical treatment. In the public healthcare system, very inexpensive medical equipment is purchased, yet there is a lack of essential infrastructure.

Optimal Insurance based service a Challenge: As a result of the fact that the idea of insurance and its practical applications are still not well known in India, the insurance industry in the nation is still completely untapped. Campaigns to raise awareness as well as government programmes like Ayushman Bharat and Employment State Insurance, amongst others, have been of tremendous assistance in bringing about insurance inclusiveness and making it possible for a large population in India to obtain financial security cover on the costs of medical care. On the other hand, the public sector healthcare system has difficulties in terms of both service delivery and delivery of healthcare as a result of the huge number of center- and state-specific insurance plans.

Less emphasis on Preventive Care: Along the same lines as insurance, India places very little to no emphasis on preventative medical treatment. The patient may save a lot of suffering and financial losses by receiving preventative treatment, which can truly address a lot of issues for the patient. One of the primary contributors to the present predicament is a lack of knowledge. It is possible for the patient to avoid incurring enormous expenditures and for the country's already strained healthcare infrastructure to experience less strain if proper preventative treatment is provided. Despite the fact that the government is undertaking awareness campaigns on preventative care for the virus, a significant number of individuals continue to disobey lockdown restrictions and do not even adhere to the most fundamental precautions, such as wearing masks and gloves. It is possible that the general health advice may not resolve the underlying problem that is causing the disease, which will inevitably lead to an increase in cost as a result of the drawn-out treatment procedure. It is of the utmost importance that the number of highly trained medical professionals working in the nation be increased.

Delay in Diagnosis of Illnesses: A stitch in time saves nine, post preventive care, the next step is the diagnosis, if done in time can not only help save cost but also lives in some cases. We often hear of cases being diagnosed only at an advanced stage when very little can be done to save the life. The importance of diagnosis is mostly doubted in India.

No Support for Medical Research: Indian players have, up until this point, continued to be followers of global trends and, at best, contract manufacturers for multinational corporations. Research and development, as well as innovative projects driven by cutting-edge technology, have not received a lot of encouragement. Even when it comes to bringing our expertise up to date with the most recent developments in the medical profession. It is important for medical experts and pharmaceutical businesses to be abreast of the most recent advancements in the world of medicine. This will enable them to provide patients with the appropriate care while minimizing the associated risks. The investment required to maintain cutting-edge technological capabilities is substantial. Adopting 'Made in India' medical devices, on the other hand, will help the administrator to balance the fund profile and save a significant amount of capital that can be used for providing patients with basic facilities. These 'Made in India' medical devices are more reliable and economical than foreign alternatives.

Cost and Openness to the Public: The cost and availability of information on therapy is perhaps the most significant factor, since it is likely to affect the majority of us. At a perfect world, it would work the same way as a menu card in a restaurant, listing all of the components and prices of the service in advance so that the patient would not be shocked when they received their bill. In addition, patients have the ability to choose whether or not to make use of such services by looking at their financial situation. In addition to these options, patients also have the ability to choose whether or not they would want to choose for those services while keeping their financial situation in mind¹⁶.

¹⁶ Chaudhuri, A., and Roy, K. (2008). 'Changes in out-of-pocket payments for healthcare in Vietnam and its impact on equity in payments, 1992–2002'. *Health Policy* 88(1): 38–48.

Financial burden: At over 70% of all health spending, out-of-pocket expenditures are by far the main financing mechanism for health care in India. This poses considerable financial burden on households. Based on the National Sample Survey (60th round), in 2004, 63 million individuals or 12 million households fell into poverty due to health expenditures (6.2% of all households). The majority of these households (79%) became impoverished due to spending on outpatient care, including drugs, and the remainder (21%) fell into poverty due to hospital care. In order to meet manpower shortages and reach world standards, India would require investments of up to \$20 billion over the next five years. 40 per cent of the primary health centers in India are understaffed. Currently, India has approximately 860 beds per million population. It is estimated that 450,000 additional hospital beds will be required by 2014. The government is expected to contribute only 15-20 per cent of the total, providing an enormous opportunity for private players to fill the gap. There is a strong demand for tertiary care hospitals, which emphasize on the treatment of lifestyle diseases, focusing on specialties such as neurology, cardiology, oncology and orthopaedics. Tertiary hospitals are projected to grow faster than the overall healthcare sector, in response to the growing incidence of lifestyle disease and the accelerating growth of medical tourism¹⁷

CONCLUSION

The healthcare sector in India is poised at a crossroads where the right policy action is extremely critical in determining the future course of the sector. The industry faces major challenges owing to the changing demographics of the country, the poor state of the public infrastructure, lack of financial resources, paucity of human capital and poor governance. The staggeringly low contribution of the public sector in the healthcare industry sits at the center of all these problems. While the National Health Policy tries to address the majority of these challenges, it lacks significantly in terms of the feasibility of implementation and also inadequate finances. India's health scenario currently presents a contrasting picture. While health tourism and private healthcare are being promoted, a large section of Indian population still reels under the risk of curable diseases that do not receive adequate attention of policymakers. India's National Rural Health Mission is undeniably an intervention that has put public health care upfront. Although the government has been making efforts to increase healthcare spending via initiatives like the National Rural Health Mission, much still remains to be done. The priority will be to develop effective and sustainable health systems that can meet the dual demands posed by the growth in non-communicable diseases and peoples' needs for better quality and higher levels of health care.

REFERENCE

1. Berman, P (2010). 'The Impoverishing effects of health Care payments in India: New methodology and findings'. *Economic and Political weekly* 27(16): 65-71.
2. Bhat Ramesh (1999). Characteristics of private medical practice in India: a provider perspective *Health Policy and Planning* 14 (1): pp. 26-37.
3. Bhat, Ramesh and Nishant Jain (2006). Analysis of public and private healthcare expenditures. *Economic and Political Weekly*, Vol XLI (1)
4. Chaudhuri, A., and Roy, K. (2008). 'Changes in out-of-pocket payments for healthcare in Vietnam and its impact on equity in payments, 1992–2002'. *Health Policy* 88(1): 38–48.
5. Garg, C., and Karan, A. (2009). 'Reducing out-of-pocket expenditures to reduce poverty: a disaggregated analysis at rural-urban and state level in India'. *Health Policy and Planning*, 24(2): 116– 128
6. O'Donnell, O., van Doorslaer, E., et al. (2007). 'The incidence of public spending on health care: comparative evidence from Asia'. *The World Bank Economic Review*, 21(1): 93–123.
7. Ramesh Bhat and Nishant Jain, (2006). "Analysis of Public and Private Healthcare Expenditures," *Economic and Political Weekly*, vol. XLI, no.1, pp. 57-68.

¹⁷ Bhat Ramesh (1999). Characteristics of private medical practice in India: a provider perspective *Health Policy and Planning* 14 (1): pp. 26-37

DIGITAL MARKETING AND ITS IMPACT ON THE CONSUMER BEHAVIOUR A STUDY WITH SPECIAL REFERENCE TO SELECT CITIES

Dr. Raghavendra Dr. Varsha Agarwal** Dr Priyanka Rawal****

Professor and Associate Dean, VIT-AP School of Business (VSB), VIT-AP University, Inavolu, Amaravati, Near Vijayawada, Andhra Pradesh.

Assistant Professor, Center for Management Studies, JAIN (Deemed-to-be University), Lalbagh Road, Bangalore, Karnataka.

Assistant Professor – SG, Faculty of Management and Commerce, Jagran Lakecity University, Bhopal.

ABSTRACT

There is a positive growth in the digital channels as the customers are satisfied with the products. It is very important to know the psychology of the consumers in the dynamic environment. Ever changing buying behavior of the consumers in the digitalized world should be understood properly to make the business sustainable. The revolutionized economy possesses many threats and challenges which are to be faced by the marketers today. The digitalization has brought positive impact in consumer behavior. The greater change can be seen in big cities and among working couples due to lack of time it is convenient for them to do buying, payments at any time anywhere. Also digitalization gives rewards to consumer in form of coupons, gift vouchers, discount, cash back, cash discount which motivates them to use digital transactions. In the current scenario it is important to integrate all the activities through digital platform. The main aim of the study was to analyze the impact of the digital marketing on consumer purchasing behavior and to find the relationship between the impact of the digital marketing and product preference in the online shopping. It is a descriptive study conducted in Coimbatore city during the month of January 2022. 200 sample respondents were selected based on convenient sampling method. The data were collected using a questionnaire (google form). The study concluded that Consumers may benefit from digitization by receiving benefits such as coupons, gift certificates, discounts, cash back, and cash discounts, which encourages and inspires them to utilize digital transactions.

Keywords: *Digital marketing, consumers, Digital Channels and purchasing behavior*

INTRODUCTION

Online marketing, or internet marketing, is referred to as digital marketing. Digital marketing is not only important for capturing a large market share, but it is also important for customers since it provides numerous opportunities to interact directly with them. With the growth of technology and the use of the internet in the highly competitive market, it has shifted marketing methods to digital marketing strategies and the means of communicating with customers over time. The usage of digital marketing is increasing as consumers get access to a large range of items not just within certain geographical borders but from all over the world. Over time, the phrase "digital marketing" has gained popularity. Digital marketing promotes products and services mostly through the internet, but also through other digital mediums such as mobile phones. Customers are more satisfied with digital marketing since they may ask questions and make ideas about any product or service. The means of communication in the digital market is much more convenient than the medium of communication in conventional marketing since the medium of communication is mostly through websites, chat, email, and so on. To extend and grow any firm globally, digital marketing is one of the fastest ways to develop since it uses digital technologies that make marketing more easily. It reaches a vast number of clients from all over the world in a short period of time. It is quite easy to assess the efficiency of a campaign using analytics, however it is very difficult to measure the effectiveness of a campaign using traditional marketing. It

is extremely easy in the digital market to make adjustments and update information continually from time to time according to their aims and services, and with the aid of the internet, clients can read through the offered information which is helpful to them at any location and at any time.

BACKGROUND OF THE STUDY

Customers are much happier with their purchases when they are made online because they believe digital marketing to be safer than conventional marketing. As a result, businesses that engage in digital marketing now have a larger opportunity to develop their operations in the future. People of all income levels purchase online because there is a wider selection of goods available at a wider range of prices, and there are also a wider range of payment options accessible, both of which make it more easy for consumers to shop online. The use of digital marketing has become an increasingly important component of running a company in the modern day. This is because digital marketing not only boosts an organization's profit margin but also helps it to grow on a worldwide scale. Customers develop a sense of brand loyalty toward a product when they get more self-assurance as a result of receiving comprehensive product information and the opportunity to provide feedback, both of which contribute to the development of positive relationships between customers and vendors. In today's highly competitive market, digitalization plays a significant role since it involves the exploration of business models utilizing digital technology, which may cut costs and extend corporate operations internationally. Customers profited from it, but the organization also benefited from it since there was less stress because there was no worry about items being stolen or worn out because there was no permanent home for the business. Because there is openness in the company, there is also a reduction in fraud, and there is a highly competitive market, so clients are free to choose. Additionally, it assures quality and eliminates fraud.

At this point in time, technology is altering the manner in which marketers and customers connect with one another while also presenting a vast array of new possibilities. Companies are scrambling to listen to, respond to, and engage with their customers in a timely manner as they work to adequately address customer concerns in light of the advent of the internet and the web. With the click of a mouse, you can have a package from Amazon sitting on your doorstep within 48 hours. Consumers have access to brands 24 hours a day, seven days a week (Osman, 2017)¹ The advent of the digital era and the growth of online shopping have spurred a change in business models for product makers and merchants that has never been seen before. The infrastructure of digital marketing and advertising has been designed in a manner that makes it simple to calculate a company's return on investment (ROI). This is an accomplishment in and of itself due to the fact that before the dawn of digital technology, there were no clear figures as to how many individuals advertising reached.

IMPACT OF DIGITAL MARKETING

When making purchases of items online, a customer's level of happiness is directly related to the amount of information available about the product and the services being purchased. Because of the extensive selection of things that can be purchased online, the fundamental leadership activities have been simplified. The more information a company gives its customers about the products and services it offers, the more likely the customer is to have faith in that company and its offerings (Nizar, Janathanan 2018)². The shopping habits of children and teenagers have a significant impact not only on the shopping habits of individuals but also on those of their families. The fact that young people make up such a significant proportion of the target market underscores the need of doing research on their mental health (sivashankaran 2017)³. Studying the consumers' profiles and keeping up with how their behaviour evolve over time and in response to changing trends can help your company expand (Reddy 2016)⁴. Regardless of their educational credentials, people have the ability to understand digital media. People shop for items online, and the prices of such commodities change depending on the income of the buyer. If the commercials are successful, they will be seen by a large number

¹ Osman, M. (2017). How Digital Marketing is Changing the Way We Do Business | Mabbly. Retrieved April 24, 2019,

² Nizar, Janathanan. (2018) Digital Marketing [Online] Available at: URL <http://ijrmb.com>

³ Sivashankaran. (2017) Digital Marketing [Online] Available at: URL <https://repository.up.ac.za>

⁴ Reddy, (2016) Digital Marketing. Available at: URL <http://www.ijirst.org>

of people; therefore, this will lead to an increase in sales (Mahalakshmi Ranjit, 2016)⁵. Customers may connect to online retailers more easily thanks to digital media, and they also have the ability to browse comments left by other customers more easily. Many different companies are able to cultivate a favourable image in the eyes of their target customers with the assistance of digital media, which in turn leads to advancements in their respective businesses (Chowdhury Siddque, 2017)⁶.

The term "digital marketing" refers to any and all marketing operations that make use of an electronic device or the internet, and it is an essential component of the processes of "brand creation," "brand promotion," and "brand management." When it comes to connecting with existing and potential consumers, businesses rely heavily on digital channels such as search engines, social media, email, and the websites they own and operate. The ability to reach a specific audience in a method that is both cost-effective and quantifiable is the primary benefit that digital marketing brings to the table. Increasing customer loyalty to a business and generating more purchases online are two additional benefits of digital marketing. The dawn of the digital era and the meteoric ascent of digital marketing have both contributed to a sea change in consumer behaviour. These are trying times that we live in. We are seeing enormous shifts in marketing, which has already moved away from the mass communication paradigm, which was prevalent back in the days when marketers instructed customers on what was most beneficial for them. The modern customer is more knowledgeable and assertive than ever before. They are continually being inundated with an increasing amount of digital stuff relative to previous years. The customer has access to a vast selection of different brands to choose from. Consumers now have higher expectations than in the past. They are more informed than ever before about what they want, how they want it done, and who they want to provide it to them (Singh, 2017)⁷. The consumers want and expect from the companies they patronise a consistent and individualised service experience, as well as tailored communications. The most noticeable shift in customer behaviour is that customers are becoming more resistant to anything that they consider to be marketing. Consumers are getting more digital aware, and as a result, they are becoming more irritated with material and communications that are obtrusive or unnecessary. Instead, when it comes time to make a purchase choice, they consult evaluations written by friends, influencers, experts, and other users; ratings; testimonials; website reviews; and internet searches pertaining to the company, among other resources

DIGITAL MARKETING AND ITS IMPACT ON THE CONSUMER BEHAVIOUR

A research on the elements that drive consumer behaviour, the buyer behaviour of consumers and the purchasing choice that results from that behaviour are heavily influenced by cultural, social, personal, and psychological traits. In order for marketers to build appropriate marketing mixes that would appeal to their target customers, it is vital for them to have a grasp of the effect that these aspects have. After that, he went on to elaborate on the four primary considerations. The term "cultural factors" refers to the societal environment, ideas, customs, and social behaviour of a particular people or society. The term "social factors" includes groups (reference groups, aspirational groups, and member groups), family, and social roles and status. The term "personal factors" includes such variables as age and lifecycle stage, occupation, economic circumstances, lifestyle (activities, interests, opinions, and demographics). The term "psychological factors" includes motivation, perceptual clarity, and cognitive flexibility.⁸ These days, the social, cultural, psychological, and personal elements that drive consumer behaviour are also influenced directly or indirectly by technology aspects. This is especially true in today's world. Consumers now have more power than they have ever had before, and this power is a direct result of the widespread availability of information and the ongoing technological revolution. (Kavya & Nagabhushanam, 2018)⁹

⁵ Mahalakshmi, Ranjit, (2016) Digital Marketing [Online] Available at: URL www.ijirst.org

⁶ Chowdhury, Siddique, (2017) Digital Marketing [Online] Available at: URL

⁷ Singh, A. (2017). Impact of Digital Marketing on Consumer Behaviour. Retrieved April 25, 2019

⁸ Pinki Rani. (2014). Factors Influencing Consumer Behaviour. The International Journal of Current Research and Academic Review (ISSN 2347 - 3215), 2(9), 52-61.

⁹ Kavya, S. K. M., & Nagabhushanam, M. (2018). Consumer Behaviour in New Digital Era: A Paradigm Shift. International Journal of Management Studies, V(3(7)), 60

STATEMENT OF THE PROBLEM

Changes in marketing and customer behaviour have been prompted, in part, by the rapid development of technology, globalization of the economy, and a great number of other external events. Millions of customers no longer 'go' shopping; rather, they literally 'are' shopping — at every moment and everywhere they go thanks to developments in technology, logistics, payments, and trust, coupled with increasing internet and mobile access and consumer demand for convenience. This has resulted in the creation of a global online shopping arena valued at US\$1.9 trillion. Over the course of the previous decade, the buying behaviours of consumers have undergone significant shifts. It used to be that just a small percentage of people or only a few people sometimes used digital technology for shopping, but now it's almost everyone (Sue, 2015)¹⁰. The impact of digital technology on the shopping experience is a primary driver of the transition that is now taking place. Because of the rapid advancement of technology, businesses have been forced to adjust their point of view about their customers (Jose, 2017). The average customer of today exhibits a new pattern of behaviour and has much higher expectations on a variety of goods and businesses. Because of changes in the behaviour of customers, companies and other organizations need to constantly adjust their approaches in order to function effectively in the digital sphere. As businesses struggle to compete with one another for customers' attention in an increasingly mobile and online environment, digital marketing is becoming an increasingly crucial strategy.

THE IMPORTANCE OF THE INVESTIGATION

A new generation of consumers has emerged as a result of developments in technology, increased levels of competition, and the current trends in digital marketing. These customers are looking for increased levels of convenience, value, and alternatives. This development presents considerable obstacles as well as chances for significant growth for firms and marketers. This research gives in-depth and important insights on consumer behaviour in the digital era, as well as how firms may adopt strategies to sustain competitive advantage utilizing digital marketing as a strategic tool. The study was conducted by.

RESEARCH OBJECTIVES

1. To analyze the impact of the digital marketing on consumer purchasing behavior
2. To find the Digital media platforms that influence consumer behaviour

RESEARCH METHODOLOGY

It is a descriptive study conducted in Coimbatore city during the month of March 2022. 200 sample respondents were selected based on convenient sampling method. The data were collected using a questionnaire (Google form).

FINDINGS, DISCUSSION AND CONCLUSION

1. Level of impact

The impact of the online market on consumer purchase decision is measured and the respondents are grouped based on their level of behaviour i.e., low level of impact, moderate and high level of impact. The result is given in Table 1 below.

Table 1: Level of impact

Level of impact	Frequency	Percent
Low	85	27.5
Moderate	94	37.0
High	71	35.5
Total	200	100.0

¹⁰ Sue, Y. (2015). The Impact of Digital Technology on Consumer Purchase Behaviour. *Journal of Financial Perspectives*, Vol. 3, No. 3, 2015.

The moderate level of impact of the digital marketing is found with more number of customers moderate level 94(37%), high level of impact with 71 (35.5%) respondents and low level of impact with 85 (27.5%) respondents.

2. DIGITAL MEDIA PLATFORMS THAT INFLUENCE CONSUMER BEHAVIOUR

Further, the relationship between Digital media platforms that influence consumer behaviour is analyzed with the help of the analysis. The following correspondence table shows the distribution of the respondents based on the influence consumer behaviour.

Table 2: Digital media platforms that influence consumer behaviour.

Digital Media Platforms	Scale	Frequency	Percent (%)
Facebook	Strongly agree	52	26
	Agree	82	41
	Neutral	41	20.5
	Disagree	25	12.5
Twitter	Strongly agree	31	15.5
	Agree	97	48.5
	Neutral	42	21
	Disagree	30	15
Youtube	Strongly agree	61	30.5
	Agree	65	32.5
	Neutral	49	24.5
	Disagree	25	12.5
Google	Strongly agree	82	41
	Agree	46	23
	Neutral	47	23.5
	Disagree	25	12.5
Instagram	Strongly agree	81	40.5
	Agree	77	38.5
	Neutral	22	11
	Disagree	20	10
Websites/blogs	Strongly agree	52	26
	Agree	96	48
	Neutral	27	13.5
	Disagree	25	12.5
Multimedia Advertising	Strongly agree	69	34.5
	Agree	57	28.5
	Neutral	42	21
	Disagree	32	16
Total		200	100

From the table above, it is observed that 26% strongly agree and 41% agree that Facebook has an influence on consumer and directly influences their buying decisions. 15.5% Strong Agree and 48.5% agree that Twitter has an influence on consumer and directly influences their buying decisions 30.5 % strongly agree and 32.5% agree that YouTube has a strongly influence on consumer behaviour and directly influences their buying decisions. 41% strongly Agree, 23% agree that Google has an influence on consumer behaviour and directly influences their buying decisions, 40.5% Strongly Agree 38.5% Agree that Instagram has an influence on consumer behaviour and directly influences their buying decisions, 26% strongly agree, 48% Agree that

Websites/blogs has an influence on consumer behaviour and directly influences their buying decisions, 23.7%. 34.5% strongly agree, 28.5% Agree that Multimedia Advertising has an influence on consumer and directly influences their buying decisions, Findings from a cumulative value of strongly agree and agree reveals that the percentage of respondents that digital media platforms/ channels that directly influences consumer behaviour and buying decisions are presented above.

DISCUSSION OF FINDINGS

This may be ascribed to the emergence of the web and the internet, the explosion of smartphones, tablets, and laptops, and the proliferation of digital technology, which has completely revolutionized marketing. Digital marketing is on the rise and will continue to skyrocket. Consumers now have more agency thanks to the increased availability of product and service information made possible by the Internet. Customers may now access an almost limitless selection of goods and services offered by businesses located all over the globe thanks to the proliferation of e-commerce on the Internet, which has also significantly cut down on the amount of time and effort they invest in the buying process (Ko, Jung, Kim and Shim, 2004).¹¹ Cotte, Chowdhury, and Ricci (2006)¹² concluded that due to the internet's one-of-a-kind characteristics, it presents new opportunities for interaction between consumers, businesses, and the ever-expanding scope of the electronic market.

CONCLUSION

In such a dynamic environment, having a solid understanding of the customers' mentality is of the utmost importance. In today's increasingly digital environment, it is essential to have a understanding of the constantly shifting purchasing patterns of customers in order to ensure the long-term viability of a firm. The transformed economy poses a great number of dangers and difficulties, all of which have to be conquered by marketers in the present day. The benefits that may be gained by using digital marketing should be brought to the attention of the general public. It is essential that more efforts be put out to ensure the security of digital marketing in order to facilitate an expansion of the industry. In addition, consumers may benefit from digitization by receiving benefits such as coupons, gift certificates, discounts, cash back, and cash discounts, which encourages and inspires them to utilize digital transactions.

REFERENCE

1. Antoine Lamarre, Simon Galarneau, Harold Boeck. (2015). mobile marketing and consumer behaviour current research trend *International Journal of Marketing Studies*, 3(1), pp.3-5
2. Chaffey D & Smith P, (2017), "E-Marketing Excellence: Planning and Optimizing Your Digital Marketing", Routledge. Fourth Edition, pp.580-593
3. Chaffey D, (2014) "E-business & e-Commerce Management- Strategy", Implementation and Practice Pearson Education, Paris, pp.5-7
4. Gangeshwer , (2016), E-Commerce *International Journal of Science and Technology –A business review from Indian context*, pp.9-13
5. Lodhi and Shoaib (2017). Impact of E-Marketing on Consumer Behaviour: A Case of Karachi, Pakistan. *Journal of Business and Management*, 19(1), pp.90-101.
6. Ugonna , Victor and Jeft (2017), Effects of online marketing on the behaviour of consumers in selected online companies in owerri, Imo State - Nigeria. *International Journal of Business and Management Invention*, 6(6), pp.32-43
7. Vishal Midha, (2017), Article- Impact of Consumer Empowerment: An Examination Across Genders, *Elsevier International Journal*, 12(3), pp.4-5
8. Waghmare GT, (2018), "E-Commerce Future prospects of Indian Business" *Journal Marketing Studies*, pp.9-10
9. Reimers, Chao, & Gorman, (2016). Permission email marketing and its influence on online shopping. *Asia Pacific Journal of Marketing and Logistics*, 28(2), pp.308-322

¹¹ Ko, H., Jung, J., Kim, J., & Shim, S. W. (2004). Cross-Cultural Differences in Perceived Risk of Online Shopping. *Journal of Interactive Advertising*, 4(2), 20–29.

¹² Cotte, J., Chowdhury, T. G., Ratneshwar, S., & Ricci, L. M. (2006). Pleasure or utility? Time planning style and web usage behaviors. *Journal of Interactive Marketing*, 20(1), 45– 57

10. Bokde, U., & Seshan, S. (2019). To study the impact of digital marketing on purchase decision of youth in Nagpur City. *International Journal of Advance Research, Ideas and Innovations in Technology*, 5(3), pp.105-112.
11. Cotte, J., Chowdhury, T. G., Ratneshwar, S., & Ricci, L. M. (2006). Pleasure or utility? Time planning style and web usage behaviors. *Journal of Interactive Marketing*, 20(1), 45– 57
12. Bhargava, M. (2015). Up Keeping with the New Era of Digital World: Digital Marketing & Prospects. *Indian Streams Research Journal*, 4(12), 1–6.

A STUDY ON ONLINE MARKETING WITH SPECIAL REFERENCE TO HOME DELIVERY SYSTEM

Dr. L. Satheeskumar S. Sekar** T. Rajamanickam****

*Assistant professor, P.G. and Research Department of Commerce,
K.N.Govt. Arts College (W), Thanjavur- 613007, Tamilnadu*

*Assistant Professor, Department of Commerce (CA),
Sengunthar Arts and Science College, Tiruchengode, Namakkal-Dt, Tamilnadu.*

*Assistant Professor, Department of Commerce (CA),
Sengunthar Arts and Science College, Tiruchengode, Namakkal-Dt, Tamilnadu.*

ABSTRACT

Technology has emerged as one of the issues which are impacting every company around the globe. It has revolutionized business processes around the globe. The service business is profoundly influenced by the usage of technology. The Food and Restaurant Industry has also begun making optimum use of technology. In recent years, people have showed a predisposition for ordering dishes from hotels and restaurants and eating them at the convenience of their homes. Due to this online meal delivery has evolved as a fast-growing services industry. The main aim of the study was to find out the Socio-economic characteristics of the respondents and to know factors that encourages to opt for home Food Delivery Services. The study has been carried out in Chennai City. The primary data were collected through the questionnaire (google form). The study concluded, real-time tracking offers real-time access to a broad variety of information on the shipments of customers, which increases the safety of packages and the dependability of delivery services.

Keywords: online food delivery, food aggregators and online marketing

INTRODUCTION

The term "marketing" refers to more than just an economic activity. Marketing is essential to the success of both for-profit and not-for-profit service organizations in terms of achieving their missions. Even places of worship and medical facilities are using marketing methods in order to reach their particular objectives. Other examples include amusement parks, tourist resorts, theme parks, and transport businesses. Many professions, including law and accounting, medicine, the arts, and even politics, use strategies that are quite similar. "The fundamental ideas and procedures of contemporary marketing are applicable in a diverse range of contexts, including product and service organizations, consumer and corporate contexts. Organizations that are for profit as well as nonprofit, local and international businesses, as well as small and big businesses are all targeted by the market. The advent of retailing that takes place outside of traditional stores is a significant development that has taken place in the world of retailing. Outside of the framework of conventional commerce, an increasing proportion of sales are increasingly being made directly to individual customers. Direct marketing is the product of this innovation's culmination. Direct marketing is the practice of selling items directly to end users, either in their homes or at their places of employment, via personal interactions with sales representatives. Direct marketing, often known as door-to-door sales, was first practiced in this nation many years ago and has since developed into a significant industry comprised of several hundred companies.¹ The Internet is the key component of online business. Unfortunately, just 0.5 percent of people in India now have internet access, which is an appallingly low penetration rate. The fact that there are almost no cyber rules in place to govern financial dealings conducted over the internet presents yet another significant obstacle for the e-commerce business. There is no protection against the risk posed by the violation of one's privacy that can be obtained either from the website itself or from outside watchdogs. In India, one of the most significant challenges that e-commerce must contend with is the widespread prevalence of digital illiteracy. On the other

¹ Hong, L., Li, Y. N., & Wang, S. H. (2016). Improvement of Online Food Delivery Service Based on Consumers' Negative Comments. *Canadian Social Science*, 12 (5), 84-88

side, India has been left with a shortage of software engineers as a result of the ongoing brain drain of competent computer programmers to other nations.²

The word "digital marketing" is an umbrella term that refers to a wide variety of promotional strategies that are used to attract consumers via the use of digital technology. It is shown by a vast variety of strategies for promoting services, products, and brands. These strategies rely heavily on the Internet as their primary promotional medium, in addition to mobile platforms, conventional television, and radio. Internet marketing and digital marketing are two names for the same thing; nevertheless, the procedures involved in each are distinct from one another since digital marketing is often seen as being more focused, quantifiable, and interactive. The term "digital marketing" refers to an umbrella term that encompasses a wide range of Internet marketing strategies, including search engine optimization (SEO), search engine marketing (SEM), and link building. In addition to this, it includes non-Internet channels that supply digital media, such as short message service (SMS), multimedia messaging service (MMS), callback and on-hold mobile ring tones, e-books, optical discs, and games.

One of the most important goals of digital marketing is to get consumers engaged and provide them the opportunity to connect with the company via the servicing and delivery of digital media. To do this, digital media must be designed in such a manner that it demands some kind of action from the end user in order to observe or get the purpose behind the production of that media. For instance, in order for a consumer to get a free e-book, the user may be needed to register with the website or fill out a form. This provides the advertiser with a valued customer or lead. Traditional forms of marketing communication may not be able to compete with the speed and scope of reach that can be achieved with digital marketing communications. Despite the fact that this concept is unquestionably accurate, digital marketing does not consist of rapidly approaching a large audience by using digital technologies.³

Marketing executive are most supportive of Digital Marketing because of the ability to easily track and measure results of the marketing communication. Because of the use digital technology, the results of a digital marketing effort can be tracked by reach, views, clicks, visits, response rates, purchases made and so on. Digital Marketing requires the ability to measure the results of a digital marketing campaign. The use of digital technologies to create an integrated, targeted and measurable communications which help to acquire and retain customers while building deeper relationships with them is digital marketing. It must be digital because of the technology. It is targeted because of the value in the technology allows it to be. It must establish relationships because marketing using digital technology generally requires input from potential consumers. It must be measurable because measurability is inherent in the use of digital technology and inherent in the use of marketing.⁴

INNOVATIONS IN HOME DELIVERY

The usage of automated pack stations (APS), which are rapidly being embraced by carriers and logistics service providers, was discovered to be one of the novel services for home delivery that we researched. This method comprises of a network of locations at which corporations install locker boxes, in which packages are kept until the consumer is able to pick them up; the customer then picks up the parcel by entering the order reference number that was provided to them when they placed their purchase. In most cases, public venues like marketplaces, colleges, railway stations, or post offices are chosen as the destination of preference. Because carriers do not have to deliver packages to the homes of individual customers but rather aggregate delivery to one place, the amount of time that is spent on the daily routes of delivery vehicles may be reduced by selecting this option. Because businesses are able to distribute the cost of each delivery among many shipping rates when customers leave multiple goods at a drop-off location at the same time, the initial investment costs of constructing and maintaining locker banks are more than compensated by the savings that result. Essentially, the majority of the major suppliers of logistics services are working to adopt this approach.

² Neelamegham "Marketing in India Cases and Readings "Vikas Publishing House Pvt. Ltd. 1992

³ Brown, C (2007). The complete guide to Google advertising. United States: Atlantic Publishing. P 27-30

⁴ Sigfusson, T. &Chetty, S., 2013. Building international entrepreneurial virtual networks in cyberspace. Journal of World Business, Volume 48, pp. 260-270

For instance, in 2001 DHL began constructing lockers in Germany, and since then the company has erected 2,700 locker banks, the vast majority of which are located at railway stations. Some organisations now specialise in the installation and management of automated pickup sites all over the globe, joining the ranks of the dominant players in the delivery industry. ByBox is a firm established in the United Kingdom that, via its subsidiary Logibag, maintains 18,000 electronic lockers to provide an overnight delivery service for spare parts. The similar service has been adopted in Paris by an elevator manufacturer. (Sugar, 2010)⁵. Similarly to the previous service, many logistics companies have established a network of local stores that act as pickup points to store their customers' items.

Morganti et al. (2014)⁶ provided a comprehensive overview on existing networks and main features of this delivery service. It's possible that this approach will result in good advantages for all of the concerned parties. Customers have larger time windows to pick up their items (even though the service is not available 24 hours a day because it has to conform to opening hours), and logistics service providers gain operational benefits in the form of a decrease in missed delivery and an increase in goods consolidation. Shop owners who participate in the programme are looking for both additional revenues and additional in-store traffic. Customers have larger time windows to pick up their items. As was the case with automated pick-up points, new businesses that specialise in delivery of goods to the last mile via the use of a network of pick-up sites are coming into existence. Customers who shop online may take use of an extra delivery option made available by businesses like ColisRelais and MondialRelay in France, as well as CollectPlus in the United Kingdom. These businesses run networks of anywhere from 5,000 to ColisRelais and MondialRelay in France. In this respect, they are rivals of bigger logistics service providers such as DHL and TNT, each of which created their own network of pickup sites and are likewise their own competitors. Additionally, consumers have the ability to post their packages from any of the retailers that are a member of the network. Crowd delivery is a relatively new form of business that has evolved in recent years as a direct result of the proliferation of smartphone usage. There are applications for smartphones such as Deliv and Crowd. Make it possible for individuals to earn money by delivering items using their own vehicles in return for a charge. When a consumer makes a purchase of an item, a driver is notified of the transaction and is given the option to deliver the item according to the buyer's specifications, which may include a certain delivery window of time. Crowd delivery platforms provide local shops with an alternative, more cost-effective method for shipping things to consumers who have made purchases in-store in addition to the standard online shopping delivery service. Clients are able to obtain same-day delivery at the same price as ordinary delivery as a result of these services, which not only allows private individuals the opportunity to make additional cash but also improves the quality of service provided to customers. Despite the fact that crowd distribution is still in its infancy stage, established businesses like Amazon are looking at it as a potential way to extend their product offering.

STATEMENT OF THE PROBLEM

In the context of the current societal landscape, the home delivery system is taking on an increasingly significant role. In the context of the ongoing paradigm shift away from the public sector and toward the private sector that is taking place all over the world, it is being employed more and more often. We often find ourselves in situations where there is neither an ideological foundation in favour of nor bias against either the public sector or the private sector. As a measure of the economy, a general inclination to be more frugal and to be exceedingly careful in the use of time, which in form, as a whole, economises the societal cost greatly. Because the Home Delivery System essentially holds the attribute of being service-oriented, the marketing of a product is inevitably accompanied by service. [Case in point:] In the present day, it is being implemented over the whole of Asia, and its people are experiencing it. Customers will benefit from not having to waste time and energy going from store to store, which will allow them to save both time and money. It would seem

⁵ SUGAR – Sustainable Urban Goods Logistics Achieved by Regional and Local Policies (2011). City Logistics Best Practices: a Handbook for Authorities. Available at: <http://www.sugarlogistics.eu>

⁶ Morganti, E., Dablan, L., and Fortin, F. (2014). Final deliveries for online shopping: The deployment of pickup point networks in urban and suburban areas. *Research in Transportation Business & Management*, 11, pp. 23-31.

that the business of retailing has undergone a profound metamorphosis as a result of the extraordinary and cutting-edge innovations made possible by the Home Delivery System.⁷.

RESEARCH OBJECTIVES

1. To find out the Socio-economic characteristics of the respondents
2. To know factors that encourages to opt for home Food Delivery Services

METHODOLOGY

The study has been carried out in Chennai City. The primary data were collected through the questionnaire (google form). Convenient sampling Technique was used to analyze the data.

FINDINGS, DISCUSSIONS AND RESULT

Demographic variable of sample respondents

1. Age

The sample respondents are grouped based on their level of age. The respondents below the age of 30 are considered as young, aged between 30 and 45 as middle age and aged more than 45 are as old aged respondents. The classification of the total respondents based on the above age levels is given below.

Table 1: Age of the respondents

Age group	Young	Middle	Old	Total
Number of respondents	54	118	78	250
Percentage	21.6	47.2	31.2	100

The above table shows that 118 (47.2%) respondents are from the middle age group, 54 (21.6%) respondents are from young age group and 78 (31.2%) are old age group.

2. Gender

Table 2: Gender

Gender	Female	Male	Total
Number of respondents	118	132	250
Percentage	47.2	52.8	100

Out of 250 sample respondents, majority (52.8%) of the respondents is male and 47.2% of the respondents are female.

3. Educational Qualification

Table 3: Educational qualification

Educational qualification	School level	UG	PG	Others	Total
Number of respondents	143	49	23	35	250
Percentage	57.2	19.6	9.2	14.0	100.0

The Table 3 indicates that 49 (19.6%) respondents are under graduates, 23 (9.2%) respondents are post graduates, and 143 (57.2%) respondents have studied up to school level. Other respondents are 35 (14.0%).

⁷ Donald J. Bowerson "Strate@ Marketing Channel Management "Mc Graw Hill Inc. New York 1992. P.424

4. The Internal Consistency among the factors that encourages to opt for home Food Delivery Services

Various factors that Encourages to opt for Online Food Delivery Services are ranked with the help of Kendall's W test. The result is given below.

Table 4: Online Food Delivery Service

Factors	Mean	Std. Deviation	Mean Rank
Ease & Convenience	3.27	1.158	5.39
Availability of Ratings and Reviews	3.43	1.342	5.87
Cost Effectiveness	3.41	1.165	5.89
No time to cook	3.35	1.129	5.62
Doorstep Delivery	2.98	1.146	4.23
Ample Food Choices	2.96	1.439	5.12
Convenience	3.08	1.123	4.98
Real-time Menu	3.35	1.156	5.41
24x7 Availability	3.26	1.134	6.29
Discounts and Offers	3.57	1.256	6.13
N	250	df	9

The result from the above table shows that Online Food Delivery Service has huge impact on 24x7 Availability (6.29), Discounts and Offers (6.13), Cost Effectiveness (5.89) are the top ranked among the ten factors considered for the analysis. The result from the study shows that the ranks identified from the mean ranks are significant.

CONCLUSION

This research investigated the connection between the needs and concerns of end users and the capabilities that the currently available innovative home delivery services may provide for meeting those needs and concerns. The most up-to-date version of four different services is detailed below. When it comes to the consolidation of products and the mitigation of problems associated with deliveries to end-users who are absent from their homes at the time of the delivery, logistics service providers see automated pack stations as a workable alternative. The delivery to the pick-up location may have the same advantages, making it a solution that has the potential to produce good benefits for other parties involved, such as shop owners seeking for greater in-store traffic and extra money from their establishments. Crowd delivery services enable regular people to transport products using their own vehicles in return for a fee. These services have the potential to improve the quality of service provided to consumers since same-day delivery may be offered at the same cost as ordinary delivery. The study concluded, real-time tracking offers real-time access to a broad variety of information on the shipments of customers, which increases the safety of packages and the dependability of delivery services.

REFERENCES

1. Bokde, U., & Seshan, S. (2019). To study the impact of digital marketing on purchase decision of youth in Nagpur City. *International Journal of Advance Research, Ideas and Innovations in Technology*, 5(3), pp.105-112.
2. Das Jyotishman (2018). "Consumer Perception Towards 'Online Food Ordering and Delivery Services': An Empirical Study". *Journal of Management (JOM)*, Volume 5, Issue 5, pp. 155-163
3. Hong, L., Li, Y. N., & Wang, S. H. (2016). Improvement of Online Food Delivery Service Based on Consumers' Negative Comments. *Canadian Social Science*, 12 (5), 84-88.
4. Huang, Y. and Kuo, Y. (2008). The evaluation of logistics service quality on home delivery service for online auction. In *EEE International Conference on Service Operations and Logistics, and Informatics*, pp.1343- 1348,
5. Panse Chetan, Rastogi Shailesh (2019), "Understanding Consumer Behaviour towards Utilization of Online Food Delivery Platforms" *Journal of theoretical and applied information technology*. Volume 97, No.16, p.56

6. Rathore S. Suryadev, Chaudhary Mahik (2018). "Consumer's Perception on Online Food Ordering". International journal of Management and Business Studies, Volume 8, Issue 4, pp.6-9
7. Reimers, Chao, & Gorman, (2016). Permission email marketing and its influence on online shopping. Asia Pacific Journal of Marketing and Logistics, 28(2), pp.308-322
8. Sethu H.S., Saini Bhavya (2016). "Customer Perception and Satisfaction on Ordering Food via Internet". Proceedings of the Seventh Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP16Malaysia Conference) Kuala Lumpur, Malaysia. 15-17,
9. Vishal Midha, (2017),Article- Impact of Consumer Empowerment: An Examination Across Genders, Elsevier International Journal, 12(3),pp.4-5
10. Waghmare GT, (2018), "E-Commerce Future prospects of Indian Business" Journal Marketing Studies,pp.9-10
11. Wang, T., Park, H. and Chung J. W. (2006).Design and implementation of the home service delivery and management system based on OSG service platform. In International Conference on Consumer Electronics, pp.189-190, 7-11

STUDENTS' PERCEPTIONS TOWARDS BLENDED LEARNING ENVIRONMENT

Mrs. Licy Varghese Dr R. Portia** Archana Pujar****

** Senior Lecturer and Research Scholar of Commerce,
M.K.Sanghvi College of Commerce and Economics, Mumbai*

***Assistant Professor, Alagappa University College of Education,
Alagappa University, Karaikudi*

****Lecturer, KLE Society's College of Education, Hubballi, Karnataka, India*

ABSTRACT

In recent years, blended learning has become more popular in training and education. This method of learning, which combines in-person instruction with certain technology assistance, has been utilised extensively in education, making it appropriate for use in the teaching and learning of mathematics. The subject of integration application is covered in a course. It is intended to support classroom lectures and let students learn the material at their own speed and leisure. The need to use this crucial instrument in education in developing nations has been sparked by the growing use of information and communications technology (ICT) to satisfy different social requirements, including the necessity to accommodate rising university enrolment. This research was carried out to see how students felt about the blended learning environment. In the current digital age, using technology and web-based communication tools has given educators across the globe the chance to research the best learning environment that may adapt to the requirements of varied learners. The need of the hour is for modified learning environments that combine the advantages of both conventional and contemporary learning.

INTRODUCTION

Education systems have changed significantly throughout time, which has led to a wide range of learning methods being used by students. Modern technology makes it easier to update how individuals learn about and receive information. In the previous decade, instruction took place in a typical environment with an instructor-led method. Students participated in questions and discussions in the traditional classroom format, which gave them access to specialists. They are exposed to social contact, which gives them a chance to absorb other people's knowledge. In another instance, some students need self-paced learning materials and prefer a customised or less organised atmosphere. The largest issue for educators is finding a balance between the various learning preferences of their pupils. It is feasible for a teacher to handle new problems in education by combining old and contemporary educational methods. As it is crucial for them to comprehend, recall, memorize, and apply numerous ideas, principles, and procedures, there is always a learning curve for the pupils. Students may study more easily and develop a different attitude toward learning thanks to blended learning (BL). The subject is chosen by the researcher to provide an appropriate model to the educational institution so they may adopt blended learning in their institutions. One of the areas of education that has been impacted by the speed of technological progress is teaching and learning. It explains a mixed learning strategy for teaching integration application. Face-to-face teaching, exercises from textbooks, and produced courseware that was utilised in the tutorial class and also made accessible on the internet make up the blended learning strategy that is employed.

BLENDED LEARNING ENVIRONMENT- AN OVERVIEW

The process of learning is incredibly complex and cannot possibly be contained in a traditional classroom. However, e-learning goes beyond the classroom and comprises of content and communication available directly from students' PCs over the internet (personal computers). As a result, e-learning has grown

significantly in recent years (Water field, 2004)¹, appealing to academics, employers, and learners alike. (Munro and Munro, 2004)² list several benefits of e-learning, including continual learning, time savings, and lower trip expenses. The use of online synchronous or asynchronous learning activities in education in general and EFL in particular has been the subject of much study in recent years. The notion of blended learning arose from research that looked into learning methodologies that combine the benefits of face-to-face training with those of online instruction. Blended learning may be utilised to enhance pedagogy, boost cost efficiency, accessibility, flexibility, and just revision, according to studies (Brown 2003)³. The term "blended learning environment" refers to a combination of the efficiency of face-to-face instruction and ICT-mediated instruction and learning environments. By combining teaching, methodologies, and delivery media from two archetypal learning environments—the conventional face-to-face learning environment and the ICT-mediated or e-learning environment—Graham & Allen (2009)⁴ define blended learning environment. Since it encompasses all the pertinent concerns being taken into consideration, this is the appropriate working definition of mixed learning environment for this research.

ACADEMICS' PERCEPTIONS ON BLENDED LEARNING

While chances for academics to develop and deliver their courses in ways that complement and improve a teacher's function have been made possible by technological advancements, the use of technology in blended learning has also altered expectations for both instructors and students. The blended learning strategy used in the two trial units identified in 2014 received favourable feedback from students. Ongoing tasks and tutorials were the elements decided to be supplied online. Because they had flexible access to the learning materials they needed, students were able to pace their own learning as a result of these blended learning activities. In addition, individuals had the flexibility to study and assess their comprehension of a subject whenever necessary. The implementation of automatic marking on Blackboard allowed students to get comments and marks on their work right away. Three more units were chosen to participate in the delivery method in 2015 after three other units were added to the blended learning strategy. The participants were undergraduates enrolled in the corresponding departments within the faculty. Online quizzes, videos, online forums or debates, online peer feedback, and the usage of technology instruments such as an iPad and Clickers are all examples of the blended learning activities used in the modules.

PERCEPTIONS OF BLENDED LEARNING ENVIRONMENT

It is common known that the opinions and levels of contentment expressed by students are significant factors to consider when evaluating the quality of a blended learning environment (Naaaj et al., 2012)⁵. Research has been carried out to investigate the perspectives of students with relation to a mixed learning environment and the elements that influence it. For instance, a study conducted by Bendania (2011)⁶ discovered that students have favourable attitudes toward blended learning environments. The factors that were found to have the most impact on these attitudes were the students' levels of experience, confidence, enjoyment, usefulness, intention to use, motivation, and whether or not they possessed ICT skills. The positive perspective was also documented in the research carried out by Akkoyunlu and Yilmaz (2006)⁷, and it was found to be directly associated to the engagement of students in the online discussion forum. Findings from other studies (Dziuban et al., 2006)⁸ also revealed students' positive attitudes toward the blended learning environment, and the

¹ Waterfield, A. (2002). "Electronic cognition". *Financial management*. 18. May

² Munro, R. & Munro, E. (2004). "Learning styles. Teaching approaches and technology". *The journal for quality and Participation*. 27 (1). p.26

³ Brown, R. (2003). "Blending learning: Rich experiences from a rich picture." *Training and Development in Australia*. 30 (3). 14-17

⁴ Graham, C. R. (2005). 'Blended Learning systems: Definition. Current trends and future directions.' In C. J. Bonk & C. R. Graham (Eds.), *Handbook of Blended Learning: Global perspectives. Local designs*. San Francisco, CA: Pfeiffer Publishing

⁵ Naaaj, M. A., Nachouki, M., and Ankit, A. (2012). Evaluating student satisfaction with blended learning in a gender-segregated environment. *J. Inf. Technol. Educ. Res.* 11, 185–200.

⁶ Bendania, A. (2011). Teaching and learning online: King Fahd University of Petroleum and Minerals (KFUPM) Saudi Arabia, case study. *Int. J. Arts Sci.* 4, 223–241.

⁷ Akkoyunlu, B., and Yilmaz, S. M. (2006). A study on students' views on blended learning environment. *Turk. Online J. Distance Educ.* 7, 43–56

⁸ Dziuban, C., Hartman, J., Juge, F., Moskal, P., and Sorg, S. (2006). "Blended learning enters the mainstream," in *Handbook of Blended Learning: Global Perspectives, Local Designs*, eds C. J. Bonk and C. R. Graham (San Francisco, CA: Pfeiffer), 195–206

satisfaction could be attributed to features such as flexibility, convenience, reduced travel time, and face-to-face interaction. However, other research showed that participants had some unfavourable impressions of the mixed learning setting. For instance, the findings of the research conducted by Smyth et al. (2012)⁹ revealed that the delayed response from the instructor and the bad connection of the internet were viewed as being among the most significant downsides of the setting. According to the findings of another study that was carried out by Stracke (2007)¹⁰, the use of the computer as a medium of instruction, the absence of the use of printed books for reading and writing, and the lack of reciprocity between traditional and online modes were considered to be the primary reasons why students withdrew from the blended course. According to these data, students' unfavourable sentiments regarding mixed learning environments are mostly caused by the insufficient design of the environments.



MODELS OF BLENDED LEARNING ENVIRONMENT

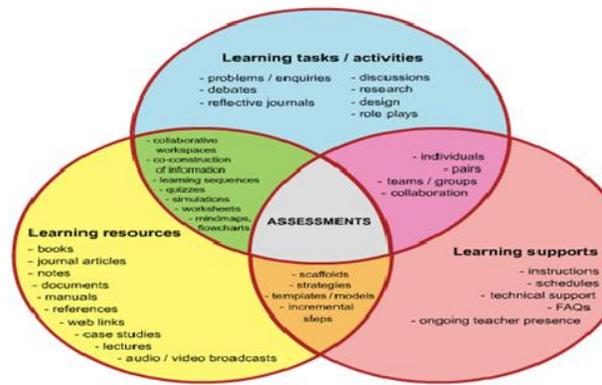
The education of the twenty-first century requires individualised, effective, and collaborative teaching-learning experiences that are anticipated to change the entire educational system from the conventional face-to-face (F2F) mode to a technologically-based independent mode where the primary focus will be laid on maximising the potential and creativity of the students¹¹. However, ensuring equal access to education, ensuring equity and justice, timely delivery of need-based educational materials, engaging students through carefully planned pedagogical support with the most up-to-date online/blended learning technologies could be seen as the catalyst for change and the answer to establishing the democratic principle of education as a whole¹². Through the growing trend of "Bring your own device" to study, open education has expanded the range of learning alternatives alongside traditional education. Other digital learning platforms, such as online meeting apps like Zoom, Google Meet, Cisco WebEx, etc., have given learners a variety of learning opportunities by opening up their minds and assisting them in obtaining need-based training and skills, which are the most important requirements for a healthy living in a society.

⁹ Smyth, S., Houghton, C., Cooney, A., and Casey, D. (2012). Students' experiences of blended learning across a range of postgraduate programmes. *Nurse Educ. Today* 32, 464–468

¹⁰ Stracke, E. (2007). A road to understanding: a qualitative study into why learners drop out of a blended language learning (BLL) environment. *ReCALL* 19, 57–78.

¹¹ Osguthorpe, R. T. & Graham, C. R. (2003). "Blended Learning Systems: Definitions and Directions". *Quarterly Review of Distance Education*.4 (3). 227-234.

¹² Sharpe, R., Benfield, G., Roberts, G. & Francis, R., 2006. *The Undergraduate Experience of Blended E-learning: A Review of UK Literature and Practice*, York: The Higher Education Academy



THREE MODELS OF BLENDED LEARNING HAVE BEEN IDENTIFIED IN LITERATURE (SHARPE, BENFIELD, ROBERTS, & FRANCIS 2006)¹³. THESE ARE:

1. The provision of supplemental online materials for learning programmes run mostly along conventional lines in virtual learning environments with institutional support is part of the transmissive pedagogy approach (VLEs). The conventional face-to-face techniques of lectures and seminars are still used in actual teaching and learning, but to provide the students more assistance, lecture notes are posted online¹⁴.
2. A radical course redesign supports the transformative paradigm, which enables broad use of ICT tools outside of VLEs to improve and change students' modes of engagement, study, and learning. It changes the learning and teaching environment such that students actively participate in the creation of information via dynamic interactions rather than just being passive receivers of it. Without the assistance of technology, this kind of combination encourages intellectual engagement that is almost impossible (Graham 2006). The transformational model, which is now gaining popularity in higher education, was established by using the constructive alignment principles, which call for the constructive alignment of assessment methodologies with the course's learning goals.
3. A comprehensive approach to using technology to promote learning: The majority of students do not differentiate between studying with or without technology in this more recent definition of blended learning. In order to assist students' learning from any location and at any time, faculty members use the learners' own technology, such as mobile phones, online communities, and instant messaging (Sharpe, Benfield, Roberts, & Francis 2006). This research study consequently contends that a blended learning environment would suit the learning goals of this varied set of learners to enhance their abilities and knowledge in the course by combining the best aspects of face-to-face learning with those of online learning. (Ryberg&Dirckinck 2010)¹⁵.The findings in this study are based on the students' perceptions of the quality of the content, learning, communication, and level of engagement experienced by them using the blended learning environment in a university setting that is characterised by large class sizes and face-to-face teaching and learning. This study was conducted against the backdrop of the controversy surrounding the traditional classroom vs. computer assisted language learning comparisons (Chapelle 2003)¹⁶. The students' adoption of a mixed learning environment will significantly enhance teaching and learning results at higher educational institutions in a developing nation like Ghana.

¹³ Sharpe, H. Beetham& S. De Frietas, eds. Rethinking Learning for a Digital Age: How Learners are shaping their own Experiences. Abingdon: Routledge, pp. 170 - 183

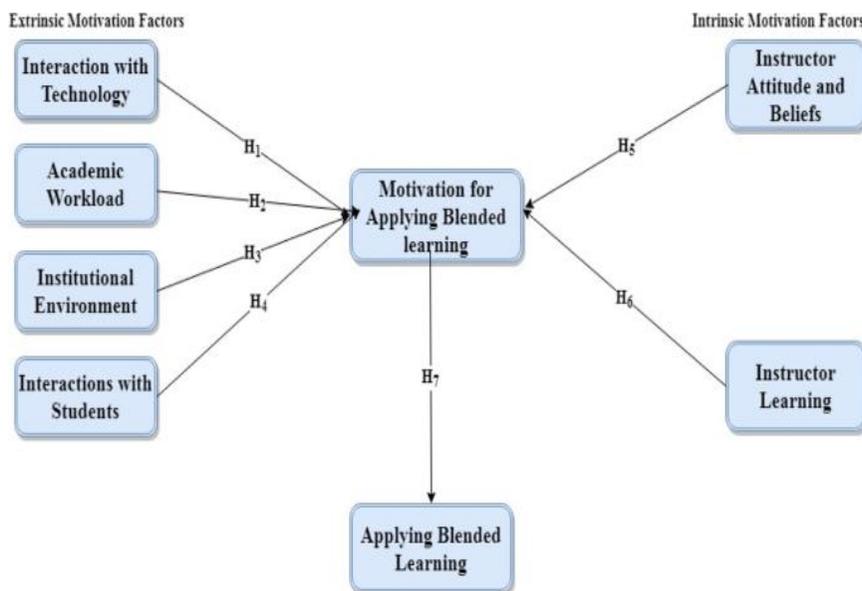
¹⁴ Graham, C. R., 2006. Blended learning systems: Definition, current trends, and future directions. In: C. J. Bonk & C. R. Graham, eds. The Handbook of Blended Learning: Global Perspectives, Local Designs. San Francisco: Pfeiffer, pp. 3-21

¹⁵ Ryberg, T. & Dirckinck-Holmfeld, L., 2010. Analysing digital literacy in action: A case study of a problem-oriented learning process

¹⁶ Chapelle, C. A., 1998. Multimedia CALL: Lessons to be learned from research on instructed SLA. Language Learning & Technology, 2(1), pp. 22-34

STUDENT'S PERCEPTION ABOUT SUITABILITY OF THE FRAMEWORK FOR HIGHER EDUCATION

Three words may best sum up the present: globalisation, technology, and digital. No one has the capacity to halt these events, thus everyone in this world must integrate whether they want to or not. If the adaptation is not swift, we leave the rhythm that is considered to be typical for this century. If the current generation of students sees this reality as normal, then educators and the educational system as a whole need to be curious and accepting of these occurrences. Why? Because avoiding engagement and being resistant to change only harms student teaching and learning. While the style of instruction (which may be tailored to each student individually) and the educational experience are changed by the inclusion of instructors in this new technological system, the educational material remains same (which determines the knowledge of a number of new tools that teachers can use to develop a range of skills for students). Conventional courses undoubtedly still play a significant part in the development of student abilities, which is why experts in the area have considered fusing traditional and interactive ways to create a novel idea known as blended learning.



The governments have mandated that institutions convert, relatively immediately, from face-to-face instruction to online instruction and virtual learning for the students. Sir John also provided some practical advice to educators, institution leaders, and government officials who should be able to address the educational issues raised by the current crisis and formulate timely guidelines to address issues like providing education that would meet students' needs at various stages of their academic lives, allowing for flexible approaches to distance learning, redoubling efforts to develop curricula, assessment, etc. Assuming that Covid-19 may return in the future, he asked all educational institutions, educators/teachers, and students to always look for adaptable methods to undo the harm that the coronavirus has already done. The National Institute of Open Schooling of India, the New Zealand Correspondence School, and open institutions like the UK Open University and Athabasca University in Canada, among others, can demonstrate to the rest of the globe how to resume normal operations in this situation. Hasan (2020),¹⁷ conducted survey of 408 students conducted during the pandemic-induced lockdown to learn about their opinions on online teaching and learning, it was noted that online education has the ability to promote students' distant learning. The educational institutions all across India and the globe turned to an online style of teaching and learning to guarantee that education at all levels could continue. During the lockdown, it was recommended to use learning management systems (LMS) like Moodle, Blackboard, and Say Namaste as well as practical platforms like WebEx, Zoom, Google Meet, and Say Namaste to facilitate students' learning. However, this sudden and unexpected switch to online instruction in India, where there is still a significant digital gap and

¹⁷ Hasan, N. (2020), "Online teaching-learning during covid-19 pandemic: students' perspective", The Online Journal of Distance Education and e-Learning, Vol. 8 No. 4, pp. 202-2013,

many students still come from underprivileged communities, increased the likelihood that learning would be out of the reach of thousands of students. Making learning available and worthwhile to students of all ages and stages in this time of crisis, however, was the hardest difficulty. According to the author, students' goals and difficulties with online learning will assist connect technology and pedagogy with students' interests and learning preferences rather than launching online teaching. Dana Adas&Wafa Abu Shmais (2011)¹⁸ the development of using technology in EFL settings has facilitated the deployment of innovative instructional methodologies to improve student achievement and diversify English language education. This study attempts to ascertain how An-Najah National University students feel about the blended learning environment utilising both conventional techniques and OCC (Online Course Container), a computer-assisted communication tool intended to help EFL students develop their four language skills. In the research, there were ninety-two (92) students taking a general English course (10103) at the university's language centre. A survey was created to gauge how the students felt about the method, usability, and content of BL (Blended Learning) utilising OCC. In order to verify the findings and get further input, interviews were also performed. The research comes to the conclusion that students' perceptions regarding BL in terms of the three dimensions were generally favourable. Due of the accessibility and availability of the internet, it also reflects the students' interests in and proficiency with the internet and IT. Keywords: attitudes, blended learning Akkoyunlu and Soyly (2006)¹⁹ conducted a study to investigate the view of students regarding the Blended Learning environment. The results of the study revealed that the more the students participated in the online discussion forums, the more they achieved and the more positive views they developed towards Blended Learning. Moreover, the study came up with the conclusion that both the face-to-face lectures and the online tasks contributed to the learning process. In the same vein found that students in a blended course indicated that their course system is more beneficial than the traditional face-to-face lectures. The students' feedback regarding a blended management course and found that students who had positive attitude towards the Blended Learning material participated more in the discussion forums. Moreover, the students who expressed a negative attitude were not active participants in the online activities.

PRACTICAL IMPLICATIONS

This research will aid in understanding how online and blended learning are currently practised in a nation like India. The unexpected onset of the Covid-19 Pandemic undoubtedly increased the usage of online learning. The research will, however, also assist in developing a policy roadmap addressing the advantageous usage of online/blended teaching learning methods by both instructors and students during any upcoming crisis-type scenarios in a nation like India.

SOCIAL IMPLICATIONS

In order to understand the acceptance of online/blended learning possibilities on the part of instructors and students throughout India, a new social constructivism has been visualised in this article. India may soon become one of the major educational leaders, if social constructivism can be successfully implemented thanks to the advantages of online learning. In that sense, the Covid-19 outbreak might be seen as an unexpected godsend

CONCLUSIONS

The blended learning has the capacity to satisfy the educational requirements of learners. Blended learning gives students the chance to learn from various delivery methods since it combines in-person and online components. The general assessment of learner satisfaction also revealed that blended learning improved student learning flexibility while preserving social relationships in the conventional classroom. Second, the report shows that academics found it difficult to keep up with the increasing demands of blended learning. Unquestionably, a critical factor in determining if blended learning is successfully implemented is the

¹⁸ Dana Adas&Wafa Abu Shmais(2011) Students' Perceptions Towards Blended Learning Environment Using the OCC. An - Najah Univ. J. Res. (Humanities). Vol. 25(6), 2011,pp.1682-1683

¹⁹ Akkoyunlu, B., and Yilmaz, S. M. (2006). A study on students' views on blended learning environment. Turk. Online J. Distance Educ. 7, 43–56.

instructor. It takes time, effort, technical expertise, and a defined pedagogical objective to integrate technology into the design of a mixed delivery course. As a result, academic assistance and professional development programmes are required.

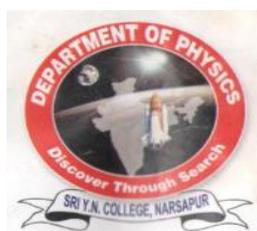
REFERENCE

1. Bonk & C. R. Graham, eds. *The Handbook of Blended Learning: Global Perspectives, Local Designs*. San Francisco: Pfeiffer, pp. 19-21
2. Brown, R. (2003). "Blending learning: Rich experiences from a rich picture." *Training and Development in Australia*. Vol.30 (3),pp.14-17
3. Chapelle, C. A., 1998. *Multimedia CALL: Lessons to be learned from research on instructed SLA*. *Language Learning & Technology*, Vol.2(1), pp. 22-34
4. Dana Adas&Wafa Abu Shmais(2011) *Students' Perceptions Towards Blended Learning Environment Using the OCC*. An - Najah Univ. *Journal of Res. (Humanities)*. Vol. 25(6), 2011, pp.1682-1683
5. Garrison D. R. and Kanuka H. (2004). *Blended learning: Uncovering its transformative potential in higher education*. *Internet and Higher Education* Vol.7, pp.94-105.
6. Graham, C. R. (2005). 'Blended Learning systems: Definition. Current trends and future directions. In C. J. Bonk & C. R. Graham (Eds.). *Handbook of Blended Learning: Global perspectives. Local designs*. San Francisco. CA: Pfeiffer Publishing
7. Graham, C. R., 2006. *Blended learning systems: Definition, current trends, and future directions*. In: C. Journal
8. Hasan, N. (2020), "Online teaching-learning during covid-19 pandemic: students' perspective", *The Online Journal of Distance Education and e-Learning*, Vol. 8 No. 4, pp. 202-203
9. John W. B. and James V. K. (2004). *Research in Education*, Prentice Hall of India, Pvt. Ltd., New Delhi.
10. Munro, R. & Munro, E. (2004). "Learning styles. Teaching approaches and technology". *The journal for quality and Participation*. Vol.27 (1). pp.26-27
11. Osguthorpe& Graham, C. R. (2003). "Blended Learning Systems: Definitions and Directions". *Quarterly Review of Distance Education*.Vol.4 (3), pp.227-234.
12. Ryberg, T. & Dirckinck-Holmfeld (2010). *Analysing digital literacy in action: A case study of a problem-oriented learning process*.
13. Sharpe, H. Beetham& S. De Frietas, eds. *Rethinking Learning for a Digital Age: How Learners are shaping their own Experiences*. Abingdon: Routledge, pp. 170 - 183.
14. Thiyagu K. (2011). *UG and PG students, Trainees' Perceptions towards Blended Learning in Teaching and Learning of Mathematics*, *New Frontiers in Education*, pp.1-12.



SRI Y N COLLEGE (A), NARSAPUR

JOURNALS



2022-2023

DEPARTMENT OF PHYSICS

SRI Y.N.COLLEGE (A)

NARSAPUR

Peer reviewed Journal

Impact Factor: 7.265

ISSN-2230-9578

Journal of Research and Development

A Multidisciplinary International Level Referred Journal

July 2022 Volume-14 Issue-7

Chief Editor

Dr. R. V. Bhole

*'Ravichandram' Survey No-101/1, Plot
No-23, Mundada Nagar, Jalgaon (M.S.)*



Address

'Ravichandram' Survey No-101/1, Plot, No-23, Mundada Nagar, Jalgaon (M.S.) 425102

Journal of Research and Development

A Multidisciplinary International Level Referred and Peer Reviewed Journal

July-2022 Volume-14 Issue-7

Chief Editor

Dr. R. V. Bhole

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102

EDITORIAL BOARD

<i>Nguyen Kim Anh</i> [Hanoi] Vietnam	<i>Prof. Andrew Cherepanow</i> Detroit, Michigan [USA]	<i>Prof. S. N. Bharambe</i> Jalgaon[M.S]
<i>Dr. R. K. Narkhede</i> Nanded [M.S]	<i>Prof. B. P. Mishra,</i> Aizawal [Mizoram]	<i>Prin. L. N. Varma</i> Raipur [C. G.]
<i>Dr. C. V. Rajeshwari</i> Pottikona [AP]	<i>Prof. R. J. Varma</i> Bhavnagar [Guj]	<i>Dr. D. D. Sharma</i> Shimla [H.P.]
<i>Dr. AbhinandanNagraj</i> Benglore[Karanataka]	<i>Dr. VenuTrivedi</i> Indore[M.P.]	<i>Dr. ChitraRamanan</i> Navi ,Mumbai[M.S]
<i>Dr. S. T. Bhukan</i> Khiroda[M.S]	<i>Prin. A. S. KolheBhalod</i> [M.S]	<i>Prof.KaveriDabholkar</i> Bilaspur [C.G]

Published by-Chief Editor, Dr. R. V. Bhole, (Maharashtra)

The Editors shall not be responsible for originality and thought expressed in the papers. The author shall be solely held responsible for the originality and thoughts expressed in their papers.

© All rights reserved with the Editors

CONTENTS

Sr. No.	Paper Title	Page No.
1	Urban Water Management in India: An Analysis Dr. Tippanna B. Kolkar	1-5
2	Malnutrition: What is malnutrition? Prof. Mrs. Baig Zareen Fatema	6-10
3	Usage of Library Service by the Researcher in COVID-19 at the Punyashlok Ahilyadevi Holkar Solapur University, Solapur Mr. Vinayak Sayanna Gadagi	11-13
4	Post Modern Youth Sensibility in Chetan Bhagat's One Night @ the Call Center Naween Kumar Pareek	14-16
5	'The Sins of the Father are to be Laid upon the Children' as seen in Amitav Ghosh's The Ibis Trilogy Dr. Sharmila Priya S	17-20
6	Urban Tourism and Challenges: A Study of Varanasi City Pragya, Prof Ujjwala R. Khare	21-27
7	Sericulture Is a Boon and Tradition of Tamil Nadu; Growth and Deve3ographical Analysis Dr. J. Nandhini, Dr. J. Sarala Devi	28-33
8	Knowledge of Anganwadi workers and their problems in rural Areas Premavati S Patil, Dr. S. H. Honnali	34-38
9	Survey of Medicinal Plants used by Local people of Armori taluka, Gadchiroli District, (M.S.) India Vasanta I. Kahalkar	39-42
10	Use of Information Communication Technologies (ICTs): For Accessibility of Grey Literature in Medical College Libraries Dr. Khandekar Ganesh Bajirao	43-47
11	Library Automation - An Introduction Shashikala S Angadi	48-52
12	A Study of Impact of Bibliotherapeutic Approach on Challenges Faced By Students of Teacher Education Institute Mrs. Suvarna S. Parab, Dr. K. O. Mandgaonkar	53-55
13	"A Study of Virtual Banking in India" Mrs. Rohini Sampt Bhosale	56-59
14	Cultural Gems in the Fictions of Chinua Achebe and Mulk Raj Anand Dr. Dnyaneshwar Kisan Satbhai	60-63
15	Opportunities after Covid in vegetables marketing Vinod Hanumant Awaghade	64-66
16	A Geographical Study of Occupational Structure in Beed District (M.S) Dr. Suryakant S. Pawar	67-69
17	Gender Gap in Literacy- A Case Study of Malda, West Bengal Arunima Bhattacharya	70-73
18	Representation of Fantasy in Salman Rushdie's Luka and the Fire of Life Dr. V Ponnulexmi, Dr. S Ambika	74-77
19	The Impact of English Language Teaching Methods on Academics through Digital Material Mrs. Md. Roshan Jameer, Mr. Ollala Srinivas	78-82
20	Ganigas: Condition of Cold Pressed Oil Industry Meghana G	83-86
21	The Taliban's Neo-Old Afghanistan: Humanitarian Crisis and Emerging Refugee Problem Mr. Sagar Gopal Rathod	87-90
22	Impact of online Education on the Mental Health and Physical Health of the Students (Raigarh, Chhattisgarh, India) during Covid 19 Pandemic Lt. Dr. Sharda Ghoghre	91-93
23	Women Entrepreneurship and Papad Industry Dr. P. S. Girase, Smt. S. G. Wankhede	94-96
24	Interpreting Brain activity and Behavioural quantification of Humans towards the challenge and visualization of the dataset Nethra S, Rajha Priya A	97-102
25	Impact of Motivation on the Performance of Employees of NCR Gaurav Bhati, Dr. Richa Kaugshal	103-108
26	Civic Amenities and Characteristics among Small Urban Towns in India: A Case Study of Kushinagar Dr. Jyotsna Pandey	109-112
27	A Positive Effect of Nanotechnology on Global Warming & Climate Change Dr. L. Malleswara Rao, Dr. APV Appa i Rao, Ch. Sundar Singh, P Rama Krishna i Rao, Ch. Kanaka Rao	113-117

28	Social Media Used By the Academic Libraries during Covid-19 Pandemic Lockdown to Provide Information to the Library Users Mr. Amol B. Meshram, Dr. Kishorsingh Chungade	118-120
29	Yoga and Mental Peace: A Study Nipan Haloi	121-124
30	Traditional Uses of Medicinal Plants in Treating Bone fracture, Urine stone, Stomachache and Jaundice in Chandgad Tahsil (District Kolhapur) of Maharashtra, India Arun Patil, Varsha Jadhav	125-127
31	Population Characteristics of Malegaon & Nandgaon Tahsils of Nashik District Dr. Sunil Ashok Deore	128-134
32	Women in the Teaching Profession: Problems and Challenges: A Special Reference To Female Lecturers Dr. Prathima. PS, Sheril Tellis, kusuma PS, Hajira Khanum	135-138
33	A Study of Internet Awareness among Higher Secondary School Students Dr. (Mrs.) P. Kanmani	139-141
34	Economic Development and Human Development Mrs. Kamble Shiladevi P.	142-145
35	Insurance Literacy – Tool to Save Our Life Mrs. A. Maria Bharathi, Dr. (Smt) R. Muthu Lakshmi	146-152
36	Role of Behavioural Finance on Investment Decisions: A Comparative Study Femy Moni, Nanet Joy	153-162
37	New Education Policy 2020 and Children with Disability UMA, Dr. Ajay Kumar Mishra	163-166

Urban Water Management in India: An Analysis

Dr. Tippanna B. Kolkar

Professor of Economics Govt. First Grade College, Kittur Tq: Kittur Dist Belagavi- Karnataka

Email: drtippannakolkar@gmail.com

Abstract: *Today urban area is growing very fast with the challenges of infrastructure facilities, among basic facilities water is a critical natural resource for the growing urban areas. Commercial, residential, and industrial users already place considerable demands on this resource, which often requires treatment, may be located at great distance from the city, and is almost always in demand by multiple sectors. According to the UNDP 2006 report, the industrial and domestic water demand expected to double by 2050, competition among urban, semi-urban, and rural areas will likely worsen. Today the world's population has reached 7 billion, and more people live in cities than in rural areas, yet the benefits of city life are not available to all. Water Management involves the fields of Proper water supply, Maintenance of urban drainage, wastewater treatment and sludge handling. The challenges facing today's major cities are daunting, and water management is one of the most serious concerns. Potable water from pure sources is rare, other sources of water must be treated at high cost, and the volume of wastewater is growing. Urban water management is now on the verge of a revolution in response to rapidly escalating urban demands for water as well as the need to make urban water systems more resilient to climate change. At the same time, because of climate change, more frequent and extreme weather events are expected to alter the quality, quantity, and seasonality of water available to urban centers and their surroundings. Cities are facing a series of challenges: on-going urbanization, resource depletion and emissions, an ageing and deteriorating urban water supply infrastructure and the effects of climate change. To meet these challenges and to be able to drive sustainable economic growth, cities need to become smart and tap their innovation potential through the use of Information and Communication Technologies; this will allow us to create cities with a smaller water footprint overall. Urgent actions are needed to combat water stress, to remedy the vulnerability of infrastructures, and to modify water use patterns in agricultural, industrial and domestic processes.*

Introduction

Urban water management is now on the verge of a revolution in response to rapidly escalating urban demands for water as well as the need to make urban water systems more resilient to climate change. At the same time, because of climate change, more frequent and extreme weather events are expected to alter the quality, quantity, and seasonality of water available to urban centers and their surroundings. Cities are facing a series of challenges: City populations are expected to increase and have a growing share in resource consumption and emissions. According to the United Nations, city dwellers are expected to double by 2050, with most of this urban growth expected to occur in developing countries. The need to increase water efficiency and water savings by investing in resource efficiency has been widely acknowledged as one of the top research and policy priorities for the upcoming decades, in view also of the urgency to adapt to climate change. This will be achieved by optimizing the operation of water utilities, thus saving water and energy, and minimizing network leakages and non-revenue water. At the water

utility level, smart pressure management and optimized operation based on smart algorithms, network intelligence, and the installation of pressure and flow sensors throughout the network can significantly improve operations, save water and energy, and successfully follow the new trends in cities. The use of relevant ICT and social computing can be instrumental in raising awareness of stakeholders on the significance of the water sector in sustainability, and can be used to change behaviors and attitudes among citizens. ICT can help water managers drive aggressive information campaigns and integrate the water sector with other city services, in order to deliver sustainable services and quality in urban life. Cities located near water bodies may be at risk of climate change-related disasters. In response to such threats, water managers are revisiting conventional practices as they search for efficient ways to ensure human well being while safeguarding the integrity of the resource base. There are many challenges to the efficient and effective operation of the water supply network, especially since leakage levels often remain high, leaking not only

water but revenue at the same time, since water distribution is an energy-intensive business, with water being pumped. With an ageing infrastructure, burst rates are rising, while replacing affected network sections requires large capital investments. Given the fact that most networks are still controlled manually, the operational costs of managing these challenges are also rising. Pressure management is really a central issue in tackling the challenges of leakage, bursts and high operational costs. The dilemma faced here is: on the one hand pressure needs to be consistently high enough to satisfy customer needs providing water in adequate pressure, while on the other hand, excessive pressure drives up leakage, burst frequency, energy consumption and operational costs, while decreasing the lifespan of network assets. So, the goal of pressure management is pressure optimization, which usually follows a successful network simulation.

Goal of urban water management

About 30% of people in India live in cities that are expected to double in population by 2050. With a growing economy and changing lifestyles the pressure on already strained water resources is increasing. The government has shown an interest in Integrated Urban Water Management (IUWM) as a new framework and approach for the nation. Some cities already face acute water shortages and deteriorating water quality. The goals of urban water management are to ensure access to water and sanitation

infrastructure and services; manage rainwater, wastewater, storm water drainage, and runoff pollution; control waterborne diseases and epidemics; and reduce the risk of water-related hazards, including floods, droughts, and landslides. All the while, water management practices must prevent resource degradation. Conventional urban water management strategies, however, have strained to meet demand for drinking water, sanitation, wastewater treatment, and other. Most cities in India are water stressed, with no city having 24/7 water supply. According to the Ministry of Urban Development, 182 cities require immediate attention in regards to proper water and wastewater management. According to official statistics, the coverage of sanitation has increased but resource sustainability and slippages are very common in that coverage. Moreover, in cities with more than one million people, the official water supply after 35% loss in leakages is just 125 liters/day per capita which is considerably lower than the demand of 210 liters/day per capita. Infrastructure development and regulations have not kept pace with population growth and urbanization and as a result wastewater management has become a major challenge. Government has made significant efforts to reduce surface water pollution but they remain jeopardized by the lack of wastewater treatment. An estimated 160 million latrines and septic tanks contribute to 80% of the pollution of the national surface waters.



Situation of Girls pumping from water from communal pump



Effective water governance with an IUWM

perspective encompasses many aspects with the main following key elements: adopting a new mind set, a holistic and cross sectoral approach linking urban water management with overall urban planning; adjusting some of the policy and legislation concerning the use of water and reuse of waste water; analyzing aspects of centralized and decentralized management; assessing the economic and financial impact of adopting an IUWM approach; building the capacity of technical and managerial staff; and sharing information with the public and users.

Potential solution for India

So why is IUWM right for India? The IUWM approach is a paradigm shift for urban water management. It is not a prescriptive model but a process that invites existing cities and emerging ones to adjust their current planning and management practices, given their own priorities, in a hydrological, environmental and socio-economic context. It is based on the following key concepts. There is also major groundwater exploitation in urban India as many towns and cities depend on groundwater for their supply. Reform is needed which reduces non-revenue water, groundwater exploitation, considers waste as a resource, and looks at the water cycle in a holistic way. with population growth and urbanization and as a result wastewater management has become a major challenge. Participation of key stakeholders coming from the public, private and social sectors representing different socio-economic activities that have an interest in water in urban areas. There can be many stakeholders involved but an agreement needs to be reached with the representatives of local government who remain the main convener. Not all have the same role and responsibility, but all need to be aware and contribute.

Wastewater Management

Urban wastewater represents a significant pollution load. Where sanitation facilities are inadequate, all available channels become a means for wastewater disposal example, waterborne sanitation systems and pollution mitigation facilities may not be sustainable. World Health Organization guidelines (WHO, 2006a) provide an integrated preventive management framework for safety along the chain from wastewater generation to the consumption of products grown with the wastewater and excreta and recognize that wastewater treatment is one possible component in an integrated risk-management approach. Strict and expensive treatment technologies, however, are not universally feasible or reasonable. Urban water security through a holistic approach implies managing water resources and its waste in a new integrated way, with a focus on: considering the whole urban water cycle as one system within the watershed; aiming for water security through diversity and optimum use of all potential sources of water and matching water quality with purpose of use; aiming for a better utilization of natural systems for water and wastewater treatment; considering storm water/rainwater catchment systems as a potential source; better managing use of water, effluents and water demand and hygiene behavior; strengthening leakage management and maintenance; strengthening resilience of urban water systems that are facing drought or floods. Wastewater is a resource that can be used productively. Grey water can be reused for irrigation, urban agriculture and industrial processes, treated or untreated depending on the purpose of its use and its legislation; nutrients in wastewater can be used for energy production and fertilizer production.

Water quantity

Worldwide, irrigated agriculture may account for 70–80 percent of water withdrawals. Industrial use amounts to an estimated 20 percent of total water use, although this is increasing in urbanizing economies. The proportion of domestic water use is approximately 10 percent of the total. With industrial and domestic water demand expected to double by 2050 (UNDP, 2006), competition over water sources will escalate. Given the pressure on the water resource base, use of existing supplies must become more efficient. Service providers lose large volumes of water to leaks in the distribution system, an estimated 32 billion cubic meters per year worldwide; and illegal connections or shortcomings in water billing account for another 16 billion cubic meters per year (Kingdom et al., 2006). The difference between the amount of water that goes into the distribution system and the amount that eventually reaches – and is billed to – the customer is referred to as nonrevenue water.

Quality of Water

Water scarcity problems, exacerbated by poor water quality, may limit the volume of water available for specific uses. Degradation often results from human activity – intensive agriculture, resource-heavy industries, and rapid urbanization – that distorts natural water cycles and processes across the rural-urban spectrum. In cities, for example, the concentration of built-up impermeable areas means that less water infiltrates to groundwater. The base flows of streams are affected and the volume of surface runoff increases. The resulting storm water flows can convey greater amounts of pollutants, which reduce water quality. Nonpoint source pollution can seep undetected into aquifers, damaging downstream ecosystems and drinking water sources.

Water reclamation and reuse

Reclamation and reuse are essential elements of any sustainable urban development strategy. Used water is harvested and treated to different quality standards for reuse in agriculture, industry, and other sectors. Cities can thereby improve human and environmental health, while supporting economic activities and the recycling creates a multiplier effect, whereby a given volume of water can be made more productive. In some peri-urban areas, treating and reusing reclaimed water for food production is an option for increasing food security. Farmers derive a range of benefits from the use of

wastewater for irrigation, it is a reliable source that is usually free and readily accessible, and available near their urban market. In addition, wastewater tends to contain significant levels of nutrients, thereby reducing the need for chemical fertilizers. The use of wastewater in agriculture supports the livelihoods of farmers, traders, and other actors along the agricultural value chain. It reconciles the public health and environmental resource protection interests of a city with the local farming community's desire to maintain an agricultural way of life.

Rainwater harvesting

Rainwater harvesting can help address water scarcity at the household level and may be easy and cost-effective to implement. Flow- or roof-water harvesting provides a direct water supply and can recharge groundwater, 62 Integrated Urban Water Management GLOBAL WATER PARTNERSHIP while reducing flooding. Such measures may be an immediate solution to accompany long-term infrastructure improvements in water supply and drainage. To date, comprehensive documentation of the design criteria, costs, benefits, impacts, and constraints of large-scale adoption is generally lacking and would be needed to evaluate the viability of scaling up.

The Future of Urban Water Governance

Sound urban water governance is fundamental to ensuring human and environmental health. It requires robust national policies, plans, and programmes, as well as instruments to measure and benchmark progress. Urban areas need to move from a status of water users to that of water suppliers and managers. With today's technologies and management options, water quantities and qualities can be managed more effectively and efficiently for different purposes. Integrated approaches can deliver water to specific users in appropriate quantities, qualities, and at appropriate times, without compromising the availability of the resource for others. Managers can tackle existing, or prevent impending, water scarcity by promoting water use efficiency and alternative sources of water, including wastewater and storm water. New approaches to the collection, transport, treatment and management of sewage can improve resource recovery and mitigate the strain on water resources under challenges such as high population density, urban sprawl, and climate change.

Conclusion

It is need to increase water efficiency and water savings by investing in resource efficiency has been widely acknowledged as one of the top research and policy priorities for the upcoming decades, in view also of the urgency to adapt to climate change. This will be achieved by optimizing the operation of water utilities, thus saving water and energy, and minimizing network leakages and non-revenue water. At the water utility level, smart pressure management and optimized operation based on smart algorithms, network intelligence, and the installation of pressure and flow sensors throughout the network can significantly improve operations, save water and energy, and successfully follow the new trends in cities.

Reference

1. Southern economist 58th year of publication volume 58 May- 15 - 2019
2. Baxamoosa, S. 2009. Karachi Water Partnership. Review of Phase 1 (January 2007- December 2008). Hisaar Foundation. 38 p
3. Southern economist 58th year of publication volume 58 May- 15 - 2019.
4. Braga, B., Porto, M. F. A. and Silva, R.T. 2006. Water Management in Metropolitan São Paulo. International Journal of Water Resources Development. , Vol. 22, pp.337-352.
5. Danilenko, A., Dickson, E. and Jacobsen, M. 2010. Climate change and urban water utilities: challenges and opportunities. Water Working Note No. 24. World Bank, Washington, D.C.
6. P. and Pullin, R.S.V. Wastewater-Fed Aquaculture. Proceedings of the International Seminar on Waste water reclamation and Reuse for Aquaculture. Calcutta, India, 6-9 December, 1988.
7. Dubey M.K (2000) Rural and Urban Development in India, Ajay Verma for common Wealth Publishers Published by 4831/24,Prahlad Street Davya Ganji, New Dehli.
8. Dr Soundarapandean M.,(2005) Economic Reforms and Employment Discover Publishers Private Limited., New Dehli

Malnutrition: What is malnutrition?

Prof. Mrs. Baig Zareen Fatema

Sir Sayyed College of Arts, &sci & Commerce Roshangate, Aurangabad

E-Mail:-mohdathar2020@gmail.Com

Malnutrition is when a person's diet does not provide enough nutrients or the right balance of nutrients for optimal health.

Causes of malnutrition include:

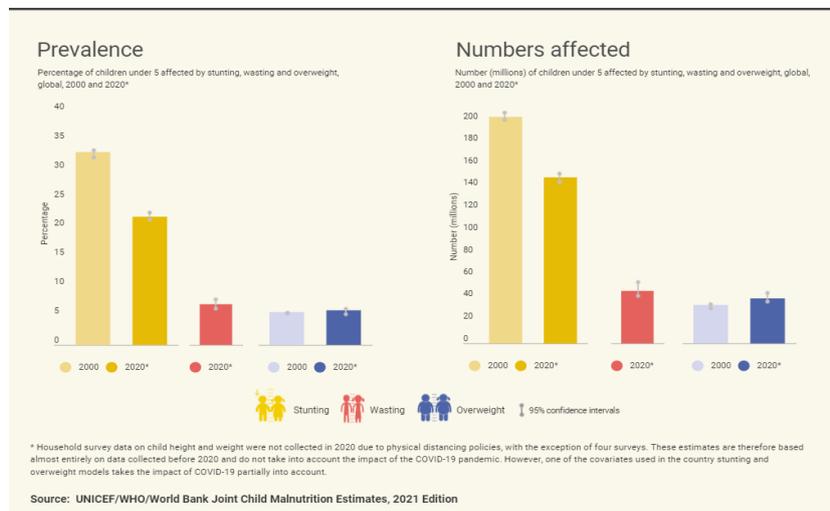
1. unsuitable dietary choices
2. having a low income
3. difficulty obtaining food
4. various physical and mental health conditions

Undernutrition is one type of malnutrition Trusted Source. It occurs when the body does not get enough food and enough necessary nutrients. It can lead to:

1. delayed growth
2. low weight
3. wasting

If a person does not get the right balance of nutrients, they can also have malnutrition. It is possible to have obesity with malnutrition. When a person has too little food, a limited diet, or a condition that stops their body from obtaining the right balance of nutrients, it can severely impact their health. In some cases, this can become life threatening. This article looks at malnutrition in detail, including the causes, symptoms, and treatments.

What is malnutrition?



Malnutrition is an imbalance in dietary intake. It occurs when a person has too much or too little food or essential nutrients. A person with malnutrition may lack vitamins, minerals, and other essential substances that their body needs to function. People may become malnourished if they do not eat enough food overall. However, people who eat plenty but do not have enough variation in their diet can also become malnourished.

Malnutrition can lead to:

- short- and long-term health problems
- slow recovery from wounds and illnesses
- a higher risk of infection

Some deficiencies can trigger specific health problems. For example:

Lack of vitamin A

Around the world, many children develop vision problems Trusted Source due to a lack of vitamin A.

Lack of vitamin C

A lack of vitamin C Trusted Source can result in scurvy. Scurvy is rare in the United States (U.S.), but it can develop if a person does not have a varied diet with plenty of fruits and vegetables. Fresh, frozen, and canned fruits and vegetables all contain vitamin C.

People who are particularly at risk of scurvy include:

older adults
young children
those who consume a lot of alcohol
some people with certain mental health conditions

An overall deficiency

Malnutrition can lead to marasmus, which is a severe form of malnutrition. Marasmus is a deficiency of protein and overall energy intake.

A person with marasmus will have very little muscle or fat on their body.

Over nutrition

Over nutrition is another type of malnutrition. It occurs when a person takes in more nutrients than they need. The result may be an accumulation of body fat from the excess nutrients, resulting in overweight or obesity.

Over nutrition has several health implications Trusted Source. People who have overweight or obesity are at greater risk of:

heart disease
high blood pressure
diabetes
cancer
high cholesterol

The rate of over nutrition is growing worldwide. The World Health Organization (WHO) reports that in 2020, 5.7% of children fewer than 5 were overweight, an increase from 5.4% in 2000.

In addition, the number of adults with obesity almost tripled Trusted Source worldwide from 1975 to 2016.

Symptoms

Some signs and symptoms of malnutrition include:

Weight loss
a lack of appetite or interest in food or drink
tiredness and irritability
an inability to concentrate
always feeling cold
depression
loss of fat, muscle mass, and body tissue
a higher risk of getting sick and taking longer to heal
longer healing time for wounds
Eventually, a person may also experience heart failure Trusted Source.

Symptoms in adults vs. children

Children may present with different malnutrition symptoms than adults.

In children, there may be:

a lack of growth and low body weight
tiredness and a lack of energy
irritability and anxiety
slow behavioral and intellectual development, possibly resulting in learning difficulties

Treatment is possible. In some cases, however, malnutrition can have long-term effects.

Causes

Malnutrition can occur for various reasons. The sections below outline these potential causes in more detail.

Causes of malnutrition

Malnutrition in developed countries is unfortunately still more common in situations of poverty, social isolation and substance misuse. However, most adult malnutrition is associated with disease and may arise due to:

reduced dietary intake
reduced absorption of macro- and/or micronutrients
increased losses or altered requirements

Increased energy expenditure (in specific disease processes).²

Dietary intake

Probably the single most important aetiological factor in disease-related malnutrition is reduced dietary intake. This is thought to occur due to reductions in appetite sensation as a result of changes in cytokines, glucocorticoids, insulin and insulin-like growth factors.⁶ The problem may be compounded in hospital patients by failure to provide regular nutritious meals in an environment where they are protected from routine clinical activities, and where they are offered help and support with feeding when required.⁷

Malabsorption

For patients with intestinal failure and those undergoing abdominal surgical procedures, malabsorption represents an independent risk factor for weight loss and malnutrition.

Increased losses or altered requirements In some circumstances, such as enterocutaneous fistulae or burns, patients may have excessive and/or specific nutrient losses; their nutritional requirements are usually very different from normal metabolism.

Energy expenditure

It was thought for many years that increased energy expenditure was predominantly responsible for disease-related malnutrition. There is now clear evidence that in many disease states total energy expenditure is actually less than in normal health. The basal hyper metabolism of disease is offset by a reduction in physical activity, with studies in intensive care patients demonstrating that energy expenditure is usually below 2,000 kcal/day. The exception is patients with major trauma, head injury or burns where energy expenditure may be considerably

higher, although only for a short period of time.^{8,9}

Low intake of food

Some people develop malnutrition because there is not enough food available, or because they have difficulty eating or absorbing nutrients.

This can happen as a result of:

cancer

liver disease conditions that cause nausea or make it difficult to eat or swallow taking medications that make eating difficult — due to nausea, for example Mouth problems such as poorly fitting dentures may also contribute to malnutrition.

Mental health conditions

Undernutrition or malnutrition can affect people with:

depression

dementia

schizophrenia

anorexia nervosa

Eating disorders can severely affect the quality of life of people living with these conditions and those close to them. Early intervention and treatment greatly improve the likelihood of recovery.

Social and mobility problems

Factors that can affect a person's eating habits and potentially lead to malnutrition include:

being unable to leave the house or go to a store to buy food

finding it physically difficult to prepare meals

living alone, which can affect a person's motivation to cook and eat

having limited cooking skills

not having enough money to spend on food

Digestive disorders and stomach conditions

If the body does not absorb nutrients efficiently, even a healthful diet may not prevent malnutrition.

Examples of digestive and stomach conditions that may cause this include:

Crohn's disease

ulcerative colitis

celiac disease

persistent diarrhea, vomiting, or both

Alcohol use disorder

Consuming a lot of alcohol can lead to gastritis or long-term damage to the pancreas. These issues can make it hard to:

digest food

absorb vitamins

produce hormones that regulate metabolism

Alcohol also contains calories, so a person may not feel hungry after drinking it. They may,

therefore, not eat enough healthful food to supply the body with essential nutrients.

Risk factors

In some parts of the world, widespread and long-term malnutrition can result from a lack of food.

In wealthier nations, however, those most at risk of malnutrition include:

older adults, especially when they are in the hospital or in long-term institutional care

people who are socially isolated — for example, due to mobility issues, health problems, or other factors

people with a low income

people recovering from or living with a serious illness or condition

those who have difficulty absorbing nutrients

people with chronic eating disorders, such as bulimia nervosa or anorexia nervosa

When to contact a doctor

A few key signs of malnutrition indicate that it is time for a person to seek care from a doctor.

These signs include:

unexplained, unintentional weight loss of more than 5% in the last 3–6 months

presence of other malnutrition symptoms

a worry that someone else may be showing signs of malnourishment

if a person experiences signs of an eating disorder, or sees these in someone else

Likewise, a person should encourage a loved one to see a doctor if they show signs of malnourishment. Some people may not recognize the symptoms in themselves, while loved ones sometimes can.

Diagnosis

If a person shows or notices any symptoms or signs of malnutrition, the first step is to find out why.

If a doctor suspects Crohn's disease, celiac disease, or another condition, they may evaluate the patient's condition by:

asking about medical history

conducting a physical exam

ordering testing

Treating underlying conditions can improve a person's nutritional status.

A healthcare professional may also carry out the following Trusted Source:

blood tests for general screening and monitoring tests for specific nutrients, such as iron or vitamins

prealbumin tests, as malnutrition commonly affects levels of this protein

albumin tests, which may indicate liver or kidney disease

A tool to identify risk

Some tools can help identify people who have or are at risk of malnutrition.

One way to assess adults is by using the Malnutrition Universal Screening Tool (MUST). 2018 research Trusted Source has shown this to be a reliable tool.

Experts designed this tool to identify adults, especially older adults, with malnourishment or a high risk of malnutrition. It is a five-step plan to help healthcare professionals diagnose and treat these conditions.

The five steps are as follows:

Measure a person's height and weight, calculate their body mass index (BMI), and provide a score.

Note the percentage of unplanned weight loss and provide a score. For example, an unplanned loss of 5–10% would give a score of 1, while a 10% loss would score a 2.

Identify any mental or physical health conditions and provide a score. For example, if a person has been acutely ill and taken no food for over 5 days, this would lead to an additional 2 points.

Add the scores from steps 1, 2, and 3 to obtain an overall risk score.

Use local guidelines to develop a care plan based on the score.

The score will be one of the following:

low risk: 0

medium risk: 1

high risk: 2 or more

Doctors only use MUST to identify overall malnutrition or the risk of malnutrition in adults.

The test will not identify specific nutritional imbalances or deficiencies.

Nutritional deficiency anemia can result if a person's diet cannot provide the nutrients they need. Learn more about it here.

Treatment

If a doctor diagnoses malnutrition, they will make a treatment plan for the person. The person may also need to meet with a dietician and other healthcare professionals.

Treatment will depend on the severity of the malnutrition and the presence of any other underlying conditions or complications.

It may include:

ongoing screening and monitoring

making a dietary plan, which might include taking supplements

treating specific symptoms, such as nausea

treating any infections that may be present

checking for any mouth or swallowing problems

suggesting alternative eating utensils

In severe cases, a doctor may administer nutrients intravenously (through an IV).

The person's healthcare team will continue to monitor them to ensure they get the nutrition they need.

Prevention

To prevent malnutrition, people need to consume a range of nutrients from various food types.

Older adults, young children, people with severe or chronic illness, and others may need additional care to obtain the nutrients they need.

Anyone who starts to show signs of malnutrition or Undernutrition should see a doctor for a diagnosis and treatment.

In the U.S., effective treatment is usually available, although the outlook and time needed for recovery will depend on the cause of the malnutrition.

Summary

Malnutrition is the result of an improper diet. It can result from too few nutrients (Undernutrition) or too many nutrients (over nutrition).

People who experience Undernutrition often have:

low weight

difficulty recovering from injuries

lack of appetite

fatigue

depression

among other symptoms

But malnutrition is not the result of poor diet choices in every case. Sometimes, malnutrition occurs because a person:

does not have easy access to food

cannot leave their home to buy food

cannot cook meals

has a digestive disorder that prevents their body from properly absorbing nutrients

Helping patients treat malnutrition is an important goal for many healthcare professionals. Together, a doctor and patient can review possible causes of malnutrition and help develop more nutrient-dense eating plans.

Reference:-

1. <https://data.unicef.org/topic/nutrition/malnutrition/>
2. <https://www.who.int/news-room/questions-and-answers/item/malnutrition#>
3. <https://www.medicalnewstoday.com/articles/179316#summary>
4. https://www.google.com/search?rlz=1C1CHBF_enIN962IN962&sxsrf=ALiCzsaMH-LBpibSLlcmzx0ki6Oyqa9qw:1657546358795&q=5+effects+of+malnutrition&sa=X&ved=2ahUKEwjRrquiv-

[fD4AhVTSmwGHdqCOgQ1QJ6BAgeEA](#)
[E](#)

5. <https://data.unicef.org/resources/jme-report-2021/>
6. <https://my.clevelandclinic.org/health/diseases/22987-malnutrition>
7. <https://www.nhs.uk/conditions/malnutrition/>
8. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/malnutrition>

Usage of Library Service by the Researcher in COVID-19 at the Punyashlok Ahilyadevi

Holkar Solapur University, Solapur

Mr. Vinayak Sayanna Gadagi

Librarian, Department of Library and Information Science, Santosh Bhimrao Patil Arts, Commerce and Science College, Mandrup, Taluka- South Solapur, District-Solapur,

Abstract: *The current paper pretensions at determining the delectation position of investigator with digital coffers and amenities in the university library during the COVID- 19 period. The check fashion espoused for gathering data from the target population. A well-conditioned design questionnaire participated through the google form with the exploration Researcher at the "Punyashlok Ahilyadevi Holkar Solapur University, Solapur". The outgrowth demonstrations that utmost of the exploration Researcher is satisfied with library installations, ever access of databases during the COVID- 19 Epidemic period in the (Library)K.R.C. (Knowledge Resource Center), subscribes to 90 public and 26 transnational exploration journals and also an-source-journals Business Source Elite. It was observed that further than half of the exploration Researcher use UGC- INFONET Digital Library Consortium in comparison with- Gate Plus for their exploration.*

Key Words: *resources, services, Covid-19, EzProxy, J-Gate, UGC-INFONET*

Introduction: -

All the time, the library is considered as the information centre of any institute. During the COVID- 19 Epidemic libraries are playing a veritably significant part for the experimenter. COVID- 19 was completely changed the operation of library coffers and services in the current script. All Students they don't come to the library, can pierce the library at their remote position. The librarians should observe the current client delectation with the library amenities to make sure that the students are satisfied in time. The academic libraries should arrange colorful digital services and installations the users. Digital information means must be handed grounded on needs in academic libraries. Ever since the original spring of 2020, academics libraries have been passing an exceptional massive "migration" from traditional services to the online services their end users. Due to the Coronavirus complaint (COVID- 19) in India, following the administration's musts of "continuous tutoring and literacy," most Indian academic libraries have started to give online operation of their library coffers and services. Beyond India, with the spread of COVID- 19 across the world, as of March 24, the Government of India under Prime Minister Narendra Modi ordered a civil lockdown for 21 days, limiting movement of the entire 1.3 billion population of India as a preventative measure against the COVID-19 epidemic in India. This paper thus classifies the high- impact reiteration values of online advanced tutoring and delivers a case

study for associates at seminaries to consider a leading online tutoring in analogous conditions. Digital information coffers must be handed grounded on the users' needs in academic libraries. The services and installations have the most influence on the satisfaction of users and can support the users in educational procedures.

Review of Literature: -

Bilawar B.P. (2020), in his work "Lockdown Period and Information Sources," explains the ages of COVID- 19 lockdown and the impact it had on libraries and he raises points about the impact on the declined profitable cycle, employment reduction, and restriction of traveling to important places. The author suggests ways to support online users with the help of social media and government- backed information sources. The author explains that the lockdown period has made it clear about the significance of the operation of digital coffers.

Mestri (2020), in the study "Continuing libraries in COVID- 19 epidemic challenges and recommendations," has suggested that the libraries have to borrow new styles to help the spreading of COVID- 19 until the contagion is part of mortal life. The author suggested different way to breaking the chain from the contagion to spread in library demesne. Formulated four situations of library performing grounded on the number of active cases of COVID in the place; they're more or less usual, many restrictions, minimal service, and the complete check of the library at places

where the number of COVID- 19 cases is above 5000. The author connoted certain approaches while running the library, similar as formulating library policy, handling accoutrements, running of the things, conservation of social distancing, staff safety, limitations on stoner’s entry, etc

Singh, Kuldeep (2019) Concluded that, the current literacy amenities on the alertness and its operation of-resources by the patrons subscribed by the Punjabi University, Patiala. The literacy reveals the difficulties while using-resources as well as the delectation position of the pupils. The conclusion of the literacy demonstrations that there should be a particular database of the Library, Internet Connectivity, velocity and Acceptable Arrangement. The literacy also transports out the pets and recrimination of-resources for the patrons.

Aravind, S (2019) Concluded that, to study analyses the mindfulness and compliance to library rules and regulations by the Researcher of Madurai Kamaraj University, Madurai. The thing of the literacy is to catch out the pupil's position of mindfulness about the library rules and regulations and determine their compliance position of Researcher and descry their views on library structures and installations. Survey design examined the study and a systematized form is used to gather data from pupils are aimlessly designated for the reading. A model of 96 was used for the literacy. The conclusion of the modification reveals that the knowledge position is 92 and obedience position is 82.29. The complete delectation position about the library schemes and installations is 89.17.

Pandey, Sunita and Shailendra Kumar (2020) Concluded in the paper is about the accession of information means in Rajasthani trades and culture in the select premises and institutions library of Rajasthan. Gathering expansion in different types of libraries of trades and culture has numerous tasks, and one of them is enterprises about the purchase strategy espoused by the library. It's initiate that there's no published purchase strategy in the library. The paper deliberates the approaches of application of information means.

Objective: -

- ❖ To find out the usage of online records by researcher and the access of researcher to the scientific databases.

Methodology: -

In this study, the check system was named for the data collection through a questionnaire. The addition of the formula for sample size estimation revealed 210 samples in AHSU. The slice fashion which has been applied to this study is the analysis system. The experimenters distributed the structured questionnaires among the sample population who were the exploration Researcher from different departments covering departments of PAHSU. The authors collected information through google form to gain the position of analysis of the exploration regarding library installations and database access in the university during COVID- 19 Epidemic.

This study is limited to collect the data from exploration Researcher in the PAHSU. Social advisability could be a factor in this study as a limitation because the scales are grounded on experimenters’ tone- report data.

Table No.1
UGC-INFONET DIGITAL LIBRARY GROUP

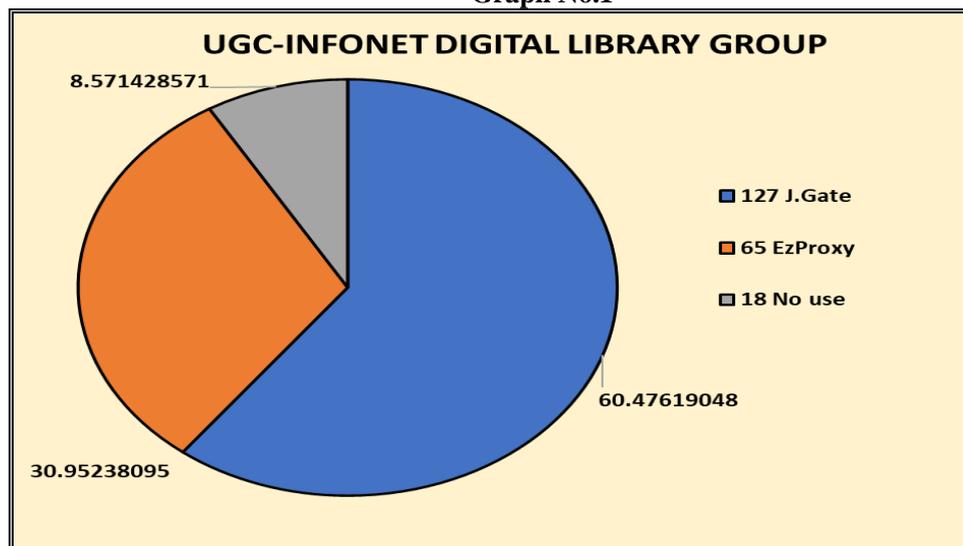
No. of Responses	E-Resources	Percentage
127	J-Gate	60.47619
65	EzProxy	30.95238
18	Don’t Use	8.571429
210		100

(Sources: -Primary Data)

In India one of the online databases generally used by the exploration community is UGC- INFONET Digital Library Consortium. In this regard the investigators

asked with experimenters whether they use it or not. Out of 210 of repliers, 60.47Percent use J-Gate, 30.95Percent use Ez-Proxy and 8.57 Percent don't use.

Graph No.1



The issues of the literacy exposed that utmost of the exploration Researcher are fulfilled with access to the databases in the university. The position of satisfaction with the library installations is nearly good. It shows that the “Punyashlok Ahilyadevi Holkar Solapur University, Solapur” is furnishing good services to the exploration Researcher. To pierce the online databases which university library has delivered to the exploration Researcher, nearly half of them have the word to pierce the databases during COVID- 19 epidemic.

As the access to the databases is veritably important to do the exploration, this service can be handed for utmost of the exploration by mindfulness of the off- lot service. This result isn't as what it's anticipated from the exploration Researcher in the PAHSU. According to the exploration outgrowth, further than half of the exploration Researcher use UGC- INFONET Digital Library Group, which is good. thus, it can be prognosticated that they're apprehensive of this.

Conclusion: -

To conclude the status of the library installations and database access at the PAHSU is good, as utmost of the exploration Researcher are satisfied with the databases access, and it can be bettered in the future. Use of UGC- INFONET Digital Library group is further than J-Gate Plus by exploration Researcher. It's suggested to the university library that the operation of the colorful databases is essential for the exploration Researcher and it can ameliorate the quality of the exploration work in the future. For this purpose, the university library should contend the exploration Researcher to apply for an off- lot word and to use the e- coffers to the

maximum extent. This result will be useful for university library to expand their library services effectively, specifically in aiding academic staff in tutoring and exploration.

References: -

1. Bilawar. B. P. (2020). Lockdown Period and Information Sources.
2. Mestri, D. (2020). Reopening libraries in COVID 19 pandemic: challenges and recommendations. IP Indian Journal of Library Science and Information Technology, 5(1), 16–23.
3. Aravind, S. (2019). Awareness and Opinion about Library Systems and Services: A Study. Asian Journal of Information Science and Technology. Retrieved from
4. Pandey, S. K. (2020). Rajasthani Arts and Culture: Acquisition of Information Resources and their Utilization in Select Universities and Institutes of Rajasthan. Journal of Indian Library Association, 56(1), 43–55.
5. Singh, K. (2019). Awareness and Use of E-Resources among the Users of Library of Punjabi University Patiala: A Case Study. Journal of Indian Library Association, 55(4), 59–66.

Post Modern Youth Sensibility in Chetan Bhagat's One Night @ the Call Center

Naween Kumar Pareek

Assistant Professor, Government Girls College, Sardarshar

Abstract

The novel, One Night @ the Call Center explores the complexities of modern life and post modern youth sensibilities which are crushed under the impacts and exploitations in the age of globalization. The plot of the novel is an admixture of past memories and present realities. The story of the novel encapsulates the span of one night. It is the portrayal of six call center executives who are representatives of thousand of lives professionally confined to the globalized world of call center. Every character from the novel symbolically represents the anxieties and insecurities of the rising Indian middle class, including questions about career, inadequacy, marriage, and family conflicts in postmodern India. All the characters from the novel are in frustration for their unfulfilled aspirations and job insecurity.

Key words – Post Modern, Youth, Sensibility etc.

Introduction

Chetan Bhagat has established himself as one of the best novelists in the world. He has written six novels and two non –fictions which are best-seller like *Five Point Someone* (2004), *One Night @ the Call Centre*(2005), *The Three Mistakes of My Life* (2008), *2 States* (2009), and *Revolution 2020*(2011), *Half Girlfriend* (2014), and non-fiction *What Young India Wants* (2012) *One Indian Girl* (2016). Most of them are adopted in Bollywood movies. Indian youth, their despairs, hopes, aspiration, and their problems remained at the center of his every work. His work is not only a picture of the harsh reality of the youth in India but spiritual guidance, moral support, and technical suggestions also. The youth from different backgrounds with their ethos, aspirations, sentiments, and isolations in their life is the key concern of Chetan Bhagat's Novel. He has used the novel as a perfect tool to entertain, motivate and inspire the youth of 21st century India. His novels are nothing but a great projection of post modern youth sensibility.

The novel, *One Night @ the Call Center* explores the complexities of modern life and post modern youth sensibilities which are crushed under the impacts and exploitations in the age of globalization. The plot of the novel is an admixture of past memories and present realities. The story of the novel encapsulates the span of one night. It is the portrayal of six call center executives who are representatives of thousand of lives professionally confined to the globalized world of call center. All of them are working at Connexions in Gurgaon, Harayana. They have to answer American customers who have complaints against their home applications like refrigerators, ovens, vacuum cleaners, etc. They are facing the threat of job insecurity in the name of right-sizing, though their working hour's

odd and satisfy rude American customers. Thus professional and personal anxieties of the modern youths are key concerns of the novel.

Every character from the novel symbolically represents the anxieties and insecurities of the rising Indian middle class, including questions about career, inadequacy, marriage, and family conflicts in postmodern India. All the characters from the novel are in frustration for their unfulfilled aspirations and job insecurity.

The characters like Shyam Mehra, Priyanka, Varun Malhotra, Esha Singh, Radhika Jha, and Military Uncle are introduced by Chetan Bhagat in a distinguished way. Shyam Mehra, shortly called Sam Marcy, is intellectual and efficient but he lacks self-confidence. He wants to do B.Ed and join a School, but insufficient funds wedged him into his least interesting job at the call center. He pursues the post of team leader not because of his will for the high post but to marry Priyanka, whose mother wants a well-settled groom for her only daughter. Shyam, the protagonist of the novel, is not acknowledged in his family as he works in a call center whereas his cousins are doctors and engineers. On his cousin's marriage, nobody cares for him. Working at a call center is not a prestigious job for them. Shyam describes:

It wasn't surprising; I am only cared for so much.

Every cousin of mine is becoming a doctor or engineer.

You can say I am the black sheep of my family.

Though I do not think that expression is correct.

After all, what's wrong with the black sheep- don't people wear black sweaters?"

(*One Night @the Call Center* p-15)

So he considers himself as a black sheep of the family as he can't earn properly. Shyam represents 300000 BPO employees in India who are working day and night. They are treated as resources and not by their names or real names. The names that suit American accents are used for everyone. In W.H.Auden's words, they are 'Unknown Citizen' who is identified by their pseudo names or Id numbers.

Priyanka, a heroine of the novel who is an ex-girlfriend of Shyam, is introduced as an ultra-modern woman. She is sandwiched between her own aspirations and her mother's ambitious possessiveness. Chetan Bhagat portrays the female characters as ultra-modern women. They have two edges of choices; they want liberty and freedom at times, and at the same time they have to make their parents happy and compromise with their views. The same happens in the life of Priyanka; the female protagonist of the novel, who is Shyam's ex-girlfriend. After a long premarital affair, Priyanka breaks up with Shyam. But she is at sea, between her own aspirations and her mother's over-ambitious possessiveness. Circumstances force her to follow her mother's will as it is her intention also to keep her mother happy. So, she accepts to marry an NRI, who works 57 in Microsoft, whom she doesn't meet earlier, but she seems happy to get married to the NRI Mr. Microsoft. The happiness is not for her own sake as Ganesh is the right choice for her but it is to keep her mother happy, as Priyanka feels that her mother always thinks about her bright future. She confesses her love with Shyam but agrees to marry Ganesh just because her mother ponders over him as creditable husband material. She shares the good news with her colleagues but when notices the altered photo of the hiding bald of her fiancé, she rejected the marriage, and the love birds are reunited but have to wait for two years to marry as their career is their main priority.

Varun Malhotra is one most important characters in the novel. He is shortly called Vroom or agent Victor Mell. His pseudo name Vroom itself suggests that he is fond of speed and bikes or anything on wheels. Vroom has to earn money for maintaining a high standard with his friend circle. To ride a bike so fast is his own solution to get relaxed from stress. Shyam reveals his mental and physical condition,

"I couldn't sleep at all.

Just lay in bed all day and now I feel sick.

Need to get some energy back."

(ONCC, 21)

Vroom is representative of the modern youth of India who likes wearing branded clothes and shoes, joining clubs and night bars, smoking cigarettes, and using the internet excessively.

The face of urban fashionable girls in the novel is Esha Singh or agent Eliza Singer. She is the nice-looking and the most fashionable girl in the group. The narrator Shyam describes her;

"She is an ambitious girl who wants to become a model.

Her life represents the ambitious middle-class youth

who are running after blind race of materialism"[72].

She represents today's modern young girls who leave their homes for their passionate desires to become a model. Esha has joined a call center job to get a livelihood. She becomes mad about her passionate dream to become a model. Her ambition leads her even to lose her character and obliged to sleep with the forty year man to get the model opportunities. She feels guilty. She reveals to Shyam :

The guy I slept with- forty-year-old designer. —

He told my agent later I was too short to be

a ramp model.....and that son of a bitch sends

some cash as compensations afterward...||

She further says —

I hate myself, Shyam. I hate myself.

And I hate my face and the stupid mirror that shows me this face...

can I get my face altered? (142-143)

Radhika Jha, or agent Regina Jones is an only representative of a middle class married woman that works to support the family. She belongs to a joint family which is too traditional but Radhika accepts it for her love for her husband. She is torn between the modern culture and the traditional culture of her family. She tries to be an ideal wife and sacrifices herself for her husband and his family. But when she comes to know the decisive nature of her husband and takes a harsh decision which she herself has never expected so far that will happen in her life. Radhika decides to take divorce with Anuj and starts living with Esha

Conclusion

Thus, while depicting the life of call center employees, Chetan Bhagat has explored the harsh reality of Indian youth. Everyone has

his aspirations as well as problems also. These characters are the representative of the Indian young generation who wants to make their way in this age of competition. Metropolitan youth culture, cross-cultural issues, broken interpersonal relationships, rising individualism, condition of women, generation conflicts, and influence of foreign culture are the aspects touched by Chetan Bhagat.

References

1. Bhagat, Chetan. 2005 *One Night@ the Call Center*. New Delhi: Rupa & co.
2. Vaghela, Baldevbhai M.2004, "*Thematic Studies of Chetan Bhagat's Novels*", Paradise publication, Las Vegas.
3. Jadhav, Arvind. —*Representing Metropolitan Youth Culture: An assessment of Chetan Bhagat's Five Point Someone and One Night @ the Call Center*|| The Criterion: An International Journal in English Vol.3.2 (2012): (1- 5).
4. <https://www.audible.com/author/Chetan-Bhagat/B001IQWOKY>
<https://shodhganga.inflibnet.ac.in/jspui/bitstream/10603/251130/7/chapter-pdfhttps://dictionary.cambridge.org/us/dictionary/english/isolation>
5. <http://ijellh.com/OJS/index.php/OJS/article/view/869/869>

'The Sins of the Father are to be Laid upon the Children' as seen in Amitav Ghosh's The Ibis Trilogy

Dr. Sharmila Priya S

Assistant Professor, Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu.

Email: sharmila.priya1@gmail.com

Abstract

Amitav Ghosh's 'The Ibis Trilogy' is a chronicle spanning continents and countries, history and commerce, success and disappointments, journey and the destination. The sins committed by the parents have greater implications on their progeny and this is proved in the Ibis Trilogy. Important characters like Ah Fatt and Raja Neel Rattan Haldar undergo sufferings created by the laxity and foolhardiness of their fathers. Their nexus with the British lead to the sufferings of many people thus increasing their sins, which later on affects their sons. The concept of children suffering for their fathers' crimes can be seen in religious concepts too.

Key Words: father, son, suffering, sin.

"The sins of the father shall be visited upon by the son", so says Launcelot to Jessica in William Shakespeare's *The Merchant of Venice*. The sins that Shylock had committed would be later visited upon on Jessica, his daughter, is the interpretation of these lines. The original phrase 'sins of the father' finds reference in the Holy Bible. Hindu philosophy also believes that the sins of the parents will be borne by the children. In other words, the children to some extent suffer for the misdemeanors committed by their parents. Amitav Ghosh's *The Ibis Trilogy* exemplifies this aspect in some of the important characters. The Ibis Trilogy consists of *The Sea of Poppies*, *River of Smoke* and *Flood of Fire*. In the three novels are found myriad characters from different countries and races, leading completely diverse lives and coming together for a grand finale in the end.

Raja Neel Rattan Haldar is the Zamindar of Raskhali dominion. An English educated son of a promiscuous Zamindar, Neel is unlike his father. He just has one mistress, as opposed to his father who had many concubines for the upkeep of which he had spent a lavish amount of money. The old Raja liked to live life King-size, drinking and lording it over his many lands and subjects. He neglects his people and forgets his duty as a ruler and protector. Like his forefathers before him he hooks himself to whichever power is ruling over the country at that particular point of time. The old Raja forms a partnership with Mr Burnham, a trader in opium and bonded human labour. He leaves all the complications and bureaucratic muddle to the Englishman, receiving only his allotted money. The total lack of concern for his subjects deeply mired in penury is of no concern to him. He has no understanding of their plight and how the people

are forced to sell their lands and forced to work in opium fields and factories.

His business dealings with Mr Burnham costs his son dearly, when the English educated Neel finds the ideologies of the English at subpar with his own. The English with swift and planned calculation slowly and surely take over the lands of the people, both wealthy and deprived. Neel's lands are also confiscated after a tiff with Mr Burnham. The nature of the British is such that they even disregard those families which helped them in the past and will spare no expense to torment them if they do not continue to follow their orders. Neel, the Raja of Raskhali is transported out of the country and his property confiscated as he does not comply with the wishes of the British overlords. Neel is thrown in prison on charges of forgery and fraud. All his property and lands are transferred to Mr Burnham. The punishment for the former King comes when the alien powers move him to the jail at Alipore.

In Alipore silence weighs down like the lid of a coffin. It is synonymous with Neel's sentence of transportation to the penal settlement of Mauritius for seven years. When Neel's carriage, accompanied by the guards reaches prison, he is reluctant to get down and face his bleak and terrible future. He is compared to a reluctant dog, tugging at his leash. He suffers the fate worse than that of a dog. The guards unravel his dhoti and call him Draupadi and Shikhandi. Draupadi, wife of the Pandavas in *The Mahabharata* is humiliated by the Kauravas and protected by Lord Krishna. As her sari is unraveled, he keeps providing her with fresh saris and her modesty is thus saved. But no Krishna comes to save Neel as he is subject to the ignominy and mortification of a thorough body check-up. Shikhandi is another character in

The Mahabharata who is born as a girl to King Drupada and later changed to a man to avenge the great Bheeshma. Shikhandi is neither man nor woman and is likened to a transgender or eunuch. This exposure of Neel's manhood or lack of it comes up often –previously when his wife's veiled face is exposed. The identity of the Raja is peeled off as he is exposed to the prying eyes of the policemen.

This is the zone of transformation for Neel, the inevitability, the plight and struggles he has to undergo to overcome it. He is plagued by the vision of the shedding off his old skin and acquiring a new skin. It is the experiences in the prison, which modifies his mind and makes him question his priorities.

Neel is not allowed visitors and has to eat what is made by unknown hands. This is unlike when his food would be prepared by specific people according to their varnas. Neel feels a deep disgust at the food served to him at the jail but somehow manages to swallow it. Neel as the Raja and his father before him, have not only failed in their duty to protect the common people but also their means of subsistence from the British invaders. Neel, himself once a King and responsible for opium cultivation, due to the irresponsible and selfish nature of his ancestors, is driven out of his native soil to live in hiding in an alien soil. Neel is to be shipped off to Mauritius. His head is shaved, he is dressed in a convict's clothes and his only property is a bowl, glass and a blanket. The once opulent lifestyle is shredded to a basic garb and he is condemned to live a life of a person in the lowest rungs of humanity. The King who has lost everything clings on to words to create a world for himself.

Bahram Moddie, an opium trader by profession fathers an illegitimate son with a Chinese washerwoman. He veers from his duty towards his wife Shireenbai and their two daughters who he has left behind in India. He is a well-established trader of opium in China, thereby dealing a double blow to his karma. In China he forms a relationship with Chi-mei with whom he bears a son, Ah Fatt. Unknown to Shireenbai, he leads a double life in Canton spending time with Chi-mei and their son. In the end he has to answer for his sins as Ah Fatt gets addicted to opium and becomes a complete mess, being forced to escape the country and ending up in a jail in far off Calcutta. Ah Fatt is fascinated by stories of his father's country- India. He wants to go there and meet Father's Big Wife and her family. Bahram is aghast when he hears of this suggestion. He forbids Ah Fatt to ever talk of it again. If Ah Fatt goes to India, Bahram

would be ruined as his family would find out the truth of his double life. The prospect of facing social death is tortuous to Bahram. Ah Fatt resents his father as he does not allow him to get in touch with his roots and visit the land of his forefathers. He takes to opium and becomes such a slave to it that he turns into the walking dead. It is ironic since Bahram had been instrumental in spoiling the lives of many youth in China. He has to pay the price for that sin, with the abject deterioration in the life of his beloved son and also ultimately his own life. This is exactly what opium does. It takes over the life of a human in such a way that he becomes a habitual addict. When Neel hears of Ah Fatt for the first time from the jail jemadar, he's in a terrible state. Opium has ravaged his body and made him suffer the ultimate despondency.

Ah Fatt's psyche is damaged when Chi-mei tells him she is his aunt and his real mother is dead. Bahram is also introduced as a benevolent guardian. She prevents him from playing in the water with the other boys as she fears he will be eaten by a fish. Ah Fatt is denied of his birthright from both his parents. He is not allowed to be a true son of the river, with his mother denying his desire to play in the river like the other children and his father making sure he gets an English education and upbringing. Later on, when Ah Fatt realizes the truth about his parentage, he feels deceived, more so when his father does not publicly own him.

Bahram's relationship with his illegitimate son with Chi-mei leads to a lot of complications in their lives. Bahram, although he provides money to his second family, cannot provide the one thing Ah Fatt wants-acceptance. This leads to Ah Fatt drowning his sorrows and inadequacies in the comforting arms of opium and steadily moving towards friendship with dangerous drug peddlers like Lenny Chan. Bahram is also responsible for this state of the youth of China which is reflected in the fate of his son. When Bahram robs China in the name of trade, his son, comes to India in search of his roots. Unfortunately, as a punishment to his father he is transported out of India on charges of being a robber and opium addict. The atonement for Bahram's sin is borne by Ah Fatt.

He is charged with illegal possession in Bengal and thrown in prison where his cell mate is the displaced Raja, Neel. He is incidentally called Aafat by the jail people which means calamity. Neel himself is atoning for the sins of his ancestors, who had given the Englishmen charge to carry on the opium trade in India, thus creating afeem khors or opium addicts. "... Neel

had already begun to feel that he was somehow implicated in his cell-mate's plight: it was as if their common destination had made their shame and honour a shared burden" (SP 324-25). They both carry the shame of their fathers' role in the opium trade and atone for it in their own ways. It is ultimately the son who pays the price for his father's sin.

Ah Fatt insists that he should go to his father's land. This is the soul's longing to be rooted in the ancestral soil. Bahram tries to orient Ah Fatt to the western world but the unconscious pulls the boy to his father's land, Hindustan. The soul yearns to go to the native soil and this is a psychological problem for the boy and he feels as if he is a fish out of water. The land of the father or one's ancestors is the place of atonement for any soul in order to have its psychological balance. But this is denied to Ah Fatt as he is an illegitimate child. The land of one's ancestors is very essential as a background for a healthy mind. This psychology is imbibed in Ah Fatt and that's why he goes in quest of India.

Money making by ill means will eventually dissolve the ancient traditions which help keep the families intact. But due to such illegal and immoral means of earning money families collapse, old values are shattered bringing shame to the individual involved as well as their children. Bahram at this stage of his life questions himself and his actions in dealing with opium. On the one hand he is terrified at the idea that he will lose all his money and consequently his family. On the other hand, he is worried at the implications his actions will have on his soul. The sin of taking a million Chinese lives hangs on the shoulders of the traders.

Ah Fatt later sees the vision of his dead parents inside the water. He says, "I can hear them, lah – calling me, the two of them, my mother and father" (FF 454). Bahram and Chi-mei call out to Ah Fatt with the promise of the affirmation and embrace he always craved. Bahram who enjoys all the pleasures of life through his ill-begotten money gives birth to a son who suffers from identity crisis and at the end starts seeing the ghost of his own father like Hamlet. Thus, Ah Fatt is already called out to his final resting place by his parents. And it is his and Chi-mei's spirit which calls out to their son as they know that his time is up, and so that they can be united in death as they could not be in life. Ah Fatt slowly enters the spirit world with the help of opium. He dies at the hands of Lenny Chan's men, who ultimately takes revenge on Ah Fatt. Thus, passes away Ah Fatt- the troubled son

of two soils, at war with each other. The war outside is reflected in his mind too and his two different identities.

Tess in Thomas Hardy's, *Tess of the d'urbervilles* gives birth to an illegitimate child and names him Sorrow. She dotes on him but unfortunately, he passes away and Tess is devastated. "So passed away Sorrow the Undesired□ that intrusive creature, that bastard gift of shameless Nature, who respects not the social law..." (111).

Ah Fatt on the other hand receives acceptance from Shireen, a part of his birth right he had always wished for. Orphaned and adrift he finds a mooring in Shireen's acknowledgement of her husband's illegitimate and distressed son. The first time she meets him, she sees in his eyes a type of wildness, "it was as if the curtains of adulthood had parted to give her a glimpse of a deep well of suffering that went back to his boyhood." (FF 323) Shireen arranges for Ah Fatt to be buried next to her husband, thus giving him the acceptance and acknowledgement, he had craved since his birth. She invokes the wrath of the influential traders of the Parsi community, but threatens to expose their double standards to their families back in India. Most of the men have another family in China which they conveniently hide from their relatives.

The illegitimate children suffer from lack of rootedness to the soil. Born to traders who move from place to place they themselves do not have an identity. Their fathers do not realize the importance of historical sense or have any responsibility. Their lack of belongingness to one particular land destroys their psyche. No ancestral memory or understanding of the past and present of one's country, leads them to broken lives with no redemption.

The sins of the father as borne by the children also lies in the story of King Bhagirath, who had brought the Holy Ganga to Earth. Neel tells the story of the Ganga Sagar Island to the migrants reminding them of the story of the King who atoned for the sins of his ancestors. Neel tells the story of Bhagiratha, the young King who persuades Ganga to come to the earth and fill the seas, thus redeeming the ashes of sixty thousand Ikvakshu princes who were his ancestors and cursed by Sage Kapila for disturbing his austerities. King Bhagiratha brings down the Holy Ganga at whose touch the sins of his ancestors are washed away. Neel and Ah Fatt too thus atone for the sins committed by their fathers and forefathers, of having neglected their duties and indulging in the opium trade. Neel

through his total downfall realizes the mistakes of his forefathers and also his own in neglecting his duties and family. His pride falls and his wife and son take foremost place in his mind, as he works towards the day they can come together as a family.

References

1. Ghosh, Amitav. *Sea of Poppies*. London: Penguin Books, 2009. Print.
2. *Flood of Fire*. London: Penguin Books, 2015. Print.
3. Hardy, Thomas. *Tess of the D'urbervilles*. New Delhi: UBS Publishers' Distributors Ltd., 1996. Print.
4. Priya, Sharmila S. *A Study of Symbols and Imagery in Amitav Ghosh's The Ibis Trilogy*. Bharathiyar University. Coimbatore. 2021. Print.

Urban Tourism and Challenges: A Study of Varanasi City

Pragya¹ Prof Ujjwala R. Khare²

¹Research Scholar, Nowrosjee Wadia College, SPPU, Pune.

²Co-ordinator and Head of the Research Centre, Nowrosjee Wadia College, SPPU, Pune.

Abstract

Tourism in 19th century itself, was considered as one of the basic human needs, thereby becoming the necessity of society. Cities have always been tourist destinations from a cultural-historical nature to the now more modern form of business and medical tourism. As a result of this transformation, a new concept appeared; Urban Tourism. Now Urban Agglomerations are the leading destinations. Tourism being an important source of income for many developing countries, had been the most affected industry due to the COVID 19 pandemic. It has developed social and medical emergencies along with profound adverse consequences on the global economy. Varanasi being a tourist destination from time immemorial, faces the challenges of Urban Tourism and also the setbacks due to the pandemic. Rampant urbanization and an increase in population has adversely affected the quality of life. Being one of the largest agglomerations of the Uttar Pradesh state, the city needs to re-build tourism after the pandemic to a more sustainable pattern. This paper is a critical analysis of tourism in Varanasi, its problems and looking at most appropriate post – pandemic perspective for Urban Tourism. This is a descriptive study depending on the synthesis of early literature and sources of published news and reports related to tourism management.

KEY-WORDS: Urban Tourism, Urbanization, Sustainable Tourism, COVID 19, Carrying Capacity, Digital Tourism, Pro-poor Tourism.

Introduction

Tourism contains the activities of people, travelling to different places, which is outside their habitual environment for business, medical or simply leisure purposes, with staying there for not more than one continuous year. The definition given by Humzikhor and Krapf about the concept of tourism, which was subsequently adopted by the International Association of Scientific Experts in Tourism (AIEST) involves three distinct elements of Tourism; involvement of travel by Non-residents, stay of temporary nature in the area and stay not connected with any activity involving earnings. According to Zivadin Joviac, 'It is a social movement with a view to rest, diversion and satisfaction of cultural needs.'

Manila Declaration on World Tourism of 1980 talks about its direct effects on the social, cultural, educational and economic sectors of national societies and on their international relations. Tourism rather than being a separate discipline, overlaps with other activities, interests and processes. The study of tourism by just a demographic point of view is now a thing of the past. In the start of the 21st century itself, we witness tourism which is more socially and politically driven phenomenon. The COVID 19 pandemic has been quite obstreperous event, with huge impacts on tourism. Tourism has also been one of the causes of the pandemic and hence so badly affected. International tourists' arrival, saw a decline by 74 percent in 2020 when compared to the last year. Many developing countries witnessed a 80-

90 percent downfall in tourists' arrival. UNCTAD reports, see a pre-covid scenario for tourism sector by 2023 or later.

India holds an enviable position with 5,000 years of history, geographical diversity, heritage and culture. The country has been stereotyped for it, basically being a cultural destination. A new paradigm is indeed in progress where we see more diversified form of tourism. A lot of problems which deaccelerates the country's tourism industry are lack of hygiene and comfortable accommodations, absence of an information system, lack of integrated tourism promotion programmes, challenges in managing urban infrastructure, etc. there are many environmental and socio-economic factors affecting tourism which further reduces the desired quality of tourism.

Urban Tourism

Urban agglomerations provide for and extensive and assorted collection of various historical, cultural, architectural, social, natural and as well as manmade experiences. Thus, a type of tourism activity emerges, Urban Tourism, in an urban space with non-agricultural based economy being the innate characteristic of the region. Urban Agglomerations being the leading destinations for urban tourism are more affected by pandemic because most cases of infections and deaths are accumulated in cities, badly affecting the city's attractiveness. Varanasi, owing to its rich tradition, attracts more than 60 lakh domestic and international tourists each year. The peak season is regarded as October-March with tourist inflow being 60

percent of the total domestic tourist coming in a year while for the foreign tourist it is 71 percent. The average stay is 2-3 days for both domestic and foreign tourists. All the important (Hindu) festivals like Dev Deepawali, Ganga Mahotsav, Ram Leela are celebrated between October-March. The city Ghats, historical and cultural attractions, religious significance, philanthropic significances, makes it even more attractive to the tourists. Most domestic tourists are from Bihar, West Bengal, Madhya Pradesh and other parts of Uttar Pradesh, while the majority of foreign tourists are from Sri Lanka and Japan (JNNURM).

Tourism is a combination of inter related industries like hotel, restaurant, transport, etc. also there is backward and forward linkages and cross-sectoral synergies with sectors like agriculture, horticulture, poultry, transport, construction, handicrafts, etc which leads to large scale employment generation and poverty alleviation. The lively city of Varanasi, which never stopped, came to a standstill during the pandemic, when the ghats were deserted and its revered temples were closed, times which even the eldest of the generations here have seen for the first time in their lives. The city paid the price of the pandemic not only economically but also physically and emotionally. Apart from the pandemic there are many factors which effect the city's tourism like, historical and cultural factors, weather conditions, accessibility, amenities: both manmade and natural, socio-economic factors, etc. which needs the attention of the policy makers. Being a cultural and historical destination with tourism, the second largest sector of the city, Varanasi's economy, also comprises of the priests, hotels, the florists and tour guides. The flower markets of the city have seen a downfall, during the COVID times with almost all the major temples closed, which badly affected the farmers associated with floral farming. There were times when the flower wholesale markets at Bansphatak and Englishia Line saw a huge gap in their production and sales. Clearly the pandemic affected the economy at large of this sector. With the lockdowns imposed, major rituals performed at the ghats like the Ganga Aarti which attract tourists all over the world, came to a halt; greatly effecting the hotel industry. There has been a major occupational shift among the tourists guides as their scope of earning was limited to the commissions they make at several stages of booking and travel. The city needs to re-build its tourism along a sustainable form, for the future.

Challenges Of Urban Tourism In Varanasi

In their analysis of tourist satisfaction in Varanasi through important performance analysis, Sujoy Vikram Singh and Naresh Tanwar concluded that for the tourists in Varanasi, clean environment and hygiene were the critical issues. Many schemes like Swachh Bharat Abhiyan, HRIDAY, PRASAD needs to be effectively executed in order to maintain positive reviews, the Destination Management Organizations (DMO's) should invest in improving the core facilities like maintaining pedestrian pathways, enhancing the role of Tourist Information Centres for there are discrepancies in the information present at the destination and at online sources. Placement of direction and signage boards at every tourist place, cleanliness and maintenance of public convenience facilities were other issues.

The COVID 19 pandemic has caused great havoc to the world economy. Hygiene and health conditions have become of utmost importance for tourists travel decisions. The pandemic has certainly provided the policy makers to think about the challenges that lay ahead for Urban Tourism. According to the Tourist Statistics Department, Uttar Pradesh, 2017, Varanasi ranks eighth among top sixteen places in U.P. according to domestic tourist visits and according to foreign visits it ranks third with Sarnath at second place.

Uncontrolled Urbanization –

Varanasi ranks 18th in terms of population in the state. The percentage share of urban population in the district is 43.4 as against 22.3 of the population in urban areas of the state. Varanasi district has population density of 2,395 persons per square kilometre which is more than the state average 829 persons per square kilometre. Total population of the district is 36,76,841 in which urban population is 15,97,051 comprising 43.4 percent of the total population.

There is a huge gap in opportunities and facilities in some of the areas of the city. Varanasi witnesses a recent socio-economic growth and modernization in all fields of activities which has brought radical changes like, spontaneous building constructions (both legal and illegal), consequent landscape alteration and downgrading. The components responsible for urbanization in Varanasi are socio-cultural and religious attractions, being an ancient educational centre, trade and commerce, a tourist centre, rural-urban transformation, medical hub. The main problem of urbanization is that it's concentrated in some particular areas only. Speedy growth of population over the last two

decades has rendered the central part of the city over crowded.

Managing Urban Infrastructure –

The urban infrastructure system is managed using certain social and technical principles, providing basic services for the urban habitat. The services like water, energy, transportation are the foundations of any city and a lack of sustainability in any one sector can lead to a havoc for the whole ecosystem. Hence, governments should aim for sustainable, more resilient and efficient infrastructural development. Of course, the pre-existing unplanned infrastructure, doesn't help with the further advancements and hinders further development but irrational infrastructural development leads to cities historicity damage. Already Varanasi is a congested place with the main city still not developed enough to tackle traffic jams and crowding. Footpath erosion, problem of increased littering, sensitive habitat destroyed and converted into hotels and stay rooms have become quite common in the city. Infrastructure and real estate development are growing very rapidly in cities and in the outskirts, apartment culture is keeping pace with the metro cities. And this advancement of human civilization has put serious questions on the safe use of natural resources. The forest cover is awfully low, accounting for not more than 5 percent of the total area. In addition, there has been an exceptional rise in built-up area, which has grown by 53 percent. This signifies a spree in construction activity, mainly on account of increasing demand for residential accommodation and expansion of commercial activities. Agricultural land has gone down by 5.3 percent. The area under vegetation cover and wasteland, too, has declined by 20 percent and 28 percent respectively.

Carrying Capacity –

UNWTO defines carrying capacity 'the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural, environment and an unacceptable decrease in the quality of visitors satisfaction'. The demand of the present is to probe into possible theoretical solutions for managing not only the resources but also the entire city facilities like, limiting the access, firm restrictions on certain activities, enforcing rules and regulations, providing more information and educating the masses. Tourism sector needs to re-analyse, keeping in view the change in travellers' behaviour post-pandemic and to

redefine future tourism by more sustainable means.

Even a modest but unregulated rush of tourists raises the wages of labour, prices of land and articles of daily use in the tourist region. More demand and less supply of water and power, shared by both the tourists and local residents, creates shortages- the worse sufferers are always the local people. Tourist carrying capacity of the city needs to be matched to the growing tourist traffic and the increase in the number of incoming job seekers to check these problems. There is a need to support facilities and also provide opportunities to support higher income segments. Presently the sewerage system of the city is inadequate with 70 percent area of uncovered sewer system and discharge of untreated sewage in open drains, into Ganga. This already drastic scenario with its inadequate carrying capacity poses a threat to city's environment, with an add on of large tourist influx.

Effects On Environment –

A declining bio-diversity as a result of all sorts of human activity, came to light in the latest United Nations report on assessment of ecosystems. How sensitive is the tourist industry to all the adverse changes in environment if it is not properly conserved is a burning question? Nature's beauty, wild life, cultural attractions and ecology needs to be conserved in order to protect the very resource base of tourism from destruction. The city came into limelight in 2015, when Central Pollution Control Board (CPCB) data highlighted that the city didn't have even a 'single good air quality day' that year. In fact, Varanasi is among the 43 critically polluted zones across the country. Data revealed that pollution levels in Varanasi were 20 times more than WHO's standards. The city's air quality was found to be more toxic than in Delhi.

A good quality and sufficient quantity of water is equally essential for keeping alive the tourist industry. It is required for many direct and indirect uses, which grows on increasing as the number of tourists increases. The shortage and pollution of water adds to the prevailing insanitary conditions and the diseases in densely populated areas of the city. An unregulated inflow of visitors to tourist places in the vicinity are so affected by such conditions that they may decide to keep away from the city, the next time. The city is threatened by groundwater extinction, shrinkage of surface water and its contamination, polluted air and enormous land pressure. Also, the city is producing huge amounts of municipal solid waste and due to the absence of a proper

dumping ground, it is being disposed in low-lying areas in every nook and corner of the city as well as at the banks of the River Ganga, Varuna and Assi or in and around ponds and wells in the city.

The combined effect of low flow and discharge of polluted effluents into the Ganga has caused severe deterioration in the quality of water. A latest report of the Ministry of Environment Forest and Climate Change on the Ganga River shows that the stretch of Allahabad to Varanasi has more than 6 mg/l dissolved oxygen and huge faecal coliform, which implies that it is not suitable for even bathing purposes.

Effect On Local Culture –

Varanasi being basically a cultural tourism destination witnesses an encounter between foreign tourists and the local people. It's a clash between two sets of cultures observed at a number of tourist places here. There is only a commercial relation between the tourists and their hosts just as is between the sellers and buyers of goods and services in the market. Treating local people as objects of curiosity by the tourists cause irritation among the former. Tourists are generally members of a high consumption society of pleasure seekers landing in the midst of society suffering from wants. Youths of the host area suffer from cultural alienation by imitating the behaviour pattern of the tourists and losing the hold of their family traditions. It is the major negative impact of urban tourism, more harmful in the stages of early growth. Increasing number of modern restaurants and clubs alongside the Ghats, are attracting tourists but adversely affecting the culture of this ancient city.

Tourism is generally the spread of local culture amongst the travellers, but this has some adverse effects on the local residents also. High end café, bars and clubs are introduced to please and welcome a certain group of tourists in the city, which is mainly concentrated along the banks of the river Ganga, leading to unnecessary congestion and pollution also. To attract western tourists and create a favourable environment for them the local cuisines and entertainment hubs take a back seat and get further neglected. The local culture is currently thriving to survive against this manicured tourism set up. Many new starts ups and cultural organizations and groups work steadily to keep the originality of tradition and culture of a region alive. Administrative support for these groups can bring a good balance between tourism for commerce and tourism for cultural experience. Tourism indeed acts as a

catalyst for economic growth but there is a need of balance between economic and cultural prosperity.

Health And Hygiene –

Only 32 percent of the households are covered by the sewerage network in the city. The remaining is covered via septic tanks and pits; and rest are not covered at all. 18 percent of the city's population has no access to toilets, either independent or shared. Also, the existing sewerage network is very old and in need of repair. The carrying capacity of the sewerage lines is adversely affected due to garbage dumping and a heavy footfall of tourists lead to pressure on this existing scenario.

Despite much remaining unknown about the future of travel post COVID 19, the world is seeing emerging trends about health and hygiene in travel and tourism concerning traveller booking behaviour and resident sentiment. This means that the city's tourism managers and policy makers need to re-think, re-build and reposition the city's focus on health and hygiene accordingly. In light of growing health and safety concerns, travellers will increasingly turn to authorities they trust for timely and accurate information ahead of and during their travels.

Lack Of Integrated Tourism Development Programme –

The National Heritage City Development and Augmentation Yojana (HRIDAY), a central sector scheme of the Government of India, was launched on 21st January 2015 with the aim of bringing together urban planning, economic growth and heritage conservation in an inclusive manner and with the objective of preserving the heritage character of the city. The mission period of the scheme ended on 31st March, 2019. The scheme has supported development of core heritage linked civic infrastructure projects which includes revitalization of urban infrastructure for areas around heritage, religious, cultural and tourism assets of the cities. These initiatives include development of water supply, sanitation, drainage, waste management, approach roads, footpaths, street lights, tourist conveniences, electricity wiring, landscaping and other citizen services.

Mostly tourism is considered as a way of commercial engagement, leading towards profit for a state in economy. Mostly this is done by establishing commercial zones, instead of promoting and preserving the places of sightseeing or of historical importance. Some other times, a certain zone is overly developed to either compensate for the lack of commercial

prosperity in the other spots. For example, if city has x, y, z places having good amount of footfall, but only x has the capacity to convert the footfall into commerce, that spot would be given more focus and would be developed more than other ones. The Vishwanath Corridor is one such place which has been overly developed for the tourists while many other tourist places are struggling to survive without lack of attention. The Varanasi Smart City Mission aims to provide for the aspirations and requirements of the people, while also developing the institutional, physical, social and economic infrastructure to build a complete urban ecosystem. The objectives of the mission are to provide basic infrastructure, improve and enhance the quality of life, ensure and strive for clean and sustainable environment, apply smart solutions, set examples which can be replicated within as well as outside the smart city, so as to enhance the creation of more smart cities. The Heritage Development Plan for Varanasi, aims to regulate its heritage zones, conserving the built cultural heritage, provide and interface of heritage management with spatial planning to come up with a regulatory framework for development that is heritage sensitive.

Lack of resources, lack of co-operation between various stakeholders like public officers, business community, locals, politicians, industry fragmentation, no volunteer enthusiasm, leadership skills efforts from individuals have led to increased problems of urban tourism in the city. The Varanasi's City Development Plan (CDP) lacks the survey and understanding of the present ground realities faced by the city. The pandemic has indeed made the governments to work in a more collaborated manner at all levels, thus emphasizing on the need of more consolidated tourism policies for faster recovery of the sector; with the objective to have more instinctive and pliable policies which is able to adapt to changes faster, a sturdy safety and health policy issues and crisis management.

Re-Building Tourism

The UN Secretary General, Antonio Guterres says 'As we restart and recover from the pandemic, UNWTO, has a key role in rethinking tourism and its interactions with our societies, economies and natural resources and ecosystems'. The pandemic driven slowdown has given the opportunity to uplift more revolutionary changes in the sector with new models, opening up new destinations and thriving for sustainable tourism patterns. Also, the pandemic has provided for new approaches to be adopted for maintaining the overall balance

of environmental, social and economic results of the tourism. This can be achieved by introducing new technologies, executing more of green recuperating strategies and shifting to more resilient policy and business practices. The future of the tourism industry definitely sees a paradigm shift, due to the pandemic and the G20Tourism ministers in the Diriyah Communique assured the governments to work together for the cause and support of sustainable retrieval of the tourism sector. The disruption brought about by the pandemic has provided the policy makers to grasp the opportunity and reset the economy of this sector, with stronger sustainable base. Since this sector is the most affected by the pandemic, it's the top most priority of the international institutions like, UN, World Bank, WTO to revive the economy of this sector.

Sustainable Tourism –

Varanasi needs a serious re-consideration about its tourism industry according to sustainable pattern. On the one hand flowing of more than 5 million tourists per year, and on the other hand inadequacy and inefficiency of infrastructure for welcoming the tourists, lead to an increased unsustainable condition

The term 'sustainability' emerged in 90's and gradually entered to economic and political context; until 1997, there was not established a relation between tourism and sustainable development. It became introduced for the first time in 'Agenda 21' for the 'travel and tourism industry' which draws its principles from the 1992 UN Conference on Environment and Development. 'Agenda 21' presents tourism as a factor in order to achieve promotion of quality of life and economic flourishing of the local people. Sustainable tourism is taking charge of all the resources in a way that economic and social needs are fulfilled along with maintaining the cultural and biological diversity of the region, intact. The objective of tourism is development of tourism without any ruinous effect on natural, historical, cultural or social resources in order to improve economic growth and to respect to customs of host community.

Indicators of sustainable tourism include controlled growth of tourism industry, capacity of surveying number of tourists according to possibility and infrastructure of place, encouragement of local communities in participating in tourism development in the name of improvement of the economic status of local communities and preserving natural resources. There are certain

barriers on adopting sustainable practices like; lack of financial resources, lack of knowledge/awareness, lack of available staff, etc.

Urban Infrastructure –

The COVID19 pandemic emphasized the need to re-consider the role of free spaces in Metropolitan areas as well as their accessibility. Challenges including crowding and impacts by over tourism on public free spaces will require joint strategies involving all public and private institutions (including local communities) responsible for the maintenance of green and blue free spaces. Strategically planned network of natural and semi-natural areas, which absorb precipitation and reduce water run-off even maintaining their retention function during heavy rainfall events. These measures primarily benefit the local population, but there may also be positive synergies for city tourism.

Preserving or enhancing green spaces and their diverse uses, creating water related structures in public spaces, as well as establishing an offer of water-based sports and recreational activities and wherever possible water-based mobility, can represent valuable elements for the design of summer tourism offers in City tourism. Tourism infrastructure can bring higher living standards to a destination. Benefits can include improved infrastructure, advancements in health and transport sectors, new sports and recreational facilities, restaurants and public free spaces, enhancing the rest and retreat facility with an inundation in better-quality commodities and food.

Policy Implications –

The policy makers need a change of perspectives in their policies: focusing more on inclusive and bottom-up approach in defining the strategies. Necessary changes for a post COVID 19 recovery can be the changes of target markets, new collaborations, focus on quality tourism, technological advancements in the sector. Government should focus on policies that make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity. Policies ensuring viable, long term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable environment, income earning opportunities, social services to host communities and contributing to poverty alleviation. Effective policies can help in bringing tourism back on track and restoring the confidence of travellers regarding health issues,

risk of cancelled travel plans and becoming stranded overseas. It can also help to mitigate the socio-economic impacts on livelihoods.

Pro-Poor Tourism –

tourism is the third largest foreign exchange earner in India, with accounting for 10 percent of the total GDP. The tourism industry has the upper hand of occupying even the unskilled workers. Hence, the sector can help in fighting poverty, but obviously not compromising with the quality of the sector. Pro-poor tourism including the vulnerable section of the society, has also been a priority of Uttar Pradesh government's 2016 tourism policy and also India's fifth five-year plan. There are many ways to help spread benefits of tourism. In general, the poor do better when tourists spend on local products, rather than glamourizing the local market. A minimum wage can be enforced in order to make long lasting benefits with promotion of local products and more of job opportunities.

Digital Tourism –

Social media is critical in promoting cultural tourism destination, being an excellent platform to promote products such as high quality, guided, experiential tourism routes, which should characterise the cultural tourism of the future. The difficulties of movement during the pandemic and the necessary constraints on the number of visitors to cultural tourism destinations mean, and will continue to mean, that not all the potential tourists will immediately be able to travel to their desired destination and may resort to virtual visits online.

Conclusion

Travel and tourism provide a substantial contribution to business operations and ultimately contribute to the worldwide economy. The travel and tourism sector are an economic driver to the destination country's local GDP (Wondirad). The pandemic has reflected social, psychological and socio-economic and cultural influence on various tourism stakeholders, and they will suffer from the adverse effects for a longer time: the pandemic has provided an 'abundant' new framework in which tourism scholars and researchers can conduct studies with applicable research models. Tourism impact surveys need to ignore or drop the previous methods to execute the tourism and travel industry (Michael Hall). Researchers need to implement feasibility studies, tourism demand forecasting, and active and best practices that would be beneficial and appropriate to explore the COVID 19 consequences on various geographic organizations and stakeholders.

The focus should be on the increase in visitor numbers through a better more comfortable travel personalized service with maintaining affordable prices. During this low flow of tourism, policy makers should consider renovating hotels, improving staff quality and moving to digital technology. Also, attention should be paid to high quality sanitation measures. This study draws an empirical assessment for the travel and tourism industry in Varanasi. Travellers have become more selective and hence focus should be on long time trips rather than fewer trips. This pattern will reduce the negative effects of the travel industry. E-tourism can bring a definite change in the travel and tourism industry's future by providing assessable and multi-functional value structures, structural definitions, theoretical trends and substantial and flexible technical concepts.

References

1. Beriatis, E. (2008) Uncontrolled Urbanization, Tourism Development and Landscape Transformation in Greece C. 44th ISOCARP Congress 2008.
2. Corbisiero, F. and La Rocca, R.A. (2020) Tourism on demand: A new form of urban and social demand of use after the pandemic event. *TeMa. Journal of Land Use, Mobility and Environment*. P. 91-104.
3. Feizabadi, T.N. A Critical Review of The Sustainability of Tourism in Varanasi. *Urban Studies and Planning. Urban Planning and Management. The Islamic City*.
4. Gohar A. (2021) Tourism and Urbanization, An Interconnected Evolution. *Sustainability In Environment*, Vol 6, No 3.
5. Hall, C.M. (2011) Policy learning and policy failure in sustainable tourism governance: from first and second order to third order change? *Journal of Sustainable Tourism*, 19(4-5), p. 649-671.
6. Haywood, K.M. (2020) A post covid future: Tourism community re-imagined and enabled. *Tourism Geographies*, 22(93), p. 599-609.
7. Rana, P.S. and Singh, P.B. (2000) Sustainable Heritage Tourism: Framework, Perspective and Prospect. *National Geographical Journal of India*, 46, p. 141-158.
8. Singh, S.V., and Tanwar, N. (2020) An analysis of tourist satisfaction in Varanasi as destination perspective through importance performance analysis. *Avahan: A journal on Hospitality and Tourism*, Vol 5 Issue 1 p. 70-83.
9. Singh, P.B. (2017) Kashi: The Sense of preserving Heritage is missing. *GOVERNANCE* now, p. 32.
10. Sustainable development of Heritage City: Varanasi. *Department of Urban Planning, School of Planning and Architecture, New Delhi*.
11. Singh, P.B. (2009) Banaras: making of India's Heritage City. *Planet Earth and cultural Understanding*. Cambridge Scholars Publishing, New Castle

Sericulture Is a Boon and Tradition of Tamil Nadu; Growth and Deve3ographical Analysis

Dr.J.Nandhini¹ Dr. J. Sarala Devi²

Assistant Professor, Department of Geography, Queen Mary's College, Chennai –Tamil Nadu

Guest Faculty, Department of Geography, Queen Mary's College, Chennai –Tamil Nadu

Abstract

Sericulture activities are highly successive and productive in nature. Sericulture is a source of providing employment to the marginal people. It is astonishing to know that sericulture industry is providing gainful employment to 60 lakhs of people every year in India. This sector employs one man throughout the year for producing every 3.07 kg of silk produced and used in handlooms. This potential is very high and no other industry generates this kind of employment, especially in rural areas. Sericulture is highly suitable to small and marginal farmers, because of its capacity to generate a high income with comparatively less investment Economically benefit in different stages of silk industry like mulberry cultivation, silkworm rearing, reeling, twisting, dying and weaving. Every stage is income generating in silk industry like sericulturists to weavers. The study result showed that the area under Mulberry plant and silk worm production has increased in various districts of Tamil Nadu. It also reveals the employment generation and new planting areas also has steep lift in various districts of Tamil Nadu.

Keywords: Sericulture, Silk industry, Cucoon, Mulberry

Introduction-

The Present Study aims the Geospatial analysis of Rearing silk worm and Silk production in various districts of Tamil Nadu, and the objectives are to analyses the spatial distribution and temporal distribution of mulberry growth and new planted area in Tamil Nadu. To delineate, the various types of cocoons and silk worm production and also to evaluate silk reeling and sarees production in various districts of Tamil Nadu 2015-2020.

Data Source and Methods

This paper mainly depends on secondary sources of data, Agriculture department in DMS and in Chepauk and also data collected from various published and unpublished sources and websites. Data has been analysed simple statistical methods and Excel diagrams. Main theme has been shown with the help of Arc GIS 10.6 has been used to

create some thematic maps for spatial distribution of mulberry plants and located bar diagrams to show the silk worm area and also the silk production of various distributions of Tamil Nadu. Silkworm has four stages in its life cycle viz., egg, caterpillar, pupa and moth. Man interferes in this life cycle at the cocoon stage to obtain the silk, used in weaving of the dream fabric. The sericulture activities were broadly divided into two divisions' viz., pre-cocoon technology and post cocoon technology. The activities of each division were further divided into sub-sectors. The main product of one subsector becomes a raw material for another sector, thus, interlinking each other and changing the value, form and quantity to enhance the preference by the consumers.

Plant



Layings



Silk moth coming out of cocoon



Mulberry silk is considered to be superior in quality as compared to other varieties. Bombyx mori, the mulberry silkworm feeds on mulberry

leaves. About 92 per cent of the total production of the country consists of mulberry silk.

Rationale of the Study

Sericulture production was significant for the development of the human civilization from different aspects. Clothing is a very essential component for human shelter. Tamil Nadu is ranked fourth place among the silk producing state of our country. In 1956, Sericulture was practiced in limited pockets of Coimbatore and Dharmapuri district in our state, accounted 500 hectares only. Then with the implementation of many developmental schemes in the state sericulture activity was introduced into the plains of the state.

From 1979, Department of Sericulture with headquarters at Salem is functioning as development wing under Department of Industries and Commerce. During the year 2016-2020, 1184.62MT of raw silk, have been produced in the state, of which 609.12MT are cross breed silk and 575.50 MT are bivoltine silk. Tamil Nadu continues to occupy the fore-front position in the country in bivoltine silk production. Tamil Nadu stands first in cocoon productivity

Fidings and Result of the Research

Irrigated Area Under Mulberry Plant In Tamil Nadu 2015-2020

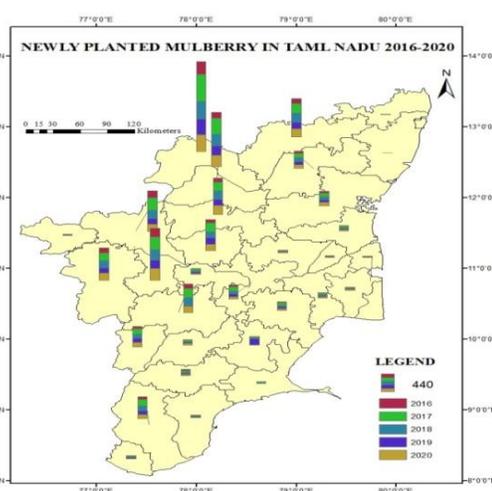
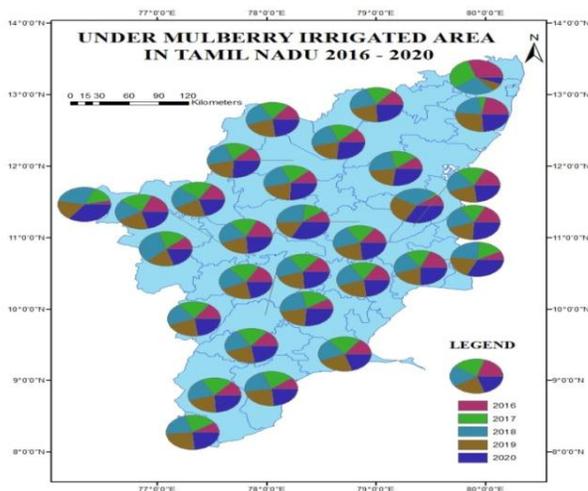
SI.NO	District	2015-16	2016 -17	2017-18	2018-19	2019-20
1	Kancheepuram	15.3	3.2	14.37	18.42	16.4
2	Thiruvallur	15.1	15	12.96	3.64	3.24
3	Cuddalore	59.4	111.6	155.57	140.18	179.05
4	Villupuram	191.6	282.9	406.17	350.71	453.64
5	Vellore	745.6	854.5	1185.93	1064.88	1274.49
6	Tiruvannamalai	224.36	298.32	399.98	337.91	447.55
7	Salem	613.94	873.22	1110	1009.09	1233.58
8	Namakkal	674.8	607.5	779.66	721.15	875.24
9	Dharmapuri	850.62	1106.7	1482.13	1284.15	1639.51
10	Krishnagiri	2090.92	2599.3	3207.35	3073.48	3323.36
11	Erode	1436.5	1830.6	1823.2	1813.99	1818.87
12	Coimbatore	753.7	1108.8	1128.64	1067.31	1266.19
13	Tiruppur	1969	2229	2138.52	2135.68	2287.81
14	The Nilgiris	3.2	14	26.32	17	32.39
15	Tiruchirappalli	288.32	329.16	410.24	393.64	435.24
16	Karur	54.8	94.2	147.37	127.33	157.89
17	Perambalur	23.2	25.8	54.05	36.23	65.38
18	Ariyalur	47	45.2	53.85	53.64	60.53
19	Pudukkottai	184.8	185.2	248.18	233.6	259.11
20	Thanjavur	72.2	96.8	136.84	120.24	160.73
21	Nagapattinam	28.2	24.2	34.41	29.55	40.28
22	Thiruvarur	22.2	46	67.61	58.3	89.68
23	Madurai	118	154.2	175.71	164.17	197.98
24	Theni	555.6	672.8	764.17	754.66	806.68
25	Dindigul	1109.8	1282.3	1421.36	1367.25	1439.78
26	Ramanathapuram	57.6	75.4	78.74	87.25	76.72
27	Virudhunagar	145.2	183.2	212.15	210.32	222.27
28	Sivangai	51.2	95	133.77	112.75	136.72
29	Tirunelveli	436.84	612.84	698.08	656.9	775.2
30	Thoothukkudi	43.84	79.44	91.03	96.19	95.08
31	Kanniyakumari	40.18	78.78	91.3	99.57	97.37

Source: Agriculture department, DMS

Irrigated Area under Mulberry Plant in Tamil Nadu 2015-2020

Spatial distribution of mulberry plant found to be very high in area such as Krishnagiri, Erode, Dindigul and Tirupur districts shows consistent growth of mulberry plant under irrigation. It is followed by Dharmapuri, Namakkal, vellore and Salem districts shows steady growth in area under mulberry plant. On the other hand Perambalur the Nilgris, Kancheepuram and Thiruvallur are newly

emerged areas under mulberry plant. Tamil Nadu mainly rely on North East Monsoon. The spell of rainfall is dynamic and to only three months. Rainfall mainly because of Tropical cyclone originated over the Bay of Bengal and Indian Ocean. The area under Mulberry plant mainly depends on the irrigation only minor area which receives enough rainfall. Coimbatore, Erode and Salem shows steep increase.

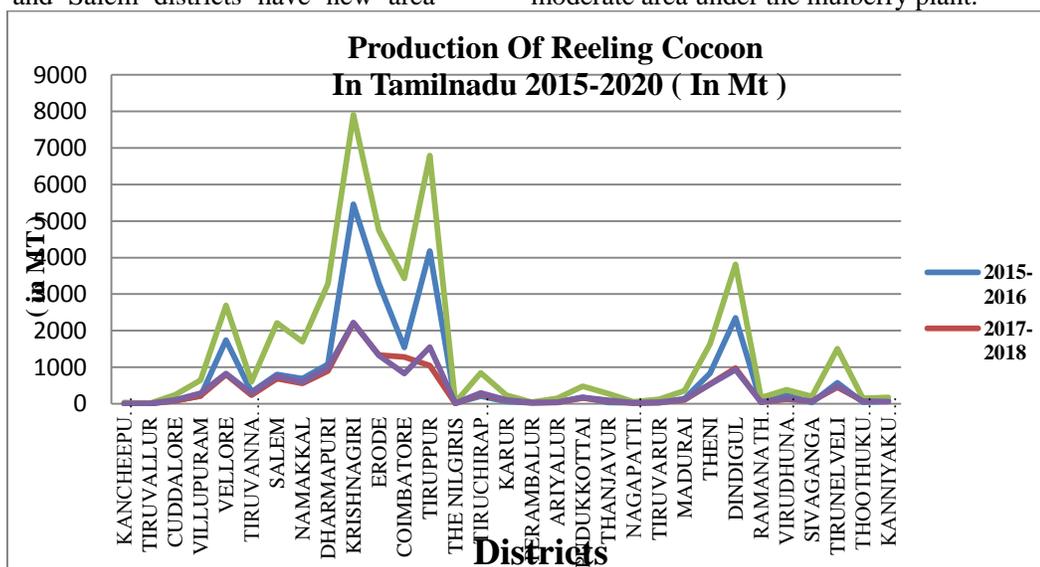


Source: Compiled by Researcher

Newly Planted Areas Of Mulberry Plant 2016-2022

In the year 2016 the Area under mulberry plant about 426 Sqkm in Krishnagiri and 569.8 Sqkm in 2020 whereas in Tirupur 286.7 Sqkm it has increased into 390 Sqkm in 2020 in Tirupur Dharmapuri and Salem districts have new area

under mulberry plant and also shows gradual increase of areas from 2016 -2022. Apart from that Coimbatore, Vellore and Erode also register more area under new mulberry plant. This district also shows an increase of areas within five years. Dindugul, Tirunelveli and Namakkal register moderate area under the mulberry plant.



Source: Agriculture Department , DMS Chennai

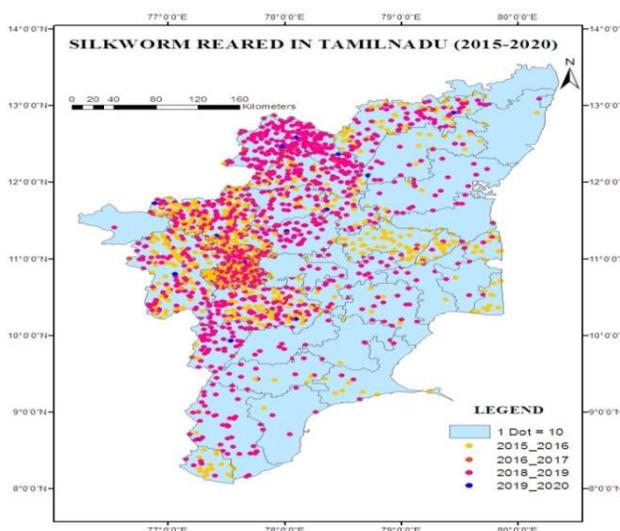
Production Of Reeling Cocoon In Tamilnadu 2015-2022

Krishnagiri Place first in production of cocoons in 2015 (5457.35 tonnes) it shows drastic change of production in next three years but sudden fall in the year 2019-20 only 2217.78 tonnes of production , reason behind this the erratic rainfall destroyed the mulberry plant in that year. Next to Krishnagiri Tirupur records high production of cocoon about 4176.67 metric tonnes which has sharp increase in 6792.75 tonnes in 2018-19, the sharp decline in 2019-20 because on tropical cyclone Nivar devastated the mulberry plants. High production is also found in Erode 3294.49 tonnes, Dindugul 2352.82 tonnes , Vellore 2694.39 tonnes in 2018-19 and Dharmapuri records 3280.9 tonnes

in the above mentioned year. Almost all the districts shows fall in production during 2019-2022 because of the monsoon.

Silk Worm Reared In Districts Of Tamil Nadu 2016-2020

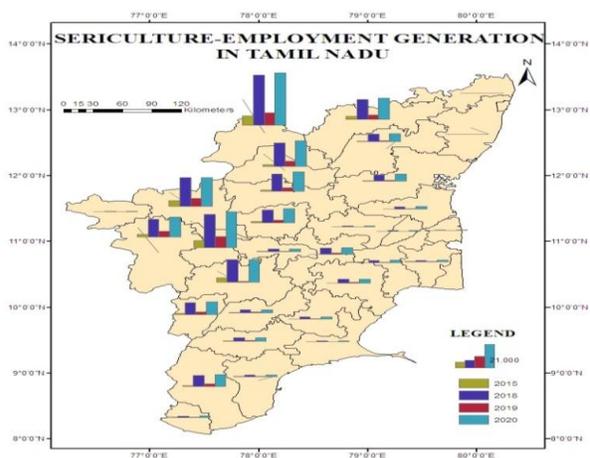
Tamil Nadu is the leading State in bivoltine silk Production. The handloom silk sarees including Kancheepuram silk sarees produced in Tamil Nadu are World famous because of their enchanting craftsmanship. Venpattudhoties produced in Salem are very unique and also got authorization to use '**Geo-Index**' number. Krishnagiri 1614.6 tonnes, Erode 974.7 tonnes and Tiruppur(1235.7 tonnes)are the leading producer of silk worm in 2016. Raw silk production in Tamil Nadu found.



Source: Agriculture department DMS

Sericulture– Employment Generation In Tamil Nadu -2015-2020

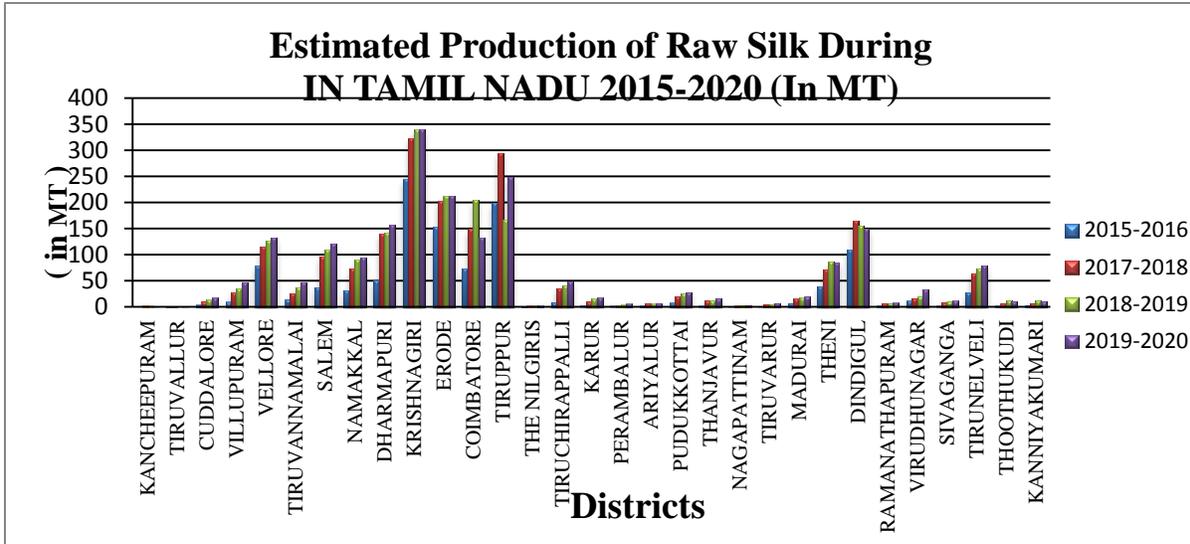
Dharmapuri ranks first in giving employment generation the weavers of silk. Nearly 3.4 billion engaged in sericulture activities during 2016. Area under Mulberry plant also found to be high in this district. Ideal climatic condition and environment enriches the sericulture production in Dharmapuri..Next to Dharmapuri Erode comes second highest employment opportunity , around 2.05 million people are under sericulture in 2016 the employment opportunity has declining due to various factors. Tirupur gives more employment opportunity for the marginal people to engage in rearing silk worm. Around 1.02 million people are engaged in sericulture



Activities during 2016. Following with the above

Districts, Salem Namakkal and Vellore districts also show high employment than the other districts of Tamil Nadu

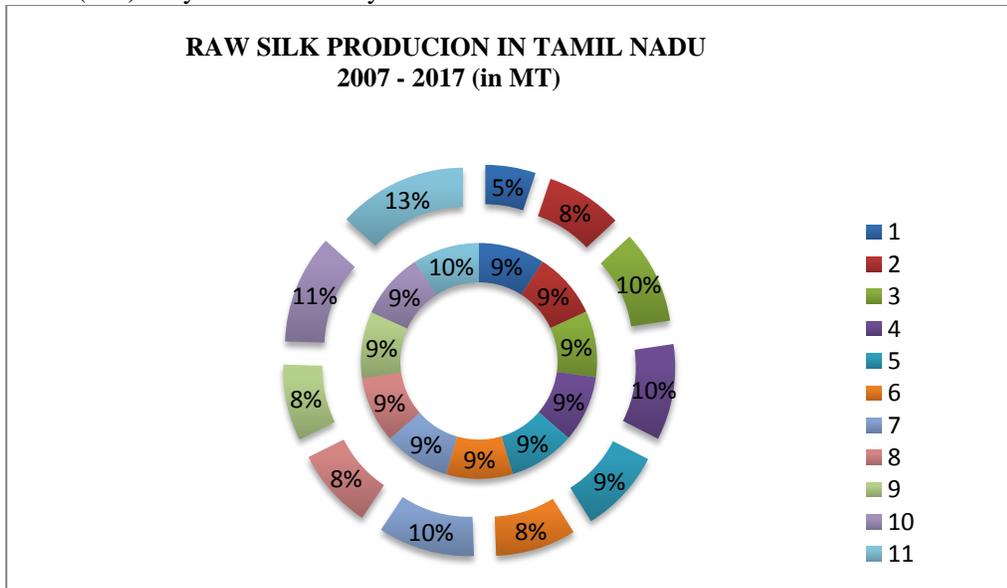
Production Of Raw Silk In Districts Of Tamil Nadu



Raw Silk Production In Tamil Nadu 2007- 2017 (In Mt)

Women in South India in general in fond of silk sarees. In Tamil Nadu for marriages it's a traditional wearing silk sarees and dhotis so, the demand of product increase in day by day. In this above mention table the production of Raw Silk has been increasing constantly. In the year 2007 which is above 737 (MT) only. But within a year

above 8% of increased. In the year 2009-2010 remind stagnant about 10% of increase when compare with 2008. Every year nearly 9-10% of increase has been recorded new Raw Silk Production of Tamil Nadu. In 2017 it has been increase slightly above 13% of Raw Silk Production in Tamil Nadu which is about 1818 (MT).



Common Challenges Faced During Sericulture:

Inadequate equipment and technology for producing silkworm eggs

Insufficient technicians in sericulture

Inadequate tools and QC measures

Lack of capital for investment

No empowerment thus makes the worker feel demotivated

Im proper and availability of technologies for silk processing

References:

1. Rao, V.K.R.V. 1984. Some Neglected Factors in Integrated Rural Development in Lakshman and Narayan (Ed.). Rural development in India, Himalaya Publishing House, Bombay.
2. Savithri, G., Sujathamma, P., Neeraja, P. (2016). Sericulture Industry – An overview. Book published by Agrobios. Pp: 88 – 122
3. Basu, A. (2015). Advances in Silk Science and Technology. Woodhead Publishing Series in Textiles Pp: 261-282.
4. Kraybil, D., & Johnson, T. (1989). "Value - added activities as a rural development strategy." Southern J. of Agri. Eco. 74(5), 56-62.
5. Royer, & Jeffrey, S. (1995). Potential for cooperative involvement in vertical coordination and value added activities. Agribusiness 11(5), 473-481.
6. Iyengar, M. N. S. (2009). Silk by-products: potential cleanse of chemical dye effluents. Indian silk, 47(12), 28
7. Web sources
8. <http://www.agritech.tnau.ac.in/sericulture>
9. <https://krishnagiri.nic.in/departments/sericulture/>
10. <https://dharmapuri.nic.in/sericulture/>
11. <https://www.tendersontime.com/authority/departments>

Knowledge of Anganwadi workers and their problems in rural Areas

Premavati S Patil¹ Dr.S.H.Honnalli²

¹Assistant Professor, Faculty of Business Studies Sharnbasva University, Kalaburagi

²Professor and Dean Faculty of Business Studies Sharnbasva University, Kalaburagi, Karnataka

Email- Premapatil773@gmail.com

Abstract:

Anganwadi is a Government sponsored child care and mother care centre in India. It caters to children in the 0-6 age group. These were started by the government in 1975 as part of the integrated child development services programme to combat child hunger and malnutrition. The Anganwadi system is mainly managed by the Anganwadi worker (AWW) and Anganwadi helper (AWH). The Anganwadi Worker is the community based voluntary frontline worker of the Integrated Child Development Service Scheme programme. Selected from the community, she assumes a pivotal role due to her close and continuous contact with the beneficiaries. Children grow and develop amazingly. Mothers and their children age between 0-6 years, not only constitute a large proportion of the community but also vulnerable or special risk group. The first five years of child's life are most crucial for the foundations for physical and mental development. Main objective of the study is to study the profile of Anganwadi workers and to assess knowledge of anganwadi workers and problem faced by them while working

Keywords: Anganwadi worker, Anganwadi helpers, ICDS, Child care,

Introduction:

Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world's largest and unique programmes for early childhood care and development. It is the foremost symbol of country's commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers. Anganwadis are India's primary tool against the scourge of child malnourishment, infant mortality and curbing preventable diseases such as polio. Their services can also be important tool to fight mental and physical disability in children. India has the world's largest population of malnourished or under-nourished children. Various researches have considerably explored many aspects of this scheme with variable results, but the coverage has been patchy and difficult to compare because of complexity involved in wholesome approach of the service and their constituents.

Children are the most important assets of a country because they will be tomorrow's youth and provide the human potential required for a country's development. The strength of the

nation lies in having healthy, protected, educated and well- developed children who may grow up to be productive citizens of the country. It is estimated that around 40 per cent of children are vulnerable or experiencing difficult circumstances characterized by their specific social, economic and geo-political situations. All these children need special attention. Children in the age group 0-6 years constitute around 158 million of the population of India (2011 census). These Children are the future human resource of the country. Ministry of Women and Child Development is implementing various schemes for welfare, development and protection of children.

Literature Review

Review literature gives an insight into different aspects of the problem under the study. It helps the investigator to design the framework, develop the methodology and tools for data collection and plan the analysis of data.

Das et.al (1990) This study explore that Anganwadi worker is the key person in the programme, her education level and knowledge of nutrition plays an importance role related to her performance in the Anganwadi centre. It has also been reported that, in addition to education level, training of Anganwadi workers about growth monitoring plays a valuable role in improving their performance.

Sandip B. Patil, Doibale M. K. Study of Profile, Knowledge and problems of Anganwadi workers in ICDS blocks: A cross

sectional study. In his study, Most of the AWWs in ICDS Blocks were from age group 41-50 years, matriculate, experienced, having knowledge of more than 50% in their daily functions at AWCs. The knowledge increases with experience as an AWW, but has no relation with their educational qualification. Problems felt by them were mainly due to inadequate honorarium and excess work load. So, timely increments in honorarium should be considered.

Sulakshana Shridhar Baliga, Padmaja R. Walvekar,(2017),”A study on knowledge of anganwadi workers about integrated child development services at three urban health centers” Study reveals, Anganawadi workers has poor knowledge of health services and The knowledge had no relation with experience and their educational qualification. This difference was not found to be statistically significant. Hence regular training camps should be organized for AWWs to increase their knowledge regarding different aspects especially growth monitoring and supplementary nutrition

Kalpna Joshi (2018) in her study: “Knowledge of anganawadi workers and their problems in Rural ICDS Block” AWCs need to be strengthened in structure and supplies and AWWs need to be given more in-service educational programme and training programme along with salary so that they can be motivated to take interest in all activities of the project

Statement of the Problem

The present intension to find the research gap a succeeded with the help of existing literature and research gap identified

Hence with the evidence of existing literature no extensive research done on “Anganawadi Workers and their problems in rural Area” researcher have interested to undertake a research on “Knowledge of Anganawadi Workers and their problems in rural Area”

Objective:

1. To know about the Anganawadi centre
2. To know about the Service and benefits to the Anganawadi workers
3. To assess the role & responsibilities of anganwadi worker
4. To understand the Problems and challenges faced by the Anganwadi workers

Research Methodology:

The research technique chosen to gain insight into Anganwadi workers and helpers in Anganwadi centre is exploratory in nature. For the purpose of fully understanding the idea, literature from certain research papers, data from trusted sites and newspaper, articles regarding the stated topic are used. According to the objective of the study, the research design used is descriptive in nature.

Anganwadi Centre:

The word Anganwadi is derived from the Hindi word “Angan”, it refers to the courtyard of a house. Angan is a rural Indian term for “a place where people get together to discuss, greet, and socialize their matters”. The Angan is also used occasionally to cook food or for household members to sleep in an open air. This part of the house is seen as the heart of the house and is considered a sacred place. Therefore, the significance of this part of the house comes across in the way a worker works in an Angan and visits other Angans to perform the indispensable duty of helping with health care issues. After all, they are the most important link between the rural poor and good healthcare.

Anganwadi is a government sponsored child-care and mother-care center in India. It caters to children in the 0-6 age group. These were started by the Indian government in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition. The Anganwadi system is mainly managed by the Anganwadi worker. She is a health worker chosen from the community and given 4 months training in health, nutrition and child-care. She is in charge of an Anganwadi which covers a population of 1000. 20 to 25 Anganwadi workers are supervised by a Supervisor. Four supervisors are headed by a Child Development Projects Officer (CDPO). They provide outreach services to poor families in need of immunization, healthy food, clean water, clean toilets and a learning environment for infants, toddlers and pre-schoolers. They also provide similar services for expectant and nursing mothers. According to government figures, Anganwadis reach about 58.1 million children and 10.23 million pregnant or lactating women. Anganwadis are India's primary tool

against the scourges of child malnourishment infant mortality and curbing preventable diseases such as polio. While infant mortality has declined in recent years. Integrated Child Development Services (ICDS) is the only major national program that addresses the needs of children under the age of six years. It seeks to provide young children with an integrated package of services such as supplementary nutrition, health care and pre-school education. Because the health and nutrition needs of a child cannot be addressed in isolation from those of his or her mother. The program also extends to adolescent girls, pregnant women and nursing mothers.

Service and Benefits to the Anganawadi workers and Anganawadi helpers

1. In the event of death of an employee of child (Anganawadi worker/helper) while in service, the legal heir of the deceased in given compassionate appointment under scheme by the government. The order came into force since November 2009.
2. Two days casual leave allowed at time in a month including the unavailed leave of previous months
3. Festive advance ₹ 2000/- is sanctioned once in a year to the staff of anganawadi centres, Medical allowance of ₹ 100/- per month to all the staff of AWCs
4. Additional charge allowance is increased from ₹ 2/- to ₹ 10/- per day to Anganawadi Workers will be taken into account for calculating the pension for those who are appointed as Grade II supervisors / Multipurpose health workers/Teachers before 1-4-2003, and 10 days medical leave will be allowed to those staff who undergo surgery under the new insurance scheme.
5. Further promotional activities to the eligible Anganawadi Workers for appointment as office assistants/clerks in the social welfare and nutritious meal programme department and to the anganawadi workers as Grade II supervisors, travelling allowance is enhanced to ₹ 20/- per month to ₹ 40/- per month to Anganawadi workers
6. Maternity leave allowed for 6 months and two sets of uniforms (sarees) per year have been provided to all the Anganawadi workers/helpers etc.
7. The Honorarium hike is seen as a move to bolster services by giving anganawadi workers honorarium that given them dignity and motivate them to cater to the development needs of children in the 0-6 years age group and lactating mothers. Increase in honorarium of anganawadi workers ₹ 6000/- to 8000/- and Anganawadi helpers ₹ 3000/- to 4000/- respectively.
8. 15 days summer holiday given during the month of May in every year. Death relief fund ₹ 50,000/- is given to both Workers as well as helpers of Anganawadi centres
9. If anganawadi workers/helpers die while in service, or are suffering from severe ailments, their families are given some compensation and financial relief. A sum of Rs.20,000/- is sanctioned to the legal heir of the deceased anganawadi worker and Rs. 10,000/- is sanctioned to the legal heir of the deceased Anganawadi Helper as death relief fund.
10. From September 2014 the death relief amount has been increased to Rs.50000/- for both AWW and AWH. AWWs/Helpers who have completed a minimum of one year of service are eligible for financial assistance under the scheme.
11. New Pension Scheme (NPS) Lite, A contributory pension scheme. In the scheme anganawadi workers and Helpers will contribute Rs.150/- and Rs.84/- as monthly contribution respectively and State government will contribute the same amount.

Role and responsibilities of Anganawadi workers:

There are many responsibilities and duties to be performed by an Anganawadi Worker recommended by the government. Some of them are:

1. Showing community support and active participation in executing this program
2. To conduct regular quick surveys of all families
3. Organize pre-school activities, provide health and nutritional education to families especially to pregnant women as to how to breastfeeding practices etc.
4. Motivating families to adopt family planning, educating parents about child growth and development,
5. Assist in the implementation and execution of Kishori Shakti Yojana (KSY) to educate teenage girls and parents by organizing social awareness programs, identify disabilities in children and so on.

6. To weigh each child every month, record the weight graphically on the growth card, use referral card for referring cases of mothers/children to the sub-centres/PHC etc., and maintain child cards for children below 6 years and produce these cards before visiting medical and para-medical personnel
7. To carry out a quick survey of all the families, especially mothers and children in those families in their respective area of work once in a year.
8. To organize non-formal pre-school activities in the anganwadi of children in the age group 3-6 years of age and to help in designing and making of toys and play equipment of indigenous origin for use in anganwadi.
9. AWWs shall share the information relating to births that took place during the month with the Panchayat Secretary/Gram Sabha Sewak/ANM whoever has been notified as Registrar/Sub Registrar of Births & Deaths in her village.
10. To make home visits for educating parents to enable mothers to plan an effective role in the child's growth and development with special emphasis on new born child

Problems of Anganwadi workers:

In many problems which affect the anganwadi workers in performing their role effectively. The important problems faced by Anganwadi workers were in the following.

1. The problems of Anganwadi workers in the inadequate honorarium. That the Anganwadi workers they are considered with the "honorary workers" and thereby given only "honorarium" and not minimum wages. The work load of the Anganwadi staff was heavy work but the status of the wages in low, the monthly honorarium of Anganwadi teachers was only 5.500 Rs until 2014. The Anganwadi workers themselves belonged to the below. Poverty- line category these inadequate honorarium is main problem for Anganwadi workers.
2. The workload of the Anganwadi staff was heavy if their house visits were also included, a lot of record maintenance or they have to assist for other health programmes

apart from their Anganwadi related work like in pulse polio programme, Vitamin A distribution programme in conducted by municipal Corporation it all functions in involve from Anganwadi workers.

3. Inadequate infrastructural facilities are a major constraint in the effective functioning of Anganwadis. In building facilities in terms of space and nature of construction are unsatisfactory.
4. The anganwadi workers are total 12 registers that were maintained by the workers

Ex: survey register, immunization register, ANC register, referral register, dairy cum

visit book etc. those anganwadi workers who had maintained that all registers properly.

These records heavy work for anganwadi workers.

5. Inadequate supervision among Anganwadi workers like immunizations, prophylaxis against blindness and anemia, nutrition and health education, Supplementary nutrition, growth monitoring and referred services.
6. There is a lack of help from the community participation or help from the community was always made available as and when required sometimes people help in food distribution if worker was busy with some other activities. The Anganwadi workers are supposed to make periodic visits to beneficiary families. These are problems of anganwadi workers
7. Anganwadi Workers all around the country are being treated as though they are unskilled. Their monthly remuneration, which is quite low in comparison to the Minimum Wage requirement, is insufficient to cover their living expenditures.
8. According to report of Kasturi Rangan's committee, it is nearly impossible to fix the curve of education as an individual advances in age unless the imparting of education is done methodically starting from the toddler level. Anganwadi centres (AWCs) are the ideal location for this, however suffering from a variety of ailments necessitates immediate attention

Conclusion:

Anganawadi programme is one of the world largest child and women development programme in India. Anganwadi is focal point of ICDS scheme. Each anganwadi has one worker and one helper. A good anganawadi workers has some qualities like leadership, decision making skills, problem solving skills, communication etc. Anganwadi workers play a role of bridge between the community and ICDS, they play a important role in bringing the services to the door step of the beneficiaries. But the department of women and child welfare it has to look into the matter of remuneration and very importantly providing accurate knowledge with regard to the responsibilities of anganawadi workers through the organizing all the anganawadi workers under one roof so that the anganawadi workers will be enhanced with the knowledge and tier adults will be cleared and they can deliver the services in a better manner

References:

1. <https://www.ipinnovative.com/journal-article-file/7204>
2. <http://www.ijmsph.com/fulltext/67-1418191976.pdf?1653377334>
3. https://www.iapsmgc.org/index_pdf/11.pdf
4. <https://targetstudy.com/articles/role-of-anganwadis-in-early-schooling-of-rural-children.html>
5. <https://www.ijset.net/journal/205.pdf>
6. https://www.ijmra.us/project%20doc/2019/IJMIE_JANUARY2019/IJMRA-15003.pdf
7. <https://www.nipccd.nic.in/file/reports/bestprac.pdf>

Survey of Medicinal Plants used by Local people of Armori taluka, Gadchiroli District, (M.S.) India

Vasanta I. Kahalkar

Assistant Professor Department of Botany, Mahatma Gandhi Arts, Science and Late N. P. Commerce College, Armori

Email- Vasantak30@rdiffmail.com

Abstract :

The current work is based on a thorough field study of medicinal plants conducted in Armori taluka area. Locals in this region rely on the forest flora for their livelihood and on herbal remedies to treat illnesses and disorder. There are 49 reported species of medicinal plants, which belongs to 48 genera and 30 families of the plants used by the local people. Botanical names of all the plants have been arranged alphabetically. Local names, part use and medicinal use have also been provided.

Key words: Documentation, medicinal plants, Armori.

Introduction:

Since the beginning human beings have been coexisted with nature, and plants have been important to their existence as they supply the necessities of life; including food, shelter, medicine, clothing, etc. Our prehistoric forebears were able to use numerous wild plants in diverse parts of the world for their specific use in the process of trial and error. The knowledge on the medicinal plant was transferred from one generation to next generation orally or without any published records. India is rich in ethnobotanical knowledge. The ethnic and rural people of India have preserved a large bulk of traditional knowledge of medicinal use of plants growing around them (Yigra 2010). This knowledge is handed down to generation through word of mouth and extensively used for the treatment of diseases (Mishra *et al.*, 2008). However, there is now a big generational gap between the young and old. As a result, traditional information has not been effectively transferred. Therefore, the present effort was undertaken in order to gather and record the traditional knowledge of the local Medicine Man (*Vaidu*) from Armori taluka (same medicinal

plants used to treat various ailments and disorders).

Materials and Methods:

Field tours were organized frequently to collect the information, many interviews were conducted with old Medicine Man (*Vaidu*) belonging to different categories. As much as 49 different plant species have been surveyed and collected. The collected plant species were identified with the help of floras and processed according to standard method of herbarium preparation. All the specimens are deposited in herbarium of Department of Botany, Mahatma. Gandhi. Arts, Science and Late N. P. Commerce College, Armori.

Results and Discussion:

All 49 species of flowering plants from 48 genera and 30 families were included in the assessment of medicinal plants in the study area. These plants are used to cure a variety of illnesses and diseases, including Cholera, Diabetes, Dysentery, Asthma, Fever, Cough etc. From present study. It is revealed that there is still need to collect information on traditional knowledge which will be helpful for further scientific study on drug formulation and discovery of new drugs.

Table: - List of Ethno-medicinal plant used by local people.

Sr. No.	Botanical Name	Local Name	Part Use	Uses
1.	<i>Abrus precatorius</i>	Gunj	Leaves	Leaves chewed and juice swallowed in stomatitis.
2.	<i>Acacia catechu</i> (L.f.) Willd.	Khair	Bark	Bleeding gum
3.	<i>Achyranthes aspera</i> L.	Aghada, Kutri	Root	Dog bite, Scorpion bite
4.	<i>Adhatoda zeylanica</i> Medic.	Adulsa	Leaves	Cough and asthma.
5.	<i>Aegle marmelos</i> (L.) Corr.	Bel	Fruit	Stomachache, leucorrhoea
6.	<i>Ailanthus excelsa</i> Roxb.	Maharuk	Bark	Stomach pain and cholera.
7.	<i>Alangium salvifolium</i> (L.f.) wang.	PandhariAkwal	Bark	Stomach pain due to worms
8.	<i>Andrographis paniculata</i>	Bhuineem	Leaves	Malarial fever and

	(Burm.f.) wall. ex Nees			worm's infestation.
9.	Aristolochia indica L.	Aristolochia indica L.	Leaves	Snake bite as an antidote
10.	Asparagus racemosus Willd.	Shatavari, Marbat	Tuberous root	Lactation after delivery, acidity, leucorrhoea weakness and weight gain
11.	Azadirachta indica Juss	Kadu-Neem	Leaves and seed	Used in fever, worm fusc and internal body heat. Seed oil is used in scabies.
12.	Bacopa monnieri (L.) Penn.	Brahmi	Leaves	Used for cough and hair falls
13.	Balanities aegyptica (L.) Del.	Hinganbet	Fruit	Food poison.
14.	Baliospermum montanum (Willd.) Muell-Arg	Jamal-gota	Root	Root decoction used for stomach pain due to indigestion.
15.	Bauhinia racemosa Lam.	Apta	Bark	Menstrual irregularity.
16.	Boerhavia diffusa L.	Khaperkhuti	Root	Jaundice
17.	Bombax ceiba L.	Kate-sawar	Bark	Menorrhagia, blood purification.
18.	Boswellia serrata Roxb. ex Colebr.	Salai	Bark	Wound healing.
19.	Butea monosperma (Lam.) Taub.	Palas	Flower & Seed	Flowers used against burning sensation and seed used for urinary problem
20.	Caesalpinia bonduce (L.) Roxb.	Sagargoti	Seed	Menorrhagia, also used for abortion.
21.	Calotropis gigantea (Ait.) R. Br.	Rui	Flower	Asthma and bronchitis.
22.	Cassia fistula L.	Bahava	Pod and root	Pod is used to treat stomach pain
23.	Catharanthus roseus (L.) G. Don.	Jagannath	Leaves	Used to treat diabetes.
24.	Celastrus paniculatus Willd.	Malkanguni	Seed	Seed oil is used for paralysis
25.	Celosia argentea L.	Kombda	Root	Kidney stone.
26.	Chlorophytum tuberosum Bakar	Safedmusali	Tuberous root	Root tubers are used as a tonic.
27.	Costus speciosus (Koen.) J. E. Smith	Kewakanda	Tuber	Used for to treat arthritis.
28.	Cullen corylifolia (L.) Medik.	Bawachi	Seed	Seed oil is used for scabies and skin diseases.
29.	Diplocyclos palmatus (L) Jeddrey.	Shivalingi	Seed	Used to enhance ovulation in woman.
30.	Elephantopus scaber L.	Rantambhaku	Root	Used for bleeding piles.
31.	Emblca officinalis Gaertn	Awala	Fruit	Used for constipation, it is the one the ingredient of triphala churn.
32.	Euphorbia hirta L.	Dudhi	Leaves, stem	Shoot with leaves are used to enhance milk secretion in mothers.
33.	Gymnema sylvestre (Retz.) R. Br. ex Schult.	Gudmar	Leaves	Leaf juice is taken internally to control

				diabetes.
34.	<i>Helicteres isora</i> L.	Muradseng, Atai	Fruit	Fruit paste is given to cure stomachic.
35.	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	Kuda	Root and stem bark	Stem bark is used for dysentery and root bark is used as a worm infestation
36.	<i>Martynia annua</i> L.	Wagnaki	Leaves	Leaf warmed and applied to cure wound.
37.	<i>Maytenus senegalensis</i> (Lam.) Excell.	Bharati	Leaves	Young leaves are chewed and juice spitted out to cures mouth sores.
38.	<i>Nelumbo nucifera</i> Gaertn.	Kamal	Leaf and seed	Seed with spongy testa is used in worm infestation. Leaf is used for skin diseases.
39.	<i>Pergularia daemia</i> (Forssk.) Choiv.	UtaranVel	Flower	Flower juice is used in cough.
40.	<i>Phyllanthus amarus</i> Schum &Thonn.	Bhuiawala	Root	Used to cure jaundice.
41.	<i>Ricinus communis</i> L.	Erandi	Leaf and Seed	Leaf is applied over swelling. Seed oil is used for constipation.
42.	<i>Schleichera oleosa</i> (Lour.) Oken	Kusum	Stem bark	Stem bark powder is used in dysentery.
43.	<i>Semecarpus anacardium</i> L. f.	Biba	Fruit	Oil is used as an antiseptic, cuts and foot cracks.
44.	<i>Sphaeranthus indicus</i> L.	Gorakhmundi	Leaf	Leaf juice is used for toothache, cough and indigestion.
45.	<i>Spilanthus calva</i> DC.	Akkalkara	Flower	Flowers are used to cure cough.
46.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	Fruit	Fruit powder is used for cough, constipation and indigestion. It is also used in the preparation of triphala powder.
47.	<i>Terminalia chebula</i> Retz.	Hirda	Fruit	Fruit is useful for cough, indigestion, gases, constipation, stomachic. It is also one of the ingredient of triphala powder.
48.	<i>Tinospora cordifolia</i> (Willd.) Miers. ex Hook. &Thoms	Gudvel	Stem	Used in fever, jaundice,
49.	<i>Tridax procumbens</i> L.	Kambarmodi	Leaf	Fresh leaf used in cuts and wounds.

Conclusion:

All the medicinal plants are harvested from the forest to treat illnesses and other usages, but they are not conserved. Therefore, it is important to raise awareness among traditional practitioners about the need to protect local plant species before their extinction from the area.

Acknowledgements:

The author is grateful to the principal for providing facilities for this work. Author also thankful to the Head of the department for their valuable suggestion and local people of the study area for giving important information about the use of plant.

References:

1. Jain S. K. 1987. A manual of Ethnobotany. *Scientific publisher, Jodhpur*, India.
2. Lakshminarshimhan P, Sharma B. D. 2000. Flora of Maharashtra State Dicotyledons, Vol. 1 (Ranunculaceae to Rhizophoraceae). *Botanical Survey of India*.
3. Mishra S. B. Dwedi S, Shasi A. and K. Prajapati 2008. Ethnobotanical uses of some plant species by Ethnic and Rural people of the Salem dist. with special reference to the conservation of vanishing species; *Ethnobotanical leaflet*, 12 : 873-887.
4. Singh N. P., Lakshminarshimhan P, Karthikeyan S, Prasanna 2001. Flora of Maharashtra State Dicotyledons, Vol. 2 (Combretaceae to Rhizophoraceae). *Botanical Survey of India*.
5. Yigra G, 2010. Ethnobotanical Study of Medicinal plants in around Almata, Southern Tigray, northern Ethiopia. *Current Research Journal of Biological Sciences* 2 (5): 338-344.

Use of Information Communication Technologies (ICTs): For Accessibility of Grey Literature in Medical College Libraries

Dr.Khandekar Ganesh Bajirao

Librarian. (Asst. Prof.) Night College of Arts & Commerce, Ichalkaranji - 416115 (MS)

Email-Klp.ganesh@gmail.com

Abstract:

Rapid developments of Information and Communication Technologies (ICTs) have changed the conception of traditional libraries. Modern Medical College libraries are more important, dynamic, and can serve without the restrictions of geographical boundaries. In this global period, libraries are fleetly switching to digital mode and are widely accessible. With the arrival of new communication technologies libraries redesigned their services to a borderless world and come the lifeblood of the community. In today's ICT Environment, the Internet has become a major source for spreading and retrieval of grey literature. Well-designed websites offer users access to a body of digitally produced grey literature that complements the existing body of print materials. ICTs are the main source of information retrieval and dissemination system. The Ease of access and the speed, with which large quantities of information can be available, will have implications for science policy shaping and public attitude. This Research paper focuses on the study of Information Communication Technologies (ICTs) to Accessibility of Grey Literature in Medical College Libraries.

Keyword: ICT application; ICT services; Medical library resources; e-learning; grey literature; librarians' role, library

Introduction

Grey Literature "publication" platforms correspond to the multitudinous types of GL producers as described supra. The development of the Internet handed for yet other ways how to make GL available, e.g. on the company or personal websites, blogs, or in the institutional repositories. Standard general search engines (like Google) do not provide for solution of this problem as the GL is located mainly in the "deep web" that is not indexed wholly by them.¹

"Grey Literature is a term used to describe information products which are created and distributed to circulate knowledge (ideas, facts, opinions) rather than to sell for a profit. In practice, and for that reason, Grey Literature is known as information that isn't retailed and distributed by marketable publishing houses. The term 'grey' stems from the fact that such information isn't published and is not available through the traditional channels of publishers and booksellers. "Grey doesn't indicate any qualification; it is merely a characterization of the distribution mode."² "In fact, a large proportion of Grey Literature is distributed in both modes: 'grey' in the form of pre-prints, 'white' in the form of a published article. The quality is often identical; the main difference being that 'white' literature has a quality stamp provided by the publisher and its embedded peer-review process."³

The **value and importance of grey literature** lie substantially in its complexity, topicality, and financial availability. As noted by Schöpfel, and Farace the GL "*represents a substantial part of*

the scientific production".⁴ As the GL is not published in the "traditional way" it logically contains information not available/searchable/indexed by the standard librarian tools (e.g. standard library catalogues). Due to this fact, the GL should be always included in literature searches as it limits the potential bias.⁵ A mere reliance on the officially published sources may lead to a "*subjective one-sided research path*".⁶ The GL also contains more detailed information, an example being a technical report with detailed descriptions, diagrams, and data sets that would be never published in traditional journals.⁷ Compared⁸ to the "white literature" the GL tends to be more up-to-date as it is usually not subject to traditional and time-consuming pre-publishing processes. The quality of GL literature is still debatable⁹ as it is usually not subject quality processes like peer-reviewing in the case of published papers in traditional scientific journals. However, Seymour¹⁰ claims that the grey literature is subject to various levels of internal quality assessment - an example being the review process in the case of master or Ph.D theses. Also, the "publishing's" institution's name and reputation is at stake, therefore a certain quality check is to be expected. Lastly, due to its non-commercial character, the GL is usually available for free as in "free beer"¹¹, i.e. without monetary compensation. As discussed in the next section with the emergence of the Open Access movement the GL is also opening up in the sense of free as in "free speech".

ICT Tools:

ICT tools stand for **Information Communication Technology tools**. The ICT tools mean to digital infrastructures like computers, laptops, printers, scanners, software programs, data projectors, and interactive teaching box. Information and Communication Technologies (ICTs) have become central to education and training in Library and Information Science/Service (LIS) because of the great influence of these technologies on the professional world.

The arising new technologies have revolutionized the methods of information storage and retrieval in the Medical library field. In this Internet era more and more libraries in the world make use of these new technologies for storage, retrieval, and dissemination of information in a further effective way. Libraries can store a huge quantum of information using new technologies and transmit this information anywhere anytime without any geographical hedge. Scholars fulfill their thrust of information using new technologies without wasting their precious time. ICTs facilitate for rapid transmission of information globally through their networks. It helps library professionals to manage their housekeeping and documentation activities such as circulation, acquisition, maintenance of catalogue, periodical management, etc. in the libraries by automating them. These innovative technologies made accessible platforms for the scholars to make use of the information as well as to explore them. The other automated services in the libraries are storage, dissemination and advance searched for the scholars such as SDI, compiling bibliographies, indexing/abstracting, etc. The traditional library housekeeping methods are now carried by using newer technologies. Newer technologies have given better solutions to most of the problems encountered in the field of libraries related to the acquisition, organization of information, reference services, circulation, and bibliographical services.

Grey Literature @ Medical College Libraries

Medical college libraries produce vast literature, which is not going to publish in the traditionally documents. This literature can be defined as Grey literature. This can be used for research, teaching, and learning. Some institutions, universities issue pre-prints or e-prints before their formal publications and these can be considered as a part of Grey literature. These unpublished Grey literature have potential value to the scholarly community globally. Most of the time, this literature is limited to its creator's desktop and does not have a method to access or

identify globally. Some institutions, universities provide mechanisms to access this information through their academic libraries. This non-conventional collection comprises doctoral dissertations, Annual reports of medical colleges, Reports of clinical trials, Current Controlled Trials, Clinical Study Results WHO Clinical Trials, In-house case-studies or case papers, Patient records, Medical literature given by Medical Representatives (MRs) conference proceeding and papers, scientific reports, etc. Today most of the non-conventional literature can be found in electronic format. In this ICT era libraries do not necessarily to have all the documents in their libraries. Instead of that library professionals should know from where to get what they need. They can access whatever information they need by doing a systematic searches on the web. They should have a direct relationship with the main producers of grey literature.

Objective:

To examine the potential of Information and Communication Technology as a tool to access the Grey literature.

The Rationale for Research Topic

The Librarians of Medical Colleges can play a vital role in bringing together all the Grey literature related to health care. There is a need to disseminate current information from the Grey literature through ICT.

Methodology

For this research, a descriptive method has been used. For collecting data, an Interview method was used.

Tool used for Data Collection

The investigator has used both primary and secondary data for the research work. An Interview method was administered for collecting the required primary data. Secondary data were collected mainly from the brochures, newsletters, records, and different types of publications available in Medical College Libraries.

Scope and Limitations

The Researcher covered Selected MBBS (Government and private) Medical College Libraries for the Study.

Result and Discussion

These days almost the medical college libraries have computerized their cataloguing system. Classification not only brings related documents together, but it also helps in storing and deciding their location. Consider that a medical college library starts with a core collection of GL at some point in its life. Then it is necessary to have an adequate, relevant, comprehensive, and

up-to-date collection of GL which should be accessed when required.

A. Awareness and Organization of GL

Grey literature is not a very new concept. The concept was there, but, not many of the respondents may know that it is called Grey Literature. Some may not have a clear idea regarding the broadness of the concept. Even

they may not be aware of all types of GL. How familiar are the respondents with the organization of GL in their own libraries? These issues are explored in the sub-sections.

B. Awareness of the Concept of Grey Literature

The users were asked whether they had known the concept of Grey literature or not.

Table No. 01, Awareness of Grey Literature

Know the Concept of GL	Faculty	Student	Grand Total
No	6	9	15 (3.75%)
Yes	194	191	385 (96.25%)
Grand Total	200	200	400

The above table shows that Grey Literature was known to the majority i.e., 385 (96.25%) of users, this means that 96.25% of the respondents

had aware of the concept of GL, and the remaining 15 (3.75%) were not aware of GL.

Table No. 02, The Features of GL, Means, and Ranks

Features	Mean of Means	Rank
Ease of Access	3.10	3
Avoids Duplication: Helps Selection of Topics for Research	2.72	7
Teaching Purpose: Extent of Use	1.41	12
Research Purpose: Extent of Use	2.71	8
Up-to-datedness and Recentness	2.61	9
Adequacy and Comprehensiveness	3.20	2
Old GL: Extent of Use	2.73	6
Relevant and need-based GL	2.91	5
Library permits Borrowing	3.02	4
Digitized catalogue Entries	3.37	1
Text-based Access through CD or Server	1.96	10
Facilitating Online Access	1.58	11

Table No. 03, Rank-wise Features

Rank	Features	Mean of Means
1	Digitized catalogue Entries	3.37
2	Adequacy and Comprehensiveness	3.2
3	Ease of Access	3.1
4	Library Permit to Borrow	3.02
5	Relevant and need-based GL	2.91
6	Old GL: Extent of Use	2.73
7	Avoids Duplication: Helps Selection of Topics for Research	2.72
8	Research Purpose: Extent of Use	2.71
9	Up-to-datedness and Recentness	2.61
1	Text-based Access through CD or Server	1.96
11	Facilitating Online Access	1.58
12	Teaching Purpose: Extent of Use	1.41

The table above is self-explanatory. 'Digitized Catalogue', 'Adequate and Comprehensive

Collection' and 'Ease of Access' are the top three ranking features expected of a good GL

collection. These are the minimum requirements expected of a GL collection. 'Text-based Access' and 'Online Access' are the needs at high-end. The other needs are in between and much based on the policy and management of the library in question.

In addition to the above, there are some other expectations of users from the libraries housing the Medical GLs.

Online Access for GL Collection

Library facilities are improving fast and the users expect IT-based services and everything on their desktop. Accordingly, the infrastructure facilities were being installed to help the information seekers. In medical colleges, many of the in-house publications were in digital format. They can be accessed through the Local Area Network or Intranet. The year 2001 and onwards, most of the Medical College Libraries have computerized their cataloguing system. Therefore, a majority of the medical college

libraries are having a computerized catalogue or Online Public Access Catalogue (OPAC) to assist the users in finding out the GL and the other documents. Library OPAC is an outcome of the automation process. It is useful to access the documents available in the library through LAN or campus network or intranet or it can be uploaded on the web and made searchable. Such web-based access can be provided in today's era.

Online Access to Institutional Publications

The present time is referred to as the electronic age. Automation of library functions and services has become the order of the day. Academic and research institutions have created their websites to host various information services for remote and wider access, breaking the barriers of time and distance. In this direction, libraries have started maintaining websites or servers for hosting information to their users. GL also can be digitally generated, stored, accessed, and disseminated.

Table No. 04, Online Access to Institutional Publications

Sr. No	Online Access to Institutional Publications	Faculty	Students	Total
1	Yes	138	142	280 (70%)
2	No	56	49	105 (26.25%)
3	No Answer	06	09	15 (3.75%)
	Total	200	200	400 (100%)

Above Table No. 04 shows the online access of Institutional Publications including internally generated GL. As it is seen in the chart, 280 users access Institution or Library Websites to see the information about Institutional Publication such as Annual reports, Developmental reports, Budget reports, and In-

house publications, including Newsletters clinical tests, etc., GL. The balance includes 105 users not accessing Institution or Library Websites for Institutional Publications and 15 respondents have remained silent on this issue. These 280 respondents are further categorized as shown the Table 05

Table No. 05, College Libraries Hosting Information on

Sr. No	Responses	Faculty	Students	Total
1	On the Website	39	33	72 (25.71%)
2	In the Intranet Server	99	109	208 (74.29%)
	Total	138	142	280 (100%)

The above table shows that 72 (25.71%) users indicated that they access institution or library websites to see information about Institutional Publications. However, 208 (74.29%) respondents, access the intranet server to see the information about Institutional Publications.

Access to Institutional Publications also is accessible through the web or intranet. Online Access for GL collection is made possible through ICT.

Findings

Institutional publications and annual reports play a vital role in preparing proposals and reports concerning the institution. Considering all medical colleges in Maharashtra, 280 users (70%) (Please see Table No. 04) expect access to the digital version of institutional publications such as annual reports, developmental reports, budget reports, and in-house publications, including newsletters.

As it is seen, 208 respondents out of 280 (74.29%), (Please see Table No. 05.) access the server for the information regarding Institutional

Publications. On the other hand, 72 respondents out of 280 (25.71%) indicated that they access institution or library websites to seek knowledge regarding Institutional Publications. Almost all activities related to scanning websites/databases for relevant GL, identification, selection, ordering, procurement and processing i.e., cataloguing, classification, providing metadata are done through ICT or the internet. Further, the entire text or graphics can be scanned and stored, so that the document can be directly accessed. Besides, these days it is much simpler because all the GL are born digital. Once it is in machine-readable form then it can be subjected to any ICT application. RSS Feed and other 'Alerting Services' are the other major gifts of ICT which help in effortless access to new GL. Today one can search and access directly any GL unless it is an official trade secret or classified Defense related information. ICT helps access full-text of the latest addition of GL. Internet facility and web technology have made it easy to access.

Suggestion

It is with this context that, there is an urgent need to study the existing situation in Medical/Health Colleges/Universities in Maharashtra, especially about the current development of ICTs and the opportunities the national Fiber-optic network is offering to universities in the country. Overall there is a great potential on the ground in terms of ICT possibilities; it is up to Health Universities and the Governments to exploit them to enhance access and use of grey literature.

Conclusion

The holding of GL is an up-to-date collection in the Medical college libraries. However, it is encouraging note that the majority of the users aware of Grey literature and users also use Information Communication Technologies for accessing the GL. Users access the Institution or Library website to see the latest GL e.g. institutional publication, annual reports, clinical tests, etc. through an Internet server. Online access for GL collection is made possible through ICT. Almost all activities related to scanning websites/databases for relevant GL, identification, selection, ordering, procurement and processing i.e., cataloguing, classification, providing metadata are done through ICT or the internet. Thus, ICT helps access the full-text of the latest addition of GL. Internet facility and web technology have made it easy to access.

References

1. HE, Bin, PATEL, Mitesh; ZHANG Zhen; CHANG, Kevin Chen Chuan. Accessing the

- deep web. *Commun.ACM*. Vol. 50, No. 5. (May 2007), pp. 94-101, doi:10.1145/1230819.1241670
2. Owen, J. M. (1997). *The expanding horizon of Grey Literature*. Retrieved 08 08, 2017, from <http://eprints.rclis.org/5654/1/glpaper.html>
3. Ibid.
4. SCHÖPFEL, Joachim; Farace, DJ (2009). Grey Literature. In: Bates, MJ; Maack, MN (eds). *Encyclopedia of Library and Information Sciences*. 3rd edition. Taylor & Francis. As cited in: Usage of grey literature in open archives: state of the art and empirical results, p. 74.
5. See MCAULEY, Laura; PHAM, Ba'; TUGWELL, Peter; MOHER, David. Does the inclusion of grey literature influence estimates of intervention effectiveness reported in meta-analyses? *The Lancet*. 2000. Vol. 356, Issue 9237, pp. 1228-1231.
6. HOPEWELL, Sally; McDONALD, Steve; CLARKE, Mike J; EGGER, Matthias. Grey literature in meta-analyses of randomized trials of health care interventions. *Cochrane Database of Systematic Reviews*. 2007, Issue 2. Art. No.: MR000010. Available at
7. VASKA, Marcus. In: PEJŠOVÁ, Petra (ed.). *Grey literature repositories*. Zlín: VeRBuM, 2010. 156 p. Available at . ISBN 978-80-904273-6-5. p. 12.
8. DE CASTRO, Paola; SALINETTI, Sandra. Quality of grey literature in the open access era: Privilege and responsibility. *Publishing research quarterly*. 2004. Vol. 20, No. 1, p. 4. ISSN 10538801.
9. For a thorough comparison between 'grey' and 'white' literature, see MACKENZIE, Owen, John. *The expanding horizon of Grey Literature*. 1997. In *GL3 : Third International Conference on Grey Literature*, Luxembourg. 1997. Available at .
10. See supra FN 10. 13 SEYMOUR, Deni J. Sanctioned Inequity and Accessibility Issues in the Grey Literature in the United States. *Archaeologies Journal of the World Archaeological Congress*. 2010. 6(2). pp. 233-269. DOI 10.1007/s11759-010-9144-6.
11. Paraphrasing the famous characterization of Free Software by Free Software Foundation
12. Matěj, Myška. *A Model Framework for publishing Grey Literature in Open Access* from <https://www.jipitec.eu/issues/jipitec-4-2-2013/3744/myska-savelka.pdf>

Library Automation - An Introduction

Shashikala S Angadi

Librarian, Shri Mailaralingeswar Post-Graduate College Rangampet Tq-Shorapur, Dist-Yadagir,
Karnataka.

Abstract

This article focused on the overview of library automation and the changing scenario of library management. The impact of ICT has changed the library operation and its functionality in to s fast to faster mode. Clients need not to visit shelf to shelf to find out a find out a document. They just get their documents sitting in front of a desktop automation has reduced the man power. This article will discuss about the concept the concept of automation its requirement and various components helps to automate library. Some software package has given which are available for automation purposes.

Keywords: Automation, Cataloging ,Library software, OPAC

Introduction

The library plays a critical role in our society it is an important component of any educational institution, which is hub of the teaching and learning activities where students, researchers and teachers can explore the vast resources of information. In the age of information communication technology computers are being used for day- to-day housekeeping activity of the library which saves the time of the library service smooth and effective. In the age of ICT library scenario has been drastically changed in terms of collection, organization and services. Simultaneously user's demands and attitudes have changed in its kinds. Also the information seeking behaviour of user has dynamically changed. They want relevant authentic information very quickly within a single place at their hand. This concept has posed challenges for library professionals for library professionals for quick delivery of library services and information. This development in library field has brought the idea of library automation. Library automation is inevitable in this age of information and information technologies. Library automation is the use of automatic and semi automation data processing machines to perform such traditional activities as acquisition cataloguing and circulation. Library automation may thus be distinguished from related fields such as information retrieval automatic indexing and abstracting and automatic textual analysis.

Definition Of Automation:

According to the encyclopaedic dictionary of library sciences automation is the technology concerned with the design and development of the process and system that minimizes the necessity of human intervention in their operation (Ishvari et.al, 1993).

According to the encyclopedia Americana automation may be defined as any continuous integrated operation of a producing system that

uses electronic computer on related equipment to regulate and coordinate quantity and quality of what is produced. Automation is automatic control of an apparatus process or system by mechanical or electronic devices that take the place of human organs or observation efforts or decision (Webster Dictionary. 1966).

The word automation was first introduced by D.S. Harder in 1963. He defined in 1936. He defined automation as the automatic handling of parts between progressive production processes. Library automation may be defined in simple sense as 'a process of mechanization of library operations which are of routine and repetitive nature. Computerization of library housekeeping operation, predominance of computerization is known as library automation.

Library Automation: A Brief History

Library automation refers to use of computers in library work including services computers were engaged in library service in USA in 1950s in a very modest way. Dr H P Luhn had organised computerized indexes in 1950s computers entered and found some place in American library during this decade. However, their use and application was very limited and restricted due to the high cost of hardware and non-availability of application software packages. During 1960s the cost of hardware came down and appreciable attempts were made towards developing library application packages. This led to increased use of computers in library and printing industries. In April 1960 the American chemical society published its chemical titles through computers.

In this decade, one of the most significant developments in this direction was seen in MARC I. In the year 1963 W K Gilbert prepared a report on computerization of Library of Congress. On the basis of this report the MARC I project was initiated in 1966, and the work of bringing out the Library of Congress catalogue in machine-readable catalogue (MARC) form was

started and completed. There was a heartening welcome of the tape containing the catalogue. MEDLARS and INTREX projects are similar examples of producing machine-readable catalogues. Now-a-days computers have become almost essential components of library work in developing countries.

The Indian statistical institute, Calcutta was the first in India to install a computer system in 1955, and to develop an indigenous computer in 1964. In India computers were used in library work for the first time possibly by INSDOC by bringing out the roster of Indian scientific and technical translators with the help of computers. INSDOC brought out the first union scientific and technical translators with the title regional union catalogue of scientific serials, Bombay Poona in 1973. In 1978 INSDOC initiated SDI service as a NISSAT project with chemical Abstracts and INSPEC databases, with the use of CAN/SDI software of IIT, madras, in 1970's many library ventured in preparing computerized databases. Through the initiative and financial support of NISSAT many library networks was initiated and are operative. Notable of these networks are CALIBNET (Calcutta library network) DELNET (Delhi libraries network) INFLIBNET (information and library network) PUNENET (Pune library network) etc. Some other notable networks are NICNET, INDONET, SERNET, ERNET etc. Nowadays, many institutions such as DRTC, INSDOC, DESIDOC, NISSAT etc are engaged in imparting training for computer application in library work through regular sponsored and part time courses. The price of computer hardware and software has come down considerably. Owing to these factors computers have become popular with Indian libraries.

Indian Scenario Of Library Automation:

In view of enormous capacity of data storage, quick processing access retrieval, dissemination of information, library and information centre of our country have started using computers for these activities. In the beginning computers were used by big academic institutions like DTs, IIMs, and other national institutions like CSIR, INSDOC, NASSDOC, DRTC, DRDO, BARC and other institutions of higher learning of national importance. The condition of academic libraries, and information center was very poor. Except a few central University like JNU, Hyderabad University, Pondicherry University IGNOU, and some state universities like Punjab University of Mumbai, cochin University of science and technology Osmania University few deemed

universities like tata institute of social sciences etc. The use of information technology was not evident before the 1990's the new education policy, 1986 recommended the improvement of library and information centres of universities/institutions of higher learning. It categorically emphasized that information technology should be used in the libraries for providing effective library and information services to the academic communities.

Government of India directed the UGC to constitute a committee to give recommendations for modernization of university libraries and information centers. UGC recommended in 1992 accommodation of a special paper in "Application of computer in Library Activities" in Library and information science courses in India. The introduction of computers for library operations has brought revolutionary changes and new dimension in the whole library and information management in India. The government of India has taken prime steps for computerization automation and networking of library and information centres. A number of national regional and city library and information networks such as NICNET, INDONET, ADINET, CALIBNET, DELNET, MALIBNET, ERNET etc. Have emerged and found their way. In order join and effectively participate in these library networks, library and information centres will have to be modernized and automated (Vashishith 1994). After recommendation of a high powered committee, UGC established INFLIBNET centre which is an inter-university centre with its headquarter at Ahmadabad for computerization automation and networking of university libraries, HTs, RECs, libraries of institutions of national importance for resource sharing among the libraries (Sinha and Satpathy, 1998) till date 142 universities been funded by INFLIBNET, to create IT conscious environment in the libraries. Almost all university libraries have taken steps to change over to automation. Some of them have fully automated their activities and some other have started automating their library activities. The prime minister of India has recently announced special grants for the College libraries of North East India and Jammu and Kashmir for purchasing SOUL software for automating their libraries to cope with the changing environment library schools in India have introduced paper on computer application in libraries in their academic programs. Besides this, different organizations are organizing in-service training courses on computer application to the working library professionals. As manpower development is one

of the important factors in this changing over to automated library system, training of personnel is a must.

Need And Objectives Of Library Automation

Information explosion has resulted in the production of a large amount of literatures in every field of knowledge. Accordingly the print documents are coming to the library in huge numbers which is not possible for a library to manage the collection manually.

Now a day's no user has time to search the required and relevant information from dense heap of information collection. They have no time to go shelf by shelf to pick up a book. So it necessitated for library automation. In most of libraries are yet to be automated. The various factors that necessitated changing a manually operated library system an automated library system are as follows.

The need for automation is emphasized because of the following factors:

1. Traditional methods for handling the information are inadequate. Out is bulk and growth rate of information.
2. Difficult to update the information due to voluminous increase and rise in the degree of specialization involved.
3. Techniques are suggested for applying computers with its advantages of speed, vast storage capacity and accuracy to library works.
4. The need for cooperation and resource sharing and hope achieving some saving through automation made to switch over to automation.
5. Operational advantages
6. Offers flexibility
7. Speeds up processing
8. Greater accuracy, efficiency, consistency and improved work control.
9. Reduces repetitive clerical work.
10. Permits easy of bibliographic control checking and updating
11. Permits improved budget control (Jagadesha and Mahesh 1998)

Essentials For Library Automation:

The essential things for the automation of a library are

1. A good collection
2. Finances
3. Suitable computer hardware
4. User friendly computer software
5. Staff training
6. User training

Automated Libraru Services

There are various types of automated services provided by the automated library. The automated services are:

1. Current awareness service (CAS)
2. Online search service
3. Printed Indexes
4. Selective Dissemination of Information (SDI)
5. Inter library loan
6. Stock verification
7. Reference service

Factors Behind Library Automation:

Some factors which prompted automation of library services are given below-

Computer is extremely fast in processing information and magnetic tape as storage making reduce storage space.

Many a time we require searching a database with a number of keywords with different combinations. This requirement makes a manual search very complex and tedious. Such searches can easily be made on computerized system by random accessing of information and rapid retrieval of information by creating proper information database.

Computerized database can be accessed in interactive mode as per user requirements.

Methodology To Be Followed During Automation:

Decide various functions of each activity

Identify the input requirements (data elements) for each of the function.

Identify the input in terms of records, files and the media, also determine the size of the files.

Identify the output required for each of the functions.

Identify the output in terms of records, files and the media, also determine the size of the files.

Development of programs (to get the desired output from the given input using the available hardware) or buying the commercial software to computerize some or all functions of the activities to be computerized.

Implementation and evaluation.

Problems Of Library Automation

1. Lack of motivation towards latest information technology
2. Lack of organization effort towards library.
3. Lack of fund.
4. Lack of trained personnel
5. Lack of proper/standard technology
6. Ignorance of senior library staff about the technology
7. Lack of suitable library management software packages.
8. Selection of appropriate software packages.

Components Of Library Automation:

Careful planning is a critical step in automating library services. Several points are to be taken into consideration before a library gets into automated activities.

(A) **Aim:** first Component of automation is its aim the purpose the reason why the set of library activities are to be computerized. This aim will be the focal point for integrating automation into the activities and for operating and managing the activities after automation.

(B) **Processing:** Second component is processing consisting of step by step operations performed in an orderly and predetermined sequence on information materials or other items to achieve desired result or service.

(C) **Computer System:** The third component is the computer system supporting the activities. The supporting computer may be a mainframe. The size depends upon the nature of functions to be automated, the number of functions to be supported by the computer, the anticipated volume of processing activity, the size of the information files to be written in the machine storage and funds available to the library. The computer must have the following capabilities:

sufficient memory to store

- a) The operating system
 - b) Application software
 - c) Process the volume of work
 - d) Enable sufficient users to be online to it
 - e) Capacity in future growth
- The computer system should have sufficient auxiliary storage for all the files essential to the activities with capacity for future growth.
 - Sufficient terminals and other devices such as scanners and printers.
 - The location of the computer can be in the library or outside the library.

(D) **Computer Software:**

The fourth components are the software supporting the activities of the library. Computer software is nothing but step by step instructions that command the machine to perform its share in the processing software may be developed by a commercial vendor or another library or it may be developed locally. The software supporting the library activities can be either stand alone or integrated. The stand alone software only one automated activity such as acquisition circulation etc. An integrated

system covers all the library activities such as acquisition circulation cataloguing serial control etc. And share common information and files.

(E) **Data Communication:**

The fifth component is data communication through data communication command and information can flow from the computer system supporting the automated activities to the points in the library where processing is required even though the main server is located in another part of the building or away from the library.

System Documentation

The sixth component is documentation in the form of memoranda, reports and manuals. These are written descriptions of various aspects of the automated activities to be used by the library staff and others for training references and quality control purposes while operating managing and maintaining the activities

(F) **Human Resources:**

The seventh component is the human resources needed to share processing with computer supporting the activities, provide, management and leadership for the activities and operate, manage and maintain the computer system supporting the activities. Staff is needed to initiate processes provide the computer with information to be processed and make decision during process steps and regarding services to be provided etc. Apart from attending to activities not supported by the computer system. Training is required for the staff who handles the automated system.

(G) **Environment:**

Eighth and last component is environment. Automated activity must have sufficient physical space to be performed efficiently and be provided with proper levels of lighting, temperature, humidity noise control and cleanliness etc. Any delay at this stage will delay the very installation of the automation itself.

Areas Of Automation:

Ranganathan's five laws of the library science stipulate that the documents of the library should have maximum number of users. With the application of information Technology in the areas of library and information centres has been a tremendous improvement in the library services offered by the library to the users. Library automation usually covers all library housekeeping functions such as acquisition cataloguing circulation and serial

control . in some libraries it has expanded to the library management system to incorporate OPAC's SD-ROM networks, DTP, office automation etc.

1. Acquisition
2. Cataloguing
3. Circulation
4. Serial control
5. Article indexing system
6. Information Retrieval system
7. OPAC system (online public access catalogue)
8. Web OPAC system
9. Information services

Conclusion

Now a day library automation has become the buzz word in library profession and has become a bare necessity for any libraries. An automated library can provide better services to their users and can maintain the library more properly which a manual library can't do. The record keeping activities and various report generation becomes very easy in an automated library system. But the success of any library automation programme depends upon its proper planning and execution. Hence library professionals need to take right initiatives in right direction.

References

1. Bhanja, M, & Barik, N.(2009) library automation problems and prospect paper presented at 10th national convention of MANLIBNET organized by KIIT university 2009
2. Cholin, V.S. & Prakash, K. (1997, March). Status of computerization and networking of university libraries in India. Paper presented at 4th national convention for automation of libraries in education and research of INFLIBNET on I.T. application library Patiala.
3. Gupta R.C., & Dass, Shir(1991) computerization of Serials control –a practical approach using a personal computer. IASLIC Bulletin, 36, 17-22.
4. Jharotia, Anil Kumar and Shukla, (2010) Development of consortia and library networking in India. National conference held at J K Business school, Gurgaon 19 march 2010 (ISBN-9788190938709) pp. 164-176.
5. Khote, Namita B, and Brije, Sunil R. (2009) prospective of library automation of networking of dental college library in Bangalore : status problem and prospective, international Journal of information Dissemination of technology 5[2]: 77-85.
6. Ramesh, L.S.R.C.V., (1998). Technical problems in University library on automation –an overview. Herald of library science, (37), 165-172.
7. Shilpa S Uploankar (2013). Use of electronic information sources and services in S. Nijalingappa Medical College : A Study. Library Progress. BPAS Publication, New Delhi. Vol. 33, Issue No. 01. Pp 1-11.

A Study of Impact of Bibliotherapeutic Approach on Challenges Faced By Students of Teacher Education Institute

Mrs. Suvarna S. Parab¹ Dr. K.O. Mandgaonkar²

¹Librarian, Chembur Sarvankash Shikshanshastra Mahavidyalaya Chembur, Mumbai – 400 071

²Librarian, Aabasaheb Parvekar College Yavatmal

suvarna.parab@gmail.com

Abstract

This paper focuses on aspects of bibliotherapy in respect to academic, psychological and social challenges faced by students of Teacher Education Institute. Bibliotherapy is helpful in treating long term mental illness in the form of depression, anxiety, low confidence, phobia, fear, shyness,. Investigator has used qualitative and quantitative methods of study on which this article is based. The result of the experiment is positive and draw inference that bibliotherapy has a positive effect after treatment. Investigator has conducted interview with the TEI students and it is classified that social well being has improved significantly so as self confidence and social interaction has risen up among students. The self help material investigator selected with the help of subject experts in education and Library and Information Science faculty had significant positive result. Investigator adopted methods like discussion, interview, conversation, debate, quiz to open up minds of students. So that they could openly share their challenges, issues, difficulties with the investigator. Bibliotherapy is effective method for psychological well-being. It improves self-confidence and social interaction. From user perspective bibliotherapy is an important tool of improvement.

Introduction

Bibliotherapy is the use of literature to promote psychological well-being , mental health has got significance in recent years. The bibliotherapy concept was known to us since beginning of 21st century. Through bibliotherapeutic activities like reading circle, book club, reading hours, books on wheels projects reading culture get impetus. Bibliotherapy is a quite well researched internationally. For psychological illness it is effective tool. Students suffering from long term anxiety, depression, phobia, shyness take part in bibliotherapeutic activities. These activities were in the form of reading circles, reading clubs have a potential to increase feeling of well-being among student, self-help material are very useful in mental illness problem. Considering the students old reading habits and inclination towards likings of particular genre may help immediately to treat challenges, problem among students. This therapy helps in curing psychological problems but concrete examples of how and how much psychological wellbeing was influenced were not provided(Hodge, Robinson and Davis, 2007) For bibliotherapeutic program students met for three hours twice in a week for 6 months from September till February. Literature was selected by the investigator and with the help of experts from education field. The investigator used conversation, discussion, quiz, reading aloud sessions. All students attended all the sessions enthusiastically. A questionnaire tool was used to get qualitative

data from the students. Five point rating scale was used in this research by investigator. Each questionnaire tool consists of 10 questions. Media influence variable has qualitative data to collect right answers from the students. It was experimental method of study, so pretest and posttest questions were forwarded to students to collect data. All data collected from the samples kept confidential. According to literary choices of students, their liking of reading, their tendency to particular genre were considered while providing literature to them.

Pim Cuijpers conducted considerable research on bibliotherapy, states that bibliotherapy is more successful for participants who are motivated and have significant reading experience.(Cuijpers, 1997). Reading has a curing function. Students were felt that reading was a pathway to their success in life and beating challenges and problems in their life.

Significance of bibliotherapeutic approach

All student participants were enthusiastic while reading sessions. Reading sessions had positive influence on psychological, academic and social well-being of student participant. These particular aspects are important for selection of the literature consciously. Further bibliotherapeutic activity helps in opportunities offered for social interaction

The literature in the bibliotherapeutic treatment.

All student participants expressed their happiness and appreciation of the literature

sessions during and in preparation for reading and conversation sessions.

It is observed that on some occasion student were in difficulty to concentrate during sessions. Literary quality plays a vital role during implementing bibliotherapeutic programme. Brewster points out that several of her informants reported that the act of reading itself was more important than the specific works read in helping them deal with their psychological problems (Brewster,2011)

In a bibliotherapeutic sessions the literature discussions were held, significance of the experts while implementing programme was ensured and significance of bibliotherapeutic activities in relation to other activities were noted.

Bibliotherapeutic Discussions

It is worth to note that aspects of literary discussions most appreciated by students participant. The attitude of the student was expressed in all the interviews. Bibliotherapy promotes changes in the students. Students use reading as a leisure activity. The bibliotherapeutic approach was meaningful to the students and has positive effect on their perception of health and psychological well being. Participant felt better than before. Participants are of the opinion that reading activity can help them prevent a worsening of well-being. Students reacted positively. So it is clear that bibliotherapeutic approach brought change in challenges intensity. Student put forward opinion that because of these bibliotherapeutic treatment they have started more reading. Participants gives feedback that their social interaction has risen up because of social interaction. The findings of this study are student participants have improvement in their challenges. Through bibliotherapeutic sessions self-confidence risen up, shyness has reduced, social skills are improved. Emotional challenges of the students can treat through bibliotherapy.

Statement of the problem

A Study Of Impact Of Bibliotherapeutic Approach On A Challenges Faced By Students Of Teacher Education Institutes.

Objectives

1. To identify the challenges faced by TEI students.
2. To identify the sources of challenges faced by TEI students.
3. To develop a bibliotherapeutic programme and study its effectiveness in the context of academic, psychological and social challenges.
4. To study the effect of bibliotherapeutic approach on academic challenges in context of

difficulties in understanding B.Ed. curriculum and academic procrastination.

5. To study the effect of bibliotherapeutic approach on psychological challenges in context of academic stress and study anxiety.

6. To study the effect of bibliotherapeutic approach on social challenges in context of media influence and family expectations.

Hypotheses

1. There is no significant difference in the mean scores of academic challenges in context of difficulties in understanding B.Ed. curriculum and academic procrastination at the pre and post test level.

2. There is no significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety at the pre and post test level.

3. There is no significant difference in the mean scores of social challenges in context of media influence and family expectations at the pre and post test level.

Methodology

In the light of objectives and to test the hypotheses of the present study, the researcher adopted experimental method of the study and for data collection questionnaire tool was used.

Statistical Treatment

Arithmetic mean, Standard Deviation, were used.

Results and Interpretation

H1 There is no significant difference in the mean scores of academic challenges in context of difficulties in understanding B.Ed. curriculum and academic procrastination at the pre and post test level.

There exist significant difference in the pre and post test scores of academic challenges. High mean value of the post test in respects of difficulties in understanding B.Ed syllabus and academic procrastination shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

H2 There is no significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety at the pre and post test level.

There is significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety. There exist significant difference in the pre and post test scores of psychological challenges. High mean value of the post test in respects of academic stress and study anxiety shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

H3 There is no significant difference in the mean scores of social challenges in context of media

influence and family expectations at the pre and post test level.

There is significant difference in the mean scores of social challenges in context of media influence and family expectations. There exist significant difference in the pre and post test scores of psychological challenges. High mean value of the post test in respects of media influence and family expectations shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

Conclusion

- There is significant Mean difference in academic challenges scores of pre and post level. So bibliotherapeutic programme was proved successful.
- There is significant Mean difference in psychological challenges scores of pre and post level. So bibliotherapeutic programme was proved successful.
- There is significant Mean difference in social challenges scores of pre and post level. So

bibliotherapeutic programme was proved successful.

Suggestions for further research

- The study can be extended to state level.
- Further study can be undertaken considering male, female, student categories.
- Small sample may be taken for more reliable results.

References

1. Bibliotherapy by Shrodes Caroline : The Reading Teacher, Vol.9, Reading and Emotions (Oct, 1955), pp.24-29.
2. Bibliotherapy : Fitting the Resources Together by Gerry Bohning : The Elementary School Journal, Vol 82, No. 2 (Nov, 1981), pp166-170
3. Bibliotherapy : Aiding Children in Personality Developemnt by Hoagland, Joan, Elementary English, Vol. 49, No.3 (March, 1972) pp.390-394
4. What is Bibiliotherapy by Shephard Terry, Lynn B. Iles, Language Arts Vol. 53 No.5 (May 1976), pp 569-571.

“A Study of Virtual Banking in India”

Mrs. Rohini Sampt Bhosale

Assistant Professor, Department of Economics and Bank Management, Dhananjayrao Gadgil
College of Commerce, Satara

Email Id - rohini28bhosale@gmail.com

Bhosalerohini1992@gmail.com

Abstract:

The Revolution in transportation technology in transportation technology has revolutionized the world's industrial and agricultural sectors, and in all of this, the rapid revolution in the banking sector has led to virtual banking. Attempts have been made to change the face of the banking sector. The study collected data from primary and secondary sources. Online banking services like ATM, Personal computer Banking. Phone Banking and E-mail Banking will help people to get information and awareness. This paper shows that the introduction of virtual banking in India. The term virtual banking includes e-banking (mobile banking or banking through computers), debit and credit cards, card-swipe or point of sale machines and digital wallet system. It also explains the important theoretical points related to various modes of virtual banking and its trend.

Keywords: Virtual Banking, Electronic channels, Benefits, Trends.

Introduction:

Banking industry in India has also achieved a new height with the changing times. Information technology has given rise to new innovation in the products designing and their delivery in the banking and finance industries. Financial innovation associated with technological change to Tally changed the banking philosophy and that is further tuned by the competition in the banking industry. Virtual Banking also known as internet banking, E-Banking or virtual banking, in an electronic payment system that enables customers of a bank or other financial transaction through the financial institution's website. Internet banking services introduced so far include the ability to monitor account balances, transfer funds between accounts, pay bills, and apply for loans. Only few banks will allow customers to make electronic trades through brokerage accounts. A Virtual bank is a bank that offers banking services through electronic channels. All services of virtual banks can be performed online and there are no bricks-and-mortar branches. Clients can open an account, make deposits, taking out loans and performs other banking transactions via a mobile app or through the website of the virtual bank. Within the near future many banks will offer home banking via an interactive website.

Objectives of the Study:

1. To understand the concept of virtual banking.
2. To study the modes of transactions in virtual banking and its trend in India.

Research Methodology of the Research Paper:

The present study is based on secondary data. This data has used for getting a real result from research paper. Secondary data has been collected from the various RBI Annual Report, Books, Journals and Government Web-Portal.

Modes of transaction in Virtual Banking:

The cashless Economy in India has been amplified with the Indian Government's initiative of Digital India. This is a flagship programme with a vision to transform India into a digitally empowered society and knowledge economy. When the transactions in an economy are not heavily based on the money notes, coins or any other physical form of money but are aided by the use of credit cards, debit cards and prepaid payment instruments, such an economy is called cashless economy. The modes of transactions in virtual banking are as follows.

ATM – Automatic teller Machine:

Automatic Teller machine began to be introduced in the period 1969 -1984 all over the world ATM literally means electronic cash Dispensing, which is open round the clock and 365 day a year. The banks give an ATM cards to the user and allot a separate and identification number

Privet sector banks are going ahead aggressive ATM Plans Particularly off-site for wider reach with lower cost. They are also targeting ATM development in the top corporate offices or staff colonies – not only for the salary accounts but also for a piece of the corporate pie and also to get the following benefits-

- Reduction in transaction cost
- Reduction in paperwork involved in transfer of securities
- Right location of the ATMs
- Optimum population of ATMs at each Center

Table No.1, Branches and ATMs of Scheduled Commercial Banks (At end-March 2021)

Sr. No.	Name of the Banks	Branches					ATMs		
		Rural	Semi urban	Urban	Metropolitan	Total	On-Site	Off-Site	Total
	Public Sector Banks	28,828	24,028	16,654	16,801	86,311	78,007	59,106	1,37,113
1	Bank of Baroda	2,851	2,087	1,482	1,794	8,214	8,663	2,970	11,633
2	Bank of India	1,835	1,455	803	932	5,025	2,388	3,163	5,551
3	Bank of Maharashtra	611	461	372	471	1,915	1,505	445	1,950
4	Canara Bank	3,072	3,141	2,103	2,130	10,446	9,128	4,324	13,452
5	Central Bank of India	1,603	1,333	810	862	4,608	2,746	898	3,644
6	Indian Bank	1,940	1,589	1,259	1,214	6,002	4,239	686	4,925
7	Indian Overseas Bank	902	961	651	687	3,201	2,720	425	3,145
8	Punjab And Sind Bank	570	279	356	326	1,531	1,067	30	1,097
9	Punjab National Bank	3,900	2,680	2,257	1,931	10,768	8,610	5,171	13,781
10	State Bank of India	7,914	6,496	3,981	3,830	22,221	25,706	36,911	62,617
11	Uco Bank	1,074	818	609	555	3,056	2,146	215	2,361
12	Union Bank of India	2,556	2,728	1,971	2,069	9,324	9,089	3,868	12,957
	Total								

Source- RBI Bulletin

The table shows that, How many ATMs in public sector banks used in march 2021. In Rural branches, Semi urban branches, urban and Metropolitan Branches total use of ATMs On-side and Off- side are 1,37,113.

Credit Card:

In the process of evolution of money after paper currency, several forms of bank money of credit money came in to existence. The quality of these forms of money is the Convince in carrying and effecting the transaction. In this process of evolution, which incidentally, is a continuous process one latest from to enter in to the Indian financial system is credit card.

Benefits of credit cards –

1. To the Banker :

For the issuing banker credit card means an opportunity of making good Profit between the date of payment to business establishment and date of realization of the amount from the card holder period of 30 to 45 days is required.

2. To the member Establishment :

- i) Their sales increase and so do their profits.
- ii) They can sell goods on credit but not at their own risk.
- iii) Their payment is guaranteed by the issuing banker.

3. To the card – holder :

- i) Many banks allow withdrawals of cash against credit cards at any of their beaches.
- ii) In case of loss, the holder's liability is limited.

Debit Card:

Debit cards combine the function of ATM cards and Check. Debit cards are issued by banks but are used at stores, not at the banks themselves. When you pay with a debit cards, the money is

automatically deducted from your account. Debit cards, as we all know are very much in use in resent time. They have eliminated the need for carrying physical cash all around. Not only do they make transaction and paying easy in a matter of seconds ,but also, they are widely accepted.

Benefits of Debit Cards-

- Debit cards are extremely simple to use. Since the payment is deducted directly from your bank account a place where the money already exists, it can be done instantly.
- You pay your bill immediately, unlike when you use a credit card and get bill later.

Internet Banking: In Indian slowly but steadily, the Indian customer is moving to words internet banking a number of banks have either adopted internet banking on the threshold of adopting it. The banks started Internet banking initially with simple function such as getting information about interest rates, checking account balance and computing loan eligibility.

It was ICICI bank which initiated the electronic banking revolution in India when they introduced internet banking as early as 1997 under the HDFC in sept.1999. Global trust bank etc. as estimated 4.6 million Indian Internet users are banking through internet. This figure is expected to reach around 16 million by 2007-08.

SWIFT (society for worldwide interbank financial telecommunication :

SWIFT is the global financial community's foremost messaging infrastructure that is lowest risk and highest flexibility. SWIFT'S mission is to become a worldwide community of financial institution whose purpose is to be the leader in communication solution enabling inter-

operability between its members, their market infrastructure and their end-user community. In 2003 SWIFT had revenue of EUR 57 million and had assets worth EUR 413 million and had 1708 employees. It has reached 2 billion message marks. The growth rate in message traffic is 16.69%. It covers over 200 countries and the live users are over 7500.

RTGS – Real time gross settlement:

RTGS system was introduced in India on 26th march, 2004. RTGS system is a comprehensive and secured online payment mechanism.

Under RTGS system is interbank payment instruction are processed throughout the day, on transaction- by transaction basis. RTGS system was set up, operated and managed by Reserve Bank of India (RBI).

Benefits-

- a) For minimizing the cost of transfer of funds
- b) For reducing the risk of transfer of funds
- c) For providing liquidity to the beneficiary.

Digital Payments:

Large value credit transfers through RTGS dominated the overall payments landscape in the year 2019-20, according for 80.8% of the total value of digital transaction. In terms of volume however, credit transfer via multiple channels such as a unified Payments Interface (UPI), National Electronic Funds Transfer (NEFT) and Immediate Payment Service (IMPS) were the leaders. In case of card payments, the value of card transaction registered a growth of 35.6 % against 21.1% for credit cards.

Table No-2, Digital Payments

	Volume(Lakh)			Value(crore)		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
1. Large Value Credit Transfers – RTGS	1244	1,366	1,507	11,67,12,478	13,56,88,187	13,11,56,475
2. Credit Transfers	58,793	1,18,750	2,06,661	1,88,14,287	2,60,97,655	2,85,72,100
2.1 AePS	6	11	10	300	501	469
2.2 APBS	12,980	15,032	16,805	55,949	86,734	99,448
2.3 ECS Cr	61	54	18	11,864	13,235	5,145
2.4 IMPS	10,098	17,529	25,792	8,92,498	15,90,257	23,37,541
2.5 NACH Cr	7,031	9,021	11,406	5,20,992	7,36,349	10,52,187
2.6 NEFT	19,464	23,189	27,445	1,72,22,852	2,27,93,608	2,29,45,580
2.7 UPI	9,152	53,915	1,25,186	1,09,832	8,76,971	21,31,730
3. Debit Transfers and Direct Debits	3,788	6,382	8,957	3,99,300	6,56,232	8,26,036
3.1 BHIM Aadhaar Pay	20	68	91	78	815	1303
3.2 ECS Dr	15	9	1	972	1260	39
3.3 NACH Dr	3,738	6,299	8,768	3,98,211	6,54,138	8,24,491
3.4 NETC	15	6	97	39	20	203
4. Card Payments	47,486	61,769	73,012	9,19,035	11,96,888	15,35,765
4.1 Credit Cards	14,052	17,626	21,773	4,58,965	6,03,413	7,30,895
4.2 Debit Cards	33,434	44,143	51,239	4,60,070	5,93,475	8,04,870
5. Prepaid Payments Instruments	34,591	46072	53,318	1,41,634	2,13,323	2,15,558
Total Digital Payments(1+2+3+4+5)	1,45902	2,34,339	3,43,456	13,69,86,734	16,38,52,286	16,23,05,934

Source- RBI Bulletin

The table clear that, India is in progressive step in terms of using Digital Payments . RTGS has made digital payments of Rs. 11,67,12,478 crore in 2017-18, while it has increased to Rs. 13,11,56,475 crore in 2019-20. In the last three years the valume of Total Digital Payments of RTGS , Credit Transfers ,Debit Transfer and Direct Debits, Cards Payments, Prepaid Payments Instruments in 2017-18 it was 1,45902 , in 2018-19 it was 2,34,339 and 2019-20 it was 3,43,456 lakhs . Similarly in last three years the volume of Digital Payments is 2017-18 it was

13,69,86,734 , 2018-19 it was 16,38,52,286 and 2019-20 it was 16,23,05,934 crore respectively.

Conclusion:

The banking industry is now a very mature one and banks being forced to change rapidly as a result of open market forces such as threat of competition, customer demand, and technological innovation such as growth of internet banking. If banks have to retain their competitiveness, they must focus on customer retention and relationship management upgrade and offer integration and value added services.

Refernce :

- 1) E-Banking in India – R.K. Uppal and Rimpi Jatana
- 2) Modern banking – Dr.R.K. Datir
- 3) Economics Times of India
- 4) RBI Bulletin
- 5) Report on Digital Payments : source RBI
- 6) Report on Remittances through Payments Banks :Off-site return (domestic operations),RBI
- 7) Branches and ATMs of scheduled commercial Banks(At end- March 2021)

Cultural Gems in the Fictions of Chinua Achebe and Mulk Raj Anand

Dr. Dnyaneshwar Kisan Satbhai

Assistant Professor Dept. of English K.K.Wagh Arts, Science and Commerce
College, Pimpalgaon (B). Tal- Niphad, Dist- Nasik. Maharashtra, India.
Email: dnyaneshwar.satbhai123@gmail.com

Abstract:

The present research paper focuses on the interrelationship and interconnection between Culture and Literature, features, and the influential role of culture in literary creations; literature offers a platform to expose the conscious and subconscious thoughts, feelings and ideas. Cultural sense constantly exists in the mind of every individual, and intentionally or unintentionally the cultural doctrine of the artist peeps through his artistic creations, sometimes to express his inner voice and sometimes to communicate about his community. In the case of Achebe and Anand, literature has become a strong gizmo through which they have promoted their cultures and traditions, and attested the fact that their societies are not uncivilized, but possess an ancient cultural heritage. Their fictions illustrate that Nigeria and India have gracious and superior ethnic values.

Key Words: Multifaceted, Phenomena, Multidimensional, Ethos, Illustrate Essence, Polytheistic, Polygamy, Nurture, Ethically, Assault.

Introduction:

In the history of human civilization, culture and literature have been playing a substantial role. They are interrelated and interconnected; the former is multidimensional and multifaceted social phenomena and the latter incorporates artistic, factual, imaginative creations and recreations. According to E. B. Tylor, "Culture is that complex whole which includes knowledge, belief, art, moral, law, custom and of any other capabilities acquired by man as a member of society"¹ He considers that culture is complex concept and the member of the particular culture has to adopt certain codes and norms. Cooley, Argell & Carr in their book, *Introductory Sociology*, discuss about culture in detail. They define culture as:

Culture is the entire accumulation of artificial object, conditions, tools, techniques, ideas, symbols and behaviour patterns peculiar to a group of people possessing a certain consistency of its own and capable of transmission from one generation to another.²

The above definitions point out that culture has some unique features, such as, it is shared by all the members of the society, it is not in born or innate, it is learned and acquired, the elements of culture are interrelated and constitute a complex whole; culture is transmitted from one generation to another generation, it is materialistic as well as non-materialistic; it is something like a chair, a fan or a car and abstract like belief or superstition. Culture is not static; it has the quality of adaptability. The formation and continuity of culture is not depending on any

one individually, and it is collected ethos of the society. It is a social system of common heritage, and it is integral part of the society. The culture of people is revealed in their beliefs, rituals, festivals, customs, traditions, symbols, norms, values, dresses, food, works, languages and other activities.

Literature, as an art form includes fiction, non-fiction drama, and poetry, in which language is used as a medium to design an image to depict cultural life, as well as the perspectives of the author; culture is the source for literary creations. Chinua Achebe and Mulk Raj Anand have used literature, especially novels as a device to illustrate cultural dignity of their societies. Achebe, considering himself as the spokesman of Igbo clan, has presented the cultural identity along with the colonial confrontation and Anand has attempted to display the cultural essence and ethical ethos of the Indian life.

Truly outstanding in his literary achievements, Chinua Achebe exhibits a portrait of the past and present of African society. It is his conscious endeavor to present the African sensibility and atmosphere, because he realized that only an African can tell about Africanness, he states, "...the story we had to tell could not be told for us by anyone else no matter how gifted or well-intentioned."³ According to him the western world needs to know real Africa, he thought it is extremely important to set right the deeply embedded misconceptions about the African people. Through his novels he has tried to display "...that there nothing disgraceful about the African weather, that the palm tree is equally fit subject for poetry."⁴ It shows that

Achebe has certain aims and aspirations in writing the novels; the culture of the Igbo clan has played a vital role in quenching his thirst of showing the identity of real Africans.

Similarly, Mulk Raj Ananda an Indian novelist, has revealed exceptional insight in interpreting the Indian socio-cultural life, his novels are the authentic documentation of the pains and pleasure of humanity. He too has a purpose, literature for him is also not for entertainment but to manifest the cultural values along with the agonies imposed on the deprived and oppressed class in India. He considered literature as an instrument, and through it, he has presented the galleries of realistic pictures of Indian ethical and cultural life of Indians. He says, "I have always considered literature and art as the instrument of humanism."⁵ He firmly believes:

... that only in fiction, which is the transformation, through the imagination, of concrete life, in words, sounds and vibrations, one may probe into the many layers of human consciousness with various phases...the writer can evolve an organic pattern, showing the efforts of human being to grow...⁶

Both Achebe and Anand have looked at literature as the cosmic canvas on which they have tried to interpret socio-cultural, political, spiritual, and economical aspects of Africa and India. In the present research paper the research scholar has selected Achebe's *Things Fall Apart* and Anand's *Two Leaves and a Bud* to illustrate the role of culture in literature, especially in the novels.

Things Fall Apart (1958), the masterpiece of Achebe illustrates the fact that culture is an inseparable segment of literature; the novel mirrors the cultural identity of the people through the multidimensional panorama of the Igbo society. It shows that Igbo society has great cultural past to boast of, like any other ancient civilization of the world. Umuofia, the village described in the novel represents Nigeria, is held together by network of relationships, with a common recognition, much stronger than any European civilization, the misinterpretation of African society by the western writers is appropriately countered in the novel. Okonkwo, the protagonist of the novel exemplifies that they are not barbarians and inhuman, on the contrary they are tender and compassionate at heart it is revealed in the case of Ikemefuna, a hostage boy. Traditionally, the Igbo community is male dominated, so Okonkwo sticks to its norms, codes and conducts, being famous for wrestling and for masculine qualities and having deeply

rooted feeling of fear to show tender and female qualities can't stop himself from showing love for Ikemefuna, as the custom he kills Ikemefuna, but being a human he is deeply disturbed. Achebe writes,

Okonkwo did not taste food for two days after the death... he did not sleep at night. He tried to think about Ikemefuna, but the more he tried the more he thought about him... But he was so weak that his legs could hardly carry him... a cold shiver descended on his head and spread down his body.⁷

The man of heroic qualities and afraid of nothing falls apart after doing a cruel act, it is the sign of well-developed civilization. The way of treating the guest also shows the reality that the community is cultured and well-mannered. When guest arrive to the Okonkwo's Obi he offers them traditional kola nuts and palm wine. He has great respects for his clan brother, he firmly believes in the principles of ancestors. He says, "As our people say. A man who pays respect to the great paves the way for his own greatness. I have come to you pay my respect."⁸ The respect for elders and ancestors is the notable feature of the Igbo culture and Achebe has demonstrated it throughout the novel.

Achebe shows that the Igbo community assigns key role to the women for instance, women painted the houses of the Egwugwu, the goddess, They are primary educator of children, through strong telling and behaviour, inspiring in them the curiosity about social values, relationships and the human conditions, the stories the women narrate also develop the artistic consciousness of the children in addition to entertain them. Furthermore the first wife of a man in the Igbo society is paid some respect. It is illustrated in the palm wine ceremony at Nwakibie's Obi, Anasi, Nwakibie's first wife had not yet arrived and the other wives did not drink still her arrival.

The position of the woman in the community is exposed at the time of exile of Okonkwo; the motherland is respected more than the fatherland in Igbo society. At the arrival of Okonkwo to his motherland, Okonkwo's uncle Uchendu noting Okonkwo's distress, eloquently explains the supremacy of mother. He says:

A man belongs to his fatherland and not to his motherland. And yet we say Nneka- "mother is supreme. Why is that? It is true that a child belongs to its father but when a father beats his child it seeks sympathy in its mother's hut. A man belongs to his fatherland when things are good and life is sweet. But when there is sorrow and bitterness he finds refuge in his motherland.

Your mother is there to perfect you and that is why we say that mother is supreme⁹

The religious practices are the unified component of Igbo culture, Achebe has discussed in detail about the polytheistic religion practiced in Igbo culture, the Igbo people have different deities such as *Chukwu*, the supreme god, *Agbala*, the god of the future, *Ani*, the goddess of the earth and harvest, spirits and the ancestors, and they also have the concept of *Chi* which refers personal gods, the Igbos have polygamy system, it was considered a sign of prosperity of the man, a man with multiple wives is supposed to be successful, Okonkwo has three wives, in marriage is regarded a sacred union of two families, it is done with certain traditions and customs, such as giving the bride price from the side of the girl to the groom's family. They use bundles of broomsticks to negotiate the bride price. Farming is another aspect of in Igbo society, *Yams* is the main crop taken by the Igbos, it is brought in the compound after harvesting, if it excessive, it also sold in the market, they celebrate the "Week of Peace" in respect to the earth goddess, during the week Igbos visits their neighbors, they drink palm wine, sing folk- songs, and dance on the beating of traditional drums.

The place of woman in Igbo culture is not secondary. The saying, 'mother is supreme', by Unchendu to Okonkwo is the evidence that they bestow the great honour on a woman. The eldest wife is the head of women folk and have authority is exhibited in their custom of permitting her to wear the anklets of her husband's titles. Anasi, the eldest wife of Nakibie, is called by her husband and given a horn of palm wine before the others have their turn, in consideration of women's place in Igbo society, Michel Faber states.

Women never saw themselves as secondary of inferior in traditional Ibo society. They were different that is all... in fact, when a man died, he was taken to his mother's people to be buried, that showed the importance of mother and woman. Also on the economic level the market has always been there for the women to make money and they had grown in importance. In traditional Ibo society the wife was economically independent.¹⁰

Anand's *Two Leaves and a Bud* is an artistic work, it mainly deals with the widening gap between the haves and have-nots, the rulers and the ruled, the owners and the workers, but along with the clash between the two classes, from the perspectives of British the Indians are not civilized. The novelist states, "as compared

with their masters the, Indians were shocking barbarians in point of intellect and civilization."

¹¹Anand has insisted on the need for values, the civilizing values which nurture an enlightened and humane society. The novel presents the cultural supremacy of Indian society. He has shown that morally and ethically the Indians are far better than the British. Gangu a Panjabi farmer, along with his wife Sajani, his daughter and son Laila and Buddhu enlists as a worker in the Assam tea plantations. As the laborer, he is exploited and harassed by the colonizers, but he struggles to keep his family intact, Anand suggest that nothing the so precious than the family and the dignity of family members in the Indian culture,

The marriage is not just a formality; it is the amalgamation of two souls, husband and wife are the two wheels of the chariot of the home, in Indian society marriage is blessed and sacred union, Gangu is not only the husband of Sajani, he is "companion of her life and death."

¹² She decides to help her husband in every situation of life; her family is above all, she cares for her daughter and son, when Sajani is on death bed, her mind is haunted by the cares for the daughter's marriage, and even after her death, Leila's mind is haunted by the memories of her mother, Gangu, as a true companion, "wept bitterly...he sat choked and convulsed by the agony, the intense misery, the utter helplessness of his despair."¹³ It shows that the family members are so intimate and connected to each other and they can go to any extent to help each other, it found only in the civilized community. Anand has pointed out that the head of the family can sacrifice everything to save the dignity and the ethics of the woman in India, and Gangu is the best example of it, Ruggie Hunt is fascinated to the beauty of Laila and he is after her like a hunter behind a bird, though Gangu is helpless and poor but he sacrifices himself to prevent the virginity of his daughter. Anand deliberately reveals this virtuous side of Indian society; he indirectly suggests that the British man may consider superior "because of his clothes, respected for his knowledge and admired for his personal qualities"¹⁴ but culturally, virtually and morally Indians are far superior to them.

Anand has demonstrated the cultural greatness of Indian people. The European officers also accepted the fact that Indian people have great sense of manners, but they do not admire it, on the contrary they ridicule it. Indians give great respect to the quests, the quests are considered as the gods. They are respected and

the Indians are so hospitable to their quests, but the British officers like De La Harve thinks that the Indians are stupid, because they are hospitable. He says, "These Indians are bloody fools, they are so hospitable, they let themselves be robbed... Shah Jehan's daughter is ill. An English doctor attends her. The Emperor gives away valuable forts in reward."¹⁵ actually, it is the age old custom of Indian people to treat the guest as if he is a god. Anand has unfolded the glorious sides of Indians in his fictions. His Indian upbringing and familiarity with Indian rich cultural heritage has given him the opportunity to write about his own people so authentically. His knowledge of western philosophy and life style has enabled him to present the variations between Indian culture and British culture, the values and norms of two countries. While presenting Indian culture as suppressed by British people, Anand throws light on Indian family values. He talks about the glorious side of Indian cultural norms. The home in Indian culture is not the building of four walls, it is much more than that, it is a place of love and comfort, and it is a protection place for women. She gives solace and strength to all the family members, all the family members wait for each other to dine together. These qualities are not found in the European homes. Anand gives importance to the family. It is true that women are more liberal in European families, Maya is also aware of this fact, those women choose their men freely in Vilayat, but Lalu thinks that if he would allow her to think and behave like British women the family set up of his life will be no more Both Achebe and Anand have considered literary writing as a mission to stimulate the masses to esteem the indigenous cultural gems and present the panorama of their ancient and proud cultural immensity to those who discredited and disgraced it, they successfully and strategically developed the thematic content to convey the message that Africa and India have great historical, spiritual and cultural roots, which are deeply imbedded and still survived even after the several assaults of the outsiders.

References/ Web References:

1. Achebe, Chinua. *Things Fall Apart*, Google, Web.10 Jan. 2019
- 2.. <https://www.wikipedia.org>
- 3.. http://www.wikipedia.org/wiki/Two_Leaves_and_a_Bud
4. <http://www.contemporarywriters.com>
5. <https://www.Britanica.com>
1. Tylor. E.B. *Primitive Culture*, Volume 1. London: John Murry, 1871. P.1
2. Cooley, Argall and Carr, *Introductory*

- Sociology*, New York: C. Scribner's Sons, 1933. P..519.
3. Achebe, Chinua. "The African Writer and the English Language", *Morning Yet On Creation Day: Essays*, London: Heinemann, 1975. P. 70.
4. Achebe, Chinua. "The Novelist as Teacher", *Morning Yet On Creation Day: Essays*, London: Heinemann, 1975. P.44.
5. Anand, Mulk Raj. 'Why I Write?' in *Perspectives on Mulk Raj Anand*. ed. K.K. Sharma, Ghaziabad: VimalPrakashan, 1978), P.8.
6. *Ibid.*, P. 6.
7. Achebe, Chinua. *Things Fall Apart*. London: Heinemann, 1983. P. 57.
8. *Ibid.*, P. 18.
9. *Ibid.*, P. 122-123.
10. Faber, Michel. Chinua Achebe on *Arrow of God, The Literary Half Yearly*, XXI, 1, Jan.1980. P.6-7.
11. Anand, Mulk Raj, *Two Leaves and a Bud*. New Delhi: Hind Pocket Books (p) Ltd., 1983 .P.27.
12. *Ibid.*, P. 1.
13. *Ibid.*, P. 84.
14. *Ibid.*, P. 42.

Opportunities after Covid in vegetables marketing

Vinod Hanumant Awaghade

Assistant Professor, Yashwantrao Chavan Mahavidyalaya, Pachwad. Department of Commerce
Shivaji University Kolhapur
Maharashtra

Email-vinodawaghade86@gmail.com

Abstract-

India is an agricultural country. Farmers in India mainly give priority to agriculture. Every farmer supports his family from the income from agriculture. Especially after the corona epidemic, leafy vegetables have become very important. A diet of leafy vegetables is very important for every person to have a good life. Farmers get a good income from the production of leafy vegetables, fruit vegetables and tuber vegetables. After covid, many opportunities are seen for the leafy vegetable business. Every person in the society, from children to the elderly, consumes leafy vegetables in their diet. Our country has a tradition of agriculture. Farmers grow a variety of crops. Farmers mainly focus on the production of leafy vegetables and fruits. This agricultural product provides cash to the farmers. The farmer is the king of all of us in the country. Only if the farmer survives can the country run smoothly. The farmer works hard to produce leafy vegetables and fruits and vegetables. Many factors in society depend on agricultural production. Agriculture generates a lot of employment. All agricultural products come in essential services. This means that you need vegetables every day. That is why the researcher has chosen to research this subject. Farmers can get higher yields in agriculture if they get good online tools.

Introduction -

India is an agricultural country. Farmers in India mainly give priority to agriculture. Every farmer supports his family from the income from agriculture. Especially after the corona epidemic, leafy vegetables have become very important. A diet of leafy vegetables is very important for every person to have a good life. Farmers get a good income from the production of leafy vegetables, fruit vegetables and tuber vegetables. After covid, many opportunities are seen for the leafy vegetable business. Every person in the society, from children to the elderly, consumes leafy vegetables in their diet. India is an agricultural country. Agriculture is the backbone of our country's economy. Good livelihood can be achieved by selling leafy vegetables, fruits and tubers. Mainly farmers are growing different crops. Changes are made in the production of vegetables as per the market demand. Everyone in the society is a consumer of agricultural products. If enough water is available, farmers can produce better. Farmers are determined to overcome any challenge.

Keywords- e-commerce, e-banking etc.

Objectives-

1. To study the concept of vegetables.
2. To study the types of vegetables.
3. To study the Importance of vegetables marketing.
4. To study the opportunities in vegetables marketing.

Research Methodology- The present study is based on secondary source of data . secondary

data is collected through various books , Journals, Websites and Internet. For the collection of primary data the researcher has paid visit to market committees (Secretary) ,farmers and agents .It is after having detailed discussion the present data is collected.

Data collection:

1. Primary Data:

For the collection of primary data the researcher has paid visit to market committees (Secretary), farmers and agent's .It is after having detailed discussion the present data is collected.

2. Secondary Data:

The secondary data is derived from the following sources:

1. Books
2. Magazines
3. Journals
4. News paper

Concept- The word vegetable refers the dictionary meaning, a plant or part of plant which is eaten as food.

Types of vegetables -

- a) **Leafy vegetable** - broad beans, spinach, Fenugreek, Dill leaves, Safflower, cluster beans, bell paper etc.
- b) **A root vegetable** - a potato, carrot, Sweet potato, onion, Garlic, ginger etc.
- c) **A fruit vegetable-** Bringel, Green peas, flower, Tomato, Pumpkin, Drum sticks, Ribbed gourd , Capsicum, Green chilies, Cabbage etc.

(Oxford advanced learners dictionary, Jonathan couter oxford university press 1995)

Marketing Concept: Marketing doesn't mean only buying and purchasing the things. The concept has a broad meaning. It deal with the needs of the people, consumer, marketing is to satisfy human the needs. Whenever a consumer goes to markets, he seeks the advantage behind the product. It can be well explained with the example. When a consumer wants to buy a facial cream, he doesn't need only a cream at all, he wants a fairness that's why he tends to buy a cream. Thus marketing doesn't remain in that limited contextual background. Traditional market was a physical place where buyers and sellers together exchange goods.

Importance of leafy vegetables:

1. **Leafy vegetables provide vitamins-** Consuming leafy vegetables in daily diet helps to get a lot of vitamins. The vitamin reduces the incidence of illness. From very young children to the elderly, everyone consumes leafy vegetables to help them stay healthy.
2. **Eating leafy vegetables improves health-** Consuming green vegetables in daily diet helps in improving health. Leafy vegetables contribute a lot to increase immunity in the body. In the current scenario, there is a huge demand for organic leafy vegetables and fruits.
3. **Suitable for dieting-**Mainly people who want to balance their body weight do diet. Leafy vegetables and fruit vegetables are consumed for diet. Leafy vegetables are important in every person's diet. Eating leafy greens helps boost your immunity. Doctors advise many people to eat leafy vegetables.
4. **Cash and Carry transaction-** Sale of leafy vegetables and fruit vegetables helps the farmers to get cash from daily transactions. The daily income from the sale of leafy vegetables helps a lot to support the family. Selling fruits and vegetables, mainly leafy vegetables, is considered a major source of livelihood.

Opportunities in vegetables marketing:

1. Buying and selling of leafy vegetables, fruits and agricultural products is highly profitable. This method of buying and selling is considered to be very important mainly for subsistence.
2. Leafy vegetables, fruits and all agricultural products come in essential services. There is no other option. Which means it's about to be the most delusional time of the year, as well.

3. Everyone in the community is a consumer of this product. Taking good products using organic fertilizers will create an opportunity to make good profits.
4. Vegetables are considered to be a very important part of the daily diet. There is a lot of demand for these products every day.
5. Good products make you dominant in the market. Quality products create opportunities to export agricultural products.
6. Collective farming by farmers will enable them to supply to the consumers as per their demand. The product can be supplied in less time, at lower cost.
7. There will be a lot of opportunities for agriculture in the future. Good demand for the product and good quality of the product will make it possible to get a definite advantage.
8. It will be possible to easily compete if the products are manufactured according to the changing market conditions.
9. Currently, chemical-free agricultural products are in high demand. It will be possible to get more benefits if all the people cultivate collectively.
10. It is possible to buy vegetable products with very little capital. That is, it is possible to make a profit in the least amount of capital.

Conclusions-

The purchase and sale of leafy vegetables, fruits and agricultural products has the potential for maximum financial gain. There are going to be a lot of opportunities in this farming sector in the future. It is possible to survive in the competition by farming with the help of new modern tools. It is important to make the right decision considering the market opportunities and demand. Agriculture is playing an important role in the development of our country. Agriculture definitely benefits from employment, imports, exports and the right investment. There is a risk in buying and selling leafy vegetables but there is also a definite benefit. The right decision ability is needed.

Bibliography

I. Books

1. **P.C. Bansil**, Agricultural problems of India, 2nd revised edition, 1975 published by bikas publishing House Pvt. Ltd. 5 Daryaganj, Ansari Road, Delhi 110006 savoy chambers, 5, wallace street, Bombay 400001. 10 First main Road, Gandhi Nagar, Banglore 560 009 ISBN- 07069-0363-3
2. **Andrew J. Taylor and Robert S.T. Linforth**, 2014 published by john wiley & sons Ltd. All rights reserved, Authorized

reprint by wiley India Pvt. Ltd. 4435-36/7,
Ansari Road, Daryaganj New Delhi –
110002. Page No. 1635 Food flavour
Technology, second edition ISBN -978-81-
265-4574-2

3. **B.N. Pandey, Sadhana D. Pandey, P.N.**
“Aquaculture” Published 2011, published by
S.B. nangia A P H publishing corporation
4435-3628, Ansari Road, Daryaganj New
Delhi- 110002 printer at Balaji Offset Navin
Shabdara, Delhi-32, ISBN-978-81-313-
0251-4 Page No.- 112.

II. Websites

1. www.maharashtra.gov.in
2. www.censusindia.gov.in 2011
3. <http://www.agricoop.nic.in/>

A Geographical Study of Occupational Structure in Beed District (M.S)

Dr. Suryakant S. Pawar

Research Guide, Department of Geography Shivaji Mahavidyalaya, Renapur, Dist- Latur.

Abstract:

Occupational structure is major indicators of socio economic development of the any nation. Its varied in and under developed, developing and developed countries in the world. The study of economic development of the people remains incomplete short of its reference to the occupational structure of a population. The aim of the present study is to study and examined occupational structure in the Beed district. Present work is based on the secondary data. According to 2011 census data the proportion of working population of the Beed district was 48.57 percent, most the people engaged in agriculture sector.

Keywords: Work, Worker, Occupation, Labor.

Introduction:

Occupational structure is also known as relatively continuous pattern of the activities that affords workers a livelihood and define their general social status. (Sills, 1968, P. 245). Proportion of persons involved in different types of occupations is a significant economic aspect of population. Occupations are grouped in to three classes viz. i) primary ii) secondary and iii) Tertiary Work has defined as participation in any economically activity with or without compensation, wages or profit. Such participation may be physical or mental in nature. Work involves not only actual work but also includes effective supervision and direction of work. (General Economic Tables, part III, census of India.). India census has classified occupation by four categorized by based on economic activity these are Cultivators, Agriculture labor, household industrial workers

Study Area:

Beed district is located in the middle part of Maharashtra state and extend between 18°27' and 19°27' north latitudes and 74° 49' and 76°44' east longitudes. The east-west distance of Beed district is 268 kms and 127 Km width of the north to south district. Total Geographical area of the district was 10693 sq. kms. and share 3.5 percent area of the Maharashtra state and 19.20 percent area of the Marathwada region. According to the 2011 census figure the total population of Beed district was 2585049 in which total population 1349106 are males and 1235943 are female.

Proportion of Working Population

Occupational structure is major indicators of socio economic development of the any nation. Its varied in and under developed, developing and developed countries in the world. The study of economic development of the people remains incomplete short of its reference to the occupational structure of a population.

and other workers. India is a rural nation of the world most of the people live in rural area and practiced agriculture; hence agriculture is a major economic activity and more than 70 percent people engaged in agriculture sector.

Objective of the study:

- To study and examined occupation structure in the Beed district.
- To study the working structure based on major economic activity in the Beed district.

Database and Methodology:

The present study is based Secondary data. The secondary data has been collected from numerous sources which includes both published and unpublished books, government and private publications. District census handbook, district statistical department, socio economic review and district statistical abstract of Beed district. Collected data is processed and presented in the form of tabular and graphical method.

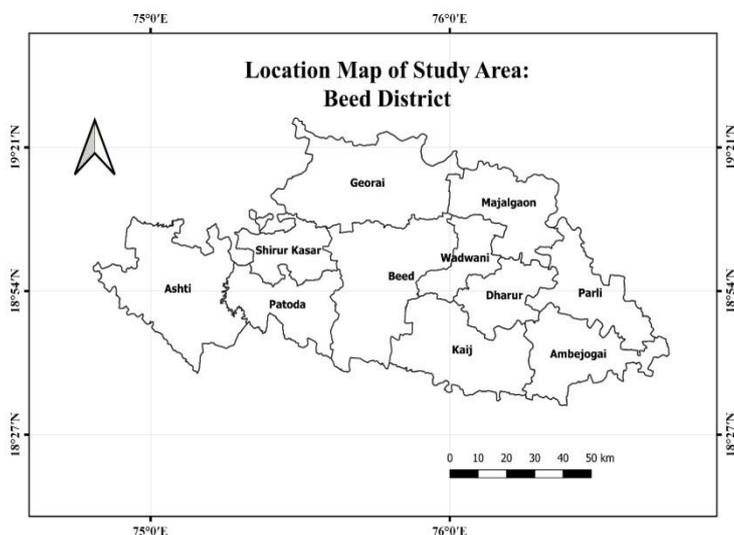


Table No. 1. Shows the occupational structure of the Beed district. According to 2011 census data the proportion of working population of the study region was 48.57 percent it means more than 50 percent peoples are non-workers.

Table No. 1. Occupational Structure of Beed District: 2011

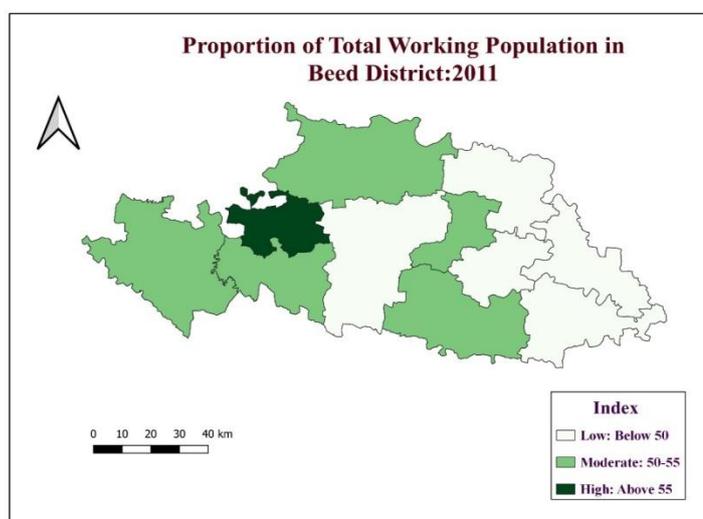
Tahsil	Total Worker	Cultivators	Agricultural Labor	Household Industrial Workers	Other workers
Ashti	54.38	67.04	19.57	1.44	11.95
Patoda	53.89	63.7	24.41	1.26	10.64
Shirur (Kasar)	55.48	65.97	23.52	1.45	9.05
Georai	53.03	55.21	30.73	1.71	12.34
Manjelgaon	48.52	35.99	45.84	1.36	16.81
Wadwani	51.25	48.74	35.88	1.72	13.66
Beed	43.72	41.24	20.5	1.82	36.44
Kaij	50.53	53.76	31.06	1.95	13.23
Dharur	49.03	41.71	42.05	2.04	14.21
Parli	43.28	33.64	32.23	1.99	32.34
Ambejogai	43.37	35.59	33.39	1.56	29.25
Total District	48.57	48.29	29.74	1.68	20.28

Source: Census Handbook Beed District 2011

At tahsil level the total working population of the study region was not uniformly distributed. The highest working population was observed in Shirur tahsil with 55.48 percent and lowest working population was observed in Parli tahsil. Ashti, Patoda, Shirur, Georai, Wadwani, Kaij and Dharura tahsil recorded above the district average working population while remaining district was recorded below the district average working population. Where the agriculture is a major activity and most of the people engaged in agricultural activity their working population recorded high.

Occupation Structure Based on Major Economic Activity

Working population of Beed district have been classified in four economic categories these are cultivators, agriculture labor, household industrial workers and other workers. The proportion of cultivators, agricultural labor, household industrial workers and other workers were diversely distributed in the study region. Most of the workers engaged in agriculture sector than the other sectors. In year 2011, the proportion of cultivators in the study region was 48.29 percent, highest cultivators was found in Ashti (67.04) and lowest in Parli tahsil (33.64), for the reason that it is an urban area and maximum people involved in other economic activity. Ashti, Patoda, Shirur, Georai, Kaij, and Wadwani tahsil recorded above the regional average cultivators while other tahsils were recorded below the regional average. Agriculture labors is a second most economic activity of study region. According to 2011 census data, the proportion of agriculture labor was 29.74 percent, Highest agricultural labor was found in Majlagaon tahsil and lowest was found in Parli



Tahsil and North Solapur tahsil. Household industry is defined as an industry conducted by one or more members of the household at home or within the rural areas and only within the precincts of the house where the household lives in urban areas (Census of India). In 2011 about 1.69 percent workers was engaged in household industrial sectors. The high house hold workers found in Dharur tahsil followed by Parli and Beed tahsil while, low household industrial was recorded in Patoda and Ashti tahsil. The proportion of other workers in the Beed district was 20.28 percent in 2011. It is a third largest economic sectors of the district. Highest other workers observed in North Parli tahsil followed by Beed and Ambejogai tahsil 2011 census year, due to most of the other workers are found in urban areas than the rural area and Parli Beed and Ambejogai has more urbanized.

Conclusion:

The proportion of total working population of the study region was 48.57 percent. Agriculture

is a major economic activity of the district with more than 80 percent peoples engaged in agriculture sectors. Where the agriculture is dominant economic activity their working population recorded high. Household industrial workers share less account with 1.68 percent and other sectors was 20.28 percent. Agricultural population was recorded high in Ashti, Patoda and Shirur tahsil while high other sectors workers was found in Parli, Beed and Ambejogai

tahsil due to growing market centers and Industrial development in urban city.

References:

1. K. C. Mitra (2012): Population Geography, Wisdom press, New Delhi.
2. R.C. Chandana (2011) Geography of Population, Kalyani Publishers, New Delhi.
3. Census of India, District Census Handbook Beed district in 2001 and 2011.
4. Socio-economic abstract of Beed district in 2012.

Gender Gap in Literacy- A Case Study of Malda, West Bengal

Arunima Bhattacharya

Assistant Professor Department of Geography Vidyasagar College for Women Kolkata

Abstract

The gender gap in education has evoked from several social and cultural beliefs pertinent to a region and results in huge differences in economic spin offs of that region. The study area is chosen to be Malda, a very prominent and rich in heritage district of the state of West Bengal. The major objectives of the study are to find out the disparity in literacy rate and availability of education among the males and females of the region. This consisted of the collection of secondary data and information from various sources. The study depicts that literacy rate is overall low in the concerned district with a huge gap in literacy between male and female. The disparity in male-female population of the blocks is calculated by means of Sopher Index and the fifteen CD Blocks of the region are divided into high, low and medium disparity zones. High disparity in literacy among male and female is found in the CD Blocks of Bamangola, Habibpur, Manikchak, Kaliachak III, Gazole, Harishchandrapur I. Several contributing factors have been identified and measures have been suggested likewise. Though several schemes have been initiated by both the Central and State Governments, yet the goodness is far from being reached to every household. Education of women plays a pivotal role in women empowerment and narrowing gender gap. Thus, corrective decisions are to be taken for the overall collective growth of the nation which requires to learn about the participation of males and females in the economy.

Keywords: gender gap, literacy, disparity, corrective measures, awareness.

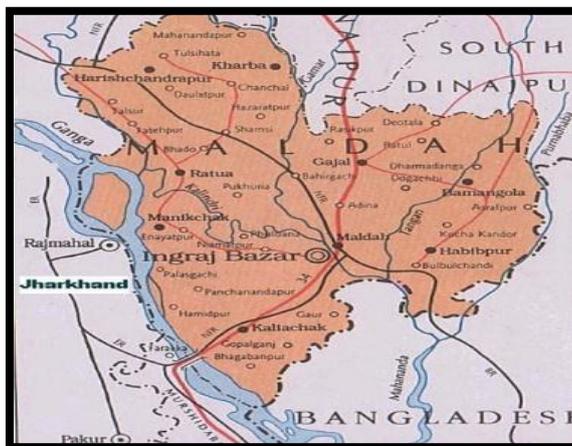
Introduction

The popular definition of literacy in the mainstream dictionaries has been the ability to read and write. However, this traditional concept has changed at contemporary times when the word is used to embrace a wide range of perceptions associated with the thought process manifested by this ability. The conventional concept of literacy is bounded by the skills of reading, writing and learning. But communication in an increasingly digital, text-mediated, information-rich and fast-changing world. Yet, in most parts of the world, the discrepancy remains on the attainment of education between males and females. The gender gap in education has

evoked from several social and cultural beliefs pertinent to a region and results in huge differences in economic spin offs of that region.

Study Area

Malda, being a very prominent district of the state of West Bengal, covers an area of 3733 square kilometres. It is bounded to the north by Uttar Dinajpur, to the south by Murshidabad, Bangladesh to the east and Jharkhand in the west. Malda shares an international border with Bangladesh and is the entry point of Siliguri from south Bengal- thus it has a central position in the state. The district has a rich heritage and history and is a popular tourist destination as well.



Source: Internet

Materials and Methods

This consisted of the collection of secondary data and information from various sources. Secondary data was collected from Census reports, District Handbooks, journal, websites and books. The disparity in education is calculated by Sopher's Index (1974):

$$\text{Sopher's Disparity Index} = D = \log(X_2 / X_1) + \log\{(100 - X_1) / (100 - X_2)\}$$

Objective of the Study

The major objectives of the study are-

- To identify the gender gap in literacy in the CD Blocks of Malda
- To assess the quantitative aspect of it
- To identify the contributing factors
- To suggest measures for improvement of the situation

The Gender Gap in Literacy

Malda district is composed of fifteen CD Blocks which fall under the two sub divisions of the district: Malda Sadar and Chanchal. Nine CD Blocks, namely, Gazole, Bamangola, Habibpur, Old Malda, English Bazar, Manikchak, Kaliachak-I, Kaliachak-II and Kaliachak-III fall under Malda Sadar. Six CD Blocks are under the Chanchal sub division, namely, Harishchandrapur-I, Harishchandrapur-II, Chanchal-I, Chanchal-II, Ratua-I and Ratua-II. Eight of the CD Blocks are having urban population while others only constitute of rural population. According to the Census 2011, the literacy rate in the district is 61.73 with a gender gap of 9.68. male literacy rate is 66.24 and female literacy rate is 56.96 in the district.

Table 1: Literacy Rate and Gender Gap in Male and Female Literates

Sl No	CD Block	Male Literacy Rate (%)	Female Literacy Rate (%)	Literacy Gap
1	Harishchandrapur I	57.37	47.21	10.16
2	Harishchandrapur II	57.21	51.23	5.98
3	Chanchal I	68.39	60.85	7.54
4	Chanchal II	59.97	54.66	5.31
5	Ratua I	64.17	55.81	8.36
6	Ratua II	58.31	53.98	4.33
7	Gazole	69.00	55.03	13.97
8	Bamangola	75.52	60.20	15.32
9	Habibpur	64.05	47.35	16.70
10	Malda Old	63.65	51.83	11.82
11	Englishbazar	67.21	59.10	8.11
12	Manikchak	64.18	50.89	13.29
13	Kaliachak I	66.71	60.20	6.51
14	Kaliachak II	69.86	60.13	9.73
15	Kaliachak III	59.54	47.61	11.93

Source: District Census Handbook, Malda, 2011

The table depicts that literacy rate is overall low in the concerned district with a huge gap in literacy between male and female. Kaliachak II records the highest male literacy of 69.86 and Chanchal I records the highest female literacy of 60.85. The lowest literacy rates of male are observed in Harishchandrapur II (57.21) and that of females are observed in Harishchandrapur I (47.21). the gender gap in

literacy is pronounced in Habibpur (16.70) followed by Bamangola (15.32) and Gazole (13.97).

The Disparity Index

The disparity in male-female population of the blocks is calculated by means of Sopher Index. This shows the regions where disparity is quite prominent in relation to other blocks of the district.

Table 2: Disparity in Literate Population by Sopher Index

Sl No	CD Blocks	Male Literates (%)	Female Literates (%)	A=Log(X ₂ /X ₁)	B=Log(100-X ₁ /100-X ₂)	S.I (A+B)
1	Harishchandrapur I	57.37	47.21	0.085	0.085	0.17
2	Harishchandrapur II	57.21	51.23	0.047	0.047	0.094
3	Chanchal I	68.39	60.85	0.051	0.051	0.102
4	Chanchal II	59.97	54.66	0.040	0.040	0.08
5	Ratua I	64.17	55.81	0.060	0.060	0.12

6	Ratua II	58.31	53.98	0.033	0.033	0.066
7	Gazole	69.00	55.03	0.098	0.098	0.196
8	Bamangola	75.52	60.20	0.098	0.098	0.196
9	Habibpur	64.05	47.35	0.131	0.131	0.262
10	Malda Old	63.65	51.83	0.089	0.089	0.178
11	Englishbazar	67.21	59.10	0.056	0.056	0.112
12	Manikchak	64.18	50.89	0.100	0.100	0.20
13	Kaliachak I	66.71	60.20	0.045	0.045	0.09
14	Kaliachak II	69.86	60.13	0.065	0.065	0.13
15	Kaliachak III	59.54	47.61	0.097	0.097	0.194

Source: Computed by Author

High Disparity Zone: High disparity in literacy among male and female is found in the CD Blocks of Bamangola, Habibpur, Manikchak, Kaliachak III, Gazole, Harishchandrapur I.

Moderate Disparity Zone: Moderate disparity in educational status are mostly found in the blocks of Chanchal I, Ratua I, Old Malda, Kaliachak II, Englishbazar.

Low Disparity Zone: Low disparity of literacy is found in Harishchandrapur II, Ratua II, Kaliachak I, Chanchal II.

Factors Contributing to the Disparity

It has been a trend in most parts of our country that a huge disparity exists between the educational attainment of male and females. Malda is no exception. The causes are deep rooted in the society which is a patriarchal one. Girls are mostly moulded to do the household chores to be better suited for the roles of daughters, wives and mothers. Malda has a very high drop out rate of girls who discontinue education after attaining the primary or the secondary level. Added to this are the class bias, religious barriers in attainment of education and untouchability. In many of the blocks, the primary and secondary schools are nearby, but the college and universities are far away from the villages. The safety of the female students becomes a question which the families are not willing to bargain. Thus, the education attended by them mostly gets restricted to school level. Household income always has a direct correlation with education. Most of the BPL families are unable and unwilling to send their daughters to school. Muslims contribute nearly 51.27% of the population in Malda (2011). The religious beliefs of some households, in many cases, acts as a barrier for women to attain higher education. The highest status accorded to marriage and motherhood in many communities' impacts negatively on female participation in education. The presence of female teachers sometimes affects the attendance rate in schools for the girls. The families with certain cultural beliefs feel comfortable when female teachers

are available in schools which the female students are attending. More or less the students after dropping out from upper primary classes were helping the parents in earning the money, either by getting them involved in the agriculture or other activities to earn money.

Suggested Measures

Education means to spread the light of knowledge to every corner of the society. But Malda presents a gloomy picture of reality. Gender gap in education is a long-talked issue in this region. Though several attempts have been made by the Central and State governments, yet the disparity prevails. Certain measures can be undertaken to include female in the mainstream education system. Apart from the existing system, vocational training courses must be introduced in schools according to the student strengths to prevent the dropout rates. Several programmes have been initiated by the governments but a clear observation of the socio-economic background of the villages must be taken into account for implementation of these plans. For enhancing accessibility to school the content of the school curriculum must be strong. Moreover, communication and transport facilities must be taken care of. Adult education plays a pivotal role here. Educated parents will feel the urge to educate their children irrespective of the gender. Thus, adult education centres and community awareness schemes must be present in the villages. The cumulative effect of all these factors when properly implemented can bring about positive results in the transformation of the society.

Conclusion

Education of women plays a pivotal role in women empowerment and narrowing gender gap. The literacy picture in India and in more or less every state of it shows a scenario where females stagger behind men in education. The social and economic scenario of our patriarchal society does not boost or motivate women in most cases to complete higher education. A huge pool of human resource goes unidentified and

unutilised in this way. In Malda, women are found to be economically poor. They are discriminated and marginalised at every level of society whether it is economic participation, social participation, political participation, access to education and also reproductive healthcare. They need economic power to stand on their own with men. This primarily requires similar education trend with that of men. However, the literacy gap between the genders marks the gap between their empowerment status. Corrective decisions are to be taken for the overall collective growth of the nation which requires to learn about the participation of males and females in the economy. Education thus remains the basic tool for a woman to take life changing decisions for herself and the society.

Reference

1. Development and Planning Department (2007): District
2. Human Development Report; Malda, Government of
3. West Bengal, Kolkata
4. Development and Planning Department, (2007) District Human Development Report, Malda, Government of West Bengal.
5. District Census Handbook, Maldah, Census of West Bengal, (2011), Series 20, Part XIII.
6. Govinda R, & Mathew A, (2018), Universalization of Elementary Education In India- Story of Missed Targets and Unkept Promises, Council For Social Development, New Delhi, pp 20-25
7. Jansson Bruce S, (2012), Reducing Inequality, Cognella Academic Publishing, pp 212-215.
8. Kerr K, Dyson A, Raffo C,(2006), Education, Disadvantage and Place, Bristol University Press, pp 135-160.
9. Mayabi C (2016), The Role of Education in Fighting Inequality, Grin Publishing, pp 36-42.
10. Potts P, (2002), Equality and Diversity in Education 1: Experiences of Learning, Teaching and Managing Schools, Brunner-Routledge Publication, pp 123-144.
11. Robertson M, Blackstone T, Lodge P, (2011), Educational Policy and Educational Inequality, Lodge and Blackstone, pp 15-22.
12. United Nations Development Programme, (2019), Human Development Report, 2019, Oxford University Press, New York.

Representation of Fantasy in Salman Rushdie's *Luka and the Fire of Life*

Dr. V Ponnulexmi¹ Dr. S Ambika²

¹Assistant Professor of English S.T. Hindu College, Nagercoil Affiliated to MS University, Tirunelveli

²Assistant Professor of English S.T. Hindu College, Nagercoil Affiliated to MS University, Tirunelveli

Abstract

Rushdie employs many rare and innovative techniques like fantasy, magical realism, time and space in terms of narrative and language. In general, it is observed that a novelist uses alternative characters to speak or act for themselves and by intrusively telling how they do these things. The novelist believes that the art of fiction does not begin until the novelist thinks of his story as a matter to be shown, to be so exhibited that it will tell itself. In *Luka and the Fire of Life* Rushdie adopts a number of supernatural elements. Magic is no longer quixotic madness. Realism functions as an objective, universal representation of natural and social realities. It functions ideologically, but less hegemonic ally of its program and is not centralizing but eccentric. It creates space for interaction of diversity. Magical realism could be seen as a significant international, contemporary literary mode. It is an important presence in the contemporary literary mode. Unlike mythical realism favoured by the west, it draws upon cultural modes and non-literary forms in their western novel form.

Key words: Arthashastra, Fantasy, Ogre, Magical realism, Supernatural elements

Introduction-

Salman Rushdie is hailed as a captivating novelist with startling imaginative and intellectual resources. There are many more reasons for the grand success of his novels. One of them is the unique style of his narrative technique. Rushdie employs many rare and innovative techniques like fantasy, magical realism, time and space in terms of narrative and language. In general, it is observed that a novelist uses alternative characters to speak or act for themselves and by intrusively telling how they do these things. The novelist believes that the art of fiction does not begin until the novelist thinks of his story as a matter to be shown, to be so exhibited that it will tell itself.

Critic Kathryn Hume's discussion of fantasy as a functional form reveals the power of fantasy in her book *Fantasy and Mimesis: Responses to Reality in Western Literature*:

Successful fantasy persuades us to consider the situation as it was possible. Or it persuades us to wish that the violation of consensus reality could take place. Or it suggests to us that a rich experience awaits us if we recognize the metaphoric ways in which the substitution or contradiction is true on a non literal level. (167)

The scope of Rushdie's allusions, images and vocabulary is overwhelming in its enormity. Jago Morrison, in the article "Imagining Nations: Salman Rushdie's Counter-Histories," is convinced that this allusion like that of the writer like Joyce is deliberate. "Excess and readily overload are attributes of Rushdie's aesthetic" (138). He feels that an informed reader and the ability to trace intertexts is a prerequisite to read

Rushdie. He interlaces with surplus of information. In the novel *Luka and the Fire of Life*, a thousand years ago, there was a curse by the Chinese that all dogs turned into pooches and pye-dogs. The dog kingdom became quick and bogs, they lost their sang power and can only bark. They lost their power and walk on four legs. " A thousand years old, it's true, But we were unmade by a Chinese curse, were turned into pooches and pye-dogs and a curs... (31). The word Arthashastra, is an ancient Indian treatise on statecraft. In the novel, it is mentioned to understand the Indian tradition and also there is a trust that all rules which are instructed in the book is followed by the people. Another character Bulbul Dev, the Ogre, in reality an Ogre is a legendary monster usually depicted as a large, hideous, manlike being that eats ordinary human beings.

Next episode is that the Respectorate of I, a city ruled by rats insisting on cultural relativism, which means the idea that a person's beliefs, values and practices should be understood based on that person's own culture, rather than be judged against the criteria of another. When Dog and Bear disable, Aag appears beside Nuthog, a shape-changer in the form of a dragon. It is a large creature that appears in the folklore of many cultures around the world. There is a strong belief about dragons, which vary according to region.

In the novel, Rushdie points out that, " The ancient gods of the North, the gods of Greece and Rome, the South American gods, and the gods of Sumeria and Egypt long ago" (127). The fact is that, in the magic world, myths are played as computer games. Romans are the lowest and

Egyptians are the highest. Almost the gods of Roman are borrowed from Greek myth. Rushdie has noted Coyote the next god, a figure of Native American legend, who distracts the gods to help Luka to steal the fire. "Luka squinted up into the sky. There she was, the Insultana, the Fairy Queen of the Otters, monarch of the skies, riding on King Solomon's Carpet"(82). The fairy queen or queen of the Fairies is a figure in Irish and British folklore, is believed to rule the fairies. Based on Shakespeare's influence in English speaking cultures, She is often named as Titania or Mab.

The Aztec, the deities from Mexico, is the god of the dead. He has a scary voice and he has received human sacrifices, the throat of the human being has cut and the blood has flown into the god. Luka is begged to stop praying to the Aztec god. Because while flying the god never help to get a life. Next Luka is flying over a phantasmagoric landscape there he hears the voice of Ozymandias, king of kings, in reality the king is arrogant and he has called himself as king. Next the sphinx a man with the hyena's body may destroy the house or temple. While moving they see the lion with a woman's head. Its duty is to stop the stranger and insist them to talk to her.

Rushdie's narrative is a retort to the process of the corridors of power. In order to show the reality, he engages with the knowledge and experience of the worlds. Magical realism is the literary form that encourages readers to suspend conventional definitions of reality and to enter a world where a boundary less imagination weaves its story. As Goonetilleke states, "Rushdie transforms biography into art"(67). Magical realism moves back and forth, between the dissimilar worlds of the real and the imaginary.

In *Luka and the Fire of Life* Rushdie adopts a number of supernatural elements. Magic is no longer quixotic madness. Realism functions as an objective, universal representation of natural and social realities. It functions ideologically, but less hegemonic ally of its program and is not centralizing but eccentric. It creates space for interaction of diversity. Magical realism could be seen as a significant international, contemporary literary mode. It is an important presence in the contemporary world. Unlike mythical realism favoured by the west, it draws upon cultural modes and non-literary forms in their western novel form. The novel is skillfully crafted, the bearer of a powerful and timeless message, and truly accessible to readers of all ages. The novel is an

accomplishment reminiscent of the act of a skilled juggler who keeps all balls suspended in the air as if by magic. So, it is not surprising that Rushdie's latest tale begins with a circus. When Captain Aag's Great Rings of Fire come to the city of Kahani, Rashid Khalifa refuses to take his family, citing the horrible mistreatment of the animals by the Grandmaster. After witnessing with his own eyes "a cage in which a mournful dog and a doleful bear stared wretchedly all about," (3) Rashid's youngest son, Luka, curses the circus master. Shortly thereafter, it is reported on television that the animals have revolted, and later that night, the circus goes up in flames. The next day, a singing dog named Bear and a dancing bear named Dog turn up at Luka's doorstep.

The scene makes the book enchanting and immensely funny while providing a glimpse of the astonishing depth of Rushdie's storytelling. Through the tale of a young boy who has travelled through the World of Magic to steal the Fire of Life that will save his father—a famous storyteller who has fallen into a deep sleep and cannot be awakened, Rushdie delves deep into matters to which every person can relate that is love, life, and death. Rashid Khalifa may not live to see his youngest son grow up and Luka may confront the fact of his father's mortality - as well as his own.

While travelling up the river, the group stops at the Respectorate of I, an oppressive city run by easily insulted rats who demand eternal respect. On getting ready to leave after lunch, Luka unexpectedly insults the Respectorate's national song. But before the rats can do anything the Otters of Ott attack, led by the Insultana of Ott, "a green-eyed girl wearing a green and gold cloak, her fiery red hair streaming in the wind, nor more than sixteen or seventeen years old" (78). Luka correctly guesses her name as Soraya, and helps her defeat the rats with an itching powder.

Later, Soraya joins them on their quest. Her flying carpet helps them pass through the Mists of Time and the Great Stagnation. Soraya sends the carpet extremely high above the Inescapable Whirlpool and El Tiempo for them to escape, "perhaps forty miles below them already" (106). The elephant birds help through the Trillion and One Forking Paths, where the true River of Time splits into thousands upon thousands of fake. Afterwards, they are temporarily detained by the Great Rings of Fire, the treacherous defense of the Fire. However, Dog and Bear reveal them to be both a fake, illusive and the handiwork of Captain Aag.

As soon as Bear and Dog disable the illusion, Aag shows up along with Nuthog, a magical changer in the form of a dragon. While Aag gloats Nobodaddy and tells Luka as, "His original name was Menetius, and he was once the Titan of Rage" (123). Right as Aag orders Nuthog to destroy Luka and company, Soraya arrives, having freed Nuthog's three sisters, who are imprisoned in ice by Aalim. With her sisters now freed, Nuthog betrays Aag and incinerates him. With the changers now with them, the group passes through the land of the ex-gods. After meeting with Coyote, one of the original fire thieves, the fire alarm goes off, alerting the gods that someone is going to try and steal the fire.

Instead of running, Luka and the group head towards the danger. After making it past the guards, by using the one time transformation of Nuthog's sister's one into Slippy, the Horse King, they wait for Coyote to begin the diversion. Coyote begins the diversion while Luka goes behind the Mountain of Knowledge, "with the Lake of Wisdom lapping at its shores, its water clear, pure, and transparent in the pale, silvery light of the Dawn of Days," (160) to find the Abyss of Time. Luka then enters the left-handed version of the Magic World, where he is soon captured. And, when the gods arrive and Luka delivers a speech to them, the world begins to fall apart. The gods, inspired by Luka's speech, allow him to take the fire. Soraya arrives, and the group begins the journey back towards the entrance.

With the world now ending and Nobodaddy nowhere to be found, the group is flying as fast as they can towards the dying Rashid. They are now joined by Prometheus, the original fire thief and the brother of Aag. After bare escape of El Tiempo, "the Carpet being sixty-one miles above the Earth's surface," (193) they enter the Mists of Time when Prometheus dissipates them. They are then captured in the cloud fortress of Baddal-Garh, which is now under the control of the Aalim and Nobodaddy who have betrayed Luka in order to complete his task of killing Rashid Khalifa. Prometheus grows to his full height and hurls Nobodaddy into outer space. Aalim finally shows them, whereas they begin speaking, causing everyone, but Luka, Dog, Bear, and Prometheus to collapse in pain. Luka curses Aalim, and then the god's revolt of destroying the fortress. Luka and the group speed towards the entrance, the gods defending them from the deadly rain cats, Aalim's final card. Luka makes it home

and gives the fire to Rashid and "the color returned to his face; after which a glow of health spread across his cheeks, almost as if he were blushing with embarrassment" (212). A deformed Nobodaddy arrives, whereas Bear sacrifices his immortality to destroy the phantom once and for all. Then, Khalifa who is enjoying a wonderful, happy, dinner, with Soraya now has to "put up with the stories of the Magical World from her husband and both her sons" (217). Soraya then puts the Fire of Life away somewhere, where hopefully it will return to the World of Magic.

In the novel, young Luka, a child, turns back time for his parents by virtue of his survival. The real power of imagination is best explored in the different engaging stories of Luka and Haroun brothers, unique but inseparable tales about father-son love and so on. *Luka and the Fire of Life* is a classic novel without any stodginess, combining the traditional elements of quest such as including fire-breathing dragons-with relatable contemporary references such as the video-game elements of Luka's magical world, where lives can be stored up and one's progress can be saved. Readers will enjoy the vivid imagery, fantastic characters, and clever wordplay, the sweeping action, nail-biting suspense and light hearted humour.

References to countless other tales and myths create a window to a world of literature, while details such as Luka's left-handedness and the diversity of The World of Magic create a platform to discuss timely issues and current events, especially surroundings, the topics of difference, tolerance, and respect. In addition to the central themes of love, life and death, Rushdie touches on a stunning range of secondary themes including the nature of time, ethics, authoritarianism and freedom, truth and illusion, which might be explored profitably by older students. Demolishing any boundaries between children's literature and adult literature, the story is an immensely enjoyable one that is truly growing and evolves along with its reader. *Luka and the fire of Life* is an explosive, magical exploration of filial love, courage, and the power of one's will. The novel says, "Eliminate the impossible, and what remains, however improbable, is the truth" (35). Luka reflects, and it is true that in Luka, the most interesting place that Rushdie writes about is neither reality nor the stunning lands of magic, but the place where the two meet-where imagination and reality collide and thought combines with

something more powerful than one's own nature to become the action is that what shapes the world.

Works Cited

1. Rushdie, Salman. *Luka and the Fire of Life*. London: Vintage, 2010. Print.
2. Goonetilleke, D.C.R.A. *Salman Rushdie: Macmillan Modern Novelists*. New York: St. Martin's, 1998. Print.
3. Morrison, Jago. "Imagining Nations: Salman Rushdie's Counter- Histories." *Contemporary Fiction*. New York: Routledge, 2003. 133-154. Print.
4. Hume, Kathryn. *Fantasy and Mimesis: Response to Reality in Western Literature*. New York: Methuen, 1984. Print.

The Impact of English Language Teaching Methods on Academics through Digital

Material

Mrs.Md.Roshan Jameer¹ Mr.Ollala Srinivas²

¹Associate Professor in English Avinash Degree College, KPHB Hyderabad

²PGT English, Telangana Minority Residential School Karimnagar Boys-3,TS

Email mroshan19@gmail.com

Email- ollalasrinivas@gmail.com

Abstract- As we are living in the information age the most important aspect of lifelong learning and development is language. People skills like reading, writing, speaking, listening (LSRW skills) enquiring, comprehending and problem-resolving are smartly managed with language skills. Information and communication technology has been claimed as the best tool in the English language teaching and learning process. This research paper highlights how the digital materials effect teaching methodology towards academic success. It aims at how students are benefitted with the replacement of old teaching methodologies with digital materials. English aspirants have a variety of methods to supplement their students for sharpening their interpersonal skills.

Introduction:

Nowadays, classrooms are equipped with interactive whiteboards (IWB), response systems, projectors, and computers. Many reputed universities and organizations are introducing this digital tool to enhance their English language skills. Many topics of the English language can be clearly explained and taught through this channel. Improvement of technology has led to many new inventions that English language teachers began to use in education. Social, psychological and emotional development can be attained through English language learning. Students can interact with people, convey their emotions, thoughts and easily connect with the external world, through the process of language acquisitions. Modern age brings developments which are useful for the students helping them with their jobs and everyday activities. The use of modern language teaching aids like digital materials for the English language learners is one such change in modern age. Whiteboards and markers are replacing the blackboard and chalk system, physical lectures are further enhanced by direct live lectures through the World Wide Web, seminars are transformed into webinars and for any sort of language queries, online English language Instructors are always available.

Review Literature:

P.C.Naga Subramani and V.Iyappan, Tamilnadu Teachers Education University, Karapakkam, Tamilnadu discusses in their journal "Innovative methods of teaching and learning" (2018) that innovative methods and tools of teaching-learning methodologies are available across the globe. Short lectures, stimulation, portfolio development and problem-based learning are very useful in swift technology used at the education system as well as workplaces in the

foreseeable future. Bureu Okmen, Abdurrahman Kilic, Duzce University, Turkey in his journal "The Effect of Language Teaching Methods on Academic Success in Turkey"(2016) opines that English Language affects the characteristics of individuals. He discussed that language skills must not be confined to the classroom education given at the school level. New approaches and methods to improve people's language skills must be implemented by every educational organization.

V. Raymond Lesikar in his book "Business Communication" indicates how the present technologies and trends can be blended together while keeping the fundamentals of the language intact. It helps in reducing communication relating issues, development of audience and gives a lucid picture of visuals and the English language.

Fennel(2001:267) as cited in Kenning(2007) states that the English language is treated as killer language, communication technology will be the major weapon.

Nurul Nadia Haron and Yasmin Hanafi Zaid, University Technology Malaysia discusses the various methods to educate through web-based learning like online journals, educational movies.

Objectives:

The main aim of this study is to understand how digital teaching materials effect the pedagogical method of education in this progressive era. The study also discusses the role of digital materials towards the personal growth of an individual as well as achieve academic success for any profession.

Discussions And Methodologies Adapted:

Introducing digital learning in the curriculum is benefitting the English aspirants in the real sense. This sophisticated teaching approach spears the students to achieve their required

targets in the fastest and unique manner. In the past centuries, teaching tools were of various kinds and teachers adopted myriad materials to educate the students like Sand, Stones, Leaves, and quills, the bark of a tree, blackboard and chalk. And in the recent past, we can see Printed materials in the form of academic books. But advances in science and technology have revolutionized the present-day world. The technology has made a remarkable place for itself in imparting education to young minds. Technology can be adopted at any level beginning from primary school, middle school, high school or up to the university level. It has transformed the traditional classroom into e-learning or digitalized class rooms such as Google classrooms. Wherein students have ample scope to learn and interact with different people across the globe. Students can learn about different subjects and cultures. They can also learn about the effectiveness and usefulness of learning the English language for the purpose of communication in their native lands or as a foreign language.

Modern Teaching Aids:

Teaching aids are something that makes teachers feel easier to teach their students. Their by training them to learn in a more enjoyable and effective manner. List of modern teaching aids are discussed below:

WEBINARS: [Webinar Centric]

A blend of words like web and seminar together is termed as Webinar. It can also be addressed as a web event, webcast/ web lecture/ virtual event. It is generally performed through the internet by the online audience. It offers various interactive opportunities like asking a question, chat, poll, test, call to action, twitter. The average viewing time for webinars currently stands at 56 minutes. The benefits of webinars offering to us are: can have direct contact and interaction with the target group. It saves time and money. By conducting WEBINARS, students can probe deeper into real problems and try to face the professional challenges. They express their point of view through this platform in the best possible way. Webinar post-click landing page examples to the model are:

- Kissmetrics.
- IBM Watson.
- Microsoft.
- Microsoft Azure.

Presentation Tools:

Attractive PowerPoint Presentation through different slides is another important component of Modern Teaching Aid [MTA] for English language aspirants. Google Sites, Prezentit,

Animoto, Vuvox, Viddix, Vcasmo, Preezo can assist students, Research scholars and English language Teachers to view their ideology in any projects of their research study. Users of PPT can effectively express their thoughts with captivating slides instead of real objects. Fennel (2001:267), as cited in Kenning (2007), claimed that "If English is to be seen as a "Killer" language, communication technology must be interpreted as one of its major weapons." Therefore, it is interpreted from the above a statement that students can learn the English language by using technology by not relying too much on the teacher's ability to engage them in classroom.

Voice Threads:

Currently, many web-sites make provision for uploading PowerPoint slides, videos, photos, etc. and also add voice narration to design multimedia presentations. One such web-service is "Voice Threads." It built and engages students to transform a cluster of media files, such as documents, images, videos and presentations to a convenient place so, that everyone can access easily. Educators make use of Voice Threads for documentary classroom conversations to online tutoring, professional development training. It's one of the great ways to deliver assignments or projects and get feedback. One can attain detailed information about Voice threads through following web links like:

Blogging-[Public Post]:

Students can use this Blogging for practicing their study session. They can post their notes on the class blog, where one can access, evaluate and rewrite a new material. Teachers may have a track of record to modify their actions. Our thinking can be crystallized through Blogging.

Prezi- Presentations:

To make professional like presentations, a versatile app like "Prezi" can be accommodated, as digital material. It's more usable and capable of covering advanced features compared to PowerPoint Software. It's new and can be easily accessible. Fresher can dive and flow easily through the entire app fairly well and produce nice-looking presentations. This app assists presenters to design embellished presentations with audio and video notes in it.

Social-Bookmarking:

Researchers or educators who have similar interests can have easy access through these useful websites like Bookmarking. There is one more great advantage of this app like it allows the user to save the bookmarks to our favourite folder automatically. And the unique flexibility is, it allows us to access and retrieve the

bookmarks saved in any computer device, other than the one which we saved. So storing and searching is made an easier task by this useful resource.

Podcast in classroom learning:

This feature of the digital app is not only resourceful to the common users but also much useful to physically challenged people like hearing impaired students. Podcasts provide serial recordings of oral lectures and news shared regularly online for the listeners. It is flexible and reusable technology available for reversing the oral lecture.

Screencast:

Screencast is an amazing instructional digital tool. It is a highly effective, powerful and affordable teaching-learning aid that can cater to education across any curriculum. Screencast procures a step-by-step methodological approach with data detailing theirs by enriching PowerPoint presentation along with narration and multimedia elements. Trainers of the English language can avail of the free software available on websites to instruct or train their students. Some of the freebies available are Screen jelly, Jing, Screen which facilitates learners to express in the most captivating way without wasting much time.

Moodle:

Moodle is a digital teaching-learning material that facilitates a virtual learning environment both teachers as well as learners to access. Ever note is a useful tool to explore and organize the research content.

Impact of social media into education:

Some well-known social communities in websites are Twitter, Face book, YouTube, blogs and My Space. The challenges by above cited social media are:

- Providing unnecessary information
- Losing control over data
- Commitment towards time is not attained

To keep students engaged, pooling students through social-media can generate resource to make understand and take feedback from the students or users of it.

Smart boards:

Instructional efficiency to smart products is brought by the instructors by making course content virtual and interactive to all.

Research Tools:

The most productive website links for any research scholars for equipping themselves and have a better result in their field of research are yolink, veezzle, specify, nibipedia, findthatfile, dogo etc.

Mobile Assisted Language Learning: [Mall]

Information technology in the form of digital material has provided many online or offline MOBILE APPS for comprehensive learning in the easiest way. LSRW skills can be well practiced and learnt at their own pace with this novel approach. Listening and speaking skills can be improved by the students who can't afford regular lectures. Audio tools like Audacity, Wavosaur, Chiribit, Raper, Vocaroo, Audio Pal, and Sound Cloud can enhance their listening and conversational skills a lot. It saves time and money for the students who live in the remote areas. Students can retain the learnt content for longer time and English language teachers can help students by providing speech training to the pupils through VIDEO RECORDINGS. This sort of teaching aid makes the abstract ideas concrete and thus help in making learning more effective. Business Correspondence is one of the most demanding aspects of the business entrepreneur. Constructing clear statements in English language and responding to the messages can be well trained through many resources. To mention a few, certain writing tools like: NetEditor, Smories, Student Publishing, FlipSnack, Mixboot are the variety of teaching materials available, to train the students how to draft the business communications. From any authoritative websites 'Readymade Templates and Wizards' can be availed by the students for effective correspondence.

Teachers can substitute real objects to training aids like videos, DVDs or videotapes to help students make learning equally meaningful. To create healthy competence among the students, English language trainers can encourage

Quiz and Poll Tools: Students learn to face the typical mindsets and quick approach to recall the relevant stuff at that point of participation. To train such competitive spirit tools like Kubbu, Quibble, What2learn, Quiz Egg, eQuizzer are more useful.

Benefits:

- Technology has brought radical changes in teaching-learning tools by grabbing student's interest in it.
- Digital materials provide PBL-Problem Based Learning which is very useful to the student community.
- Smart gadgets facilitate different tasks such as teaching, framing question papers, assessment of students' performance and feedback.

- Advance pedagogy creates rich experience for students as well as a rewarding experience to the educators.
- Hybrid teaching model combines both e-learning as well as face to face teaching. Such synchrony helps to teach and to learn in their systemic approach of study. In this way, out of class learning can be encouraged.
- Teaching learning with technology stimulates and engages students and trainers to accomplish their objective learning.
- By incorporating digital teaching and learning materials we can save money, labour and time
- Our Curriculum could be extended by adopting technological content knowledge to the teachers and learners to enhance professional and academic skills.
- New age education system is able to imbibe four key skills in the students, which include 4C's: Communication, Collaboration, Competition and Creative and Critical Thinking skills.
- It helps educator or facilitators to view education in a constructive way.
- It helps facilitators in differentiative instructions and value based assessments.
- NES-is trying to inculcate in students, values with a tinge of skill development.
- From Gurukul age to digitalization age, there has been a big leap, where teaching includes not only sending information but also receiving.
- Usage of digital materials or unique technology tools helps to grab and sustain the attention of students while pursuing their higher education.
- Digital tools help the students to perceive, comprehend and retain. Therefore helping them in learn and relearn
- The facilitator can make the content of the curriculum Concise, Crisp and Captivating for the students in their learning process.
- With the digitalization- organizations also reap the benefit of recognition in long list of acclaimed schools, colleges and reputed Universities.
- Digitalization provides the apt platform for Self-Assessed learning, thereby making classrooms making "Student-Centric.
- E-learning bestows equal opportunities to educate and learn, to harness their skills on a regular basis.
- Communication via e-mode gives students significant insight into their given situation.
- Web based learning tools give the flexibility to the student mob to complete the task outside the classrooms, yet connect to the classrooms.
- E-learning tools have eliminated the barriers of time and cost, as the students save the cost of travelling.
- Universities can attract more students register through online-learning
- E-learning, builds the confidence of a student, as they are given the opportunity to broaden their knowledge at their own pace.
- Online learning tools- give ample scope to the learners, to control their own learning process.
- Modern tools make students independent, as he/she has scope to eliminate unnecessary information and concentrate on required data.
- Students might overcome the insecurities that usually they face in classroom learning through this new mode of education.
- Online education material makes the content and format, easily adaptable to changing times.

Barriers:

Apart from the above mentioned multiple benefits in adopting-developing-adapting digital material in enriching the curriculum-based teaching and learning with technology. There are many hindrances to overcome and embellish the English language learning easier. To mention a few:

- Students should have prior knowledge, in the usage of technology otherwise it may effect the success of the e-learning environment.
- For students, who prefer their mother-tongue mode of communication may find it difficult to navigate as it is based generally in the English language.
- E-Learning is difficult to adopt, as it involves human skills, to be specific motor skills.
- The initial stages of an e-learning tool are time- consuming as the students find an alien culture of learning to be adopted
- Web-based learning may be apt only for students with self-discipline, as it depends on independent focus to understand the topic.
- Digital learning tools encourage, students to have prior training, which may be a barrier to gain knowledge through this innovative mode.

- E-learning materials expect students to have a focussed, which is a challenging task for their age.
- The negative impact of e-learning on the facilitators is that their creativity is side-tracked and not recognized.
- Digitalization has spoon-fed the students, which kills their cognitive skills.
- Unlike the traditional classroom learning process which is fun-filled, the e-learning curriculum may become monotonous, confining to individual four walls.
- Generally the human brain has data retention ability which is far more superior to artificial intelligence, but intervention of digital learning mode is degenerates the ability to store and retrieve. Due to excessive dependency on machines rather than using human intelligence.
- It became a bane to the young minds, confining them to four walls. Thereby giving the experience of Social isolation.

Conclusion:

Summing up, Technology based learning and teaching tools may be a boon to curriculum only if it doesn't ruin the chief objective of education process. The researchers or educators should aim at transforming the true essence of knowledge or information to the mediocre. With the adoption of modern tools, the young minds and facilitators can adorn the English language acquisition into limelight. At the same time, teachers as well as students should bypass the old system of learning and teaching modes and experience the new spur of education.

References:

1. P.C.Naga Subramani, Iyappan.I(21-04-2018) "Innovative methods of teaching and learning" published online, Dept. of Pedagogical Sciences, Tamilnadu Education university, Karapakkam, Chennai.
2. Kharinar. C. M. (2015) Advance Pedagogy : Innovative Methods of Teaching and Learning. International Journal of Information and Education Technology, Vol.5, No11, pp 869-872.
3. Gunn. E. (2014) "Using clickers to collect formative feedback on teaching: a tool for faculty development," International Journal for the Scholarship of Teaching and Learning, vol8, article11.
4. Bonk.C.J (1998) Cummings, "Recommendations for placing the student at the center of web-based learning," Educational Media International, vol.35, no.2, pp.82-89.
5. King S.B.(2014) "Graduate student perceptions of the use of online course tools to support engagement," International Journal for the Scholarship of Teaching and Learning, vol.8, n0. 1, pp. 130-132.
6. V. Raymond Lesikar in his book "Business Communication"
7. Bureu Okmen, Abdurrahman kilic (2016)"The Effect of Language Methods on Academic Success in Turkey."
8. URL:
9. <http://dx.doi.org/10.11114/jets.v4i10.1767>
10. <https://instapage.com/blog/webinar-landing-page-examples>
11. <https://www.slideshare.net/teachertraining398/4-important-modern-teaching-aids-102803002>

Ganigas: Condition of Cold Pressed Oil Industry

Meghana G

Research Scholars Department of Sociology Kannada university-Hampi

Gmail :meghanag034@gmail.com

Abstract: India is a vast country and the inhabitants of several of its regions have developed specific preference to certain oils among the oils available in the region. For example, people in the south and west prefer groundnut oil while those in the east and north use rapeseed oil. Likewise several segment in the south have a preference for coconut and sesame oils. The economic prosperity of a country like India depends upon the development of agriculture and cottage industry in a balanced manner and it reveals the importance of agriculture in the process of industrial development. The growth of organized industrial sector in the country was started with the development of agro based industries. Oil pressing, in view of its large potential, is now regarded as the sunrise sector of the Indian economy for growth and also exerts a great socio-economic impact specifically on employment and income generation. If properly developed, Oil pressing sector can make India a major player at the global level for marketing and supply of processed food, and feed a wide range of other plant and animal products. Most of the agro processing industries are traditional, cottage-based and small scale and among them, oil mills occupy a predominant place in India. The review of literature reveals that, the studies associated with the prospects and problems of Ganniga community in Karnataka in general and in particular are very low, and the studies associated with oil milling industry either in Karnataka are nil. It is a traditional oil expeller used by people of Ganiga in districts of Karnataka. It is a simple traditional technology widely distributed in the rural areas. The traditional oil press is used for extraction of oil by a particular community Ganiga who are the oil expeller and oil selling community in Karnataka.

Key words; Ganigas, oil, Industry, condition, socio-economic, Status Etc..

Introduction:

Ganigas basically belongs to Cold pressed oil trade called "Gaana". This is a trade based Community and considered trade as its soul. Once this was fore front industry among all the Cottage Industries. These bull driven oil Extractors, extracted the oil and fulfilled the need of pure oil to the locals and the people around the villages every day. Earlier the Ganigas were in joint family and the few family members were doing Gaana work and others used to travel, distribute and sell the Oil. Ganiga Community found in various states of India like Karnataka, Andrapradesh, Tamilnadu, Maharashtra, Gujarat, Bihar, Orissa, Bengal, Uttarpradesh. They were called by different names in different regions as Gandla in Andrapradesh, Chattiya and Chatte in Kerala, Vaniyan in Tamilnadu, Teli in Maharashtra and Gujarat, Saho in Bihar and Orissa, Guptas in Uttarpradesh and Madyapradesh, Jyothi in Bengal, Ganigas, Jyothi, Teli in Karnataka (Rajashekarappa M:2019:21). In Karnataka we can find Four sub categories in Ganiga Community as Sajjana Ganiga, Jyothi ganiga, Enne ganiga and Kariganiga. This is a widely spread community and it is our dire need to know how this vast community has gone far away from its main trade and also the condition of cold pressed oil industry or Gaana Udyama. There was a time when this Ganiga Community has provided oil to the entire society when there was no oil industry and converted machines.

Now we have to study how this community doing for its living and which alternative trade is following when it is left the Industry. Besides we also have to find whether this 'Gaana' industry is still existed or not. It's our responsibility to understand the Trade based Community.

Ganigas means : trade based Community. The process of oil making by using wooden or stone, oil mills are operated by a pair of bullocks and the people who extracted oil by this way are called as Ganigas.

Industry means: people and activities involved in producing goods. Industry is an organization and the persons who runs it called as an industrialist. The trade which is done for the sake of livelihood is also called as industry or Udyama.

What is Gana Industry? The people who extracts oil is a called Ganigas and that trade is called Gaanada Udyama. The people who extracts oil and sells its to the villages are identified as Ganigas or who provides best quality oil are also called as Ganigas.

Hypothesis

Social and Economically Ganigas well of from Oil industry

In modernity the original profession of Ganigas has disappeared

Purpose Of Study

To understand the Condition of Gaanada Industry

To find the Ganigas who involved in the industry and confront them with the Society

To Confront the Traditional Gaana with Modernization

To find the other Communities who are Practicing and Involved in this Industry except Ganigas.

Review of Literature

Thimmareddy S.Y., Kula kasubugalu mattu Adunikathe, Essay which is Submitted for Ph.D

Gaanagarike, the trade which is extracting oil from the oil seeds was existed before Vijayanagara Empire and it was also an important trade. Ganigas were there in all parts of the empire. And they are called as Hegganigas and Kiruganigas. Ganas were divided as Maragana and Kallugana. The oil was extracted from Hucchellu, Haralu, Kobbari, Hippe and Honge seeds. The cold compressed oil or Gaana Industry was so prominent that the tax was recovered by collecting money or Oil.(72:2010)

Vasudevan C.S.(A) 'Shasonokta ennenadu', Bhatsuri K.G.(e) 2006, Shasana Adyayana Samputa 3, Sanchike 2, Prasara Kanna university, Hampi, P.73-7.

"Few Edicts of Mysore and Chamarajanagara mentions Ennenadu, ennestala, and Ennenadu"(Va:2006:P:73). It is significant that the places in Ennenadu starts with 'HA(ಹ). For Example Haradanahalli, Harulukote, Handrahalli etc. May be these villages come from 'haralu'. Haralenne (Castor oil) is extracted from Haralu (Castor) seeds. Thereby the places of these regions starts with Ha (ಹ), means we can opine that the villages are named after the raw material used to extract the oil.(Vasudevan: 2006:P:75). In this article they have acknowledged the Edicts which belongs to Ennenadu or land of Oil shows how prominent the Gana Industry was.

SCOPE

Scope means the extent of the area or range. We should have a range when we involved in any studies. Here we have opted selected villages in various districts of Karnataka and only the Ganiga trade for our study.

Importance

Once the community which produced oil made it as an industry. We can explore how Industrial revolution made the Ganigas to leave their trade, why they have chosen an alternative trade, their condition. And also through this kind of study we can expect the progress of Ganiga Community.

Modes of Study

We have studied and reviewed articles, books essays to prepare the article about Present condition of Ganada Udyama or Cold

Compressed oil Industry. Also chosen situational data and simple random information along with questionnaire method.

Condition

Condition means a state of something, time means duration or process. Duration means the length of time one thing tasks to be completed.

The Process of Condition of Gana Industry

Ganigas lived by selling extracted oil. Their life is solely depended on Gana Industry. Once they are as known as cooking oil. People gives much respect to these ganigas who supplies varied cooking oils. They are called as ganiga shetru, oil extractors, ganada maneyavaru, and the woman from ganiga families are called by names ganagittiyaru, ganadodatiyaru and ganada maneyaki. Ganigas were well known in the localities that people used to come and talk to them wherever they are in those days. When there were no electric Lights, 5 feet Pole was built and ganigas used to provide oil to this pole in the evening. The extracted oil was sent to gram panchyat or village leaders. The entire village was lit by the oil given by them. Brahmims in Agraharas used to uy haralenne and ellene for temples to lit the lamps. There was a huge demand for oil from ganigas, and also we can find the edicts which informs that the kings also given ganas as gift/charity to temples to extract oil for lamps. Ganigas were financially stable during those days when the whole ganiga family is appointed for temple to manage those ganas and the suitable wages also given to their labor. The neem oil was huge in demand because of its medicinal values. The cows were the backbone of this industry and the neem oil plays a vital role in their protection. Kalu bai roga, charma turike diseases are resolved by this neem oil and some of the human diseases and wound were also cured by adding turmeric to neem oil. In those days tractors and advanced technologies were not there, cows are used for sowing it. To protect these cows people were in queue in front of ganigas house to buy the oil and hindi. Hindi is good for cattles and they give quality milk so that people pays the money to reserve the food in advance to protect the farms from the diseases like boodu roga and seede roga they used to mix the Hindi in water and sprinkles in the farm. The farm gives good yielding by this, Not only the oil but also the hindi() was useful.

Gaana may be a trade but we can also find many uses. Ganigas were making their livelihood by extracting oil from Ganas. As Population increased in India the government made a Pcat and started to import Palm oil or Tale Enne from The Arab Countries in 70's and 80's for over

Twenty years. The Compressed Oil industry came to extinct in these days. The imported palm oil was just 20/- per litre whereas Compressed oil is 40/-. People started to buy the oil which is very low in price. No one was asking about oil produced from the Ganas. They started to buy the palm oil which is available at cheap cost. When the things are not going well they left their trade. The ganas which are used for trade purpose now only meant for Pooja Ritual. They could not ar a single penny through this. The community which was paying tax now lost its breadwinning hands. They started new trades like textile showrooms, Provisional stores, general stores.. They invested their left amount and started a new life by selling readymade oil pockets and newly transformed cold pressed oil. The newly transformed oil mills, pocket oils and oil factories shook away the very existance of Gaanigas and Gana Industries. They couldn't compete with the modern oil Producing machines. Once highly demanded Cold pressed oil industry and the Gaaniga community has vanished because of pocket oils. They have

reached the zenith from nadir due to the modernisation of oil industries and machines.

TABLE: The details of traditional Enne ganas in present Day

When we observe the above table, can find the community which is largely involved in Oil production. Here all the communities have given importance to Tradition Enne gana or Cold compressed oil. Mainly the ganiga community is trying to preserve and save the trade. This way ganigas and ganas are again flourishing. The unheard sound of ganas are hearing everywhere now. The increase in the incurable diseases also lead a way to the flourishing of this industry and it has been working as a remedy to those diseases. Many people who are suffering from cough, blood pressure, diabetes, arthritis are using the oil which is produced by cold compressed industry or gaana. Now people have a opinion that the industry is again came into light and the stone and wooden gaanas are in use. It has given financial stability to the ganigas who solely depends on this industry. Besides with ganigas many other communities are practising this.

Sl no	Community	Stone gana	Wooden gana	Transformed gana	Others	Total
1	Ganigaru	7	3	8	4	32
2	Goudalu	2	1	3	Nil	06
3	Rajaparivara	Nil	1	Nil	Nil	01
4	Muslim	Nil	Nil	02	01	03
5	Lingayata	04	02	02	01	09
Total		13	17	15	06	51

Research Outcomes

Once the condition of Compressed Oil Industry was completely devastated but now its gradually raising its head.

Can maintain a family by a Ganada Udyama
 Earlier we can find 2 to 3 ganas now a days we could not find that.

Can find ganigas are reestablishing Gana industries again.

Ganigas' opines that they Can save the traditional age old oil industries

Oil is extracting through Stone, wood, and transformational form.

Others are also involved in the industry along with ganigas.

Most of the ganas are used for pooja ceremony only.

Suggestions: Government should encourage and facilitate the People who are running gana industries.

Government and organization has to come forward to save the Gana industry which is cottage industry.

Should encourage and develop wood and stone ganas

Create awareness among the youth about Enne gana trade

Should incorporate value based texts that includes social sensibility and conservation of basic trade.

Conclusion: On the whole we can say that the Ganada udyama or Industry has extinguished. Many people did not have the aware of Ganas and did not know Gana means Enne gana or oil extracting. They thought that gana means (Bellada) Jaggery gana or Sugar cane gana . Now the scenario is changing and the gana industry is breathing again. It has came into light because of people's much care and concern towards health, and it is a matter of joy that the Ganigas are trying hard to preserve and protect their trade and gana industry . They are creating opportunities and space to lead their life easier with the help and development of Gana industry. They are trying to confront the old age trade with new modern world and technology.

References

1. Timmareddy S.Y., 2010, Kulakasubugalu mattu Adunikathe, Essay which is submitted for PH.D thesis.
2. Vasudevan C.S(Athour) 'Shasanokta enne nadu', Bhat suri K.G.(E)2006, Shasana Adyayana, Edition 03, Episode 2, Prasaranga Kannada Viswavidyalaya, Hampi, P.73-7
3. Hnadralla Mrakandeya.2008, " Ballari Jilla ganigaru: Ondu adyayana"(Ph.D thesis submitted to Hampi University which is not published)

The Taliban's Neo-Old Afghanistan: Humanitarian Crisis and Emerging Refugee Problem

Mr. Sagar Gopal Rathod

UGC-SRF Fellow, Pursuing PhD, University of Mumbai.

Abstract: After a long period of twenty years, America has decided to stop the operations of USA in Afghanistan. And their army retreated. As soon as the US withdrew, the Taliban seized power in Afghanistan. The Taliban formed their government in Afghanistan through some violence. With the arrival of the Taliban, many Afghans and various minorities began to seek refuge in various countries to defend themselves, and many were internally displaced. Instability in Afghanistan is harmful and dangerous not only for the countries of South Asia but also for the entire world. Afghanistan has been unstable for the past several decades, but the arrival of the Taliban has created a new and frightening problem in the South Asian region. The current situation in Afghanistan is reminiscent of the geopolitical problems of the 1990s. Internal war, violence, disease, resistance to modernism, old religious traditions, economic, political, social, religious minority problems, health problems, education problems, gender discrimination, feeling of insecurity, patriarchal government etc. are causing internal displacement of people in Afghanistan. Or being forced to accept refuge outside the country thus creating a major humanitarian crisis.

Keyword: Taliban-USA, Insecurity, Humanitarian Aid, Refugee, Displaced, UNHCR

Introduction:

In 1994, a group of radicalized students who received religious training in a refugee camp in Pakistan took control of the city of Kandahar and began to seize power. This group was known as the Taliban. By 1998, almost all of Afghanistan was under Taliban control. The Taliban were a group of extremists who strictly enforced Sharia law in Afghanistan, women were deprived of education, girls were not allowed to go to school, women were not allowed to work, overall, the Taliban became a safe haven for international terrorists. Only Pakistan, UAE and Saudi Arabia recognized the Taliban. To put an end to terrorism, the USA and its allies ousted the Taliban regime in 2001.

Taliban's Neo-Old Afghanistan:

For almost twenty years from 2001 to 2021, the common people of Afghanistan could enjoy independence, gender equality, education, health, employment, etc. And an environment conducive to development was being created. once again in 2021, a vacuum was created by the departure of USA in Afghanistan. And the Taliban once again seized power. The current situation has created the same problems that occurred in the 1990s that will recur in Afghanistan.

The old Afghanistan was under the Taliban rule in the 1990s and now the new Afghanistan of 2021 which is again under the Taliban rule. For nearly twenty years, the extremist religious ideology of the terrorist Taliban was successfully suppressed in Afghanistan. During this twenty-year period, Afghanistan underwent drastic changes, including girls' schooling, women working openly, and development without Sharia

law. During these twenty years, emphasis was placed on education, health institutions and economic sector was continued, ideological

modernization was created, efforts were made to create harmony between the people and the government, non-violence and peaceful development ideologies were encouraged, international financial funds were used for the development of the weaker sections. So, today's Afghanistan is not what it was twenty years ago. The people of today's Afghanistan seem to be moving towards steady development and modernity along with religion. Economic, social, health, education, poverty, available means of livelihood. Such various problems are faced by common people. But the coming to power of the Afghan Taliban is emphasizing how the Afghanistan of the 1990s can be imposed on the country by religious Sharia law.

Humanitarian Crisis:

International financial aid organizations withdrew from Afghanistan. Also, financial crisis faced the Taliban. It became impossible to pay employees, the public health system was completely destroyed. The recent war has created various humanitarian crises. And the possibility of renewed violence arose. In addition, the people living in the urban areas of Afghanistan became unable to earn their own livelihood, while the situation in the rural areas became extremely fragile and miserable.

After the withdrawal of American troops, the Taliban government came to power in Afghanistan, but various problems arose in front of Afghanistan when they came to power. Issues such as health, hunger, employment, livelihoods and several million people's livelihoods

depended on international aid funds, but that too came to a halt with the arrival of the Taliban. Afghanistan's foreign financial assets were also frozen. Ongoing conflict, natural disasters, poverty, food shortages, pandemics like Covid-19 and sudden power transitions, violence and instability by the Taliban in August 2021 have disrupted the lives of people in Afghanistan and displaced many internally. This also put pressure on countries that aid in humanitarian crises. According to the UN, nearly 3.5 million people were internally displaced by the end of 2021, and at least 2.7 million were forced to take refuge across borders involuntarily. Afghanistan has the third largest number of displaced people in the world after Syria and Venezuela. 1.3 million and 780,000 registered Afghani refugees live in Pakistan and Iran respectively.¹

Millions of people in Afghanistan are in need of humanitarian aid due to the past twenty to forty years of war, frequent natural disasters, political turmoil, extreme poverty, drought and, of course, the Corona pandemic. After the arrival of the Taliban, only poverty and unemployment remain as people have no money to buy food. But the Taliban did not think about how to save the economy from collapse. On the other hand, different conditions under the Sharia Law such as how women should wear clothes, women should not leave the house, women should not work, girls should not take school education, are being announced day by day by the Taliban. A resolution was passed by the UN Security Council that the Taliban will allow people who want to leave the country to do so, and will not obstruct the delivery of humanitarian aid, violate human rights, and not commit coercion or crimes against women and children.²

Before the arrival of the Taliban, Afghanistan was dependent on international financial aid, with nearly 38 million people dependent on foreign aid. But after the hard-line Islamist faction of the Taliban seized power, foreign aid stopped. How will ordinary citizens, Afghan women and girls, journalists, academics, human rights activists, ethnic communities, religious communities and other minority groups be protected under Taliban rule? Now there is a question mark on this. Due to insecurity and violence, the lives of women and girls have become very insecure and dire. People are faced with shelter, food, water, and health needs.

According to a survey conducted by the United Nations World Food Program, almost 98 percent of people in Afghanistan do not have enough food to eat. The political transition has had a major impact on the country's basic services,

financial system as well as the market, and the lives of millions of people have rapidly shifted towards poverty, with the number doubling in 2022 from 2021. By 2022, nearly 97 percent of the population will be below the poverty line. Humanitarian organizations are also facing difficulties in assisting such a large population. As soon as a terrorist organization named Taliban took over the power of Afghanistan, the peace that had developed for a few decades was again disturbed and Afghanistan was broken again and people's lives began to fall. The advent of the Taliban has resulted in a massive increase in violence, war, pauperisation, degradation, fear, unrest, violence against women and girls, resulting in millions of people being internally displaced and many fleeing the country out of fear and taking refuge in various neighbouring nations. Afghanistan began to pose a global refugee problem. It is also beginning to affect neighbouring nations and regional security. The humanitarian crisis caused by the negative impact of the Taliban in Afghanistan. The Taliban had a negative impact on Education, Safety-security, Hunger, Water, Health, Economic, women, Children, Adult, Hazara ethnic and religious population, various tribes.

Taliban's Sharia and Women: The Taliban want strict implementation of Sharia law. Public hanging or mutilation, forcing men to grow beards, forcing women to wear veils, banning music, cinema and television, not allowing a girl above the age of ten to attend school. Women should not go out alone. The fate of women in Afghanistan is desperate, hopeless, unbearable, and disgraced. Women are imprisoned in a cloth prison called Burkha. After taking power, the Taliban continued the system of gender apartheid, stripping them of all their human rights, including the right to work, education, health care, and speech. Women and girls cannot be examined by a male doctor. It is also prohibited to employ women doctors or nurses in hospitals. Women can be brutally beaten and abused, publicly flogged and even sentenced to death if they disobey the Taliban's orders. Instead of the woman, the man of her household can also be punished.

Emerging Refugee Problem:

In the period leading up to the unexpected arrival and seizure of power by the Taliban, instability and violence escalated in Afghanistan, with covid pandemic, extreme poverty, inadequate food, epidemics, natural disasters, economic poverty, lack of health facilities, poor education environment, and starvation. And as a result, nearly several million

people were internally displaced or forced to flee the country.

After the Taliban seized power, thousands of refugees fled to the United States for their lives, Greece built a wall along its border with Turkey to prevent Afghan refugees from entering Greece. Refugees of Afghanistan started turning to different countries for refuge. In that, many people fled in neighbouring Iran, Pakistan and Turkey. After Turkey, Greece and after Greece, the number of refugees also started to increase in the countries of Europe. In order to prevent the increase of refugees and terrorism in Uzbekistan and Turkmenistan in Central Asia, the Central Asian countries have already started making agreements with the Taliban, including Russia. China-Pakistan Economic Corridor and Geopolitical Significance of Afghanistan, Also, The SAARC, TAPI natural gas pipeline and India's interest are important, that is why Afghanistan is considered to be an important territory under the control of the Taliban for various reasons. South Asian nations have not signed the 1951 Convention on Refugees and the 1967 Protocol Relating to the Status of Refugees. The number of Afghan refugees also started increasing in India. India has also made provision for six-month e-visa. It is also feared that the arrival of the Taliban will lead to the emergence of terrorist organizations like Lashkar-e-Taiba and Jaish-e-Mohammed. Regional stability is also threatened by terrorism and immediate security threat. Only a stable government in Afghanistan can provide a stable economy and stop displacement and migration. But the Taliban does not seem to be the right choice for Afghanistan. Therefore, international organizations should focus on solving this problem. It is necessary to provide immediate humanitarian financial assistance to Afghanistan. All nations of the United Nations must decide together how to maintain peace, order and stability in Afghanistan.

Literature Review:

A brief overview of the studies done in the context of topic some of the reviewed studies below:

- 1) **Donini, A. (2009). Afghanistan: Humanitarianism under threat. Feinstein International Center, Tufts University, Medford, MA.**

This briefing paper discusses the humanitarian challenges and opportunities in Afghanistan. Afghanistan is a serious threat to humanitarian conflict. insecurity and terrorism are contributing factors. The authors also suggest how to build and harmonize humanitarian consensus.

- 2) **UNAMA Human rights service. (2022). Human Rights in Afghanistan 15 August 2021 – 15 June 2022.**

The United Nations Assistance Mission in Afghanistan (UNAMA) released a report on the torture and ill-treatment of Afghan citizens, extrajudicial detention, extrajudicial killings, protection of civilians, rights of women and girls, forced displacement, fundamental freedoms, and the treatment of civilians by the Taliban. Concern has been expressed.

- 3) **United Nations Development Programme. (2021, September 9). 97 Percent of Afghans Could Plunge into Poverty by Mid 2022 [Press Release]. <https://www-dev.undp.org/geneva/press-releases/97-percent-afghans-could-plunge-poverty-mid-2022-says-undp>**

According to a UNDP press note published in 2021, nearly 97 percent of Afghanistan's population will fall into poverty by June 2022 due to economic crisis. It was pointed out that vulnerable people and communities in Afghanistan are in urgent need of humanitarian financial assistance. To protect women and girls, to develop local livelihoods, basic income and infrastructure an economic package was proposed but even today there is no solution to Afghanistan's poverty and hunger.

- 4) **United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Afghanistan. (2021). Afghanistan Humanitarian Fund Annual Report 2021**

The arrival of the Taliban in 2021 has increased conflict, violence, war-like conditions, strangulation of human rights. inadequate supply of food led to malnutrition among girls and women. Also, the International Development Fund was affected. The Taliban seize power, leading to economic crisis, instability and widespread hunger in the country. According to the report, nearly 24.4 million people are in need of humanitarian assistance by the end of 2022.

Objective of Study:

- Critically analysing the poor living conditions in contemporary Afghanistan and highlighting the lives of people under the control of the Taliban.
- Understanding the urgent need for humanitarian aid and studying the role of the Taliban in driving the growing refugee crisis.
- Exploring economic, political, religious, causes of unstable Afghanistan. To study the factors driving population migration abroad. seeking refuge in a new country.

Scope of the Study:

The scope of the proposed study will not be limited to only Afghanistan's instability; it will also have a direct impact on Iran, central Asia, and south Asia. It will indirectly have an impact on western nations, including the USA, in terms of geopolitical strategic interest and human security (refugees and terrorism). The study aims to comprehend the underlying causes of the complex issues faced by refugees, internally displaced people, and asylum seekers from Afghanistan. It covers on a number of the Afghan people's issues, including those that are religious, social, educational, political, economic, physical, psychological, and legal, which drive them to seek refuge.

Research Methodology:

Descriptive, analytical and exploratory research design has been used while studying the subject. We can call it descriptive because it displays a clear and accurate picture of the economic, socio-religious, geographical conditions and past customs of the people of Afghanistan, as well as numerous aspects and difficulties among the people that encourage them to flee and seek refuge. The study is based on secondary data. Collected from various sources like, newspapers, Lok Sabha debates, various libraries, institutes, government offices and reports published by them, journals, manuals, published books, articles, magazines, internet and past research reports, documentation of working NGOs.

Suggestion and Recommendation:

- The Taliban should be pressured to meet international human rights protections in Afghanistan through various regional and international organizations and UN.
- The problem of Afghanistan cannot be solved only with humanitarian financial aid but the economy of Afghanistan needs to be strengthened and for that the international community needs to negotiate with the Taliban.
- The Taliban must respect the rights of women and girls and ensure gender equality in accordance with international humanitarian law.
- Through the United Nations, Afghanistan's frozen money in various countries should be used to address humanitarian issues.

Conclusion of the Study:

Accepting financial aid is not a permanent solution, although it is an immediate need to help refugees. Once the political situation in Afghanistan stabilizes, economic life will get a chance to improve. A lot depends on the way the Taliban are treated by the common man and how the Taliban presents itself in international fora.

International recognition is the backbone of Afghanistan's economy. If economic transformation does not occur, and violent instability continues, civil war may break out. Economic weakness and instability may lead to the emergence of new terrorist groups. Afghans will flee from their own country and become a major problem (refugee crisis) for the international community in the coming years. Therefore, the Taliban must give the common population the right to live in peace and security, without discrimination on the basis of race, religion, and sex, without torture, cruel and degrading treatment, enslavement, as stipulated in international humanitarian law. So that new refugees can be prevented from being created.

References: -

1. *Afghanistan Refugee Crisis Explained.* (2022, June 29). *Afghanistan Refugee Crisis Explained*; www.unrefugees.org. <https://www.unrefugees.org/news/afghanistan-refugee-crisis-explained/>
2. *Security Council urges Taliban to provide safe passage out of Afghanistan* | UN News. (2021, August 31). UN News; [news.un.org. https://news.un.org/en/story/2021/08/1098802](https://news.un.org/en/story/2021/08/1098802)
3. Ahmadi, B., & Lakhani, S. (2017). *The Afghan refugee crisis in 2016*. United States Institute of Peace.
4. Banerjee, P., Chaudhury, S. B. R., Das, S. K., & Adhikari, B. (Eds.). (2005). *Internal displacement in South Asia: the relevance of the UN's guiding principles*. Sage.
5. Betts, A., Loescher, G., & Milner, J. (2013). *The United Nations High Commissioner for Refugees (UNHCR): The politics and practice of refugee protection*. Routledge.

Impact of online Education on the Mental Health and Physical Health of the Students (Raigarh, Chhattisgarh, India) during Covid 19 Pandemic

Lt. Dr. Sharda Ghoghre

Assistant Professor, Psychology Kirodimal Govt. Arts & Science College, Raigarh (Chhattisgarh)

Abstract: This research paper investigate how the online education during Covid pandemic effect the physical and psychological health of the students of Raigarh, Chhattisgarh, India. Covid 19 has caused destruction and devastation worldwide in the ways nobody can expect. The life of the people is totally changed and it affects the educational, social, emotional, economical, physical and psychological well being of the individual. During Covid -19 pandemic it is very challenging for the school administration, college administration, University of India and also for the Government of India how the teaching can be continuously going on without any interruption? But the challenge is how the classes will be taken whether from offline mode or online mode? There is also one question arouse in every one mind how the online teaching effective in learning process especially for students? And how its effect the mental health and physiological health of the students? To examine this study has been conducted on 450 students of Raigarh, Chhattisgarh India to know their views on how the online education has affected the psychological and physiological Health of the students. For this Kirodimal Government Arts and Science College, Raigarh Department of Psychology conducted a case study to investigate it. The finding of the study says that in positive and negative both the ways it affects the psychological and physical Health of the students.

Introduction

Covid 19 has caused destruction and devastation worldwide in the ways nobody can expect. The life of the people is totally changed and it affects the educational, social, emotional, economical, physical and psychological well being of the individual. During Covid -19 pandemic it is very challenging for the school administration, college administration, University of India and also for the Government of India how the teaching can be continuously going on without any interruption? But the challenge is how the classes will be taken whether from offline mode or online mode? There is also one question arouse in every one mind how the online teaching effective in learning process especially for students? And how its effect the mental health and physiological health of the students? To examine this study has been conducted on 450 students of

Raigarh, Chhattisgarh India to know their views on how the online education has affected the psychological and physiological Health of the students. For this Kirodimal Government Arts and Science College, Raigarh Department of Psychology conducted a case study to investigate it. The finding of the study says that in positive and negative both the ways it affects the psychological and physical Health of the students.

Online education has drastically changed the way we study but the year and half of attending online classes from home have led to a string of Mental and physical health problems for both students and teachers. In this study students reported that due to online teaching they become 95.11% irritable, 100% stressful, 41.33% feeling depressed, 71.56% lack of interest in the studies, 97.56% feeling isolated, 66.88% socially deprived, 94.67% problem in concentration.

Table:1 Mental and Physical problems faced during covid 19 Pandemic during online teaching

S.No	Mental/ Physical problems faced during online teaching (total Sample size 450)	Total Participants reported	percentage
1.	Mental Fatigue	349	77.56
2	Depressed	186	41.33

3.	Anxiety	436	96.89
4.	Irritability	428	95.11
5.	Stressful	450	100
6.	Lack of Interest in studies	322	71.56
7.	Problem in concentration	426	94.67
8.	Feeling isolated	439	97.56
9.	Socially Deprived	301	66.88
10.	Pain in Back	386	85.78
11.	Eye problems	318	70.67
12.	Overweight	249	55.33
13.	Migraine/Headache	148	32.88
14.	Pain in Muscles	342	76.00
15.	Sleepness/Sleepy	386	85.78

Several research studies reported that overuse of technology can result in mental overload and disconnect people from nature, play and people. A child who spends too much time in virtual worlds is less likely to have effective social skills to interact in the real world simply from lack of practice. J. Kim, R. LaRose, & W. Peng, 2009 posited technology negatively impacted social skills. J. Y. Yen, C. H. Ko, C.F. Yen, H. Y. Wu & M. J. Yang, 2007 reported those engaging in excessive technology use have a decreased sense of time and concentration due to multi-tasking. In addition, they are not future-thinking and are more impulsive. Park & Hyun also found academic performance was affected more than any other factor.

Due to online teaching students may experience stress due to increased pressure to perform independent learning and abandoning their usual routines, which may lead to psychological consequences such as anxiety, depression, difficulty in sleeping and stress eating (Liu N, Zhang F, Wei C, Jia Y, Shang Z, Sun L, et al., 2020). Same thing we have found in the case studies students may experience stress, feel depressed and feel irritability and lack of concentration. Students also reported its affect their learning skill and cognitive abilities also. In this case study they may feel socially isolated and mental fatigue due to spend more time in online learning.

The exposure students receive during school days, interaction with teachers and the activities they organise and interaction with

peers all these things play an important role in shaping the personality of student. But with the major change in the mode of education students have lost this opportunity. Increased screen time have lead to unfavourable effects on the learning and psychological health of students. Fazean Idris, I N Zulkipli et al, 2021 Prolonged screen time have worsen the critical thinking ability of the brain. Students are trapped in their comfort zone and are unwilling to move out of it. Many of the students were involved in high risk behaviour like gambling and porn addiction. And also they spend a lot of time in video gaming and other such activities which may lead to mental retardation.

The online mode of teaching not only affect the psychological health of the students its also affect the physical health problems like eyesight problems, sudden weight loss or gain, back pain, migraine, fibromyalgia pain and so on. The students continuously sitting in the front of screen it may leads to strain on the eyes and resulting in major headaches. This was applicable not only to the students but also for the teachers. Its also leads to the lack of classroom ethics The posture, regularity, lack of routine, attentiveness has all resulted in health hazards. Constant sitting has caused weight concern as well. No physical activity has made the students restless and frustrated. This too took a toll on the eating habits, thus resulting in damage to the physical health. Some times studying online has resulted in poor/bad ergonomics, thus resulting in a lot of issues as

regards back pain. The results of the case study reported that 99% students reported that they have eyesight problems, 43% students reported severe headache due to continuously focus on the screen, 84% students reported that continuously sitting in the front of screen leads to back pain as well problem in cervicl region. The case study finding revealed that how the online mode of education affect their physical health as well as mental health.

Finally we concluded that Covid -19 outbreak has disrupted the lives of many people across the world the rapid increas in cases worldwide has created uncertainty and anxiety about what is going to happen. It has also Caused a tremendous level of stress among students. Distance learning is an acceleration of this exsisting challenges. Physical activity seem to be a factor that could prevent mental health disorders such as an anxiety, depression and irritability. These are just some of the challenges students are facing as a results of online education. Humans are resilient species and learn to adopt and evolved when we as a nation have been through a such a tough time and found a way to out of it. We can definitely learn to make

online learning more creative and enthusiastic. In the scenario of so many changes it is crucial to take care of our mental health and wellbeing by doing physical workout, meditation and yoga. Although it is traumatic experience of all but we have to take some preventive measures to test our capabalities to adopt to certain stressful and life threatening events.

References

1. J. Y. Yen, C. H. Ko, C.F. Yen, H. Y. Wu & M. J. Yang, "The comorbid psychiatric symptoms of Internet addiction: Attention deficit and hyperactivity disorder (ADHD), depression, social phobia, and hostility," *Journal of Adolescent Health*, vol.41, no.1, pp. 93-98, 2007.
2. J. Kim, R. LaRose, & W. Peng, "Loneliness as the cause and the effect of problematic Internet use: The relationship between Internet use and psychological well-being," *Cyber Psychology and Behavior*, vol. 12, no. 4, pp. 451-455, 2009.
3. Fazean Idris, I N Zulkipli et al, "Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education" *BMC Medical Education* Volume 21, Article number: 542(2021)

Women Entrepreneurship and Papad Industry

Dr. P.S. Girase¹ Smt. S .G. Wankhede²

¹*Guide S.V. Sanstha's Dadasaheb Rawal College ,Dondaicha.*
email:-psgirase1966@gmail.com

²*Research student W.K.B.S. Mandal's Arts, Commerce and BCA College for Women,Deopur,Dhule*
email namratamore18408@gmail.com

Abstract: - Indian women are also called 'Annapurna', 'sugaran', 'Ruchira'. This Annapurna really takes care of the whole family. Caring for the preferences of each person in the family. Makes fresh and various type of food for family members. 'Papad' is one such food found in every Indian households. In today's fast paced world it is not possible for every women to make papad at home. Therefore, such women tend to buy ready-made papad. There is a huge demand for papad from caterers, hoteliers, shopkeepers, retailers, women who leave home for work. Some women feel that they are selling papad to help their family, while some women seem to be making papad from other and selling it in the market. From this, it seems that papad industry has been established. This research paper gives a brief overview of some of the women who have been successful in the papad industry in Dhule district. In this research success stories of women entrepreneurs whose making papad have been presented.

Keywords:-*Women, Entrepreneurship, Papad, Industry.*

Aims :-

- 1] To find out the women entrepreneurs who manufactured of papad.
- 2] To take record the success of women entrepreneurs who produce papad.

Hypothesis :-

The women of Dhule district have achieved success in the papad industry.

Settings:-

Women entrepreneurs who produce papad in Dhule District.

Design:-

Descriptive type of observational study.

Methods and Materials:-

Data were collected by interview of the women entrepreneurs engaged in this industry with a pre-designed and pre-tested schedule.

Conclusion

The women of Dhule district have achieved success in the papad industry.

In modern times, women are involved in every field like knowledge, science, space, research, politics, sociology, industry. Women have also made their debut in the formerly male dominated industry. It seems that, women have worked as entrepreneurs mainly in the fields of laundry, beauty salon, cottage industry, hotels, education and information technology. In the home based industry, it is felt that there are more women entrepreneurs. Also, women seem to have excelled as entrepreneurs of the 'Papad Industry'. In this research, the researcher has taken study of the success of women entrepreneurs in Dhule, who are entrepreneurs of 'Papad Industry'

The researcher feels the need to look at the definition of industry first in research.

1] The new encyclopedia Britannica

'An Industry is a group of company to produce an object to sell in market'.

2] Pro.EAG. Robinson:-

'An industry is a group of firms producing and distributing similar products and services'.

**Agro-Base Industries :-*

-Dr. V. B. Kondawar

'The agro-based industry is the industry that processes the products that come out of agricultural inputs'.

From the above definition of agro-based industry, it is evident that agriculture produces Rice, wheat, maize, Millet, sugarcane, Sunflower, Groundnut, Sesame, lentil, lentils, Soyabean, Nachani, Mustard etc. There are many industries that use and process these agricultural product. 'Papad Industry' is one of them. Many women in India seem to have helped their families financially through the papad industry. Many women from Dhule district work as entrepreneurs in this papad industry.

Women Entrepreneur:-

"A small scale industrial unit, industry related service or business enterprise, managed by one or more women entrepreneurs in proprietary concerns, or in which she / they individually or jointly, have share capital of not less than 51 percent as partners / shareholders / director of private limited company / members of co-operation society, is defined as a women enterprise".

Women Entrepreneur in Dhule District who produce 'papad'.

1] Renuka Lakhichand Chavan

Renuka lakhichand Chavan lives in 'Patalde' village in Dhule. Renuka and some women from her village make papad and sell it. Before the establishment of this industry, Renuka's financial situation was very poor. She did not have even her own house to live in. There was no money for Children's education. Her husband was not getting any job either. That's how Renuka saw a ray of hope from the 'papad' industry. With the help of MSRLM from Maharashtra, she set up a self help group with the help of women from the village and transformed her skills into papad industry. The business which started with the help of Rs. 8000 has now been transformed into a small scale industry. The annual turnover of Renuka's papad Industry has reached Rs.12 to 13 lakhs. Not only this, Renuka's own big house is also a godown for storing papad. During the seasons, Renuka and the women in her group work together to make up to 50kg of papad a day. Renuka's self-help group has received 'Rajmata Jijau Swavalamban Award' and 'Krishi Angrovan award.'

2] Sunita Prakash Mahajan:-

Sunita Prakash Mahajan from Dhule is in the business of making papad and also sells them 'Hat shevai'. Sunita learned the skill of making papads from her mother-in-law Meera Mahajan. The papad and Hat shevai made by Sunita are also bought by people from Dubai, Singapore and USA. The women members of the Annapurna savings group which she founded have a share of Rs 60,000 in the bank and an average annual turnover of Rs 11 lakhs from the home based industry.

3] Shubhangi Akesh Chhajed:-

Shubhangi Akesh Chhajed is a very famous entrepreneur from Dhule. She started 'Spark Food' papad industry in 2013. Her papad is known as 'Vimal Ashish papad'. The business started by Shubhangi's husband was transformed into a papad industry by Shubhangi. With an investment of Rs 30 lakh, it has an annual turnover of 70 lakh to 80 lakh. Vimal Ashish papad is located in Arvi, Dhadre, Dhule MIDC, Laling, Purmepada, Sadgoan area of Dhule. Vimal Ashish papad has 8 to 10 workers. Shubhangi Chhajed seems to be constantly emphasizing on expanding its entrepreneurial reach.

4] Swapnali Avinash Patil:-

Swapnali Avinash Patil is the resident of Shirpur. Swapnali invested Rs 15 lakhs and established Kamal Gruh Udyog in 2016. Swapnali was inspired by his family to set up a papad industry. Now this home industry has been

transformed into a micro-enterprise. Papad of Kamal Gruh Udyog is sold not only in Dhule but all over Maharashtra. 5 workers work in Swapnali's 'Kamal Gruh Udyog', is known to satisfactorily cater to the demand of its customer base. The business strives to make for a positive experience through its offerings. Customer centricity is at the core of Kamal Mahila Gruh Udyog in Shirpur and it is this belief that has led the business to build long term relationships.

5] Sangita Sanjay Yeole, Nardana

Sangita Sanjay Yeole is a very famous entrepreneur from Dhule. Sangita Sanjay Yeole started his own factory in Nardana MIDC in 2016 to produce 'papad' and other similar food item in M/S Kulsamini Industries. Sangita has invested over Rs 45 lakh in her papad industry. Her papad making factory has all the machines needed to make papad. About 10 workers work in this place to making and packaging of papad. Her papad is also sold outside of Maharashtra. Her aim is to sell papad from her factory in the country and abroad.

6] Vandana Lakshman Chaudhary:-

Vandana Lakshman Chaudhary is resident of Waghadi, Taluka Shindkheda. In the beginning Vandana used to roll the papad alone at home and sell it. When the order to make papad then used to make papad. She had profile by rolling papad alone, but it also took more time. The taste of papad spread everywhere and she started getting orders of 30-40 kg of papad per month, but this was not possible for Vandana alone. Then Vandana gathered 10 more women from the village and formed 'Jai Bhavani Self Help Group' for this she got a loan of Rs 5 lakhs from the bank. With the help of story of making papad. Each woman in the group earns an annual income of Rs 1 to 1.5 lakhs, from this business. This group of papad is in high demand from caterers and hoteliers. The aim of women in this group to transform this home used industry into a small scale industry soon.

7] Shweta Chetan Girase, Shirpur.

Shweta Chetan Girase is a resident of Shirpur. Entrepreneur Chetan Girase from Shirpur and his wife Shweta Chetan Girase founded 'Babaji Agro Industry' at Gartad. In her industry papad, appalam, and some other similar product are made. Shweta Chetan Girase started making papad in Babaji Agro Industry in 2019 with an investment of Rs. 50 lakhs. The factory employs about 25 workers. Shweta reached the pinnacle of success by succeeding in her entrepreneurship in a very short time.

Conclusion

From the information given in the relevant paper and other information, it is evident that in Dhule district also some women entrepreneurs have been success full in industries like papad. The women themselves have made great strides in the papad industry through their knowledge skills. In such a short span of time such entrepreneurial women have successes in creating financial independence place in society. Successful women entrepreneurs in such papad industry need to be published through the media so that the new generation of young women can be inspired by their entrepreneurship work ethic, risk taking ability , etc. Can inspired a new generation of young women and contribute to the economic development of the country by increasing overall entrepreneurship among women.

Suggestions:-

- 1] The women of Dhule District should look at the papad industry not only as a traditional industry but also look modernity to the papad industry.
- 2] To increase the participation of women in papad industry , it is necessary for the government to provide special encouragement to women in the industrial policy as well as in various schemes of the government and to Conway information related to trade and industrial management to women.
- 3] As there is a large amount of agricultural sector in Dhule District , a mechanism should be setup to provide guidance and information to women in agro-based papad industry and business.

References:-

Research paper :-

- 1] Shri Mahila Griha Udyog Lijjat Papad. [cited on 2008 Jan] Available from: https://en.wikipedia.org/wiki/Shri_Mahila_Griha_Udyog_Lijjat_Papad
- 2] Papadum.[cited on 2008 Jan] Available from: <https://en.wikipedia.org/wiki/Papad>.
- 3] Roy Sima , Dasgupta Aparajita(April2008) A Study on Health Status of Women Engaged in a Home Based Papad-making Industry in a Slum Area of Kolkata.Wolterskluwer-med know publication 12[1] 33-36 Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796775/>
- 4] Handbook of processing of papad . India Institute of Food Processing Technology . Available from: <https://www.lifpt.edu.in>
- 5] Sarode R.M. , Bhangale N.E. (July 2017) 21 vya Shatakatil Mahila Udyojakata va Shakti , Tactful management Research Journal . Volume-Issue-10.

Books:-

- 1]Sharma D.D.(2002) Women Rural Entrepreneurship in India. Abhishek Pablication.Chandigarh.
- 2]Kaushik D.S.(2009) Women Entrepreneurship.Ritu Publication Jaipur .
- 3]Report of Papad Units Registered in Dhule District. DIDIC . Dhule.

News Papers:-

- 1]Dainik Sakal , 4 March 2018, page No.4
- 2]Dainik Lokmat , 8 March 2019 ,Page No.4
- 3] Dainik Sakal , 02 February 2020 ,page No.3.

web sites:-

- cat logu –kamal –mahila guruh Udyog in Shirpur , Dhule.
<https://www.justdial.com>

Interpreting Brain activity and Behavioural quantification of Humans towards the challenge and visualization of the dataset

Nethra S¹ Rajha Priya A¹

¹Padmashree Institute of Management and Sciences, Bengaluru, India.

E-mail – nethra.hari8@gmail.com

Abstract: The main principle of brain organization is the functional integration of brain regions into interrelated networks. Analysing brain activity and performance is the key objective of the study. The study focuses on the activity of the brain after one hour of a certain activity, which includes reading, editing, painting and physical activities like jogging etc. The use of these methods, however, is not limited to studying behaviour in the wild or strictly ethological settings. Here the quantification of human behaviour after being assigned a particular work was monitored. The reflection over the period and its impact on life were analysed. The data discloses the different age groups with different tasks for an hour and we discuss open challenges that remain for behavioural quantification and highlight promising future directions. Inferential statistics were carried over to visualize the correlation frequency between one or two or more datasets and the packages like corrplot, psych, and ggplot2 were used for interpretation of the data.

Keywords – Brain activity, inferential statistics, Study focus, behavioural quantification, one hour

Introduction:

Behaviour is a zestful phenomenon that necessitates changes to an animal's pose over time. Unlike the tracking of body parts, quantification of the temporal structure is a radically strenuous problem without a clear ground truth. It is often presumed that behaviour can be described as a sequence of distinct behavioural states, such as 'walking' or 'grooming'. The type of behavioural quantification can ease comparison between instances of individual behaviours (for example, in reaction to specific sensory inputs or across exploratory conditions) and generate hypotheses about the neural circuitry that gives rise to them (for example, by defining event boundaries or timescales of computation). Animal behaviour, as defined by humans, The simplest way to define a behaviour is by designating a fixed set of rules that describe the criteria that must be met to determine its happening at a given instant. These can be as simple as codifying instances when the animal's centre of mass is moving at a speed greater than a minimum threshold as 'locomotion', but can quickly become complex when establishing detailed inclusion and exclusion criteria based on fine specifications of postural features. Although easy to evaluate and interpret, fixed rules may fail to apprehend the full variability of behaviours that can be flexibly manifested, particularly when subject to experimental artifices that may alter the statistics of the features used in the classification criteria [5]. In the present study, the primary data collection was done using experimental activities on the Brain for 30 days to study the behavioural change of a person. Several hypotheses and examinations of populations have been practised using programming languages. The behavioural change reflected in the person's life and their

working environment was monitored for the results.

Objectives:

To study the population referred to the assigned task

To examine the behavioural changes in everyday life in samples subjected to the study

To analyse the dataset statistically

Materials and methodology:

The primary motive of this study was to analyse the patterns of concentration on a given task and also to study the impact of successful completion of the said task, especially how successful completion helps, build up a habit. The study was carried out on different age groups of people who were assigned tasks like reading, sketching, studying and various physical activities [8, 9]. Also, the gradual ageing with occasional memory patterns was also analysed [7]. The sample population volunteered for the thirty days of one-hour challenges on daily basis. The dataset represents the divergence and their activity in daily life was studied. Through this, the behavioural pattern of a person becomes noticeable towards the given object and situation [5, 10].

The present study promotes memory and is an effective way to build a habit. Every day the person's activity with the respective time utilised to complete the task was noted. Reading, writing, and colouring promote brain cell activity, which is the major communication practice area. Most of the population were going through depression and anxiety these days also measured for the performance of the Brain [2, 6]. The five-factor model of personality was noted in this study such as neuroticism, extraversion and openness to adventure, acceptance and conscientiousness. The behavioural patterns [3] show gradual enhancement throughout the duration of the

study. It acts as an interlinked chain connecting the objectives and personality of an individual. Development of a sense of responsibility [4] as well as purpose towards the task, and also the observance capacity of the individual can be figured. Also, studies were performed in combination with nutritional food uptakes to increase the neuronal activity in the Brain [1].

The study also involved inferential statistics for the relationship analysis with one or two variable data. The rational linear or non-linear relationships between the dataset were interpreted using inferential statistics with the help of packages. General data visualization [15] performed using RStudio.

The Corrplot package [14] gave a correlation matrix that helped to detect the hidden patterns among variables. It is very easy to use and gives a rich array of plotting options in visualization methods. It gives p-values and confidence intervals to provide information about the

significance of correlation in a statistical manner. Pearson correlation “psych package” [13] was used for scale construction using factor analysis, principal component analysis, cluster analysis and reliability analysis. Psych correlation is an extension of the pair’s function that allows easy addition of regression lines, confidence intervals and several additional arguments and it creates a graph of a correlation matrix colouring the regions by the level of correlation. The package called “ggplot2 package”(stands for The Grammar of Graphics)[11, 12] used here greatly improves the quality and aesthetics of graphs and gives more focus to almost every section of the data and it also gives efficient commands to create complex plots. Using this package, the scatter plot was observed for the correlation status between the data.

Location of the study - The primary data involved in the study was collected from the place Madurai, Tamil Nadu in India.

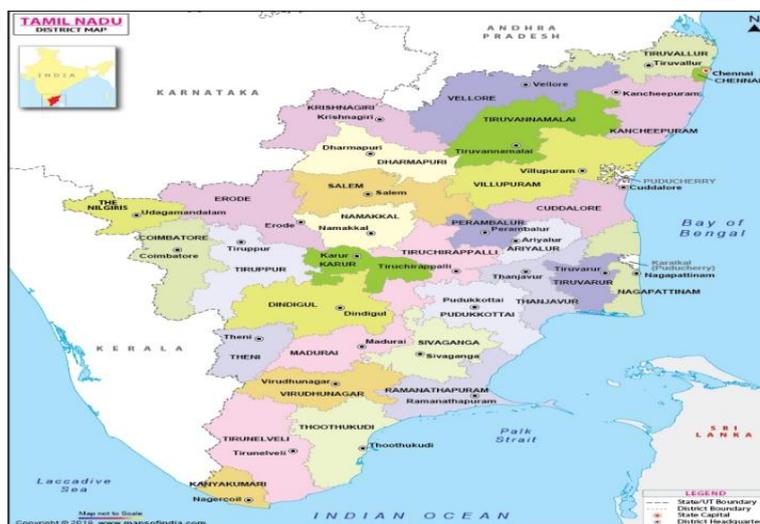


Fig.1: The study Location in India

- Annai Bharath Astrocity (Housing limited are), Madurai, Tamil Nadu, India

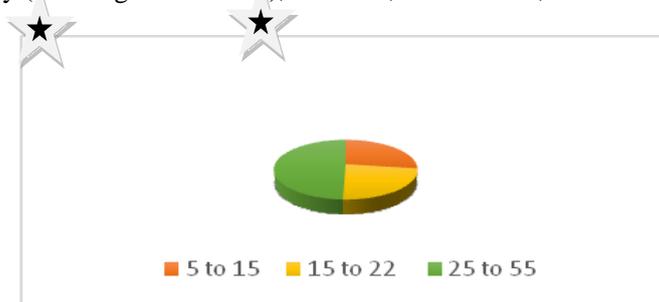


Fig.2: The pie chart represents the population taken for study according to their age.

The data analysis helped to understand the data clearly without missing out on any information. Also using statistical tools makes decision-making precise and frees, from any bias. The assigned task completed per day was converted to numerical data where the amount of assigned

activity completion was reported. General statistics of mean, median and standard deviation were performed over the dataset.

Inferential statistical analysis was performed using software to interpret and explore the frequency distribution between the day’s

progresses of an individual. Using tools, the efficiency and overall performance were identified using a graphical representation. Psych package was used to ascertain the correlation and confidence intervals among the variables. Corrplot package gave correlation matrix visualization in a different manner including shape, patterns, and colours. Ggplot2 package gave competent scatter plots of the matrix with the correlation.

Results and Discussion:

The raw data was collected by experiments for a month and the behavioural change towards the objects was screened. Noticeable positive changes in activity were seen, especially participants in the age group 5-15 showed a greater task completion rate. The stress over exams had been reduced and the behaviour pattern in doing chores was typically tolerable by routine rewards. There was a remarkable evolution pattern seen in academics and sports levels. Problem-solving abilities were

improved. In adults, between the age group 15-25, the characteristic process of learning things carved a different approach in tackling everyday challenges. This was applied to health and habits of automatic responses towards the force. Daily monotonous and academic growth was seen clearly. Most of the participants started becoming consistent. Most working young adults finished the task before deadlines. It was clear that self-reformation and increase in productivity caused positive results in the workplace, gradual commitments with the balance between work and family were seen and they were up for open and valuable communication medium. Elder citizens between the age group 25-55 found time for themselves through these experiments. They mostly seemed to be happy and free from trauma and stresses, and it was seen that regular walking improved the physical and mental health of a person. It reflected their positive ageing phase despite the trials in life, clearly mentioned in the below table.

Table.1: Projection of variations in life by the practice of challenge to Brain

Prominent changes in Life	According to Age		
	5-15	15-25	25-55
School/ College/ Work	Interest in asking more questions, determined for excellent academic performance in problem-solving	Open-minded for an efficient conversation, time management and self-moulding	Independent healthy working environment among the co-workers, positive ageing
At Home	Building good manners	Well-planned organization toward the activities	Stress-free smiling faces observed

By using RStudio, the data was interpreted for a better understanding of the study and several packages were used to find the relationship between the variables.

The fig.3 represents the boxplot of each variable minimum, maximum with the median value

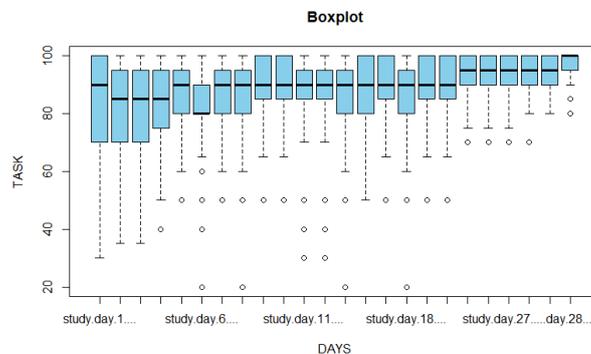


Fig. 3: Boxplot of data from day 1 to day 30

The corrplot represents the correlation matrix of days 1, 5, 10, 15, 20 and 30 in the manner of a circle

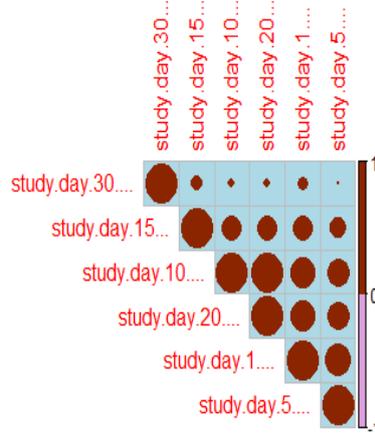


Fig. 4: Corrplot of the dataset

The below graph annotates the bivariate scatter plots of correlation between the variables, and

the observed results of p- values illustrate that the null hypothesis is true.

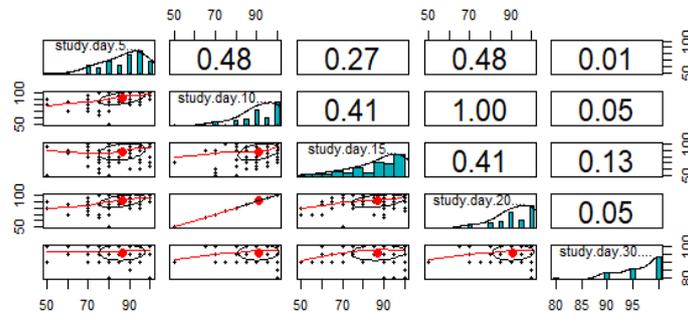


Fig. 5: Plot using “psych” package

The below scatterplot represents the performance of an individual with their activity scale over the time basis

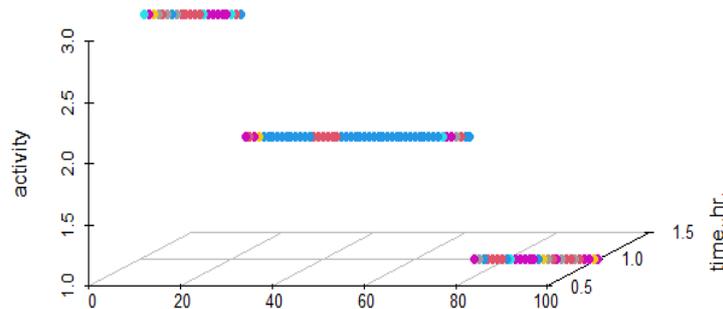


Fig. 6: Plot using the “ggplot2” package

Discussion:

Constant growth levels in studies and activities like reading, and problem-solving were perceived and visible good manners were also observed. This challenge helped them to build a habit and roots in a good work environment. The raw data expresses the persistent growth of healthy and stress-free life. Out of the test sample population, the 5-15 years old population shows 95% overall improvement and 15-22- and 25-55-years old shows 100% improvement. By this study, it is evident that improvement in

confidence levels and healthy good habitual activity were clearly detected.

Further, the statistical analysis was performed to interpret the dataset to get the significance level. The p-values of the sample population showed a positive correlation and the values demonstrations null hypothesis is true. Without losing the data, each variable was pictured in various graphs using packages which provide the interpretation of big data.

Summary:

The study mainly focused on the performance activity before and after the experiments and its impact on their behavioural pattern and confidence level was studied with different age intervals. The population of volunteers was constantly supervised to build a habit and their instant satisfaction over the task after completion was collected. The changes from physical to mental state were recorded for quality purposes.

Inference:

The statistical approach of the dataset shows a positive correlation and the significant p-values accept the null hypothesis. Also, graphs obtained using packages like `corrplot`, `psych` and `ggplot2` provide comprehensive information to interpret the data.

References:

1. Gómez-Pinilla F. Brain foods: the effects of nutrients on brain function. *Nat Rev Neurosci.* 2008 Jul;9(7):568-78. DOI: 10.1038/nrn2421. PMID: 18568016; PMCID: PMC2805706. Brain foods: the effects of nutrients on brain function.
2. Horrobin DF. Schizophrenia: the illness that made us human. *Med Hypotheses.* 1998 Apr;50(4):269-88. DOI: 10.1016/s0306-9877(98)90000-7. PMID: 9690763. Schizophrenia: the illness that made us human
3. McCann JC, Ames BN. Is docosahexaenoic acid, an n-3 long-chain polyunsaturated fatty acid, required for development of normal brain function? An overview of evidence from cognitive and behavioral tests in humans and animals. *Am J Clin Nutr.* 2005 Aug;82(2):281-95. DOI: 10.1093/ajcn.82.2.281. PMID: 16087970. Is docosahexaenoic acid, an n-3 long-chain polyunsaturated fatty acid, required for development of normal brain function? An overview of evidence from cognitive and behavioral tests in humans and animals
4. Bijsterbosch, J., Harrison, S. J., Jbabdi, S., Woolrich, M., Beckmann, C., Smith, S., & Duff, E. P. (2020, December 1). Challenges and future directions for representations of functional brain organization. *Nature Neuroscience.* Nature Research. Challenges and future directions for representations of functional brain organization
5. Pereira, T. D., Shaevitz, J. W., & Murthy, M. (2020, December 1). Quantifying behavior to understand the brain. *Nature Neuroscience.* Nature Research. DOI: 10.1038/s41593-020-00734-z
6. Hajcak, G., McDonald, N., & Simons, R. F. (2003). Anxiety and error-related brain activity. *Biological Psychology, 64*(1–2), 77–90. Anxiety and error-related brain activity
7. Reuter-Lorenz, P. A. (2002, September 1). New visions of the aging mind and brain. *Trends in Cognitive Sciences.* New visions of the aging mind and brain
8. Hamer M, Sharma N, Batty GD. Association of objectively measured physical activity with brain structure: UK Biobank study. *J Intern Med.* 2018 Oct;284(4):439-443. DOI: 10.1111/joim.12772. Epub 2018 Jun 7. PMID: 29776014. Association of objectively measured physical activity with brain structure: UK Biobank study
9. Engeroff T, Füzéki E, Vogt L, Fleckenstein J, Schwarz S, Matura S, Pilatus U, Deichmann R, Hellweg R, Pantel J, Banzer W. Is Objectively Assessed Sedentary Behavior, Physical Activity and Cardiorespiratory Fitness Linked to Brain Plasticity Outcomes in Old Age? *Neuroscience.* 2018 Sep 15;388:384-392. DOI: 10.1016/j.neuroscience.2018.07.050. Epub 2018 Aug 3. PMID: 30077618. Is Objectively Assessed Sedentary Behavior, Physical Activity and Cardiorespiratory Fitness Linked to Brain Plasticity Outcomes in Old Age?
10. Kwasnicka D, Dombrowski SU, White M, Snihotta F. Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health Psychol Rev.* 2016 Sep;10(3):277-96. doi: 10.1080/17437199.2016.1151372. Epub 2016 Mar 7. PMID: 26854092; PMCID: PMC4975085. Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories
11. Wickham H, eBook ISBN978-3-319-24277-4, DOI <https://doi.org/10.1007/978-3-319-24277-4>, 2016, `ggplot2` book - Elegant Graphics for Data Analysis
12. Steenwyk JL, Rokas A. `ggpubfigs`: Colorblind-Friendly Color Palettes and `ggplot2` Graphic System Extensions for Publication-Quality Scientific Figures. *MicrobiolResourAnnounc.* 2021 Nov 4;10(44):e0087121. DOI: 10.1128/MRA.00871-21. Epub 2021 Nov 4. PMID: 34734767; PMCID: PMC8567791. `ggpubfigs`: Colorblind-Friendly Color Palettes and `ggplot2` Graphic

System Extensions for Publication-Quality
Scientific Figures

13. Revelle W, 2016, psych: Procedures for Personality and Psychological Research, North-western University, Evanston, Illinois, USA, <http://CRAN.R-project.org/package=psych> Version = 1.6.
14. Wei T, Simko V, 2015, *R package 'corrplot': Visualization of a Correlation Matrix.* (Version 0.92), <https://github.com/taiyun/corrplot>.

Impact of Motivation on the Performance of Employees of NCR

Gaurav Bhati Dr. Richa Kaughal ²

¹Dept. of Management, Lingayas Vidyapeeth Haryana

²Dept of Management, Lingayas Vidyapeeth Haryana

Abstract: Since motivation has been a key indicator of how well employees do their jobs for a long time, organisations and human resource managers have been very concerned about it. There are a lot of things that have to do with management, employees, the organization, and the workplace, which makes it hard and complicated to get people to work hard. So, the organization and the person in charge of human resources should use a variety of strategies and methods to get people to work hard. When a person joins a company, they have to meet different needs and meet different expectations. Human resource managers use both monetary and non-monetary factors to reach different goals for employees and the organization as a whole. Employee motivation can be regarded of as a force that drives employees toward the attainment of specific organizational goals and aims. These days, it is one of the most contentious issues in businesses, as every company strives to make the most efficient use possible of both its financial and human resources. The primary objectives of this research are to examine the kinds of factors that have an impact on employee motivation in NCR and to determine the extent to which motivation influences employee performance. A questionnaire that is self-administered is used to collect data from 200 teachers who work in government schools as well as private schools. In order to determine the effect that employee motivation has on employee performance, regression analysis is used. This study takes into account four variables: employee motivation; employee performance; intrinsic rewards; and employee perceived training effectiveness. The findings of this research indicate that there is a considerable and favorable relationship between the motivation of employees and the performance of such employees. Furthermore, this study came to the conclusion that a substantial positive relationship exists between intrinsic rewards and employee performance as well as employee motivation. According to the findings of this study, an employee's perception of the effectiveness of training has a negative correlation with their level of motivation. It is also proven from their comments that although they were provided with the training courses, they did not utilise this training in their routine teaching because they believed it to be unproductive. This can be proven from both of these aspects. The fact that they were dissatisfied with the training that was offered to them had a negative impact on their motivation to teach.

Key words: Employee Motivation, Employee Performance, Intrinsic Rewards, Employee Perceived Effectiveness.

Introduction

Motivation is derived from the word 'motive,' which refers to an individual's needs, desires, wants, or urges. It is the process of motivating individuals to take action in order to attain a goal. Need for Money, Respect, Job Satisfaction, Accomplishment, etc., might be among the psychological variables motivating people's actions in the context of their work goals. Motivation plays a vital role in the management process as a whole. This strategy is effective for encouraging employees to contribute positively to the achievement of company goals. Motivation is required because human nature necessitates some form of inducement, encouragement, or incentive for improved performance.

Employees are motivated by the following factors:

- Ask workers what they want
- Ask workers what they want
- Treating employees with respect
- Treating employees with respect

- Feedback and training from managers and leaders
 - Industry-standard benefits and remuneration
 - Carry a notebook for ideas
 - Explain the incentive system
- Motivate people to enjoy hard work. Today's workers must know why they're toiling. Every employee is driven differently. Employee motivation is a company's workers' degree of energy, devotion, and innovation. Managers get work done through staff. Managers must motivate staff to do this. Not so easy! Motivation is a multidisciplinary subject. Despite vast basic and applied research, motivation is poorly understood and implemented. Motivation requires understanding human nature. Problem! Man is simple yet complex. Understanding and appreciating this is necessary for effective staff motivation, management, and leadership. Every concern demands physical, financial, and mental motivation from employees and human resources to reach goals. Motivation maximises human resources. Building

employee work ethic helps. This helps the company maximise resource use. It increases productivity, reduces costs, and improves efficiency. Motivated co-ordination and cooperation can achieve goals. Stability of staff is vital for a company's reputation and goodwill. Only when employees feel like they're part of the management will they remain loyal. Employees' talents and efficiency benefit both employers and workers. This will lead to a good market image, which will attract skilled employees. In the context of today's globalised environment, businesses are continually looking for ways to improve the skills of their employees and to inspire them through the use of HR software and procedures. According to Güngör (2011), businesses will not succeed until they implement reward management. According to Barber and Bertz (2000), incentive management enables companies to better attract, retain, and motivate high-potential employees, which ultimately leads to improved business results. Money and bonuses are examples of extrinsic benefits, whereas recognition, security, a title, promotion, appreciation, praise, participation in decision-making, flexible working hours, workplace comfort abilities, feedback, work design, social rights, and other intrinsic rewards are examples of intrinsic benefits. Extrinsic benefits include things like money and bonuses (Yang, 2008). According to Grant, levels of motivation have an effect on staff performance and productivity (2008). According to what he discovered, motivated workers are more self-driven and respect autonomy. People that are motivated to work are interested in what they do and are eager to accept responsibility (Kuvaas & Dysvik, 2009).

The formalised process of obtaining new knowledge, skills, and capabilities is referred to as training. The orientation and magnitude of one's efforts, as well as the psychological quality that stirs an organism to motion, are both referred to as motivation. Training tactics have an effect on the motivation of employees as well as the commitment of organisations (Meyer & Allen, 1991). Rowden and Conine (2005) state that training leads to an increase in employee work satisfaction, which in turn leads to an increase in customer performance. Employees that are committed to learning report higher levels of happiness and have greater overall performance (Tsai et al, 2007). Tsai et al. (2007) and Harrison (2000) both

agree that training that is prompted by learning helps increase employee performance and is essential to the accomplishment of organisational goals (Harrison, 2000). According to the findings of the study, the performance of a company is determined by a variety of elements, the most important of which is the level of employee motivation (Saif ullah malik et al., 2012).

Intrinsic rewards are intangible awards of recognition or achieving motivation in any work when one sees in Maslow's hierarchy as conscious fulfilment. In other words, intrinsic rewards are motivation that comes from inside. It's having the satisfaction of knowing you did something positive or brightened someone else's day. Employees are encouraged through the use of incentive management systems, particularly intrinsic rewards, which affect both individual and organisational performance. Both Pool and Pool (2007) and Lok and Crawford (2004) feel that there is a connection between motivation and job satisfaction. According to Tsai et al research,

there is a considerable connection can be found between perceived training effectiveness and job satisfaction (2007).

Models and theories concerning motivation can be found in the field of organisational behaviour. Concentrate on the professional development of your staff. Progress is considered to be the most important factor in employee motivation by Maslow, Alderfer, McClelland, Hackman, and Herzberg. [Citations needed] There is a connection between employee motivation, work satisfaction, and organisational commitment (Basset-Jones and Lloyd, 2005; Chen et al., 2004). The success of any organisation, whether public or private, is directly correlated to the level of employee motivation (Chintallo & Mahadeo, 2013).

According to the findings of a study that was conducted by Sirota et al. (2005) with the participation of 135,000 respondents from a variety of different groups and countries, businesses that implemented motivation programmes that involved camaraderie, equity, and achievement were more successful than businesses that either had no employees or twice as many employees who were enthusiastic (of total 45 percent). According to the findings of a study, the productivity of workers improves when they experience higher levels of motivation (Asim, 2013).

Intrinsic reward

Intrinsic motivation is an interest in the activity itself rather than external influences and incentives. Organizations need something to keep their staff working, such as salary or bonuses, but motivation is highly vital to keep workers engaged and involved in their work so that their quality and quantity of work and productivity doesn't decline (Williams, 2004). Intrinsic reward is the enjoyment a person gets from working in a good organisation that compensates him for his work. Employees value extrinsic and intrinsic rewards. Intrinsic motivation comes from within (pleasure, satisfaction, pride) while extrinsic incentive comes from outside (salary, money, grades, etc). (Scott and Bruce, 1994),.

Intrinsically driven people work on math problems because they're entertaining or they're tough and provide them pleasure to solve. In both circumstances, extrinsic rewards such as payment or award are unimportant (Roberts, 1991 and Rothwell, 1992). It doesn't imply extrinsic incentive isn't necessary, but it's not enough to motivate someone (Eisenberger and Cameron, 1996; Janssen, 2000; Mumford, 2000).

A study indicated that rewards are key to reducing employee unhappiness. When employees are happy, they work harder and with more interest, leading to good performance (Mehmod, 2013). Intrinsic rewards influence employee performance, according to a study. When individuals receive intrinsic rewards, they realise their performance and work harder to be recognised. (2014)

Importance of Motivation

The concept of motivation holds a great place and function throughout the entirety of the management process. Encouragement of workers to make a constructive contribution to the accomplishment of organisational goals is a beneficial use of this strategy, which can be employed fruitfully. Because of the nature of the human race, individuals typically require some form of induction, encouragement, or incentive in order to achieve higher levels of performance. This points to the significance of providing incentives to workers. Increasing an employee's sense of motivation is one way to boost their performance, even if they are working at a lower level.

Along with their other responsibilities, managers are expected to fulfil the role of employee motivator as part of their job description. It is necessary for a manager to act

not only as a friend but also as a motivator to the people under his supervision. The ability to stay motivated is beneficial in all facets of life, including the interactions we have with our family. The situation is exactly the same in business. This strongly shows that having a motivated attitude is quite crucial. It is an integral component of the management process overall.

When it comes to getting employees excited about their jobs, management can put a powerful tool at their disposal: motivation. When employees are motivated, they are more inclined to put in effort at work, which ultimately leads to an increase in the efficiency of the firm.

Better usage of available resources; decreased incidence of labour issues; substantial gains in production and productivity; enhanced public perception

Objectives of the Study

To study the significant and positive relationship of Employee motivation with employee performance.

To study the significant and positive relationship of intrinsic reward with employee performance.

To study the significant and positive relationship of intrinsic reward with employee motivation.

To study the significant and positive relationship of Employee perceived training effectiveness with employee motivation.

Hypotheses of the Study

There has a significant and positive relationship of Employee motivation with employee performance.

There has a significant and positive relationship of intrinsic reward with employee performance.

There has a significant and positive relationship of intrinsic reward with employee motivation.

There has a significant and positive relationship of Employee perceived training effectiveness with employee motivation.

Research Methodology

This method of research is known as descriptive research, which implies describing and explaining a specific explanation. The focus of the descriptive research is on describing the current condition, rather than making evaluations or offering interpretations of the present situation (Creswell, 1994). Verifying the hypothesis that accurately reflects the current condition is one of the main focuses of the present situation.

Sampling Data

The population of this study consists of the faculty members of Government and private schools of NCR. A sample of 200 respondents were asked to complete a questionnaire. This study used convenience sampling, which is a non-probability sampling technique. Convenience sampling entails the gathering and collection of information and data from the sample of the study or the unit in the study that are easily accessible and convenient.

Instruments of the Present Study

There are two major objectives of the present study regarding survey instruments: The first is the relationship between various variables in the implementation of employee motivation. Second, it can be used to collect information on respondents with diverse characteristics in order to comprehend the variations. The survey of instruments has 2 parts.

Part 1 contains various individual and demographic factors. This part will collect information regarding the respondent's gender, age, income, and level of education.

The importance of Part ii in the current study cannot be emphasized. These variables consist of employee motivation, performance, intrinsic reward, and perceived training efficacy. This component of the study is based on previously utilized questionnaires and previous material. The study's scale was derived from previous research and published literature.

Procedure

The questionnaire was distributed to 200 NCR-based respondents. Before administering the questionnaire, the respondents were briefed on the goal of the study and the questions so that they could easily provide pertinent responses. 200 questionnaires were selected in total. After questionnaires were collected, they were categorized and placed into an SPSS sheet for further analysis.

Results and Interpretation:

After the prerequisites for reliability and validity have been met, this portion of the study tests the model. On dependent variables, the casual associations of the independent variable are measured. Motivation and Performance of Employees With (Beta=0.373) and ($p < 0.01$), the study's regression findings indicate the considerable positive relationship between Employee motivation and Employee performance. According to these findings, employee motivation exceeds employee

performance by 45%. The study's results support hypothesis 1.

Intrinsic reward and Employee Performance The employee motivation model's regression analysis suggests a significant positive relationship between (Beta=0.185) and ($p < 0.01$). The results indicate that intrinsic reward is approximately 21% greater than Employee performance. The study's results support hypothesis 2.

Intrinsic Motivation and Employee Reward

Employee motivation has a significant positive relationship with the variable intrinsic reward, according to the study's findings. This variable has a statistically significant positive correlation with (Beta=0.310) and ($p < 0.01$). This indicates that intrinsic rewards contribute more than 52% to employee motivation. The results of the present study confirm the hypothesis 3.

Employee perceptions of the effectiveness of training and Employee motivation

The study's regression results (Beta=-0.003 and $p > 0.01$) confirm the negative relationship between employees' perceptions of training effectiveness and employee motivation. According to these findings, training efficacy as viewed by employees contributes more than 5% to employee motivation. This study's result does not validate hypothesis 4.

Discussion

This research explores the relationship between employee motivation, performance, and perceived training efficacy. It encourages employee motivation. Business-to-business (B2B) employees said they were motivated by their autonomy, independence, responsibility, and position and tasks from management. Some respondents said art, design, or architecture could be motivational, but they didn't say for sure. Respondents said these three constructs boost employee engagement by improving the physical work environment. Improving the working environment improves employee well-being, emotions, and encouragement, which increases motivation. Some respondents disagreed since they weren't interested in the physical environment. Employee motivation, performance, intrinsic reward, and perceived training efficacy are relevant variables. Multi-item questionnaires based on empirical research were employed to measure these characteristics. The study used teacher data. According to their comments, they were given training courses but didn't use them in their everyday teaching because they were unsuccessful. Unsatisfactory training

reduced their motivation to teach.

Bibliography

1. Ameer-ul-Ameer & Hanif, F., 2013. Impact of Training on Employee's Development and Performance in Hotel Industry of Lahore, Pakistan. *Journal of Business Studies Quarterly*, Volume 4, pp. 68-82.
2. Asim, M., 2013. impact of motivation on employee performance with the effect of training: specific to education sector of pakistan. *international journal of scientific and research publications*, Volume 3, pp. 1-9.
3. Agwu, M.O., (2013) Impact of Fair Reward System on Employees Job Performance in Nigerian Agip Oil Company Limited Port-Harcourt, *British Journal of Education, Society & Behavioral Science*, 3(1), pp 47-64. Ahmad, M. B., Wasay, E., & Malik, S.
4. U. (2012). Impact of Employee Motivation on Customer Satisfaction: Study of Airline Industry in Pakistan, *Interdisciplinary Journal of Contemporary Research in Business*, 4(6), 531-539.
5. Azar, Alderfer, C. (1972), Existence, Relatedness and Growth: Human Needs in Organizational Settings, *Free Press, New York, NY*.
6. Barber, A.E., Dunham, R. and Formisano, R.A. (1992), "The impact of flexible benefits on Employee satisfaction: a field study", *Personnel Psychology*, Vol. 45, pp. 55-75.
7. Basset-Jones, N. and Lloyd, G.F. (2005), "Does Herzberg's motivation theory have staying power?", *The Journal of Management Development*, Vol. 24, pp. 929-43
8. Chen, Y., Lou, H., 2002. Toward an understanding of the behavioral intention to use a groupware application.
9. Chiaburu, D.S. and Tekleab, A.G. (2005), "Individual and contextual influences on multiple Dimensions of training effectiveness", *Journal of European Industrial Training*, Vol. 29 No. 8, pp. 604-26. Chintaloo, S & Mahadeo, J. (2013). Effect of Motivation on Employees' Work Performance at Ireland Blyth Limited: *Proceedings of 8th Annual London Business Research Conference Imperial College, London, UK*, 8 ISBN: 978-1-922069-28-3.
11. Deci, E.L. and Ryan, R.M. (2000), "The 'what' and 'why' of goal pursuits: human needs and the self-determination of behaviour", *Psychological Inquiry*, Vol. 11 No. 4, pp. 227-68 Lovelock, C.H. (1996), *Services Marketing*, Prentice-Hall.
12. Edirisooriyaa, W. A., 2014. Impact of Rewards on Employee Performance: With Special Reference to ElectricCo..
13. *Proceedings of the 3rd International Conference on Management and Economics*, pp. 311-318.
14. Greenwich, CT. Ryan, R.M. and Deci, E.L. (2000), "Intrinsic and extrinsic motivations: classic definitions and new directions", *Contemporary Educational Psychology*, Vol. 25 No. 1, pp. 54-67.
15. Harrison, R. (2000), *Employee Development*, Beekman Publishing, Silver Lakes, Pretoria. Pool, S. and Pool, B. (2007), "A management development model", *Journal of Management Development*, Vol. 26 No. 4, pp. 353-69. Kuvaas, B. and Dysvik, A. (2009), "Perceived investment in Employee Development, intrinsic Motivation and Work Performance", *Human Resource Management Journal*, 19(3), pp. 217-236
16. Kanelopoulos, C. and Akrivos, C. (2006), "Career development in Greek management", *Spoudai*, Vol. 56 No. 1, pp. 79-106.
17. Meyer, J. and Allen, N. (1991), "A three component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1, pp. 61-90.
18. M & Shafiqhi, A. (2013). The Effect of Work Motivation on Employees' Job Performance: *International Journal of Academic Research in Business and Social Sciences*, Vol. 3, No. 9 ISSN: 2222-6990.
20. Rowden, R.W. and Conine, C.T. Jr (2005), "The impact of workplace learning and job satisfaction in small US commercial banks", *Journal of workplace Learning*, Vol. 17 No. 4, pp. 215-30.
21. Satisfaction: Study of Airline Industry in Pakistan: *Interdisciplinary Journal of Contemporary Research in Business, Institute of Interdisciplinary Business Research*, Vol. 4, No. 6.
22. Tsai, P., Yen, C.Y., Huang, L. and Huang, I. (2007), "A study on motivating employee's learning commitment in the post-downsizing era: job satisfaction perspective", *Journal of World Business*, Vol. 42 No. 2, pp. 157-69.
23. Vansteenkiste, M., Lens, W. and Deci, E.L. (2006), "Intrinsic versus extrinsic goal contents in self-determination theory: another look at the quality of academic motivation", *Educational Psychologist*, Vol.

- 41 No. 1, pp. 19-31.
24. Yang, H. (2008), ‘Efficiency Wages and Subjective Performance Pay’, *Economic Inquiry*, 46(2), pp. 179–196.
25. Yazıcı, N. K., ‘the Effect of Reward System Applications on Employee Performance In Service Sector’, (2008), *Marmara University, Institute of Social Sciences, Master Thesis*.

Civic Amenities and Characteristics among Small Urban Towns in India: A Case Study of Kushinagar

Dr. Jyotsna Pandey

Associate Professor, S.B.M.P.G.College, Fazilnagar, Kushinagar, U

Abstract-

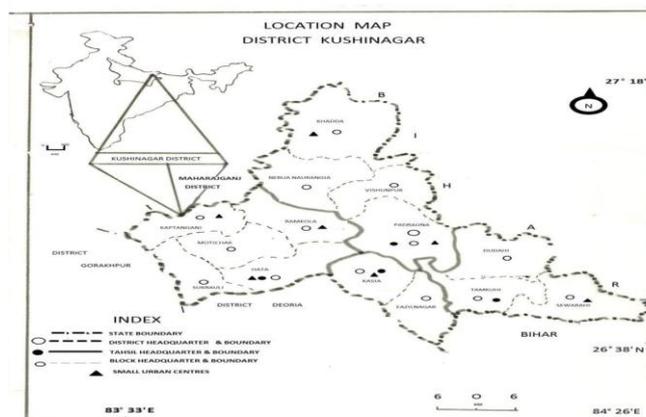
In India, from very beginning the concentration of development is mainly taking place in Metros or class 1 cities as compared to the small and medium size towns. The small urban centers can provide a better ground for the modern urbanization have become the victim of serious problems and therefore unable to play a proper role in the context of socio-economic world. In fact, the challenges of urbanization are badly affected due to this urban poverty which is largely an extension of rural poverty. Thus, in the context of development, if these centers are provided with proper provision of urban facilities along with employment, education, urban amenities and social protection which attract the rural people and fulfill the rural needs. With this view, the present paper try to study the position of infrastructural facilities like water supply, sanitation, electric, telecommunication, education, health, recreation, shops, road and transport in small urban centers of Kushinagar, which is the district of middle Ganga Valley and one of the most populous region of India.

Keywords; small urban centers, urbanization, urban amenities, infrastructure.

Introduction:

Some empirical studies suggest a strong relationship btw infrastructure and economic growth. According to the 'world bank' 1% increase in infrastructure is associated with a 1% increase in GDP across all countries. A study by Deichmann (2002) for Mexico shows that a 10% increase in market access leads to a 6% increase in labor productivity. Broadly speaking, the development of infrastructure has five fold impact on the economy: Creating access to employment and providing future earning opportunities. Creating access to previously inaccessible commodities and services. Increasing production efficiency. Saving time, which can be better utilised in productive activities. Improving the health and physical condition of the population. Study Area With this view, in the present paper, tried to study the condition of urban facilities of Kushinagar district, one of the small urban centres of India. Kushinagar is the district of middle Ganga valley, which is one of the most populous regions of India. It is lying $26^{\circ}38' - 27^{\circ}18' N$ and $83^{\circ}33' E$ to $84^{\circ}36' E$ on the eastern

margin of Uttar Pradesh, covers an area of 2906 sq. km, which linked by N.H.28 and Gorakhpur-Kaptanganj railway line. Land resource is the base of economy. 76.3% area of district under agriculturally productive land or cultivated. The district consist of four tehsils, 14 development blocks, 141 Nyay Panchayat, 1560 villages, 957 Gram Panchayat and 7 urban centres, namely Padarauna Nagar Palika, Khadda, Ramkola, Severahi, Kasia, Hata, Kaptanganj are six nagar panchayat according to census 2001. Total population of urban centres are 132523 in 2001 and 170385 in 2011 which is 4.58% and 4.78% of district population. In the study area, there is a lack of proper infrastructure of Kushinagar, where majority of rural population i.e. 95.13% of total population. They are neither eager nor conscious towards the development of these activities. In urban centres, the development of amenities is also slow due to lack of proper attention and poor investment by the town development authorities. Table (1) reveals the development of infrastructure in the small urban centres of Kushinagar btw 1991 to 2011 decade.



Water And Sanitation-

In the rural areas of Kushinagar hand pumps are the main source of drinking water. In each village four to five hand pumps have been installed by government. From earlier seven urban centers are also being served by tube wells and water taps. But these sources only function a few hours a day, however, because of poor maintenance. Water supply is found inadequate especially during summers when the suffering is more due to increasing demand of water by the inhabitants. Despite the impressive coverage of provision of safe drinking water, there is a great deal of concern about both quality and sustainability. At several places supply pipes are cracked and are near some dirty areas. At a few places the sewer pipes are close to the drinking water pipes. Most of the hand pumps in such area are not so safe as they mostly have a depth of 80 feet's only, which contains a lot of pollutants that have reached the underground water. In Kushinagar, there are calcium and sulphate are most common constituent causing hardness of natural water. Due to the imbalances of mineral salts, deficiency diseases like thyroidal problems are common and also causing epidemic problems are common in this area. In this regard, India mark hand pipes have been provided by government within the area. Except Padarauna all the centers suffer from these conditions of water supply. In the Padarauna more than 70% households use the water taps, 10% Hand pumps and 15% household have no proper supply; they depend only on nearby India mark hand pumps. In Saverahi and Khadda only 40% houses have water taps, 30% houses have no proper provision of water supply. (Table: 2)

The situation of sanitation is rather dismal. Survey indicated that with less than 50% of households having functional latrines in Khadda and Saverahi. In Kasia and Padarauna 66% households have their own functional latrines. While in Ramkola, Kaptanganj and Hata have 50 to 60% households with latrines.

The government subsidies the building of latrines by households that are below the poverty line, governments share the subsidy to households for constructing latrines which is about 80% of the unit cost. Despite these incentives people are slow to adopt sanitation practices.

Power, Telecommunication & Recreation:

Although the power supply available but these centers are always suffering from frequently power cuts and electric faults. Till 1971 all the centers linked with electric power but Kasia and Padarauna have proper power

supply. While in Ramkola, Kaptanganj, Saverahi, Hata and Khadda, there are 10 hours in day or night power supply in alternate weeks and also have no regular supply. They are always suffering from frequent power cuts, low voltage supply and electric faults. There is also a big problem of unauthorized use of the electric current. Nearly 40% of households have Katia system. This system is very harmful and sometimes gives a very strong spark. The available total telephone connections in urban areas were 1113 in 1991, which is 4187 in 2001 and 1488 in 2011. The above figures reflect the trend of development in using mobile phones instead of landline telephones because it is easy to handle and portable. Table I shows the highest figure in Padarauna. In Khadda, there is only 231 connections in 2001 and 56 in 2011 less than other centers. 261 public call offices (2011) in urban areas, in which 64 in Padarauna, 25 in Hata, 52 in Saverahi, 26 in Kasia, 30 in Kaptanganj, 24 in Ramkola and 40 in Khadda. This figure is very low in 1991, only 92 public call offices in entire region. In 1981 there is only one Targhar in each urban centers accepting Kasia but in 2001, Targhar of Kasia, Ramkola, Kaptanganj and Khadda were closed only four Targhar are in urban area of Kushinagar. But these are closed now. All centers are provided postal services. In 1981, there were 10 post offices in urban centers, in which 4 in Padarauna, 2 P.O. in Kasia one in each other urban centers but in Kaptanganj, there was no any Post office. Now one P.O. is open in Kaptanganj. In present, there is 4 post offices in Padarauna, 2 in Kasia and 1 in each other urban centers. In 30 years, there is no development shows these figures because the negligence of these small urban centers. Healthy urban recreations like cinema houses are there, like- there are two cinema house in Kasia out of which only one is running properly, same condition is in Padarauna, here are three cinemahouses but only two are running properly; But In Hata & kaptanganj there are one cinema house each but these are closed now a days; these cinema houses are not working properly due to their local disputes, lack of purchasing power of people, lack of facilities etc; but here is no park or any play grounds. In the whole area only 'Buddha Nirvan Sthal' in Kushinagar is develop as a recreation Centre due to its tourism importance. Not only this, the point of worry is rather stagnation of many of the small towns of India. In these centers the surrounding villagers visit for having a change from their routine life and have a pastime.

Health & Educational Services:

The conditions of medical facilities are not so good. There is one district hospital in Kasia, Hata & Padarauna. Except Sevarahi and khadda, there is one Community Health Centre (CHC) in each other five urban centers. From 1981 there exist four primary health centers in urban centers. In present; there is 3 PHC in Padarauna and one PHC in each six urban centers. But sufficient beds, O.T. and specialist doctors are not available as required and those who are available are in poor condition. There are 5 Aurvedic hospitals, in which 2 are in Padarauna, 1 is in Kasia, Hata and Kaptanganj each. 8 homeopathic hospitals or clinic in entire area where no single doctor is available, in the absence of doctors the hospitals are closed for whole day. The family planning and mother child welfare centers are allotted one to each urban centers with the work load of surrounding areas. Private clinics are in much better position but their fee is very high, In order to avail the advance specialized and emergency medical facilities available in these hospitals (TABLE-3).

As for as the educational facilities are concerned the changes have molted to a considerable extent. In 1981 seventeen junior school, thirteen higher secondary, nine senior secondary school three degree collages were present in Kushinagar urban area. In which Padarauna ranked first in no of institutions and Kasia was second. With increasing population and demand some junior, higher and secondary schools are also open but they are not sufficient for extra opportunity and their services are not satisfactory. In present, 28 junior basic school 24 senior basic school 34 higher secondary school and 28 P. G. colleges in 2011. There are more than 100 Montessori nursery schools are open throughout the urban area which influence the modern education (Table: 4). But above all, it is clear fact that the school and colleges spread in a greater number but more of them are away from quality contents and fulfill the need of present day race. Also the condition of higher education is not satisfactory only four P.G. collages (Financed) are in Padarauna, Kasia, Saverahi & Fazilnagar each from 1981, who have the responsibility to shape the youngsters future with their traditional education which is insufficient without any professional assistance. After 2005, there are 26 self-finance collages are also present in these areas but they don't provide quality education; there are a few private technical/vocational training centers as in table (4), but they are not up to the standard to make students future secure; neither these institution

are able to fulfill the needs of local people as for as neighboring rural people. No doubt, these institutions behave as a factory of degrees.

Other Institution:

These types of institutions are too busy to perform as a base for collection and subsequent distribution of agricultural products of the surrounding region. It is actually this rural based function which link small towns with the country side. These are banks, polish station, control rate shop, cold storage, godowns, agricultural and animal service Centre, clothe shop, gold & silver shops, cycle sell & repair shop, hardware shops, book & stationary shops, Aurvadic, medical drugs, Tractor and agricultural implement sell and repair are Centre place function available generally in small towns. Table (5) reveals that the developments of this type of shops are very slow between two decades (1991-2001). There is only one polish station in each urban Centre in 1991 and same in 2011. Control rate shops are 38 in 1991 and 70 in 2011, in which 27 shops in Padarauna, 8 in Kasia & Saverahi each, 8 in Hata & 5 in Khadda, 6 in Ramkola and 5 in Kaptanganj. Being large rural centers six cold storage are provide here two in Padarauna two in Kasia and Ramkola & Sevarahi have one cold storage each, but it's astonishing that out of six, only laree cold storage Kasia is running rest 5 are closed. There were 22 seeds and pesticides centers in 1981 which is now 67. From 1981 to 1991 there were no single agricultural service centers, but in 1995 agricultural service centers were opened and now it is 84 in 2001 and 70 in 2011. These agro based urban centers got only 10 cooperative societies out of which 6 are in Padarauna & Sevarahi, Kasia; Ramkola & Hata has one each. Table (6) shows the banking position of entire region there were 12 branches of nationalized bank in 1981 which were 23 in 2011, in which 5 are in Padarauna, 5 in Kasia, 3 in Ramkola, Kaptanganj, Hata and 2 in rest two urban centers Sevarahi & Khadda. All seven centers have 1 branch of Gramin Bank, 2 branches of corporate bank in Padarauna while other six centers have one branch each. But now 4 branches are closed. There are three branches of Bhumi Vikash bank in urban area in which 1 in Padarauna, Kasia and Hata each. Different type of shops like pan shops, clothe, gold & silver, book & stationary, cycle sell & repair, medicine, bakery, provision stores, country liquor, utensil, fruit and vegetable shops are present in these centers. But only Padarauna, Kasia and Hata have manyshops which fulfill the needs of rural centers also. Ramkola, Kaptanganj, Khadda and

Saverahi have no sufficient shops that fulfill the needs of rural people beside these centers. The people of these centers are come in other urban centers.

Road and Transport:

Small towns and roads are closely associated and contribute to each other development by virtue of their intrinsic qualities of functions. The study area is well served with a good network of transport arteries. National Highway (N.H. 28) travel from Kasia, Hata and Saverahi which is now known as east-west corridor, beside this all other local metaled and non-metaled roads which are provide a great impetus for the development of urban centers connected with district headquarter. All the centers are connected with each other but around 50% villages of countryside are not connected to road network. The total available roads in these urban centers are 180 Km.long in which only 60 Km. length is metaled, according to statistics of Kushinagar 2013. In Padarauna a state roadways depot is under construction. Many state transport bushes and undertaking bushes are running up and private bushes & taxies are also running between these centers and other centers also. Authorized bus services are available from Padarauna & Sevarahi, Kasia is in center because of that these buses passes through it, as well as Hata is on the way to Gorakhpur so that buses are available from there too. But from Ramkola, Khadda & Kaptanganj there is no such authorized bus facility available, people are bound to use private transport like-Taxi, mini bus etc

Conclusion:

Our study of small urban center's infrastructure for housing, electricity, water, sanitation, telecommunication, road and transport reveals many common themes and common problems across the sectors. First is the fundamental importance of access to basic infrastructure for productivity, improving quality of life and stimulating economic development. And second, unfortunately, is the lack of such access in all sectors, because urban services are ignored by town development authority. The scenario of urban facilities is not properly developed for providing good life style and economic development. They are suffering from highly negligence of development. Although this infrastructure includes a number of capital assets for different provisions but these assets have suffered from poor maintenance and little attention, has been paid to the quality of service actually delivered. On the basis of my study, I can say that the existing infrastructure of

services and community facilities of small urban centers have become outmoded, due to over population density. More than half of the people suffer from bad, unsafe and unhygienic environs. Many of the municipal bodies have undeveloped and / or eroded tax systems and suffer from lack of capital funds for development. The services if provided have deteriorated over the years and there seems no sign of reversal. The financial position of urban bodies is very poor, expenditure exceeds the revenue, and it is common for the deficit to be mint by the state government by giving the grant and assistance of occasions of by waivers of loans, octoroi, which was the main source of revenue, has since been abolished and now local bodies have to depend upon transfers that is grant and share from the state government. Only 10% of government expenditure is spent on maintenance of public facilities. Many steps have been taken by both the central and state government like JNNURM, Kansiram Garib Awas Yojana, Water supply, Sewerage and Solid waste disposal and road construction etc. But not surprisingly, there are conflict and controversies and sometime, it is not possible to fix their responsibilities for lapses in providing civic amenities or in solving other urban problems. Therefore, there is lack of infrastructure in small urban centers.

In the context of development, there is a need of decentralization for the healthiest urbanization. Therefore, small urban centers of country can play important role. And if there is a proper provision of urban facilities along with employment, quality education, urban amenities and social protection, which attracts the rural people, and fulfill the rural needs and also deduct the burden of big urban centers.

References

1. Bose, A. (ed.) (1973) 'Studies in India's urbanization'
2. Breese, G. (1973) 'Urban development problems in India, A.A.A.G.,vol.53
3. Chatterjee, A.B. (1965) 'Hinterland of symbolic city, geographical review of India, vol. 24
4. Puri, V.K. & Mahesh Chand (1983) 'Regional planning in India', allied publishers private limited, New Delhi.
5. Singh, H.H. (1972) 'Kanpur, A study in urban geography', Varanasi Davis printings.
6. Singh, O. (1967) 'The trend of urbanization in Uttar Pradesh', NGJI, Vol.13, Part 3.
7. Singh, R.L. (1964) 'Bangalore, an urban survey', Varanasi, N.G.S.I., Smails, A.E. (1953) 'The geography of Towns' London.
8. U.P. district gazetteer, Deoria 1988
9. U.P. district gazetteer dis. Kushinagar 1998

A Positive Effect of Nanotechnology On Global Warming & Climate Change

**Dr.L.Malleswara Rao*¹, Dr.APV Appa Rao¹, Ch. Sundar Singh³,
P Rama Krishna Rao¹& Ch.Kanaka Rao²**

¹Lecturers in Physics & ²Lecturer in Electronics, Sri.Y.N.College, Narsapur.

*Corresponding Author: mallehlync1966@gmail.com

Introductions to Nano science and Nanotechnology

Nanoscience and nanotechnology have made enormous advances in recent decades, and their impact on every sector has been widely recognized across the globe. As a result, their strategic position has already been established in the twenty first century. The study nanomaterial's and nanostructures is a relatively new discipline with several compliments. Nanomaterial's and nanostructures are crucial in the creation of Nano science and nano technology applications such as information and procedures, energy sources, the environment health, and medicinal treatments. Most countries are investing significantly in the study of nanomaterial's and nanostructures, such as the advancement of Nano science and nanotechnology Nano electronic technologies and devices, nano or micro fabrication techniques, Nano biotechnology, Nano medical Diagnosis techniques and nano environmental monitoring and treatment techniques. The continuance of indepth research on nanomaterial's and nanostructures is vitally crucial. Furthermore, the (indepth) study of nanomaterial and nanostructures is a valuable source for developing new ideas, methodologies, and procedures, possibly leading to breakthroughs in major scientific challenges. At the same time, the nanomaterial market is a native power for nanomaterial development.

Introduction of Nanomaterials

Nanomaterials are essential components of nanoscience and nanotechnology. Nanostructure science and technology is a large and multidisciplinary field of study and development that has grown rapidly in recent years across the globe. It has the potential to change the way materials and products are generated as well as the range and kind of functions that maybe accessible. Current in semiconductors may be carried by the flow of electrons or the movement of positively charged holes in the material's electron structure. Nanomaterials with diameters ranging from 1 to 20 nm have emerged as a prominent multidisciplinary area of research interest in the last decade, with the promise for wide-reaching industrial, biological, and electrical applications. Surfaces and interfaces are critical in nanomaterials, although in bulk materials, only a tiny number of atoms will be at or near a surface or interface. The tiny feature size of nanomaterials assures that many atoms, potential 50% or more in certain situations, will be near the interfaces. Surfaces features such as energy levels, electrical structure, and reactivity, may vary significantly from internal states, resulting in quite distinct material properties. Nanocapsules and nanodevices have the potential to open up new avenues for medication delivery, gene therapy, and medical diagnostics. Carbon nanotubes are utilised as reinforcing particles in nanocomposites, but they also have a

wide range of additional uses. They may serve as the foundation for a new age of electrical devices that are smaller and more powerful than bulk materials. Carbon nanotubes have previously been used to build a nanocomputer. Materials with nanometer-scale dimensions have different characteristics than bulk materials.

When semiconductor materials are shrunk to the nanoscale, their physical and chemical characteristics change dramatically, resulting in unique features owing to their enormous surface area or quantum size effect. The semiconductor's conductivity and optical characteristics (absorption coefficient and refractive index) may be changed. Semiconductor nanomaterials and devices are still in the research stage, but they have the potential to be used in a variety of fields, including solar cells, nanoscale electronic devices, light emitting diodes, laser technology, waveguide, chemical and biosensors, packaging films, super absorbents, amour components, automobile parts, and catalysts. Semiconductor devices include numerous types of transistors, solar cells, various types of diodes such as light emitting diodes, silicon-controlled rectifiers, and digital and analogue integrated circuits. Some semiconductor nanomaterials, such as Si, Ge, GaAs, AlGaAs, InP, InGaAs, GaN, AlGaN, SiC, ZnS, ZnSe, AlIn, GaP, CdSe, CdS, and HgCdTe have extensive applications in computers, palm pilots, laptops, cell phones, pagers, CD players,

TV remotes mobile terminals, satellite dishes, fibre networks.

History of Nanomaterials

Michael Faraday created colloidal gold particles in 1857, which was one of the earliest scientific reports. Nanostructured catalysts have also been studied for more than 70 years by the early 1940s precipitated and fumed silica nanoparticles were being made and commercialized in the United States and Germany as ultrafine carbon black alternatives for rubber re-enforcements. Nanosized

Classification of Nanomaterials

Nanomaterials are exceedingly tiny, with at least one dimension of 100 nm or less. Nanomaterials might be one dimension (for example, surface films), two dimensions (for example, strands or fibres), or three dimensions (eg. particles). They may be solitary, fused, aggregated, or agglomerated, and, can have spherical, tubular, or irregular morphologies. Nanotubes, dendrimers, quantum dots, and fullerenes are examples of common

amorphous silica particles have found widespread use in a wide range of everyday consumer items, including nondairy coffee creamer, automotive tyres, optical fibres, and catalytic supports. Metallic nanopowders for magnetic recording cassettes were created in the 1960s and 1970s. Granqvist and Buhrman reported nanocrystals made using the increasingly standard inert gas evaporation process for the first time in 1976. It was recently discovered that Maya blue paint is a nanostructured hybrid material.



Fig. 1: Nanomaterial (Carbon nanotube)

Nano materials. Nanomaterials have uses in the realm of nanotechnology and exhibit physical and chemical properties that vary from ordinary substances (i.e., silver nano, carbon nanotube, fullerene, photo catalyst, carbon nano, silica). Siegel classifies nanostructured materials as zero-dimensional, one-dimensional, two-dimensional, and three-dimensional nanostructures. Nanomaterials are defined as

materials with ultrafine grain sizes (50 nm or dimensionality confined to 50 nm). According to Richard W. Siegel, nanomaterials may be generated with several modulation dimensionalities: zero (atomic clusters, filaments, and cluster assemblies), one (multilayers), two (ultrafine-grained over layers or buried layers), and three (nanophase materials consisting of equiaxed nanometer sized grains) (Fig 2).

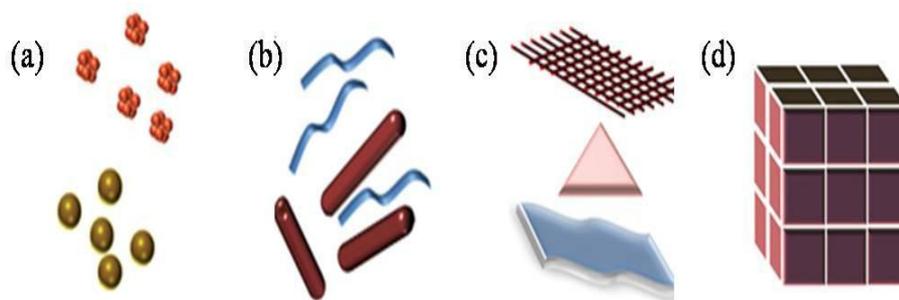


Fig.2: Classification of Nanomaterials (a) 0D spheres and clusters; (b) 1D nanofibers, Nano-wires, and nanorods; (c) 2D, nanofilms, nanoplates, and networks; (d) 3D nanomaterials

Types of Nanomaterials

Current Nanoparticles (NPs) and Nano Semiconductor Materials (NSM) may be classified under four material groups. There are two types of carbon based nanomaterials based nanomaterials:

(i) carbon-based nanomaterials: These NMs often include carbon and have geometries such as hollow tubes, ellipsoids, or spheres. Carbon-based NMs include fullerenes (C60), carbon nanotubes (CNTs), carbon nanofibers, and carbon black, grapheme (Gr), and carbon onions. These carbon-based compounds are manufactured via laser ablation, are discharge,

and chemical vapour deposition (CVD) (except carbon black).

(ii) Metal and metal oxide NPs and NSMs are examples of inorganic-based nanomaterials. These NMs may be used to make metals like Au or Ag NPs, metal oxides like TiO₂ and ZnO Nanoparticles, and semiconductors like silicon and ceramics.

(iii) Organic-based nanomaterials: These are NMs derived primarily from organic matter, as opposed to carbon- or inorganic-based NMs. The Use of Non-covalent (weak) interactions for molecular self- assembly and design aids in the transformation of organic NMs into desirable structures such as dendrimers, micelles, liposomes, and polymer NPs.

(iv) Nanomaterials based on composites: Composite NMs are multiphase NPs and NSMs with one phase on the nanoscale dimension that may combine NPs with other NPs or NPs with bigger or bulk- type materials (e.g., hybrid nanofibers) or more intricate structures (e.g., metal organic frame works). The composites may be made up of any combination of carbon-based, metal-based, or organic- based NMs and metal, ceramic, or polymer bulk components.

Positive Effects of Nanotechnology

Nanotechnology improves the strength of numerous materials and devices while also increasing the efficiency of monitoring devices, using less energy, reducing material waste, preventing toxicity, environmental pollution cleanup, and renewable energy generation.

While these are seen to be favourable effects of nanotechnology. The utilization of nanomaterials and nanoparticles may also result in considerable resource savings and increased efficiency in industrial and energy-related applications. Nanotechnology as the potential to provide Economic, social, and environmental advantages. It has the ability to help lessen the human impact on the environment by addressing issues like as energy usage, pollution, and green gas emissions. Nanotechnology has the possibility of solving the twenty-first century's global concerns, such as supplying alternative energy, defending the human right to clean water, assuring wildlife protection, cleaning up brown fields, and lowering global disease load. It haste potential to provide major environmental advantages, such as:

- cleaner and more efficient industrial processes
- Improved detection and elimination of pollutants through increasing air,water, and soil quality

High precision manufacturing via waste reduction...

Clean ample electricity through highly efficient solar cells

Reduction in the demand for huge industrial units due to the removal of greenhouse gases and other pollutants from the environment

Repairing environmental damage

Nanoscale products that utilize grapheme in commercial or research applications might assist the environment in numerous ways; Graphene-based nanocomposites lower aircraft weight by replacing standard metals and composites, and the weight savings result in a thousand tones of petroleum saved. Metal meshes surrounding the fuselage of an aircraft may be replaced by grapheme thin films or grapheme buck sheets.

To avoid the direct and indirect consequences of lightning strikes The outstanding features of grapheme improve the efficiency of modern renewable energy processes, such as decreasing the weight of wind turbine blades and enhancing energy conversion efficiency.

Energy Consumption: By incorporating grapheme into a coating material, just one layer is required, eliminating the requirement for a multifunctional film coating. A graphene- based coating has two applications: it may be applied to wind turbine blades or the body of an aircraft, It reduces weight while enhancing efficiency.

Material Cost Savings: Novel breakthroughs in nanotechnology will reduce the cost of alternative energy methods such as hybrid autos.

Less Raw Material Waste: Large sample testing will be done on a smaller scale, and raw material consumption will become more efficient. Nanoscale chemical reagents (or catalysts)n speed up chemical processes and improve their overall efficiency.

Environmental Protection and Monitoring: A detector was developed using sophisticated nanotechnology to detect a radioactive leak at the Fukushima Daiichi Nuclear Power Plant quicker and more accurately. This is one of Washington's finest radiation detectors and can detect even the smallest amount of radiation.

Clean and inexpensive energy: When it comes to turning sunshine into power, prototype solar panels using nanotechnology outperform regular designs. Nanotechnology is used in batteries, and nanoparticles may enhance hydrogen storage materials and fuel cell catalysts. Nanotechnology may improve energy production conversion and storage by generating larger surface area and lighter storage units for fuel cells, solar cells,

thermo-to- electric, biomass energy, hydrogen storage, secondary batteries, super- capacitors, and thermal storage fluids.

Protect in the human right to safe drinking water: Because of its speedy and low-cost contaminant identification nanotechnology enables low- cost water filtration. Magnetic interactions with ultra- small rust may aid in the removal of arsenic from drinking water. Nanotechnology may potentially enhance monitoring of air and water quality by inventing more sensitive detection systems capable of measuring a wide variety of pollutants and harmful chemicals at the same time. Rapid detection enables rapid action, limiting damage and lowering repair costs.

Environmental Progress and Pollution Reduction: Lighter automobiles and machines that use less fuel; alternative fuel and energy sources; and materials that detect and remove environmental toxins all seem to be feasible. The University College Dublin (UCD) Center for Bio- Nano Interactions (CBNI) investigates the impact of nanoparticles dispersed in the environment, where decaying plant and animal matter transforms into natural organic matter, typically composed of polysaccharides, and investigates how this interaction affects organic stability, dispersability, environmental fate, and behaviour.

Global Disease Burden Reduction: Personal well-being will grow globally as health care improves via better diagnosis and treatment. Economic Crisis Mitigation Investment in Nanotechnology will encourage economic growth, which will assist the development of auxiliary sectors such as product marketing, waste recycling and disposal, and intellectual property and liability disputes.

Effect of Nanotechnology on Global Warming Global Warming Effect

Global Warming is the world's most recent crisis. All governments and organizations in developed and developing nations are working to minimize it. Global warming refers to the exceptionally fast rise in the Earth's average surface temperature over the last century, which is mostly attributable to green-house gases emitted by humans who use fossil fuels. Over the previous century the global average surface temperature has risen by 0.6 to 1.0 degrees Celsius. This is due to the greenhouse effect. Nearly 30% of incoming sun radiations are reflected back to space from the outer side of the earth's atmosphere, while the 70% enters the earth's atmosphere. A fraction of these radiations (visible light spectrum) is absorbed by the

Earth, and the earth re-radiate this absorbed energy in the form of heat i.e., infrared radiations.

Greenhouse gases including carbon dioxide, nitrogen oxide, methane, fluorinated gases, and water vapour collect heat from infrared radiations and block its departure from the atmosphere, As a result, infrared radiations persist in the earth's atmosphere for an extended period of time, causing the earth's surface temperature to rise. Carbon dioxide emissions are a major contributor to global warming. According to several assessments, the average surface temperature of the Earth might increase by 2°C to 5°C by the end of the twenty-first century.

Climate Change Effect

Climate change induced by greenhouse gases, mostly carbon dioxide (CO₂) created from the combustion of fossil fuels, has caused significant changes in ecosystems and resulted in roughly 150,000 more fatalities per year. This increase is mostly due to the unsustainable use of fossil fuels and changes in land use. Our reliance on fossil fuels is a major contributor to global warming; this is one of the most pressing environmental issues in the near future. Automobiles and industry have recently contributed to a significant rise in greenhouse gases, notably carbon dioxide. Carbon dioxide levels in the atmosphere are 387 parts per million (ppm), over 40% higher since the industrial revolution, according to the United States National Oceanic and Atmospheric Administration (NOAA). The burning of fossil fuels such as oil, gas, and coal is the major source of carbon dioxide emissions in the atmosphere. Greenhouse gases have irreversible effects on the ozone layer, the environment, and human health. Global warming has become a global concern that requires prompt response from all governments. To overcome this problem, many techniques might be used:

1. Reduce energy usage while improving the efficiency of current technology.
2. Reduce the use of fossil fuels in autos and industry and replace them with re-neweable energy sources.
3. Participate in carbon management, which entails separating and transforming carbon into valuable goods.

There are several techniques to reduce energy usage and, as a result, greenhouse gas emissions in many important domains. Nanotechnology has had a significant influence on our lives by offering a feasible alternative to fossil fuels and thereby lowering greenhouse gas emissions.

Transportation and industry are the two largest sources of greenhouse gases in the environment. The current pace of global warming may harm our planet in the future. The latter two decades of the twentieth century were the warmest in 400 years. Climate change has occurred on Earth in the past, but present climate change is faster and damaging. Nanotechnology tackles the problem of global warming by reducing the use of fossil fuels, reducing energy consumption, and improving the efficiency of current renewable energy technologies.

Conclusion

Nanotechnology is a multidisciplinary method that necessitates extensive cross-sector cooperation among university researchers, businesses and government. While nanomaterials may assist clean up certain environmental debris, they can also pollute the environment in other ways. Choosing the correct nanoscale materials is one of the most important aspects for the future of nanotechnology. The Nanotechnology will continue to evolve, help society, and enhance the environment in a variety of ways. Nanomaterials will improve product functionality, weight savings, energy usage, and environmental sustainability. Nanotechnology has the ability to drastically reduce greenhouse gas emissions and thereby mitigate global warming. The current pace of global warming may harm our planet in the future. The latter two decades of the twentieth century were the warmest in 400 years. Climate change has occurred on Earth in the past, but present climate change is more fast and damaging. Nanotechnology tackles the problem of global warming by reducing the use of fossil fuels, reducing energy consumption, and improving the efficiency of current renewable energy technologies.

References

1. B. Viswanathan, *Nanomaterials* by Narosa Publishing House
2. Jin Zhng Zhang, *Optical properties and spectroscopy of nanomaterials*, published by World Scientific Publishing Co. Pvt. Ltd.
3. R. Sajanlal. T. S, Sreeprasad, A, A. K. Samal and T. Pradeep, *Anisotropic nanomaterials: structure, growth, assembly, and functions*, P NANO REVIEWS, vol, 2, (2011),
4. Juh Tzeng Lue, *Physical Properties of Nanomaterials*, *Encyclopedia of Nanoscience and Nanotechnology*, Volume X; Pages (1–46).
5. Dieter Vollath, *Nanomaterials – An introduction to synthesis, properties and application*, *Environmental Engineering and Management Journal*, 2008, Vol. 7, No.6. 865-870.
6. Parijat Pandey, Mandeep Dahiya, (2016). *Carbon nanotubes: Types, methods of preparation and applications*, *International Journal of Pharmaceutical Science and Research*, Volume4 1;Issue 4;May 2016; Page No. 15-21.
7. Jaison Jeevanandam, *Review on nanoparticles and nanostructured materials; history, sources, toxicity and regulations*, *Brillstein J. Nanotechnol.* 2018, 9, 1050–10744 doi:10.3762/bjnano.9.98
8. Martín-Gago, J.A., Casero, E., Briones, C., Serena, P.A., 2009, *Nanoscience y Nanotechnology. Entre lan ciencia ficción del presente y la tecnología del future* Foundation Espanola para la Ciencia y la Tecnología FECYT, Madrid.
9. Serena, P., 2016, *Guía específica de trabajo sobre nanotechnologies parala revolution urbana. Ciudades inteligentes.*
10. Kumar, N.: *Kumbhat, SS Carbon-Based Nanomaterials. Essentials in Nanoscience and Nanotechnology.* John Wiley & Sons. Inc.: Hoboken, NJ, U.S.A., 2016; pp 189–236.
11. Alagarasi, *An introduction To Nanomaterials*, In *Book: Introduction To Nanomaterials*, Chapter: 1, Pp.76 December 2011.
12. M. Anto Godwin, K. Mahitha Shri, M. Balaji, *Nanoparticles And Their Applications–A Mini Review* *International Journal of Research in Engineering And Bioscience*, Volume 3 Issue 5 Pp11- 29.
13. [Http://Www.Nanowerk.Com/Spotlight/Spotid=16126.Php](http://Www.Nanowerk.Com/Spotlight/Spotid=16126.Php) (Accessed June 2, 2012).
14. Syamala Devi1, A.Alakanandana And V.Vijaya Lakshmi, *Impacts Of Nano Technology On Environment-A Review*, *Kvol: I. Issue Lviv*, January 2018, Pp: 45-51.
15. W.S. Khan, M. Ceylan, E. Asmatulu, And R. Asmatulu, *Effects of Nanotechnology on Global Warming*, *Proceedings of the 2012 Midwest Section Conference of the American Society for Engineering Education.*

Social Media Used By the Academic Libraries during Covid-19 Pandemic Lockdown to Provide Information to the Library Users

Mr. Amol B. Meshram¹ Dr. Kishorsingh Chungade²

Research Scholar Librarian, SN Arts and UK Commerce College Amravati-444606

Research Supervisor Librarian, KRC, GVISH Amravati-444601

Email: aaambbbm72@gmail.com

Abstract: *All the Academic libraries were closed due to covid-19 pandemic lockdown as per the WHO guidelines. The Academic institutions were running online using online platform and using social medias. This new opportunities gives the librarians to use the ICT tools to provide the library services to the library users. Hope initially many problems might be faced by the librarians due to lack of infrastructure to provide the online services. But soon many LIS professional may find the way from this situation and started providing library services to the users and faculty members.*

Keywords: *Academic Libraries, Covid-19 pandemic, Library Services,*

Definitions:

1) Lockdown : a temporary condition imposed by governmental authorities (as during the outbreak of an epidemic disease) in which people are required to stay in their homes and refrain from or limit activities outside the home involving public contact (such as dining out or attending large gatherings) By, Merriam Webster Online Dictionary.

2) Pandemic: a dangerous disease that infects many people at one time. By, Cambridge Online Dictionary.

3) Epidemic: (especially of medicine) of disease or anything resembling a disease; attacking or affecting many individuals in a community or a population simultaneously. By, vocabulary.com

4) Social Distance: Social distancing is a set of measures aimed at stopping the spread of an infectious disease, based on staying away from other people as much as possible. It includes things like working from home, only going out to buy food and other essentials, and avoiding contact with other people. By, Collin English Online Dictionary

5) Social Medias: communications on the Internet, such as on websites for social networking and micro blogging, through which users share information, ideas, personal messages, and other content, such as videos. By, online Britannica

Introduction:-

Whole world was stranded and locked due to covid-19 out spread. The effect was gone to the life of every persons/ human being in the whole world. The education institutions were closed due to the covid-19 pandemic. All the educational institutions were closed for many months as a precautionary measures and guidelines issued by the WHO and by the local

Health Departments and Health ministry of every country. This was an unprecedented situations faced by the people from all corners of the world from new born baby to the very old person. The idea of used of ICT tools and platform were come forward and these platforms were used by the peoples of all over the world for work from home, online learning, organising meetings and for be in touch with the family and friends. The problem of covid-19 gives us an opportunity to take a innovative path so that the life of every human become easier. The use of internet, computers, and mobiles were grown up exponentially in pandemic lockdown period. As we say "every problem is mother of invention and new ideas". This proverb come 100% true in the time of pandemic lockdown and post pandemic lockdown. Every one's life is now blended with conventional and ICT, telecommunications technology.

Drastic transformation is seen in educational domain and in library services may be it college library or university library or public library. Huge online contents are now available on internet in the form of eBooks, eMagazine, eJournals and audio books.

Use of Social Media in the Libraries:-

1) Facebook:-

This media can be used by the Library to create a community of users and can share all the information of library in the form of audio-visual and photos. This is a very popular media among the students and common citizens. Due to its versatile usability it is very useful for the library.

2) YouTube:-

YouTube is a free-hosting video streaming websites that allows all members to watch, store and share. The librarian can

organised any program of library in real time by sending the link to the users. Live streaming is possible in Youtube. The audience may as many as possible without restriction on viewers. Pre recorded videos can be uploaded on the YouTube and the videos can be saved in the playlist for long time till we delete the video from the playlist.

3) Twitter:-

Twitter is a micro blogging and social networking service on which users post and interact with messages known as 'tweets'. We can tweet text, video, audio or links. This messages or tweets can be share very quickly to the masses and the reactions of the users or the feedback of the users can be seen in the form of retweets. This social media can be used to inform the students about any events or for asking any query to the librarian related to reference service or the book available in the collections.

4) Whatsapp:-

This social media is very popular among the netizens or the common citizens and students for sharing the text messages, videos, audio and photos. It allows users to send text messages and voice messages, make voice and video calls, and share images, documents, user locations, and other content. The librarian can share useful links, pdf files, docx files, ebooks, ejournals need by the users as an when requested by them.

5) Telegram:-

Telegram is a globally free accessible, cross-platform, cloud-based instant messaging service. The service also provides end-to-end encrypted video calling, VoIP, file sharing and several other features. Telegram has its own benefits as there is no limit for the joining of members in the group. The messages can be deleted two sided at any time without any time or period restrictions. In the covid-19 lockdown Telegram get more importance for sharing the information to the students, teachers and faculty members of the colleges and educational institutions. As it is nearly resembles to the Whatsapp but the features wise it is one step ahead of it.

6) Google meet app:-

Google Meet is Google's video conferencing app that is available to everyone who has a Google account. An online meeting is easy to set up whether you are an individual getting together with a couple of friends or a small meeting conducting a workshop online. Google meet do not restrict regarding the time. It is freely available for all the Google account holders. As many members can join the meeting

by opening the shared link of the meeting. The Library can be used this meeting app for short discussion on a topic or a short lecture arranged for the students.

7) Zoom meeting app:-

Zoom is a cloud-based video communications app that allows you to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities. This app has its benefits and shortcomings also. It has many features provided to the organisers for sharing, recording, chatting, messaging. But the free time given to the organiser is very less. If you want more time for the meeting then you have to pay for that to the zoom. Long meeting, conferences, seminars, workshops can be organised by using zoom meeting app by the Library.

8) Instagram:-

Instagram is a free photo and video sharing app. Library professionals can upload photos or videos of their service and share them with their followers or with a select group of Students and faculty members. They can also view, comment and like posts shared by the students, users and faculty members on Instagram.

Conclusion:-

Covid-19 pandemic was an unprecedented situation come across the whole world. After many years such situation stands in front of every citizen of the whole world. The entire world was stand still cut from each other. Social distancing was another factor which keeps away from each other. This situation also affects the educational institutions and teaching faculties all over the world. The use of social medias and online platform took place to reach out the students and teachers. The library was also not untouched to the use of ICT and online opens access platforms. The librarian provides services to the users by using the social medias and other online platforms for organising the library programs and providing information services to the users.

References:-

1. <https://www.merriam-webster.com/dictionary/lockdown> (access on 1/08/2022)
2. <https://dictionary.cambridge.org/dictionary/english/pandemic> (access on 1/08/2022)
3. <https://www.vocabulary.com/dictionary/epidemic> (access on 1/08/2022)

4. <https://www.collinsdictionary.com/dictionary/english/social-distancing> (access on 1/08/2022)
5. <https://www.britannica.com/topic/social-media> (access on 1/08/2022)
6. <https://en.wikipedia.org/wiki/Facebook> (access on 1/08/2022)
7. <https://en.wikipedia.org/wiki/YouTube> (access on 1/08/2022)
8. <https://en.wikipedia.org/wiki/Twitter> (access on 1/08/2022)
9. <https://en.wikipedia.org/wiki/WhatsApp> (access on 1/08/2022)
10. [https://en.wikipedia.org/wiki/Telegram_\(software\)#:~:text=Telegram](https://en.wikipedia.org/wiki/Telegram_(software)#:~:text=Telegram) (access on 1/08/2022)
11. https://en.wikipedia.org/wiki/Zoom_Video_Communications (access on 1/08/2022)
12. https://en.wikipedia.org/wiki/Google_Meet (access on 1/08/2022)
13. <https://en.wikipedia.org/wiki/Instagram> (access on 1/08/2022)
14. <https://digitalcommons.unl.edu/libphilprac/4262/> (access on 1/08/2022)

Yoga and Mental Peace: A Study

Nipan Haloi

Assistant Professor Sankardeva Mahavidyalaya, Patalipahar

Abstract At present, Yoga has become widely known and has been used for treatment of chronic health conditions. Through Yoga individuals get empowered positively to take charge of one's own psychological wellness. It could save a large expenditure for treatment and prevention of mental health problems. Yoga can take the form of a new therapy for curative, preventive, protective and promotive objectives at schools, hospitals, health care centers and even in family too. It offers immense help in sustaining wellness, addressing concerns related with increasing suicidal tendencies due to examination anxiety, deal with frustration and conflicts in society and to opt career choices with full awareness of one's own abilities and potentials. Yoga plays a vital role in balancing equilibrium between our mind, body and soul. Hence, the purpose of this study is to analyze how the practice of yoga helps in achieving peace of mind, in comparison with people who do not practice yoga.

Introduction

Yoga is one of the most ancient metaphysical sciences among others. It investigates the nature of soul and through its discipline, awakens the super conscious mind of the man which unites the moral being with the immortal supreme spirit.¹ Human beings suffer from more and more physical and psychological stress and strains and it becomes common among youth of present society. Yoga helps to find out the ways to face them and solve it.

It is very important to mention that Yoga creates balance and also provides both a philosophy and a religion. The real joy of life appears when we can unify nature and culture, wealth and poverty, movement and stillness, attachment and detachment. In this respect, the yogic activities provide immense help in assisting an individual to seek his all round growth and development in all the personality dimensions including the union of his self with the Greater soul. Many still believe that yoga is a religion, but it's not, instead, it's a way of living who strives to have a healthy mind in a healthy body. A human is a mental, physical and spiritual being and yoga helps promote a balanced development of all the three. Other forms of physical exercises, such as aerobics, guarantee only physical well being. They have very little to do with the development of the spiritual or planetary body.

Yoga is a form of mind-body fitness that involves a combination of muscular activity and an internally directed mindful focus on awareness of the self, the breath, and energy. Four basic

principles underlie the teachings and practices of yoga's healing system.² The first principle is the human body is a holistic entity comprised of various interrelated dimensions inseparable from one another and the health or illness of any one dimension affects the other dimensions. The second principle is individuals and their needs are unique and therefore must be approached in a way that acknowledges this individuality and their practice must be tailored accordingly. The third principle is yoga is self-empowering; the student is his or her own healer. Yoga engages the student in the healing process; by playing an active role in their journey toward health, the healing comes from within, instead of from an outside source and a greater sense of autonomy is achieved. The fourth principle is that the quality and state of an individual's mind is crucial to healing. When the individual has a positive mind-state healing happens more quickly, whereas if the mind-state is negative, healing may be prolonged.

In recent years there is a growing utilization of Yoga as one of the therapeutic measure in the field of mental health where the benefits of yoga practice and therapy are being widely recognized. Now the health professionals are aware of therapeutic values of yoga and many introduce the approach as a psycho-physiologic and spiritual technique in their treatment.³ Research indicate

¹ Shyam Sundar Sarkar (2018) "Yoga And It's Importance In Our Daily Life", *International Journal of Humanities and Social Science Invention (IJHSSI)*, Volume 7 Issue 08 Ver. II, ISSN- 2319 – 7722, P.48.

² Catherine Woodyard, (2011) "Exploring the therapeutic effects of yoga and its ability to increase quality of life", *international journal of Yoga*, Issue No- 4(2): 49–54, retrieved from <https://www.ncbi.nlm.nih.gov/pmc/article/PMC3193654/>

³ Shankar Das (2018) "Global Mental Health, Peace and Sustainability: Does Yoga Show the Way?",

Asanas increase patient's physical flexibility, strength and coordination while the Pranayama and Meditation practices calm and focus the mind to enhance higher self awareness and lessen anxiety, that result in better quality of patients life. Some other beneficial and therapeutic effects reported by Yang such as reduction in level of distress, blood pressure, and improvement in mood, resilience and metabolic regulation. Studies also indicate yoga is effective in the treatment of anxiety disorders (including in caregivers), pain, Alzheimer's disease, stroke prevention and rehabilitation, epilepsy, peripheral nervous system disorders and multiple sclerosis. Hence, this study is an effort to understand how Yoga could bring mental peace in our life.

Objective

1. To understand how Yoga could bring mental peace in our life.
2. To know the importance of Yoga in balancing equilibrium between our mind, body and soul.

Methodology

This study is primarily descriptive and analytical. In this study only secondary source of data have been used. The secondary source of data includes like books, articles, research papers, report published from various sources, internet sources and so on.

History of Yoga

The history of yoga is indeed very old and nothing can be said firmly about the origin of yoga only it can be alluded that yoga was organized in India. The available evidence shows that history of yoga was related to Indus valley civilization. At that time people used to do yoga. On the basis of various sculptures and sculptures we reach at the conclusion that yoga was a part of the civilization. Yoga has its origins in ancient Indian philosophy and can be traced back to the Rigveda itself, the oldest Hindu text which speaks about yoking our mind and insight to the Light of Truth or Reality. Great teachers of early Yoga include the names of many famous Vedic sages like Vāsiṣṭha, Yajñavalkya, and Jaigīśavya. The greatest of the Yogis is always said to be Yogeśvara Kṛṣṇa himself, the propounder of Bhagavadgītā which is called as Yoga Śāstra an authoritative work on Yoga. Lord Śiva is also the greatest of the Yogis or Ādinātha.

The word "Yoga" originates from Sanskrit and it means "to join, to unite". Yoga exercises have a holistic effect and bring body, mind, consciousness and soul into balance. Yoga assists us in coping with everyday demands, problems and worries.⁴ It also helps to develop a greater understanding of our self, the purpose of life and our relationship to God. On the spiritual path, Yoga leads us to supreme knowledge and eternal bliss in the union of the individual Self with the universal Self. Yoga is that supreme, cosmic principle. It is the light of life, the universal creative consciousness that is always awake and never sleeps; that always was, always is, and always will be.

It needs to mention here that Yoga is a 5000 year old tradition. In India monks went into seclusion for years with the goal of creating a disease free strong body. The original intention was to be able to sit in meditation for hours but with a achy body that is impossible to do.

In India, Yoga has been part of man's activities directed towards higher spiritual achievements. The history of Yoga could be divided into five categories: a. Vedic period b. Pre-classical period c. Classical period d. Yoga in Medieval Times e. Yoga in Modern Times. All these five categories of Yoga could be discussed as follows-

Vedic period: The earliest recorded mention of the word 'yoga' is in the ancient Indian text, the Rig Veda - this body of knowledge dates back to around 1500 BC! In the Atharva Veda, again (dating to 1200-1000 BC), there is a mention of the importance of the control of breath. It is difficult to pinpoint exact dates because in the beginning, the Vedas were, only, orally passed on from one generation to another. Written records came much later.⁵

Pre-classical period: In this period, the Upanishads took birth. They explain the meaning hidden in the Vedas, elaborating on the workings of the mind and spirit through personal teachings. They espouse meditation and mantra recitation towards the ultimate goal of attaining enlightenment. Out of the 108 Upanishads, there are 20 yoga Upanishads.

⁴ Sunil Kumar Yadav, Ashwani Kumar, Vikas Kumar, Anil Kumar (2015) "Importance of yoga in daily life", retrieved from <https://www.researchgate.net/publication/278673574>

⁵ See A brief history of yoga: Through the ages available at <https://www.artofliving.org/in-en/yoga/yoga-for-beginners/brief-history-yoga>.

Classical period: In the classical period, Lord Mahavira and Lord Buddha's teachings formed the early basis for Yoga Sadhana. While Lord Mahavira spoke of attaining salvation and freedom through meditation, Lord Buddha spoke of specific postures and meditation to attain enlightenment. The Bhagavad Gita also came into existence in this period. This text is a dialogue between Lord Krishna (universal consciousness) and Prince Arjuna (human consciousness). Here, the Lord explains the concepts of Dharma, Karma yoga (generous actions), Bhakti yoga (dedicated and caring actions) and Jnana yoga (knowledge).

Yoga in Medieval Times: With regard to Yoga in Medieval times, many sages and philosophers such as Adi Shankaracharya contributed to the development and continuation of Raja Yoga and Jnana yoga, adopting and building upon the teachings and techniques of yoga. With his teachings, and yogic rituals, like the Jnana Yoga, one can achieve Nirvana or liberation. Additionally, meditation was also considered vital to help clear the mind.

Yoga in Modern Times: There are numerous person and instances associated with the development of Yoga in Modern times. Swami Vivekananda was largely responsible for the spread of yoga to western societies. Here, there was much focus on physical well-being. Raja yoga was further developed by Ramana Maharshi, Ramakrishna Paramahansa, BKS Iyengar, K Pattabhi Jois, Paramhansa Yogananda, and Vivekananda. Yoga spread to the West in the mid-nineteenth century. Vedanta, Bhakti and Hatha yoga flourished at this time.

These are the five categories through which one can understand about the historical background of Yoga. However, many more things left out from this discussion.

Yoga and Mental Peace

The practice of yoga has grown as a universal science which has innumerable therapeutic facets that helps to achieve holistic health. Though there are numerous types and schools of yoga, each characterizes their own specific styles of mind and body postures (asanas), breathing techniques (pranayama), meditation and deep relaxation practices that fosters awareness and eventually promote intense states of consciousness. According to yoga the nervous system of an individual affects one's health and yoga purifies and brings relaxation to the mind. It symbolizes

unification of mind, body and soul to enable a person to gain higher consciousness.

In the Indian tradition, Yoga was conceived as a pathway towards attainment of joy in life, freedom from sorrows, mental balance and peace. Since antiquity, the seekers of self-realization (often called as Rishis or Yogis) have been using yogic practices for restoring mind-body balance in order to make them capable for attaining spiritual realization.⁶ The ultimate states of human mental health development have been described using different terms. For example, Buddhists use notion of 'Nirvana', Samkhya system uses 'Moksha', Vedantists use 'Atmasakshaatkar' etc. But all these notions converge in their meanings that it involves liberation from suffering. Sage Patanjali, who collated, coordinated and systematized the system of Yoga, declared the main objective of Yoga as regulation of mind in the first aphorism of famous Yoga Sutra (Yogah Chittvritti Nirodhah). Bhagavad Gita, which elaborates comprehensive typologies of Yoga, also states the need of Yoga for removing sorrow and increasing bliss in life. Hath Yoga, a yogic tradition focusing on physical modus-operandi for realizing deeper states of consciousness, emphasises on postures, breathing patterns, energy locks and contemplation to enhance energy and vitality.

Mental health is very important for quality life of an individual. Promoting mental health is crucial to raise performance and enhancing the quality of life and health. By fostering psychological health, several social problems can be addressed effectively. Yoga, which has immense capacity to promote mental health, has not been used to cater to the needs of mental health promotion.⁷ It can empower people to self-regulate their emotions, behaviors and cognitive processes. Regular practice of Yoga may decreases the time taken to fall asleep, increase in the total number of sleep hours, and feeling of being fresh after sleep in the morning. Although the practice of Yoga only cannot be complete cure for many chronic ailments but it can uplift patient's mood and therefore play an important role in the management of wellness in patients suffering with different critical illnesses. Among cancer patients, for instance, it can

⁶ Arun Pratap Singh (2017) "Yoga for mental health: opportunities and challenges", *MOJ Yoga & Physical Therapy*, Volume 2 Issue 1, p.1.

⁷ Ibid

increase acceptance of life in reality, energy, relaxation, quality of sleep and quality of life.

It is very crucial to mention that creating sustainable global peace on the Earth is an ultimate state of contentment and freedom amongst and within all nations and humanity.⁸ At the same time sporadic and acute societal unrest; including religious fanaticism, terrorism, territorial disputes, political and ethnic tensions posing greater challenge of the era around the globe. The interpersonal conflict may escalate to institutional aggression, hostility and war. For every human being world peace is desirable and peace brings both material and spiritual benefit to all societies. When it's most needed the yogic science has the power to inspire grassroots social change in the world. Yoga is not just for self-transformation, but is an instrument for global peace which provides internal, emotional and spiritual reconciliation and healing. It gives one the self-strength and capability to approach conflicts from a space of mindfulness, compassion and love, in such circumstances peace is inevitable.

Conclusion

Currently, Yoga become popular all over the world and now it is being practiced by citizens of all the continents. Indeed Yoga has become widely known and has been used for treatment of chronic health conditions, and management of the symptoms related to acute physical ailments. Yoga empowers individuals' positively to take charge of their own psychological wellness and save a large expenditure for treatment and prevention of mental health problems. Yoga can take the form of a new therapy for curative, preventive, protective and promotive objectives at schools, hospitals, health care centers and in family. It offers immense help in sustaining wellness, addressing concerns related with increasing suicidal tendencies due to examination anxiety, deal with frustration and conflicts in society and to opt career choices with full awareness of one's own abilities and potentials. After going through this discussion it can be said that Yoga is very important not only to maintain good physical health but also mental health too. However, it needs to mention that the common masses of India are yet to understand about the benefit of Yoga. To make it success,

government should take proper policies and needs to introduce some courses in the School, College and also in University level for popularizing it.

References

1. Bhardwaj, Ajay. (2019) "Universal Application of Yoga for Peace and Harmony", *Journal of Yoga and Physiotherapy*, Volume 7 Issue 3, ISSN-2476-1303.
2. Brisbon NM, Lowery GA. (2011) Mindfulness and levels of stress: A comparison of beginner and advanced Hatha yoga practitioners. *J Relig Health* 50 (4): 931-941.
3. Capona Hannah, O Shea Melissa & McIver Shane. (2019) "Yoga and mental health: A synthesis of qualitative findings", *Complementary Therapies in Clinical Practice*, 1744-3881/ available at <https://doi.org/10.1016/j.ctcp.2019.101063>.
4. Chandran, K Madhava & Unniraman, P. (2019) "Influence of yoga in achieving peace of mind", *International Journal of Yoga, Physiotherapy and Physical Education*, Volume 4; Issue 3, ISSN: 2456-5067.
5. G. Kirkwood, H. Rampes, V. Tuffrey, J. Richardson, and K. Pilkington, (2005) "Yoga for anxiety: a systematic review of the research evidence," *British Journal of Sports Medicine*, vol. 39, no. 12, pp. 884–891.
6. Herrman Helen, Saxena Shekhar, Moodie Rob. (2005) *Promoting mental health: concepts, emerging evidence, practice*, report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne, ISBN 92 4 156294 3.
7. Kirkwood G, et al. (2005) —Yoga for Anxiety: A Systematic Review of the Research, *British Journal of Sports Medicine*, Vol. 39, No. 12, pp. 884–91.
8. K. Meister, G. Juckel, (2017) A systematic review of mechanisms of change in body-oriented yoga in major depressive disorders, *Pharmacopsychiatry*, <https://doi.org/10.1055/s-0043-111013>.
9. Mishra, M & Sinha, RK. (2001) Effects of yogic practices on depression and anxiety. *SIS Journal of Projective Psychology and Mental health*, 8:23–27.
10. Pilkington K, et al. (2005)—Yoga for Depression: The Research Evidence, *Journal of Affective Disorders*, Vol. 89, No. 1–3, pp. 13–24.

⁸ Shankar Das (2018) "Global Mental Health, Peace and Sustainability: Does Yoga Show the Way?", *Journal of Depression and Anxiety*, Volume 7, Issue 1, 2167-1044, p.2.

Traditional Uses of Medicinal Plants in Treating Bone fracture, Urine stone, Stomachache and Jaundice in Chandgad Tahsil (District Kolhapur) of Maharashtra, India

Arun Patil¹ Varsha Jadhav¹

Assistant Professor, Department of Botany, Yashawantrao Chavan College, Halkarni, Kolhapur (M.S.), India

Department of Botany, Shivaji University, Kolhapur (M.S.), India

E- mail: arunpatil545@gmail.com

Abstract An ethnomedicinal survey was under taken to collect information from local rural people about the use of medicinal plants in Chandgad Tahsil. The present paper documents the traditional knowledge of medicinal plant species used to cure Bone fracture, Urine stone and Jaundice. Ethnomedicinal information of medicinal plants was taken from different localities of Chandgad Tahsil by interview with local rural practioners (vaidya). The knowledge about the medicinal plant has been transmitted orally from generation to generation. The people in the study area still have a strong belief in the efficacy and success of hearbal medicine. The present investigation revealed that there are about 5 species of plants used to treat Bone fracture, 9 species of plants used to cure Urine stone, 5 species of plants used to cure stomachache and 5 species of plants used to cure Jaundice. The traditional knowledge of medicinal plants has great potential for research and the discovery of new drugs.

Keywords: Traditional, medicinal plant, Bone fracture, Urine stone, Jaundice. Chandgad Tahsil

Introduction

India is considered to be a store house of medicinal plants. It harbors over 2000 medicinal plant species. During last few decades there has been an increase in the study of medicinal plants and their traditional uses in different parts of the world. Herbal remedies are considered the oldest form of health care known to mankind on this earth. Chandgad Tahsil has a valuable heritage of herbal remedies. The climate of the area is healthy and favorable for growth and development of plants. So area shows rich biodiversity. Many villages of Chandgad tahasil of Kolhapur district are located in the forest area and are far away from city. Its rural people living in remote forests are still depending on the local plant resources for medical treatment. The local rural herbalist or medicine man (health practitioner) called Vaidu. Vaidu cure various diseases of rural people using medicinal plants. Traditionally this treasure of knowledge has been transmitted orally from generation to generation without any written document. With an errosion of traditional culture of tribal and rural peoples invaluable knowledge of medicinal plants is threatened. It is an urgent need to collect and conserve all ethnobotanical information from various communities.

Material and Methods

For gathering information regarding plants used medicinally by the rural vaidus several field trips were undertaken in the villages of chandgad tahsil in different seasons. Ethnobotanical data were collected according to

the methodology suggested by Jain. The ethnobotanical data (local name, mode of preparation, medicinal uses) were collected through questionaries, interviews and discussion among the rural practitioners (vaidu) in their local language and recorded in field note book. The collected information was cross checked with the help of available literature. The specimens were collected from the field and identified with the help of local flora. Names of all key informants were noted and are available on request. The study involved an extensive literature search and herbarium examination.

Observations

Folklore medicinal plants are arranged disease wise with their botanical name, family, local name, part used and mode of administration in table 1.

Result and Conclusion

Present investigation revealed that 9 plant species are used for treatment of Urine stone, 6 plant species are used for treatment of Bone fracture, 5 species of plants used to cure stomachache and 5 plant species are used for treatment of Jaundice. This indicates that rural people of this region possess good knowledge of herbal drugs but their continuous and progressive exposure to modernization may result in extinction of the rich heritage of knowledge in course of time. The part of the plant most used for medicinal purposes were leaves followed by stem bark, roots, fruits, and seeds. Ethnomedicinal data may provide a base to start the search for new compounds related to photochemistry, pharmacognosy and

pharmacology. This may provide new source of herbal drugs and help to understand the molecular basis of their activities. Moreover it may further be mentioned that over exploitation of these species in the name of medicine may

lead some species ultimately to the disappearance in future. Therefore attention should also be made on exploitation and proper utilization of these medicinal plants.

Table 1: List of Medicinal Plants with Botanical Name, Family, Local name, Part used and Administration

Sr. No.	Botanical name, Family and Local name	Part used	Administration
Urine Stone			
1	<i>Bridelia squamosa</i> (Lam.) Gehrm. Euphorbiaceae; Ragat Asan	Bark	One cup bark extract given by empty stomach for seven days.
2	<i>Celosia argentea</i> L. Amaranthaceae; Kurdu	Root	One cup root decoction given for seven days.
3	<i>Cipadessa baccifera</i> (Roth) Miq. Meliaceae ; Narang	Leaf	One cup leaf extract and half cup of milk added with half spoon poppy seed powder taken internally by empty stomach for seven days.
4	<i>Cynodon dactylon</i> (L.) Poaceae; Harali, Durva	Leaf	Whole plant extract taken orally for ten days.
5	<i>Dendrophthoe falcate</i> (L.F.) Loranthaceae; Bandgul, Bande	Leaf	One cup leaf extract taken orally for five days.
6	<i>Holarrhena pubescens</i> (Buch.-Ham.) Apocynaceae; Pandhara Kuda	Bark	Two spoon bark powder with water given early morning for seven days.
7	<i>Hygrophila schulli</i> (Buch-Ham.) Acanthaceae; Kolshinda	Leaf	One cup leaf extract given with coconut milk.
8	<i>Kalanchoe pinnata</i> (Lamk.) Crassulaceae; Paanphuti	Leaf and Root	Leaf and root extract taken early morning for five days.
9	<i>Tridax procumbens</i> L. Asteraceae; Dagadipala, Kunticha pala	Leaf	Leaf extract given early morning for five days.
Jaundice			
1	<i>Achyranthus aspera</i> L. Amaranthaceae; Aghada	Leaf	Two tea spoon leaf juice given for seven days.
2	<i>Careya arborea</i> Roxb. Lecythidaceae; Kumbha	Bark	Bark juice applied over all body for five days.
3	<i>Ricinus communis</i> L. Euphorbiaceae; Erand	Leaf	One glass leaf extract given orally by empty stomach for five days.
4	<i>Solanum nigrum</i> L. Solanaceae; Kamuni	Leaf	Leaf juice given for seven days.
5	<i>Tinospora cordifolia</i> (willd.) Menispermaceae; Amrut vel	Leaf	One cup leaf extract with one spoon honey given early morning for one week.
Bone fracture			
1	<i>Allophyllus cobbe</i> (L.) Sapindaceae; Tipani /Hadsandhi	Leaf	Leaf paste plastered over bone fracture.
2	<i>Casearia championii</i> Thw. Flacourtiaceae; Modi, Hadmodi	Leaf	One glass leaf extract taken internally twice a day for one week and leaf paste applied over fractured part.
3	<i>Careya arborea</i> Roxb. Lecythidaceae; Kumbha	Bark	Fractured bones of childrens were tightly bound by elongated bark.
4	<i>Pavetta Crassicaillis</i> Bremek Rubiaceae; Papat	Leaf and bark	Leaf paste bind over fractured part for 15 days and one spoon bark powder eaten with coconut kernel for 15 days.
5	<i>Persea macrantha</i> (Nees) Lauraceae; Pulas	Bark	Crushed bark plastered over fractured bone and bark juice given orally.
6	<i>Wendlandia thyrsoides</i> (R. & S.)	Leaf	Leaf paste applied over fractured bones.

	Rubiaceae; Ranper, Tarangi		
Stomachache			
1	<i>Acacia catechu</i> (L.F.) Mimosaceae; Khair	Bark	Bark decoction taken internally twice a day.
2	<i>Alstonia scholaris</i> (L.) Apocynaceae; Satvin, Saptaprni	Bark	Bark extract given for ten days.
3	<i>Amaranthus spinosus</i> L. Amaranthaceae; Kate-Mat	Leaf	Leaf paste along with lemon juice taken orally.
4	<i>Mallotus philippensis</i> (Lam.) Euphorbiaceae; Shendri	Fruit	Fruit cover powder taken internally with water.
5	<i>Toddalia asiatica</i> (L.) Rutaceae; Jangli mirachi	Leaf	One cup leaf decoction taken internally.

References

1. **Agarwal, V. S. and Ghosh, Barin.** 1985. *Drug plants of India: Root drugs.* Kalyani Publishers, New Delhi.
2. **Jain, S. K.** 1965. Medicinal plant lore of the Tribal of Bastar. *Economic Botany.* **19**: 236-250.
3. **Jain, S. K.** 1991. *Dictionary of Indian folk medicine and ethnobotany.* Deep Publications.
4. **Jain, S. K.** New Delhi. 1987. *A Manual of Ethnobotany.* Scientific Publishers, Jodhpur, India.
5. **Yadav, S. R. and Sardesai, M. M.** 2002. *Flora of Kolhapur district.* Shivaji University Kolhapur.

Population Characteristics of Malegaon & Nandgaon Tahsils of Nashik District

Dr. Sunil Ashok Deore
MSG College Malegaon, Nashik
E-mail-sunildeore555@gmail.com

Abstract: In this research paper the researcher has studied the characteristics of population of Malegaon and Nandgaon tahsils of Nashik district. The geographical data analysis technique has been used for calculating the results of this paper. Total population of the district having analyzed compared with reference to the census 2001& 2011. The tahsil wise decadal growth of the Nashik district in 2001 and 2011 compared and. The R growth rate formula has been used to calculate the population growth rate. The data has been tabulated maps have been incorporated at the place. Rural population growth rate as well as urban population growth rate in the Nashik district has been calculated in the decade 2001 and 2011

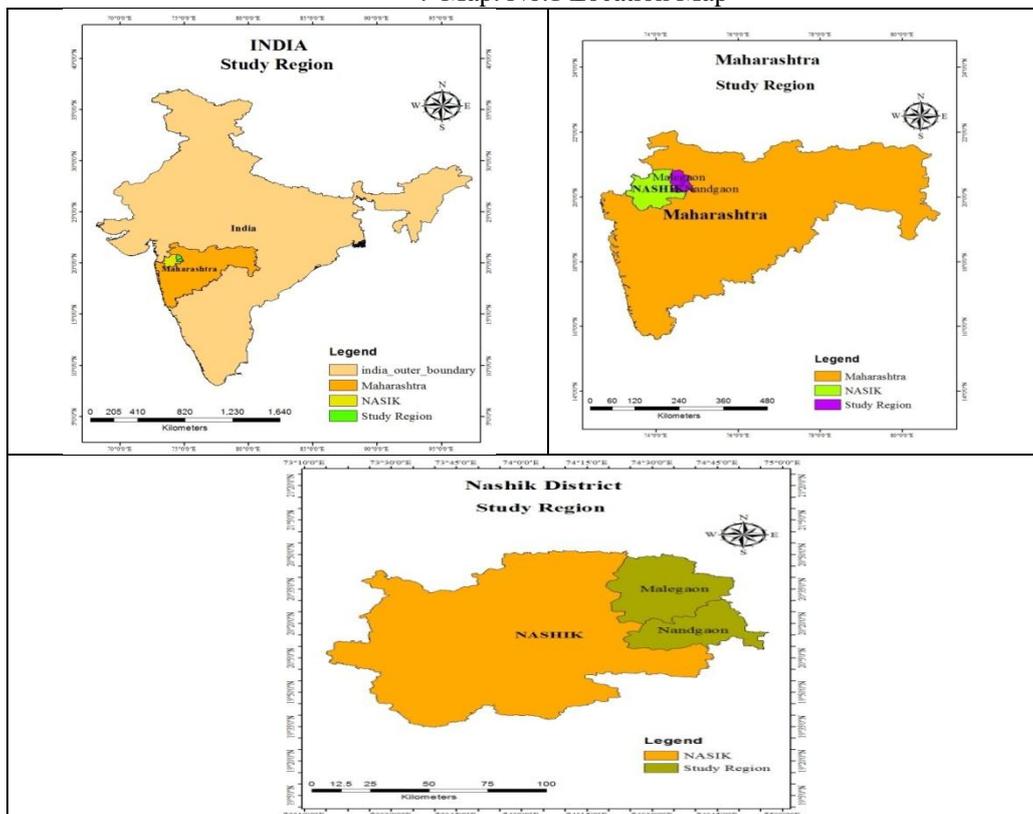
Introduction

India is a second largest populated country of the world; there were 1210726932 as per 2011 census. Maharashtra state is a second largest populated state of the country, Maharashtra state total population was 112374333 as per 2011 census. The Nashik district is fourth largest populated district of the state; there were 6107187 total populations as per the 2011 census. And Malegaon tahsil is second largest tahsil of the district i.e. 955594. And Nandgaon tahsil is fifth largest populated tahsil of the district. The total population of the tahsil was 288848 as per 2011 census.

Study Area

Study area are situated in the east part of the district, lies between 20° 00' N To 20° 53' North latitudinal and from 74° 21' E to 74° 56' East longitudinal extension, with the total geographical area of 2919.62 sq. km. According to census 2011, 1244442 total population of the study area, to the east of study area is Jalgaon & Dhule district, on the western side are Satana, Deola and Chandwad tahsils (Nashik District) Aurangabad is at the south east, Yeola tahsil is south. Malegaon and Nandgaon both tahsils are situated in the east part of the district

. Map. No.1 Location Map



Methodology-

Methodology is one of the significant part of analysis result of analysis highly depend on the

methodology will be used for the data analysis purpose. The present study is based on the secondary source of data.

Objectives

- 1) To study the population characteristics in the study area
- 2) To study the tahsil wise population of the district
- 3) To study the rural urban population of the study area.

Table No. 1: Tahsil wise total population of the district as per census 2001 & 2011

Sr. No.	Tahsils	Total population	
		2001	2011
1	Surgana	145135	175816
2	Kalwan	168403	208362
3	Deola	127194	144522
4	Baglan	311395	374435
5	Malegaon	789230	955594
6	Nandgaon	236319	288848
7	Chandvad	205189	235849
8	Dindori	264727	315709
9	Peth	96774	119838
10	Trimbakeshwar	136417	168423
11	Nashik	1317367	1755491
12	Igatpuri	228208	253513
13	Sinnar	292075	346390
14	Niphad	439842	493251
15	Yeola	235521	271146
	Nashik Total:	4993796	6107187

(Source – Census 2001, 2011)

As per censuses of 2001 the total population of Nashik district was 4993796. Then a decadal later in 2011 it was increased with 1113391 and was 6107187. The rate of growth in this decade was a 22.29%. Out of 2001 the population of Malegaon tahsil was 789230. And

then a decade later in 2011 it was increased with 166364 and was 789230. The rate of growth in this decade was a 21.07%. And the total population of the Nandgaon tahsil was 236319. Then the 2011 it was increase 52529. And was 288848. It means decadal growth of 22.23 %.

Figure No. 1 as per census 2001 & 2011 Tahsil wise Population of the Nashik district.

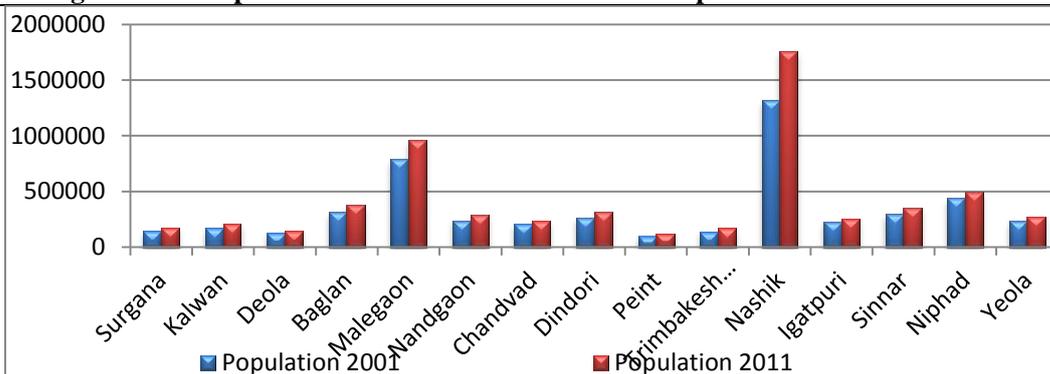
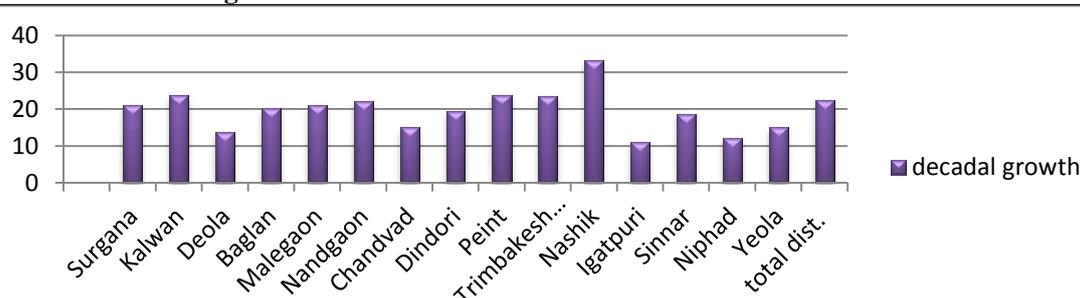
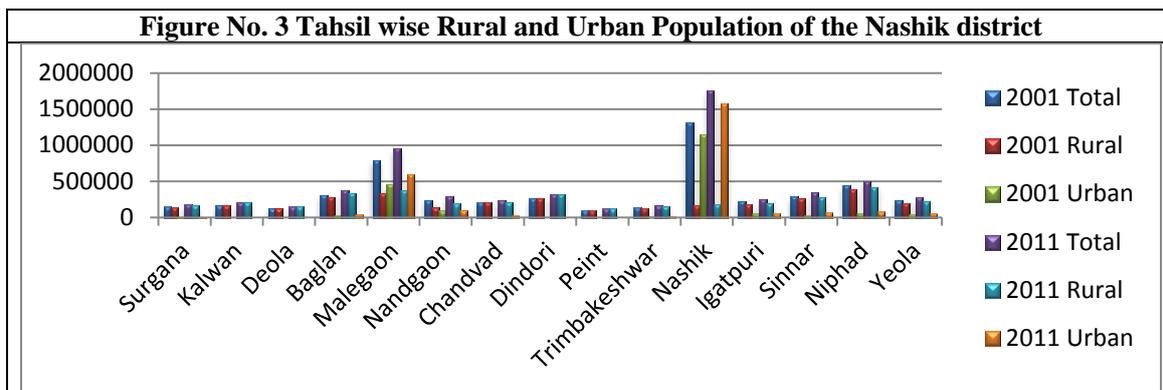


Figure No. 2 Tahsil wise Decadal Growth in Nashik district





Above the figure No. 1 we can see that the different between 2001 to 2011 total population of district with tahsil wise. After the Nashik tahsil, Malegaon tahsil is highly populated tahsil of the district and Nandgaon tahsil is fifth largest populated tahsil of the district.

Tahsil wise decadal growth of the Nashik district

As per census of 2001 the total population of Nashik district was 4993796 and 6107187 as per

the 2011 census. Which means the increase in population in this decade was 22.29 %. And the total population of the Malegaon tahsil was 789230. And then a decade later in 2011 it was increased with 166364 and was 789230.the rate of growth in this decade was a 21.07%. And the total population of the Nandgaon tahsil was 236319. Then the 2011 it was increase 52529. And was 288848. It means decadal growth of 22.23 %.

Table No. 2: Tahsil wise population decadal growth in Nashik district

Sr. No.	Tahsils	Total population		Decadal growth 2001 to 2011
		2001	2011	
1	Surgana	145135	175816	21.13
2	Kalwan	168403	208362	23.72
3	Deola	127194	144522	13.62
4	Baglan	311395	374435	20.24
5	Malegaon	789230	955594	21.07
6	Nandgaon	236319	288848	22.23
7	Chandvad	205189	235849	14.94
8	Dindori	264727	315709	19.25
9	Peint	96774	119838	23.83
10	Trimbakeshwar	136417	168423	23.46
11	Nashik	1317367	1755491	33.25
12	Igatpuri	228208	253513	11.08
13	Sinnar	292075	346390	18.59
14	Niphad	439842	493251	12.14
15	Yeola	235521	271146	15.12
Nashik Total:		4993796	6107187	22.29

(Source – Census 2001, 2011 computed by researcher)

The following formula applied to calculate the growth rate of population

$$R = \frac{P_n - P_0}{P_0} \times 100$$

Where;

R = growth rate of population.

Pn = current years population

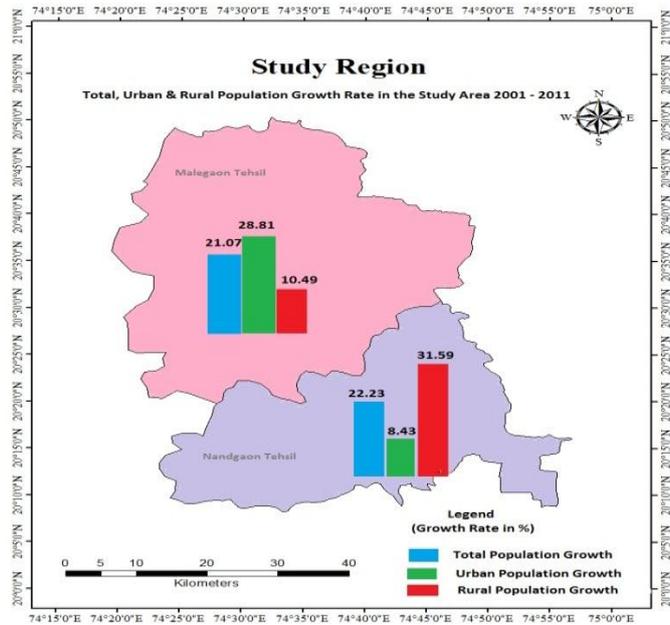
P1 = Base year population

Table presents the tahsil wise population growth in Nashik district from 2001 to 2011. According to decadal growth of more than 20 are Surgana, Kalwan, Baglan, Malegaon, Nandgaon, Peint, Trimbakeshwar, and Nashik tahsil and whole district also. Deola, Chandwad, Dindori,

Igatpuri, sinner, Niphad, and Yeola tahsils population growth is lower than average of Nashik districting. That is less than 20. Specially Malegaon and Nandgaon both tahsil as well as total district average population growth rate is between 21 to 23% , Malegaon tahsil are

populated as compare to Nandgaon tahsil, Malegaon tahsil population 166364 it has increased so much in between 2001 to 2011.

As shown Figure No. 2 in the above table, there is a decade increase from 2001 to 2011, according to the tahsils wise of the district. As shown above, the highest increase in Nashik tahsil is seen, 33.25% increase. After this, there is an increase of 23% in the Kalwan, Peint and Trimbakeshwar tahsils, followed by Surgana, Baglan, Malegaon, Nandgaon those tehsils with 20 to 22% increase. And tahsil of Deola, Chandwad, Dindori Igatpuri, Sinnar, Niphad and Yeola has increased by 10 to 20%. The average increase in the district is 22.29%. From the above mentioned detailed the study area we can say the increase in population was Nashik district increase in population from 2011 to 2011 was 22.29 % , and Malegaon tahsil increasing population from 21.07 % and Nandgaon tahsil increase of 22.23 % ,



Map No. 1 Population Growth rate Map 2001-2011

Table No. 3: Tahsil wise Rural and Urban population in Nashik district 2001 to 2011

Sr. No.	Tahsils	Population					
		2001			2011		
		Total	Rural	Urban	Total	Rural	Urban
1	Surgana	145135	138988	6147	175816	169553	6263
2	Kalwan	168403	168403	0	208362	208362	0
3	Deola	127194	127194	0	144522	144522	0
4	Baglan	311395	278834	32561	374435	336734	37701
5	Malegaon	789230	333176	456054	955594	368137	587457
6	Nandgaon	236319	140723	95596	288848	185186	103662
7	Chandvad	205189	205189	0	235849	210508	25341
8	Dindori	264727	264727	0	315709	315709	0
9	Peint	96774	96774	0	119838	119838	0
10	Trimbakeshwar	136417	126613	9804	168423	156367	12056
11	Nashik	1317367	165041	1152326	1755491	175948	1579543
12	Igatpuri	228208	176463	51745	253513	197686	55827
13	Sinnar	292075	260445	31630	346390	281091	65299
14	Niphad	439842	381356	58486	493251	418853	74398
15	Yeola	235521	192314	43207	271146	221320	49826
	Total dist.	4993796	3056240	1937556	6107187	3509814	2597373

(Source – Population Survey Report in 2001 and 2011)

As per census 2001 and 2011 above the table showing total population of the district with tahsil wise, and describe the rural and urban population of the tahsil wise of the district. Population of district is very highly growth of all tahsils of the district. According to 2011 total population of the district was 6107187. And census 2001 the total population of the district

was 4993796, it means in between those ten years (decadal) 1113391 increase the population of the tahsil. About Malegaon tahsil there was 166364 people's population increases, it means 21.07 % population was growth. And Nandgaon tahsil 52529 numbers of peoples was increase it means 22.23 % growth of the tahsil.

Table No. 4: Tahsil wise rural population growth in Nashik district 2001 to 2011

Sr.No.	Tahsils	Population (Rural)		Growth Rate (%) 2001 to 2011
		2001	2011	
1	Surgana	138988	169553	21.99

2	Kalwan	168403	208362	23.72
3	Deola	127194	144522	13.62
4	Baglan	278834	336734	20.76
5	Malegaon	333176	368137	10.49
6	Nandgaon	140723	185186	31.59
7	Chandvad	205189	210508	2.59
8	Dindori	264727	315709	19.25
9	Peint	96774	119838	23.83
10	Trimbakeshwar	126613	156367	23.49
11	Nashik	165041	175948	6.60
12	Igatpuri	176463	197686	12.02
13	Sinner	260445	281091	7.93
14	Niphad	381356	418853	9.83
15	Yeola	192314	221320	15.08
	Total	3056240	3509814	14.84

(Source – Census 2001, 2011 computed by researcher)

As shown in the above table, rural population growth has been shown in the tahsil wise of Nashik district, 14.84 has been average population growth of Nashik district. In which the highest population growth of Nandgaon tahsil has increased in the whole district, it is 31.59 percent. And lowest in the district is 2.59 percent of Chandwad tahsil has increased, There has been an increase in tahsils of Chandwad,

Nashik, Sinner and Niphad by 5 to 10 percent, after this, between 10 to 15 percent there has been an increase in Deola, Malegaon and Igatpuri tahsils, then, there has an increase of Yeola, Dindori tahsils between 15 to 20 percent, after this, there has been an increase in between 20 to 25 percent in Surgana, Kalwan, Baglan, Peth and Trimbakeshwar tahsils, and more than 25 percent has increase only in Nandgaon tahsil.

Table No. 5: Tahsil wise urban population growth in Nashik district 2001 to 2011

Sr.No.	Tahsils	Population (Urban)		Growth Rate (%) 2001 to 2011
		2001	2011	
1	Surgana	6,147	6,263	1.88
2	Kalwan	0	0	0
3	Deola	0	0	0
4	Baglan	32,561	37,701	15.78
5	Malegaon	456,054	587,457	28.81
6	Nandgaon	95,596	103,662	8.43
7	Chandvad	0	25,341	-
8	Dindori	0	0	0
9	Peint	0	0	0
10	Trimbakeshwar	9,804	12,056	22.97
11	Nashik	1,152,326	1,579,543	37.07
12	Igatpuri	51,745	55,827	7.89
13	Sinner	31,630	65,299	106.44
14	Niphad	58,486	74,398	27.20
15	Yeola	43,207	49,826	15.31
	Total	1,937,556	2,597,373	34.05

(Source – Census 2001, 2011 computed by researcher)

As shown in the table above, tahsil wise urban population growth rate of Nashik district, in between 2001 to 2011 census, in the whole Nashik district 34.05 percent average urban population increased. In the district sinner tahsil is highest urban population growth rate, and lowest in Surgana tahsil observed, i.e. only 1.88

percent. According to census 2001, Chandwad tahsil there was no urban population, but according to 2011 census this tahsil has been given the status of urban city, that's why it is seen as increase the number of population, the urban population is zero in Kalwan, Deola, Dindory and Peth of those four tahsils, there has

been an increase of Surgana tahsil by 1 to 5 percent, after that, there has been an increase of Nandgaon and Igatpuri tahsils 5 to 10 percent, Yeola and Baglan tahsil 15 to 20 percent, Trimbakeshwar 20 to 25 percent, Niphad, Sinner, Nashik, and Malegaon tahsils has been an increase in more than 25 percent.

References

1. A. B. Sawadi (2002) the mega state – Maharashtra – NiraliPrakashan, Pune.
2. A. B. Sawadi (2008) physical geography, (Khand A, B,) NiraliPrakashan, Pune.
3. Borole Leena (2008): “Spatio-Temporal analysis of population characteristics in Shirpur tehsil of Dhule district”. M.phil dissertation submitted to North Maharashtra University, Jalgoan.
4. Chandan R.C. (2002), Geography of population: concept, Determinants and patterns, fifth Edition, Kalyani Publishers, New Delhi.
5. Chaudhari R. C. (2009): “Geography of population” Kalyani Publication, New Delhi. Pp 39-377.
6. Chaudhari R. C. (1994): “Patterns of Death rate in Maharashtra”. Maharashtra Bhugol shastra Sanshodhan Patrica, Vol- VIII, No.-1 Pp. 13-23.
7. Chavan Savita smita V. & Bidve B.S. (2012): “appraisal of government policies on tribal development a study of tribal population of chamtoli group grampanchayat in Badlapur town of Thane District,” Latur Geographer, Vol. I, Issue. I May 2012, Pp. 12-19.
8. Deore R. S. & Vyalij P. Y. (2011): “Population growth and changing land use profile in Nandgaon tahsil, Nashik district (Maharashtra)”. Journal of Research and Development, Vol.1, Issue 8 Aug.-Sept.2011, Pp 75-81
9. D. R. Khullar (2002) INDIA A Comprehensive Geography, Kalyani Publication, Jawahar Nagar, Jaipur.
10. H. M. Izhar (2015) “Population Geography” Rawat publication, Jawahar Nagar, Jaipur.
11. Kadam Avinash & Saptari P. G. (1999): “Population distribution of Baramati tahsil, Dist. – Pune, Maharashtra”. Maharashtra sanshodhan patrika, Vol- XIII, No.2, Pp.105-120.
12. Kayastha S. L. (2014), “Geography of Population” Rawat publication, Jawahar Nagar, Jaipur.
13. Khadke V.V. & Kadam N. B. (2012): “Disparity in literacy rate in Maharashtra”. Latur Geographer, Vol.I, Issue. I May 2012, Pp. 76-78.
14. Kharate V. B. (2011): “Geographical study of changing land use pattern due to population growth of Washim district”. Maharashtra Bhogol shastra sanshodhan patrika, Vol- XXVIII, No.2 July- Dec.2011, Pp. 19-23.
15. Majid Husain (2015) Geography of India, Tata Mc Grow Hill Education, New Delhi.
16. Nikam S. R. (2011): “Changing Nature of Population in India” Journal of Research and Development,” Vol.1, Issue 8 Aug.-Sept.2011, Pp. 149-154.
17. Patil S. B. (2008): “Decadal population growth: A case study of Dhule district”, Journal of research and development, Vol-03 Sep-Oct. 2013 Pp. 10-14.
18. Patil J. G., Badgujar A.A. & Patil A. T. (2012): “Comparative study of the trends of sex ratio in different district of Khandesh Region, 29th National level conference on Sustainable rural development with inclusive approach, Dec. 2012 Pp. 82-85.
19. Srivastava S. C. (2004) studies in Demography, Anmol Publication, Delhi.
20. Sawant S. B. & Aliwale A. S. (1994): Mehta Publishing House, Pune. Pp.18-145.
21. Sharma R.K. (2004): “Demography and population problems” Atlantic Publishers and Distributors, Nice Printing Press, Delhi. Pp. 1-6.
22. Sunil A. Deore (2019) A comparative study of health facilities in Malegaon and Nandgaon tahsils of Nashik district. PhD thesis. P. 2 to 5, 24 to 34, 46, 47, 51 to 58, 187 to 191.
23. Rathod H. B. (2012): “A study of growth and density of population in Udgir tahsil”. Latur Geographer, Vol. I, Issue. I May 2012, Pp. 58-60.
24. Thomas Malthus (2011): “A Essay on the principal of population” Atlantic Publication & Distribution (P) Ltd. New Delhi. Vol.-I.

Government Publications & Reports

1. District census handbook, Nashik district 2001 & 2011.
2. Directorate of socio economic review 2005-06 to 2015-16.
3. Gazetteer of Maharashtra, Nashik District.
4. Government of India, the gazetteer of India, history & culture.
5. Government of India (2006), Annual Report 2005-06, Ministry of Health and Family Welfare, New Delhi, 2006.
6. Malegaon Municipal Corporation, Draft report. 2012.

7. Ministry of Health and Family Welfare
(2015). Rural Health Statistics 2014-15.
[online] Government of India. Available at:
http://wcd.nic.in/sites/default/files/RHS_1.pdf
f [Accessed 31 Oct. 2017].
8. Taluka Krushi Adhikari tahsil report,
Malegaon & Nandgaon.
9. Survey of India, Toposheet No. s: L/10, L/13,

Women in the Teaching Profession: Problems and Challenges: A Special Reference To Female Lecturers

Dr.Prathima.PS¹ Sheril Tellis² kusuma PS³ Hajira Khanum⁴

¹Hod, Department of Economics, the National College, Basavanagudi

^{2,3,4}Students, Economics, The National College, Basavanagudi

Email:Ncbeconomicshod@Gmail.Com

Abstract : A teacher is a student's mentor, advisor, philosopher, and friend. A teacher not only influences the lives of students but also works for the betterment of society. The teacher is a role model. Many people believe that women can be better teachers than males since few attributes are necessary for this career, such as patience, care, and affection, and women have these qualities in greater abundance than men. Higher education has changed dramatically in recent decades, with new policies governing teacher workload. They must also fulfill additional research, extension, and corporate life obligations. Female teachers confront the issue of balancing work and family life in this situation. Thus the present study aims to know about the stress level and challenges faced by the female lectures of higher education. Furthermore, the study aims to clarify the real situation of Indian working women in the teaching profession as well as to identify the major issues confronting female lectures, and give suggestions to improve female lectures performance in their field. The current research uses the descriptive survey method. The convenience sampling method will be used to select 50 female lecturers working in colleges in Bangalore. A self-structured questionnaire will be used to collect data.

Key words: Higher education, working women, female lecturers, challenges, problems

Introduction

Teaching, a noble profession is a daunting and challenging task. It is rather evident that women are significantly over-represented in the profession of educators. As per the data from the education department, more than 80% of all teachers are women. A greater reason for this trend is that school, college timings make it easier for women to manage work and family. So, women who are ambitious and career-oriented as well as want to look after their household responsibilities find teaching to be the most convenient and valuable profession. For many years teaching was seen as a comfortable, stable job with predictable tasks to perform. However, now with pedagogy being as disruptive as it is, teachers who are reluctant to change and relearn are unable to keep up. In the present era, with the advent of new methodologies in teaching and the way digital and smart learning has made inroads into the field of education, the role of teachers has also greatly evolved over a period of time. Today, a teacher is faced with the arduous task of keeping him/herself abreast with the latest inventions and strides in the field of medicine, education, science, art and etc. Upgrading their skills and knowledge from time to time is thus necessary and is an utmost priority today. They are facing multifaceted problems and stresses due to increasing demand and expectations from the society. Social status, salaries and general service condition of women teachers are far from satisfactory. There are various kinds of problems which women teachers are frequently facing.

Classroom challenges are part of the life of a teacher, and a good teacher always overcomes them. Some of the common challenges teacher's faces include lack of teamwork, minimal personal time, working towards long-term goals, arguments and student excuses, work family balance etc. Addressing these challenges can help improve teachers' emotional well-being and enhance students' success rate, thereby improving the ultimate quality of education.

Objectives

1. It focuses status of women in teaching profession in colleges.
2. Analyze the constraints that lecturers face when managing their professional and family responsibilities.
3. To suggest the efforts needed to improve the performance of teaching staff in their profession.

Research methodology

The population of the study consisted of female lecturers in colleges in bangalore during the period of 18th may to 28th may 2022

Sample of the study: a questionnaire was developed on google form to get data

Information about the challenges faced by women lecturers in teaching profession.

Sample size of the study: total forty five female lecturers in colleges in bangalore were covered in the study.

Sample design: convenience sampling

Sources of data

The study involves critical evaluation and analysis of primary data. A questionnaire was designed and formulated to find out the problems

faced women lecturers in teaching profession. Secondary data is also used for the study. Data were extracted from various sources such as research articles, publications and authenticated websites.

Research instrument:

The tool used is questionnaire and personal interview. Following facts were kept in mind while preparing the questionnaire: We tried to construct the questionnaire in such a way that it would work as a logical component of a well-thought-out tabulation plan, as well as to write it in plain english. Multiple-choice questions make up the majority of the questions. We started by making a draught copy of the questionnaire to make sure the questions were in the right sequence We also paid special attention to the fact that the questionnaire should include simple

but clear instructions for the respondents so that they have no trouble answering the questions.

Data analysis

Women instructors play an important part in the entire development of the family; yet, they confront difficulty in balancing family and professional obligations. Working women, in general, serve as both money generators and primary carers for their families' children. Working women may find it difficult to fulfill both familial and professional obligations as a result of their multiple roles. In light of this context, this section looks at the difficulties women lecturers experience in balancing work and home responsibilities. Eight variables were established and evaluated independently in order to analyse the constraints experienced by female teachers. Data was collected from 45 female lecturers via an e-questionnaire.

Diagram: problems and challenges female lecturers in teaching profession



Challenges	Yes	No
Family support	88.9%	11.1%
Balance between home and working place	66.7%	33.3%
Respect from male members	68.9%	31.1%
Personal leave	42.2%	57.8%
Clerical work	84.1%	15.9%
Student interaction	28.9%	71.1%
Sanitary facility	53.3%	46.7%
Promotion in working place	68.9%	31.1%

Table: problems and challenges female lecturers in teaching profession

The results show that there were 28.9 percent of respondents aged 31 to 45, 26.7 percent of those aged 46 to 60, and 44.45 percent of those aged less than 30. Permanent lecturers

account for 35.6 percent, temporary lecturers account for 35.6 percent, and part-time lecturers account for 28.9%. The majority of women's faculties work because they want to and because

they need to. A total of 71 percent of female lecturers have difficulties as a result of working longer hours than required. However, 84 percent of female lecturers must engage in clerical work in the college, which is one of the problems they confront in balancing their family and their job. Furthermore, 52% of female professors felt that managing their family and profession is difficult when they are frequently asked to attend meetings after hours and this has gone on for a long time. The majority of them believe that official authorities do not respond quickly to complaints. 53.3 percent of faculty members do not have access to sanitary facilities in the workplace. Few faculties are experiencing difficulties as a result of a lack of family support, lack of respect from male faculty, difficulties taking personal leave, and difficulty with work promotion and student interaction. However, 88.9% of female lecturers believe that women will be required to work in the teaching profession in the future.

Findings

In our study, we found that temporary and part-time lecturers face difficulties communicating with students, difficulty taking leave, officials who do not act on their complaints and male professors who do not respect them. They can, however, strike a balance between career and family life. Permanent full-time lecturers, on the other hand, have no problems interacting with students or taking personal leave, and the official authority responds quickly to their complaints. Male faculty members respect them, but they need to work more than just teaching; they need to be involved in clerical work, and they face challenges managing their family and their profession. Working women are stressed, according to the survey, due to an imbalance of job, family, and social life. According to the above conversations, most female lecturers have issues connected to their incapacity to spend quality time with their families as a result of severe workloads that cause stress and work-family conflict. Many female lecturers suffer from psychological stress as a result of an unbalanced professional, family, and social lives. However female lecturers believe that women will be required to work in the teaching profession in the future.

Suggestions

There are many problems that female lecturers have to face .it is necessary to concentrate on a few aspects in order to make the employment of female professors more comfortable. The study reveals that a family-friendly policy and practice that encourages the involvement of lecturers as

well as the overall development of the community has implications. Social support issues and work-family balancing issues are not new. Social assistance must also improve in order to improve work-family balance. The findings also point to the importance of a family-friendly policy and its implementation in order to support women lecturers who make major contributions to their families, communities, and country. A working woman's ability to improve her social status is in her own hands. At home and in the office, women need to be more proactive and aware of their rights. Women's empowerment will not be achieved unless women decide to speak out against their exploitation, whether on an economic, social, or sexual basis. The policy's implementation must be closely monitored, and data on women's engagement in the organization must be evaluated on a regular basis. This will ensure that top management is aware of any gender discrepancies within the organization, and that appropriate efforts can be made to close those gaps. The woman who works outside the home needs the support of her husband and other family members. To allow them to employ her abilities outside of the home, they must share domestic tasks. Because india is a traditionally patriarchal and male-dominated nation, a significant elevation of working women's status in society will remain a distant dream without the positive and liberal mindset of the average indian male to encourage them. Seminars and workshops should be organized, and the value of education should be institutionalized through all socialization agents, such as religion, law, media, politics, and family. Aside from socioeconomic improvements, policies must be developed at the political level. Parents and family members should work together to encourage and motivate to progress. According to the poll, the firm exhibits a lack of respect for its employees. Special preparations for the care of female lecturers should be made. The first thing that society should take is to help working women feel more at ease. Inequality in the workplace affects a small number of female academics. Their grievances should be adequately heard. Salary increases should be made from time to time to incentivize and encourage them to continue with the company. . In the survey, it is noticed that temporary and part-time female lecturers are facing more problems as compared to the permanent full-time lecturers. Special provisions should be framed for temporary and part-time female lecturers so that they can adjust properly between personal life as well as

professional life and to motivate to stay in the organization. Efforts should be done to provide a familiar environment in the organization so that the stress level of women can be decreased.

Conclusion

Women's workplaces are being enhanced and promoted these days. Teaching must shed its status as the profession of last resort for females in society. Females should be encouraged to pursue other careers so that they are not obligated to teach if they wish to work. Also, the importance and responsibilities of a teacher's profession should be explained so that it is not misunderstood as an unappealing but available position. The goal of this study was to learn about the obstacles that female lecturers encounter in reconciling their roles as a mother and a professional. The study discovered that employing female lecturers in economic activity has a number of positive effects on the family's financial situation. Despite the importance of female lecturers in the overall development of the family, the majority of female lecturers face substantial challenges in reconciling their roles as mothers and teachers, particularly when they are required to work longer hours than usual. As a result, the majority of female lecturers experience psychological stress when they are unable to accomplish a work within a set time frame. While they spend significant amounts of time away from their young children and family, this might be a contributing factor to family conflict. Women's nature is a promotion to gain high quality in every field, but if the conditions are not ready, then the reduction of promotion and optimization in work will occur, and so on... Trade unions should try to improve the conditions for women's workers in many areas, for example, maternity leave is easily given to women and can help them achieve higher posts. Women's nature is a promotion to gain high quality in every field, but if the conditions are not ready, then the reduction of promotion and optimization in work will because women workers are frequently subjected to sexual harassment, the government should impose strong penalties for such crimes. Additionally, public transportation can be risky for women, and the government should conduct more inspections. Given the value and requirements of female participation in the teaching profession. Therefore a fundamental change is required in the attitudes of employees, family members, and public.

Reference

1. Barati, a., arab, r. O., & masoumi, s. S. (2016). Challenges and problems faced by

- women workers in india. Chronicle of the neville wadia institute of management studies & research, 76-82.
2. Kumari, v. (2014). Problems and challenges faced by urban working women in india (doctoral dissertation).
 3. Panchal, p., belani, s., & darji, m. (2016). The challenges faced by indian working women to balance professional and social life in 21st century. international conference women in science and technology. Creating sustainable career, 60-65.
 4. S.p. Naik, "education for the twenty first century" .new delhi: anmol publications, 2008
 5. S. Drudy, "gender balance/gender bias: the teaching profession and the impact of feminization".
 6. Gender and education. Vol 20, no 4, pp. 309– 323, 2008.
 7. S. Acker, "teachers, gender and careers". The falmer press, new york. 1989
 8. A.m, sultana. "constraints faced by working and non-working women in their families". Australian journal of basic and applied sciences, vol7, no 6, pp. 719-722. 2013.
 9. L booth. "working mothers at risk from too much guilt". I village limited. 2000
 10. Karat, b. (1997). The multiple struggles of women. Frontline, 14(19). [2] andal, n. (2002). Women and indian society: options and constraints. New delhi: rawat publications. [3] chandra, s. K. (1993). Women's development: problems and prospects.
 11. Majumdar, m. (2004). Social status of women in india. New delhi: dominant publishers and distributors. [5] varsa, kumari.(2014), m.a thesis on problems and challenges faced by urban working women in india
 12. Antoniadis, r. (1975). Working women: problems and prospects. Manuals and user guides ilr collection.26:271-296 (volume publication date august 2000) <https://doi.org/10.1146/annurev.soc.26>
 13. www.ilo.org
 14. www.workingwomensforum.org
 15. <http://ignited.in/i/a/304569>

A Study of Internet Awareness among Higher Secondary School Students

Dr. (Mrs.) P. Kanmani

Assistant Professor Government College of Education for Women Coimbatore – 641 001.

Abstract: Education is the information that you are taught by others and what you learn on your own. It is a life's long journey for every person. A person experiences most of their education through school from grade school all the way to high school and even college. Teachers in educational institutions direct the education of students and might draw on many subjects, including reading, writing, mathematics, science, and history. The Internet supplements the traditional tools you use to gather information, Data Graphics, News and correspond with other people. Used skilfully, the Internet shrinks the world and brings information, expertise, and knowledge on nearly every subject imaginable straight to your computer.

Introduction

The country, information, including access to the Internet, will be the basis or personal, economic, and political advancement. The popular name for the Internet is the information superhighway. Whether you want to find the latest financial news, browse through library catalogues, exchange information with colleagues, or join in a lively political debate, the Internet is the tool that will take you beyond telephones, faxes, and isolated computers to a burgeoning networked information frontier. The Internet supplements the traditional tools you use to gather information, Data Graphics, News and correspond with other people. Used skilfully, the Internet shrinks the world and brings information, expertise, and knowledge on nearly every subject imaginable straight to the computer.

Need For the Study

Today, with the increasing global competition, changes in production techniques transformation of workplace, our school education needs to enable students with employment-orientated skills. All these developments have made the knowledge of computers necessary to everyone. Hence it has become necessary to introduce computer education at school level. The widespread use of computers has led to another revolution called internet revolution. The internet is often termed as the network of networks; it is the world's largest computer network and is scattered all over the globe. Nowadays it is possible to access any information through the internet. The students used to spend their time in library searching for information in books and journals. Nowadays they use web search engines and figure out the web sites containing the required information. The information sharing has become very easy due to access. Chatting and downloading anything from internet are regarded as higher-level applications of internet. The internet is a powerful means of communications,

dissemination and retrieval of information and it has made tremendous impact on the academic activities of the faculty, researchers, and the students.

Statement of the Problem

A Study of Internet Awareness among Higher Secondary School Students.

Operational Definiition

Internet

Galbreath (1997) has defined the internet simplistically as 'a network of network with universal addressing scheme allowing real time computer to computer, local independent communication and information exchange'.

Awareness

Webster's new dictionary (1990) defines awareness as "Cautions of something" (p-50). It means having knowledge or realization of something that affects the surrounding.

Functional Definition

Awareness

Awareness is the state or ability to perceive, to feel, or to be conscious of events, objects or sensory patterns. In this level of consciousness, sense data can be confirmed by an observer without necessarily implying understanding. More broadly, it is the state or quality of being aware of something.

Objectives of the Study

The main objective of the present study is as follows

1. To find out the significant difference between Boys and Girls higher secondary school students in their awareness of internet.
2. To find out the significant difference between Rural and Urban higher secondary school students in their awareness of internet.
3. To find out the significant difference between Tamil and English medium higher secondary school students in their awareness of internet.

4. To find out significant difference between Arts group and Science group higher secondary school students in their awareness of internet.
5. To find out whether there is significant difference in Internet awareness of higher secondary school students in respect of their religion, community and type of schools.

Null Hypothesis

1. There is no significant difference between Boys and Girls higher secondary school students in their Internet awareness scores.
2. There is no significant difference between Rural and Urban higher secondary school students in their Internet awareness scores.
3. There is no significant difference between Arts and Science higher secondary school students in their Internet Awareness scores.

Table -1, Awareness of Internet Score: Sex

Gender	Number	Mean	S.D	t-value
Boys	62	150.73	26.55	-3.3464**
Girls	118	135.79	31.78	

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores of boys and girls students. The mean score of boys' students is higher than the girls' students. The calculated t-value (3.35) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of boys and girls' students. Hence the null hypothesis is

Table-2, Awareness of Internet Score: Location of the School

Location	Number	Mean	S.D	t-value
Rural	90	146.3	28.544	2.365
Urban	90	135.57	32.243	

From the above table , it is inferred that, there is difference in the mean value of awareness of internet scores among rural land urban school students. The mean score of rural school students is higher than the urban school students. The calculated t value (2.37) is less than the table value (2.60) at 1% level of significance. Therefore, there is no significance in the awareness of internet of rural and urban school

Table-3, Awareness of Internet Score: Medium of the school

Medium	Number	Mean	S.D	t-value
Tamil	90	138.87	31.439	0.899
English	90	143	30.259	

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores among Tamil and English medium school students. The mean score of English medium school students is higher than the Tamil medium school students. The

4. There is no significant difference in the Internet awareness score among higher secondary school students who are studying in government, government aided and private school.

Scope of the Study

The present investigation is an attempt to study the school students' internet awareness, studying in government, government Aided, and Private schools located in Coimbatore District. The findings of the study help to understand the level of internet awareness of students.

Analysis and Interpretation of the Data Gender

The following table gives the mean and standard deviation of awareness of internet score and t-value with reference to Gender.

**significant at p=0.01 level

'there is significance difference in the awareness of internet of boys and girls students' is not accepted. Thus, Gender of the students contributes for the awareness of internet.

Location of the School

The following table gives the mean and standard deviation of awareness of internet score and t-value reference to location of the school.

students. Hence the null hypothesis **'there is no significant difference in the awareness of internet of rural and urban school students'** is accepted. Thus, location of the students does not influence internet awareness.

Medium of the School

The following table gives the mean and standard deviation of awareness of internet score and t-value reference to medium of the school.

calculated t value (0.899) is less than the table value (1.97) at 5% level of significance. Therefore, there is no significance in the awareness of internet of English medium and Tamil medium school students. Hence the null hypothesis **'there is no significant difference in**

the awareness of internet of Tamil and English medium school students' is accepted.

Thus, Medium of the school students does not influence internet awareness.

Table-4

Awareness of Internet Score: Course of the Study

Course	Number	Mean	S.D	t-value
Science	110	147.49	28.13	3.59**
Arts	70	130.63	32.26	

**significant at p=0.01 level

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores of Science and Arts students. The mean score of science students is higher than the Arts students. The calculated t-value (3.59) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of Science and Arts students. Hence the null hypothesis is **'there is significance difference in the awareness of internet of Science and Arts students'** is not accepted.

Thus, Course of the Science and Arts students contributes for the awareness of internet.

Findings

The data was analysed by using descriptive statistics, t-test. The findings of this study are as follows

The calculated t-value (3.35) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of boys and girls students. It shows that sex of the students contributes for the internet Awareness.

The calculated t value (2.37) is less than the table value (2.60) at 1% level of significance. Therefore, there is no significance in the awareness of internet of rural and urban school students. This indicates that location of the students does not influence for internet awareness. The calculated t value (0.899) is less than the table value (1.97) at 5% level of significance. Therefore there is no significance in the awareness of internet of English medium and Tamil medium school students. This shows that Tamil and English medium of the school students does not influence internet awareness.

The calculated t-value (3.59) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of Science and Arts students. It indicates that Course of the Science

Course of the Study

The following table gives the mean and standard deviation of awareness of internet score and t-value with reference to course of the study.

and Arts students contributes for the internet awareness.

Conclusion

The internet is often termed as the network of network, it is the world's largest computer network and is scattered all over the globe. Internet has evoked the interests of school students. The ambitious projects of providing computer education to some selected government, government aided, and private school can create a positive impact among students. The project is successful in enhancing their internet awareness. The findings of present study indicate internet awareness among higher secondary school students in Coimbatore district is high. The overall results of the study suggest the need effective learning. Students who are highly motivated in using internet will learn more effectively than students who don't have internet awareness.

Reference

1. Kevin Thomas, Marco A. Muñoz(2016), *Hold_the Phone!_High_School_Students'_Perceptions_of Mobile_Phone_Integration_in_the_Classroom, American Secondary Education*, Vol. 44, No. 3
2. Wilfried_Admiraal(2015), *A Role-Play Game to Facilitate the Development of Students' Reflective Internet Skills.*
3. Suzan Lemma Gencer and Mustafa Koc (2012), *Internet Abuse among Teenagers and Its Relations to Internet Usage Patterns and Demographics*, Vol. 15, No. 2
4. Denise B. Accordino, Michael P. Accordino(2011) , *An Exploratory Study of Face-To-Face and Cyberbullying in Sixth Grade Students*, *American Secondary Education*, Vol. 40, No. 1
5. Jacqueline____Leonard, Carolina____Napp, Shade Adeleke_(2009), *The High School Journal*, Vol. 93, No. 1.

Economic Development and Human Development

Mrs. Kamble Shiladevi P.

Assistant Professor, Late B.P.E.G.College ,Hanegaon Tq.Degloor, Dist Nanded

Abstract: If we observed, the basic purpose of development is to enlarge people's choices. It concern with the sustainable improvement in the quality of life for all people. The raising per capita income and consumption is part of the purpose of development but reducing poverty, expanding access to health services and increasing educational levels are also important, meeting these goals requires a comprehensive approach of development. So the human development approach is rediscovery in the area of economic development. The present paper is trying to find the concept of human development which has relates with the country's economic development. The concept of economic development has undergone with many conceptual framework, one of the most important and desirable concept of human development which gained currency after the year nineteen ninety. Thus the present paper illustrates the indicator of Human development. The present paper also explains the report of human development composite by the UN. Present paper is trying to explain main factors included in the composition of human development report. Now every nation's economic development has measured by their human development. Now the HDI (Human Development Index) is an alternative measure that takes into account social and cultural growth alone. So the present paper explains the how economic development and human development interrelated with each other.

Keywords: Human development, Economic development, Index, Longevity, Gross enrollment ratio etc.

Introduction:

The study of development is not a new. Aristotle (384- 322 BC) argued that "Wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else." Another thinker Immanuel Kant (1724 - 1804) also explained, human beings as the real end of all activities, he observed so act as to treat humanity, whether in their own person or in that of any other, in every case as an end with all, never as means only. And Adam Smith (1723-1796), explained that economic development should enable a person to mix freely with other without being "ashamed to appear in public. A similar thought has introduced by the modern economics through, including Robert Mathus, Karl Mark and John Stuart Mill. There has remarkable shift in development economic after the 1960. Development economists try to explain why standards of living grow faster in some places than in others. There has an investigation what promotes economic development and what hindered it. The thinking of economist has started about what does and does not help countries to develop in the past several decades.

A clear trend that has emerged in the past few decades is the movement away from narrow measures of standards of living as indicators of development and towards broader more comprehensive indicators of quality of life. Most of the economists are agree that economic development should mean an improvement in people's quality of life. Income per person is a

good indicator of quality of life. Higher incomes allow people to do more of the activities that matter to them but there have some aspects of quality of life that are not clearly linked to incomes because of the some limitation of income as an indicator of quality of life ,overtime economist have expanded the range of measurements used to access economic development. The most successful attempt at broadening the definition of economic development and recognizing the subjectively of quality of life has come from the idea of "Human development" Mahbub- Ul- Haq a leading Pakistani economist, helped pioneer the concept while working at the United Nation Development Programme (UNDP) and was responsible for starting the human development report, which is now published annually by the U.N.

Objectives of the Study:

- i) To understand the concept of Economic Development.
- ii) To explain the concept of Human Development.
- iii) To illustrate the indicator of Human Development.
- iv) To find out the interrelation between Economic Development and Human Development.

Hypotheses:

- i) The concept of economic development depends on human welfare.

- ii) The human development is the main concept which included to measure economic development.

Research Methodology:

The present paper has developed by using the secondary sources. The published books journals, newspapers, articles, government reports, online databases and views of writers are used for this study.

Subject Analysis:

Economists have debate on the many different approaches to measuring economic development and human development. The well known Indian Nobel Prize winner economist Amartya Sen written that development is the expansion of the capabilities of people to lead the kind of life they have reason to Cherish. It means people wants more fulfilling life .The principal goal of development policy to create sustainable improvements in the quality of life for all people. It means raising per capita incomes and consumption is part of the goal, there has other objectives such as reducing poverty, expand access to health services, and increasing educational level are also important. Meeting these goals requires a comprehensive approach to development. The Idea of development has multiple goals.

The traditional development thinking has fail to meeting the comprehensives and lesions included in the new thinking of development. It emphasizes the need to reach beyond economic s to address societal issues in a holistic manner .The new perspectives come across with new visions such as equality, Education, Health, the environment, culture and social well being. The human development concept analyzes the new approach of economic development which included societal issue.

i) The concept of human development:

The UNDP Human Development Report was established in 1990which has developed by the influential work of Amartya Sen ,Mehboob –Ul_ haq, Richard Jolly, francs Steward and Meghanand Desai at the UNDP (United Nation Development Programme) They provided new frame work known as ‘human Development ‘embraces the enlargement of all human choices, many human choices extend far beyond economic well being ,knowledge ,health a clean physical environment ,political freedom and simple pleasures of life are not exclusively or largely dependent on income ,national wealth can expand peoples choices in

these areas but it might not The use that people make of their wealth, not the wealth itself , is decisive and unless societies recognize that their real wealth is their people ,an excessive obsession with material wealth can obscure the goal of enriching human lives.Thus the conceptually human development is the combination of people’s entitlements and actual attainments in the crucial aspects of their lives such as education, health and livelihood, taken together, these three elements, the sum of outcomes relating to schooling, health services and quality of life chances such as life expectancy and nutrition and importantly income. Human development has been defined as the “Process of enlarging people’s choices.” The Human development explain that one has to lead a long and healthy life and in the process to be educated and to enjoy life and in the process to be educated and to enjoy a decent standard of living. Also there have additional choices include political freedom, guaranteed human rights and self respect. To achieve such type of choices public policy play a vital role. Thus Human development report has a composite of the measurement of indicators which has followed by the government by the public policy .Public policy must be developed by the government agency which has depended on greater link between economic growth and human choice.

The government should design the policy in which the land reform, progressive tax services to reach all of the deprived population the removal of barriers to the entry of people in economic and political spheres and the equalization of their access to opportunities and the establishment of temporary social safety nets for those who may be bypassed by the markets or public policy actions. Such policy packages are fairly fundamental and will vary from one country to another but some features are common to all of them.

i) Development is analyzed and understood in terms of people participate in it or benefit from it the touchstone of the success of development policies becomes the betterment of people’s lives ,not just the expansion of production process.

ii) Human development is assumed to have two sides one is the formation of human capabilities such as improved health, knowledge and skills, the other is the use people make of their acquired capabilities for employment, productive activities, political affairs or leisure’s society needs to built up human capabilities as well as ensure equitable access to human opportunities considerable human

frustration results if the scales of human development do not finally balance the two sides.

iii) There is need to make a careful distinction is maintained between ends and means people are regarded as the ends but means are not forgotten. The expansion of GNP becomes an essential means for expanding many human options but the character and distribution of economic growth are measured against the yardstick of enriching the lives of people production processes are not treated in an abstract vacuum They acquire a human context.

iv) The human development analysis political cultural and social factors given as much attention as the economic factors. The study of the link between the economic and non economic environment is one of the most fascinating and rewarding aspect of this analysis.

v) This human development aspect explains that people are both the means and the ends of developments but people are not regarded as mere instruments for producing commodities through an augmentation of "human capital" The aspect needs to gives attention that it is always remembered that human beings are the ultimate end of development not convenient fodder for the materialistic machine.

Thus the human development has concerned not only with using these human capabilities (through investment in people) but also with using these human capabilities fully (through an enabling framework for growth and employment). Human development has four essential pillars equality, sustainability, productivity and empowerment.

ii) Measuring the human development:-

When one has measure the national development it is easier because it measures by the national income but when we measure the human development, there is a need for different indicator which would cover both social and economical aspects of people. Human development index is based on social and economic aspects. The GDP or income is a most predominant one in obtaining valued outcome in the course of development on the other hand the human development indicators are most appropriate in capturing desirable 'outcomes' for which the means are ultimately engaged in the process of development.

iii) Human Development index:-

Human Development index (HDI) focuses on three measurable dimensions of human development living a long and healthy life being educated and having a decent standard of life.

Thus it combines measures of longevity as measured by life expectancy at birth, education attainment as measured by a combination of adult literacy (2/3 weight age) and combined primary, secondary and Tertiary enrollment ratios (1/3 weight ages) and standard of living as measured by real GDP per capita (PPP\$) it allows a better and broader view of a countries development than does income alone.

For the construction of the index fixed minimum and maximum values have been established for each indicator of human development index.

1. Life expectancy at birth: 25 years and 85 years.
2. Adult literacy: 0% and 100%
3. Combined gross enrolment ratio: 0% and 100%
4. Real GDP per capita (PPP\$): \$100 and \$40000

The performance of each dimension is expressed as a value between 0 and 1 by applying a general formula.

Dimension index: $\frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{minimum value}}$.

The HDI is a simple average of the life expectancy index, educational attainment index and adjusted real GDP per capita (PPP\$) Index and so it is derived by dividing the sum of the three indices by 3.

$\text{HDI} = \frac{1}{3} (\text{Life expectancy index}) + \frac{1}{3} (\text{Education index}) + \frac{1}{3} (\text{GDP index})$

The countries are ranked according to their HDI value. The performance is expressed between the value of 0 and 1. Thus the countries with 0.800 and above HDI value are considered as high HDI countries. Countries having HDI value between 0.500 – 0.799 are considered as medium HDI countries and countries having below 0.500 HDI value are considered as low HDI countries.

After the Second World War, development economics emerged as a distinct field of study. The HDRs (Human development Reports) have stimulated discussion world-wide leading, what now is called human development. Which include international and national government, policy makers, planners, opinion of leaders, parliamentarians, media, NGOs and various discussions of members of the civil society?

Relationship between economic development and human development:

The concept of development human development is an evolving one to previous development concept which considered that investing in improving human capabilities to contribute to economic development. Human development is the knowledge, skills, capabilities, attributes and

varies characteristics they possess. It is a set of skills, capabilities and experiences that the individual acquires and enables him to participate in economic life and gain income, which can improved through investment in education, health care, training and other forms of human capital.

The relationship between human development and economic development is a two way relationship, as each of them is reflected negatively and positively on the other that economic growth takes through improving human capabilities and achieving desired growth reflected in human development as it expands options in front of human resources in particular for individuals in general.

The human development is a social, economic and political process by its nature and human beings are its object and tools, and at the same time, its objective. The human development is the main objective of every development policy. To obtain economic development the human development is the most and prior condition of all process of development. The human development and economic development is interrelated with each other for country's overall development.

Conclusion:

The process of enlarging people's choices is known as human development. It has explain with people must be at the center of development process. It has argued that the development has to be woven around the people not people around the development. Now development concept has been shifted to quantitative factors to qualitative factors .The economic development is depend on well-being of people which reflects in human development. The ultimate aim of every country's development strategy is to improve the quality of life of country's people. There has clear trend emerged in the past few decades away from narrow measures of standard of living as indicator of development towards broader and more comprehensive indicator of quality of life. Most of the economists and readers are agree that economic development should mean an improvement in people's quality of life. Human development emerges as an important approach to development. Economic development now a day's widely explained that higher GNP growth, the expansion of output and wealth are only a means to development, the end of development is expansion of human capabilities. Human beings are the in the heart of any pace of development of society. The economic development and human

development is strongly interrelating with each other, without human development any country cannot fulfill economic development.

References:

- i) Villard Henry H, "Economic development", Holl Rinehart and Nlinston New York Aug, 1961.
- ii) P.Subbarama Raju & C.Sudhakar, "Development programmes and social transformation", The Associated Publisher, Delhi-2006.
- iii) Michael P. Todaro.Stephen C. Economic development, Smith Pearson education, 2007.
- iv) Desai B.Sonalde,Dubey A,Joshi B.Sen M.Sharif A.Vanneman R, "Human development in India, challenges for society in transition,"Oxford University Press-2010
- v) Several Internet online sources.

Insurance Literacy – Tool to Save Our Life

Mrs. A. Maria Bharathi¹ Dr. (Smt) R. Muthu Lakshmi²

¹Research Scholar (Part Time) Assistant Professor Sri Sankara Bhagavathi Arts and Science College,
Kommadikottai, Reg.No: 19121261012008,

²Research Guide, Associate Professor, Head – Commerce, Research Centre, Sri Sarada College for
Women, Tirunelveli.

Abstract: *All parents want their children to be taken care of even when they are not around. Life insurance makes sure your loved ones won't suffer financially in your absence. There is no way to replace a loved one, but planning with life insurance does help in taking care of the financial needs of the family's. Life insurance help you achieve those goals by helping you build a financial corpus with the protection of a life cover. Life insurance plans inculcate a habit of disciplined saving. Paying a little amount as an insurance premium each month will help you accumulate funds. An insurance policy is one of the most valuable instruments that allow us to enjoy such benefits. It is crucial to realize the importance of insurance and understand how they can positively impact our lives. The chapter attempts to measure the Insurance literacy leads to development of awareness among scheduled community people in Tuticorin District. Primary data collected through structured interview scheduled has been used for analysis and presented in the study. The result of the study that Insurance literacy is low among the scheduled community people in Tuticorin district.*

Introduction

Insurance awareness plays a key role in ensuring policyholders' protection and also in development of insurance sector. Lack of insurance awareness has proved to be one of the hurdles in penetration of insurance across the country. Insurance occupies an important place in the complex modern world since risk, which can be insured, has increased enormously in every walk of life. Insurance being complex and a subject matter of solicitation is relatively not easy for a common person to understand. The Consumer education is an important prerequisite for promotion on insurance inclusion and enhancing public awareness on key local risks and insurance policy available that suits their needs. Managing finances through different stages in life can be challenging in various ways. It is necessary to chart a plan that evaluates how income needs to be distributed to have a beneficial financial portfolio. Through the different short and long-term life goals, the need for financial protection remains constant. Financial literacy advocates making financially responsible decisions to avoid being economically vulnerable or to face any financial adversity. Trusted Since 1906 Page 3 of 6 In India the need for financial literacy is getting greater because of the low level of literacy and large section of population which remains out of the formal financial set up. India still has large sections of people who are resource poor and who operate on the margin. These groups are really vulnerable towards persistent downward financial pressures. Moreover with no established banking relationships, the poor

sections are pushed towards expensive alternatives without adequate financial literacy.

Statement of the Problem

While the importance of insurance is widely recognised, for individuals as well as for society as a whole, the number of individuals actually buying insurance is dramatically low. After stressing this concept in this paper we focus on the critical comparison between three strands of research: financial literacy, insurance literacy, and behavioural insurance literacy and decision-making. Financial literacy has assumed greater significance in recent years. It is popularly believed that people need to become more self-dependent in the upcoming years. Growing competition has forced financial service providers to offer hybrid products with composite features. Many users have left these ill-equipped products to cope with the complicated choices which they need to make due to insufficient awareness and improper awareness level.

With the changes in working life globally, the income stream of individuals has all become more incoherent. The income level of an individual fluctuates at different timelines such as the periods of high income followed by low level of income or no income at all. This pattern may be reversed. With the increase in mortality age; people need to make greater provisions for their retirement, health care and insurances to cover uncertain eventualities. Social security schemes offered by the government are also shrinking gradually. Thus with the changing socio-economic environment of personal finance one must have necessary financial skills to make

appropriate investment decisions. Finance Education can play a vital role in equipping individuals with the necessary skills for appropriate investment decisions. This will increase one's ability to choose suitable products that will facilitate in achieving their financial goals. Financial literacy mission can prevent Economic Weaker Sections (EWS) of society from being trapped in complex financial markets which are offering complex integrated products.

Objectives of the Study

The study "Financial Literacy among Scheduled Communities in Tuticorin District" aims to assess the financial literacy level among scheduled community people in general and in particular. The following objectives were made:

1. To know the demographic profile of the scheduled community people in the study area.
2. To analyse the literacy level of scheduled community people in insurance in the study area. viz, Tuticorin district.
3. To offer suitable suggestions to improve the financial literacy of scheduled community people that leads to financial inclusion.

Review of Literature

Rusliza Yahaya, Zuraidah Zainol, Juliana Haji Osman @ Zainal Abidin, Rosmini Ismail (2019)¹ in their study on "The Effect of Financial Knowledge and Financial Attitudes on Financial Behavior among University Students" examine financial literacy among university students in Malaysia. Specifically, this study attempts to examine the relationship between financial knowledge and financial attitudes and also the effects of these variables on financial behavior among university students. The findings reveal that the respondents have moderate level of financial knowledge financial knowledge significantly influenced financial attitudes significantly influenced financial behavior. On the other have, financial knowledge does not any significant influence on financial behavior. This study enriched the literature by identifying factors that influenced financial behavior and provided suggestions to be practiced by universities in developing good financial attitude and financial behavior of students.

¹ RuslizaYahaya, Zuraidah Zainol, Juliana Haji Osman @ Zainal Abidin, Rosmini Ismail (2019). The Effect of Financial Knowledge and Financial Attitudes on Financial Behavior among University Students. *International Journal of Academic Research in Business*, Vol.8, No.8

Poppy Alvianolita Sanistasya, Kusdi Raharjo and Mohammad Iqbal (2019)² in their study on "The Effect of Financial Literacy and Financial Inclusion on Small Enterprises Performance in East Kalimantan" aims to find out the effect of financial literacy on Small Enterprises (SEs) performance and the effect of financial inclusion on small enterprises performance. The result of the study showed that positive and significant effect of financial literacy on enterprises performance and financial inclusion positively affects the performance of small enterprises.

Neha Garg and Shveta Singh (2018)³ in their study on "Financial literacy among youth" the study particularly focus at how socio – economic and demographic factors such as age, gender, marital status and income influence financial literacy level of youth and whether there is and interrelationship between financial knowledge, financial behavior. The study reveals that the financial literacy level among youth is low across the most part of the world that has become a cause of concern. also it has been observed that various socio –economic and demographic factors such as age, gender, income, marital status and educational attainment influence the financial literacy level of youth and there exists an interrelationship between financial knowledge, financial attitude and financial behavior. This paper aims to understand the influence of various factors influencing the financial literacy as understanding the factors that contribute to or detract from the acquisition of financial literacy among youth can help in making policy interventions targeted youth to enhance their financial well – being. Strong endeavour of the world economics to improve the financial well-being of their citizens has contributed to the rising importance of financial literacy as it equips the individuals to take quality financial decisions to enhance their financial well-being

Hypotheses of the Study

To give a specific focus to the objectives, hypotheses have been formulated to test the objectives in clear terms using appropriate statistical tools. For testing purposes, some of the

² Poppy Alvianolita Sanistasya, Kusdi Raharjo, Mohammad Iqbal (2019). The Effect of Financial Literacy and Financial Inclusion on Small Enterprises Performance in East Kalimantan. *Journal Economica*, Vol.15, No.1

³ Neha Garg, Shveta Singh (2018). Financial literacy among youth. *International Journal of Social Economics*, Vol.45, Issue.1

research questions of the study were converted into hypotheses. The study involved the hypotheses which are listed down, proved and explained in detail in the fourth and fifth chapters. Following null hypotheses were formulated for the study.

H₀₂: There is no significant difference in insurance literacy level among the different demographic variables of scheduled community people in Tuticorin district.

Methodology

Primary and secondary data have been collected from different sources and used for analysis. Secondary data required for the study have been collected from various publications of the Reserve Bank of India and various reports of the government of India. Primary data has been collected through a well-structured interview schedule structured by the researcher in consultation with the experts in the field. A Likert five-point scale ranging from strongly agree to strongly disagree has been used to collect a quick response from the respondents.

Significance of the Study

Scheduled community people are economically belonging to the weaker section. They are more vulnerable naturally. They don't have land on their own. They are less educated and poorer in health. Without financial literacy, we cannot expect to make major headway in either financial inclusion or consumer protection. Financial literacy has been assumed a greater importance in recent years, as financial markets have become increasingly complex and there is information asymmetry between markets and the common person which is leading to the latter i.e. common person finding it increasingly difficult to make informed choices.

Scope of the Study

The present study attempts to examine the demographic variables of scheduled community

people and demographic variables influencing the financial literacy among scheduled community people in Tuticorin district. It examines the financial literacy level among scheduled community people in the study area viz. Tuticorin District based on their selected demographic variables. Further, it examines the literacy level of scheduled community people in the banking, insurance, and postal financial services in the study area. viz, Tuticorin district. It aims to offer suitable suggestions to improve the financial literacy of scheduled community people that leads to financial inclusion. The study was done taking the scheduled community people in Tuticorin district into consideration. The survey was restricted to the scheduled community people only in Tuticorin district.

Analysis of the Study

Insurance Literacy Level among Different Gender Group of Scheduled Community People

This part deals with the gender group of scheduled community people and Insurance literacy level. The relationship between independent variable (Gender group) and dependent variable (Insurance literacy level) is established through 't' test. An attempt has been made to find the significant relationship between the gender group of scheduled community people and insurance literacy level, 't' test is used. The hypothesis is framed as follows,

The null hypothesis (H₀₁) - **“There is no significant difference in insurance literacy level among the different gender group of scheduled community people in Tuticorin district”**.

The result of the 't' test for the insurance literacy level among different gender group of scheduled community people is presented in Table 1.

Table 1, Insurance Literacy Level among Different Gender Group of Scheduled Community People

Insurance Literacy Level	Gender Group (Mean Score)		t Statistics
	Male	Female	
Insurance is the best way to save and secure money	4.0599	4.0375	1.235
Insurance will give protection to life and property	3.9683	3.8344	3.098*
Insurance gives confident about returns	3.6901	3.4713	4.648*
Insurance gives timely help for sudden loss to life property	3.2535	3.2261	0.732
Other than life protection, LIC provides loan to its customers	3.1549	3.1083	1.232
There are varieties of policies in insurance to save the money	3.5106	3.3949	2.584*
Insurance schemes are suitable for all kinds of people	3.2923	3.1242	3.269*
There are many number of policies available which suits to fulfil the needs of the people	4.0986	4.0892	0.329
Scheduled communities are well aware about latest policies introduced in the market	4.1303	4.0287	3.177*
Children's plans always give the returns after a long time	3.8803	3.8471	0.761

Source: Computed Data

*-Significant at five per cent level

As the above Table 1 shows scheduled community people are well aware about latest policies introduced in the market and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who are male as their mean scores are 4.0986 and 4.1303 respectively. The Table 4.10 shows there are many number of policies available which suits to fulfil the needs of the people and Insurance is the best way to save and secure money are the high insurance literacy among the sample scheduled community people who are female as their mean scores are 4.0892 and 4.0375 respectively. Regarding the insurance literacy among the different gender group of sample scheduled community people, Insurance will give protection to life and property, Insurance gives confident about returns, there are varieties of policies in insurance to save the money, Insurance schemes are suitable for all kinds of people and scheduled community people are well aware about latest policies introduced in the market are statistically significant at 5 per cent level.

From the table 5.10 it is found that Insurance will give protection to life and property (t=3.098), Insurance gives confident about returns (t=4.648), There are varieties of policies in insurance to save the money (t=2.584), Insurance schemes are suitable for all kinds of people (t=3.269), scheduled community people are well aware about latest policies introduced in

the market (t=3.177) differs significantly with respect to gender group of the scheduled community people. This leads to mean wise comparison of each segment of gender group.

It can be concluded that the scheduled community people who are male have high insurance literacy level regarding Insurance will give protection to life and property (Mean=3.9683), Insurance gives confident about returns (Mean=3.6901), There are varieties of policies in insurance to save the money (Mean=3.5106), Insurance schemes are suitable for all kinds of people (Mean=3.2923), scheduled community people are well aware about latest policies introduced in the market (Mean=4.1303).

Insurance Literacy Level among Different Age Group of Scheduled Community People

An attempt has been made to find the significant relationship between the age group of scheduled community people and insurance literacy level, 'ANOVA' test is used. The hypothesis is framed as follows,

The null hypothesis (H_{01}) - **“There is no significant difference in insurance literacy level among the different age group of scheduled community people in Tuticorin district”**.

The result of the 'ANOVA' test for the insurance literacy level among different age groups of scheduled community people is presented in Table 2.

Table 2, Insurance Literacy Level among Different Age Group of Scheduled Community People

Insurance Literacy Level	Age Group (Mean Score)				F Statistics
	Below 20 Years	20 – 40 Years	41 – 60 Years	Above 60 Years	
Insurance is the best way to save and secure money	4.0000	4.0395	4.0417	4.0820	0.435
Insurance will give protection to life and property	3.9333	3.9435	3.8631	3.7213	3.414*
Insurance gives confident about returns	3.5333	3.6130	3.5714	3.3770	2.883*
Insurance gives timely help for sudden loss to life property	3.0000	3.2599	3.2679	3.0984	3.812*
Other than life protection, LIC provides loan to its customers	3.0000	3.1949	3.0714	2.9508	6.859*
There are varieties of policies in insurance to save the money	3.4667	3.5056	3.4107	3.2295	4.875*
Insurance schemes are suitable for all kinds of people	2.9333	3.2429	3.1607	3.1639	1.711
There are many number of policies available which suits to fulfil the needs of the people	4.1333	4.1017	4.0952	4.0328	0.746
Scheduled communities are well aware about latest policies introduced in the market	4.2000	4.0989	4.0536	3.9836	2.210
Children's plans always give the returns after a long time	3.9333	3.8729	3.8690	3.7705	0.750

Source: Computed Data

*-Significant at five per cent level

As the Table 2 shows scheduled community people are well aware about latest policies introduced in the market and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who are in the age group of below 20 years as their mean scores are 4.2000 and 4.1333 respectively. The table shows that there are many number of policies available which suits to fulfil the needs of the people and scheduled community people are well aware about latest policies introduced in the market are the high insurance literacy among the sample scheduled community people who belong to the age group between 20-40 years as their mean scores are 4.1017 and 4.0989 respectively. The table indicates that there are many number of policies available which suits to fulfil the needs of the people and scheduled community people are well aware about latest policies introduced in the market are the high insurance literacy among the

sample scheduled community people who are in the age group between 41-60 years as their mean scores are 4.0952 and 4.0536 respectively. As shown in the above table that Insurance is the best way to save and secure money and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who belong to the age group of above 60 years as their mean scores are 4.0820 and 4.0328 respectively. Regarding the insurance literacy among the different age group of sample scheduled community people, Insurance will give protection to life and property, Insurance gives confident about returns, Insurance gives timely help for sudden loss to life property, other than life protection, LIC provides loan to its customers and there are varieties of policies in insurance to save the money are statistically significant at 5 per cent level.

Table - 3
Demographic Variables of Scheduled Community People and Insurance Literacy

Demographic Variable	Insurance Literacy			d.f	F Value	Sig at 5% Level	Ho
	Mean	S.D	No. of Respondents				
Age Group							
Below 20 Years	36.13	1.80	15	3	5.687	0.001	Rejected
20-40 Years	36.87	2.77	354				
41-60 Years	36.40	2.52	170				
Above 60 Years	35.40	2.62	61				
Education							
Illiterate	37.02	2.30	37	6	18.560	0.000	Rejected
Primary school Level	35.55	2.28	190				
High school Level	36.31	2.43	188				
Hr.Sec. Level	37.32	2.86	64				
Graduate Level	37.50	2.58	104				
Post Graduate Level	41.06	3.47	15				
Professional	41.50	4.94	2				
Occupation							
Agriculture	35.90	2.17	20	5	16.872	0.000	Rejected
Coolie	35.88	2.51	238				
Self Employed	38.06	2.99	44				
Government Employee	38.42	3.44	26				
Private Employee	37.87	2.39	113				
Others	36.03	2.40	159				
Number of Members in the Family							
Below 4	36.08	2.57	139	2	3.161	0.043	Rejected
4-8	36.70	2.76	436				
Above 8	37.04	1.94	25				
Monthly Income							
Below Rs.5000	35.26	2.12	26	3	16.357	0.000	Rejected

Rs.5000-10000	36.02	2.54	148				
Rs.10001-15000	36.17	2.28	225				
Above Rs.15000	37.59	3.01	201				
Source of Income							
Income from Spouse/Parents	35.79	2.16	195	4	5.698	0.000	Rejected
Salary Income	37.79	2.76	137				
Agriculture	35.86	2.85	15				
Own Business Income	38.35	2.61	42				
Wages	36.19	2.71	211				

Source: Computed data

It could be understood from Table 3 that the computed 'F' value for insurance literacy among different age group of sample scheduled community people is 5.687 and the 'p' value at 5% level of significance is 0.001. As computed value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between age group of the sample scheduled community people and insurance literacy. Table 5.29 shows that the computed 'F' value for insurance literacy among different education of sample scheduled community people is 18.560 and the 'p' value at 5% level of significance is 0.000. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between education of the sample scheduled community people and insurance literacy. Table further shows that the computed 'F' value for insurance literacy among different occupation of sample scheduled community people is 16.872 and the 'p' value at 5% level of significance is 0.000. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between occupation of the sample scheduled community people and insurance literacy. Table further elucidates that computed 'F' value for insurance literacy among different number of members in the family of sample scheduled community people is 3.161 and the 'p' value at 5% level of significance is 0.043. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between number of members in the family of sample scheduled community people and insurance literacy. Table further highlights that the computed 'F' value for insurance literacy among different monthly income of sample scheduled community people is 16.357 and the 'p' value at 5% level of significance is 0.000. As the computed 'F' value is higher than table value, the null hypothesis is rejected. It is inferred that there is a significant difference

between monthly income of sample scheduled community people and insurance literacy. Table further highlights that the computed 'F' value for insurance literacy among different source of income of sample scheduled community people is 5.698 and the 'p' value at 5% level of significance is 0.000. As the computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between sources of income of sample scheduled community people and insurance literacy.

Conclusion

Today's financial world is highly complex when compared with that of a generation ago. Financial education is important to both the security of individuals and the security of nations. To the scheduled community people the financial literacy is very important to make efficient decision on their finance. As compared to urban scheduled community people, the rural Scheduled community people have low level of awareness on finance related matters. Scheduled community people in India have reasonable knowledge on the various savings and investment medium available in the market. But it is very ironical to assess that their knowledge is very much limited to the traditionally know savings and investment avenues like bank saving, holding insurance policy, investment in equities gold or inland/building. To conclude, the government should literate the scheduled community people financially through the camp, seminars, and conference. Then only the scheduled community people can make their investment in an efficient manner.

References

1. Olivia S. Mitchell and Annamaria Lusardi (2015). Financial Literacy and Economic
2. Outcomes: Evidence and Policy Implications. The Journal of Retirement
3. Summer, Vol.3, No.1
4. Oscar A. Stopler and Andreas Walter (2017). Financial literacy, financial advice, and

5. financial behavior. Journal of Business Economics, Vol.87
6. Pallavi Seth (2010). Financial Literacy & Investment Decisions of Indian Investors -
7. A Case of Delhi & NCR. article published in International Conference.
8. Patryk Babiarz and Cliff A. Robb (2014). Financial Literacy and Emergency Saving.
9. Journal of Family and Economic Issues, Vol.35, No.1
10. Peter J. Morgan, Trinh Quang Long (2020). Financial literacy, financial inclusion and
11. savings behavior in laos. Journal of Asian Economics, Vol.68, Issue.5
12. Pipit Rosita Andarsari, Mega Noerman Ningtyas (2019). The Role of Financial
13. Literacy on Financial Behavior. Journal of Accounting and Business
14. Education, Vol.4, No.1
15. Pontus Engstrom and Alexander Mckelvie (2017). Financial literacy, role models and
16. micro- enterprise performance in the informal economy. International Small
17. Business Journal: Researching Entrepreneurship, Vol.35, Issue.7

Role of Behavioural Finance on Investment Decisions: A Comparative Study

Femy Moni¹ Nanet Joy²

¹Assistant Professor Department of Commerce St. Aloysius College, Elthuruth

²Assistant Professor Department of Commerce St. Aloysius College, Elthuruth

E-Mail ID: femymoni009@gmail.com

E-Mail ID: nanetjoy@gmail.com

Abstract: Behavioural finance is an emerging concept that has a greater future scope. Behavioral finance can be defined as "the study of influence of psychology on the behaviour of investors and analysts". The behavioural finance says the impact of emotions, cognitive biases, and various psychological factors that drive the investment decision rather than traditional theories like human beings are rational. So this research intended to study the role of behavioural finance on investment decisions. This is a comparative study based on various demographic features. According to this study, each demographic feature may or may not be significantly different from the factors that influence the respondent's investment decision. We all know females are emotionally weaker than men. The attitude of women towards risk, return and Decision making criteria in investment selection are entirely different from men. The perception, attitude and psychology of women and men are too different. Age, education qualification, income level also have a greater impact on investment decisions. That makes more scope for this study. This study was conducted in Thrissur district. The research gave more focus on the factors which have an impact on investment decisions and also searches for how the investment decisions change due to various demographic features.

Introduction

Behavioural finance can be defined as "the study of influence of psychology on the behaviour of investors and analysts". It means the emotions, cognitive biases and various psychological factors that drive the investment decision rather than rational thinking. This research mainly focused on the impact or role of behavioural finance on investment decisions. The researcher intended to make a comparative study which helps to know how the demographic profile of people affects the investment decision. The behavioural finance theories expanded by numerous researchers, who spoke on gender and investment decisions. The gender predicament in investment decisions intently associated with behavioural finance. Moreover each demographic feature has an impact on investment decisions as well as the selection of investment avenues. The attitude, perception, learning level between gender groups or between age groups or between persons with different qualifications are distinct. So the main point that strikes on the mind of the researcher is that he is not rational about investments but he is judgemental because the emotions are most commonly influenced by his activities. The people may be orthodox or antagonistic, voluntary or involuntary, logical or illogical. Thus the researcher exhilarated to study the impact of various demographic features on investment decisions and to know the awareness level of respondents.

Statement of the Problem

The surging concept "behavioural finance" has a major role in investment decisions taken by each and every person. This study concerned "The

role of behavioural finance on investment decisions". The psychology, emotions, perceptions of different gender groups or in different age levels are distinct. Thus the researcher has made a comparative study. The use of income earned by each person uniquely. The fear about the future leads a person to set aside a certain part of income earned to meet unexpected events. So the researcher tries to study the various notions in behavioural finance and also its effect on investment decisions. The following are the research questions under consideration:

Q1: What are the factors influencing while making investment decisions?

Q2: Whether the respondents are aware about investment avenues?

Q3: How do demographic features impact investment decisions?

Objectives of the Study

The following are the objectives of the study.

To identify the factors which have an impact on investment decisions.

To know the awareness level of respondents regarding various investment avenues.

To discuss the impact of various demographic features on investment decisions.

Significance of the Study

Behavioural finance is an advancing contribution from the field of psychology which says emotions drive the action. This study is confined to consider the emotions, perceptions and attitude of investors from various demographic features and also contemplate the biases that are included in investment decisions. The attitudes of people are different by their gender, by their age or by education qualification. There is a lot

of research conducted by various researchers related to behavioural finance and it sticks to the gender differences in decisions. Thus the study focused on the impact of various demographic features on investment decisions. The role of behavioural finance in investment decisions has more scope in near future because the negative impact of Covid-19 on our economy and monetary transactions may last for a decade or more. Hence it is inevitable to conduct a study on the impact of behavioural finance on investment decisions.

Research Methodology

The research design is descriptive and analytical in nature. The data were collected from primary as well as secondary sources. The primary data were collected by administering questionnaires. Secondary data were collected from websites, Journals and magazines etc. The sample of the study was selected from Thrissur district. The researcher opted for 150 samples via convenience sampling.

Literature Review

Kannadas Sendivelu & Maniya Deepak Shah (2021) tries to find out the impact of behavioural finance on investment decisions of a single parent and Also assess the biases included in it.

Results & Discussion

The study concluded that every individual subjects to some biases.

Dhruv Sharma, Vandana Misra, J P Pathak (2021) tries to study the emergence of behavioural finance and the biases involved in it. The authors give focus on how behavioural finance supplemented the traditional finance theories by introducing behavioural aspects.

Rekha D M (2020) explored the behavioural determinants influencing investor's decisions and the level of influence of these factors on them. The study revealed that the prospect factors represent the most important factor having the highest significant impact on investment decisions.

Dr. Vinay Kandpal & Rajat Mehrotra(2018) attempts to study the behaviour of investors towards investment avenues and factors influencing while taking financial decisions. The study concludes that the behaviour have an huge impact while making wise decisions

Egidijus Bika, et al. (2013) explained the emergence and development of trends in behavioural finance. This research revealed the aims of recognition and emotional factors focusing on a limited number of rational investors.

Table No: 1, Demographic Profile

	Frequency	Percent
Gender		
Male	78	52
Female	72	48
Total	150	100
Age		
20-30	17	11.33
30-40	72	48
40-50	40	26.67
50-60	13	8.67
Above 60	8	5.33
Total	150	100
Monthly Income		
Below 20000	76	50.67
20000-40000	38	25.33

40000-60000	24	16
Above 60000	12	8
Total	150	100
Education		
Below SSLC	18	12
SSLC	30	20
Plus two	34	22.67
Graduate	22	14.67
Post Graduate	18	12
Others	28	18.66
Total	150	100

(Source: Primary Survey)

Interpretation: The demographic table depicts that 52 percent of respondents are male. 48 percent of respondents are coming under the age group of 30-40. Most of the respondents nearly

50.67 percent earned an income up to 20000. Most of the respondents have a minimum plus two qualifications.

Table No: 2, Awareness about behavioural finance

Variable	Frequency	Percent
Aware	134	89.33
Not aware	16	10.67
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that around 90 percent of respondents have heard about the emerging concept behavioural finance.

Table No: 3, Influence of behavioural finance on investment decision

Variable	Frequency	Percent
Always	49	32.67
Often	32	21.33
Sometimes	26	17.33
Rarely	27	18
Never	16	10.67
Total	150	100

(Source: Primary Survey)

Interpretation: The tables depicts the influence of behavioural finance on investment decisions. 32.67 percent are always influenced by

behavioural factors and 10.67 percent of them are not influenced and not aware about that.

Hypothesis 1

H0: There is no significant difference between male and female regarding the influence of behavioral finance on investment decisions.

H1: There is a significant difference between male and female regarding the influence of behavioral finance on investment decisions.

Table No. : 4, Gender wise - Mann - Whitney - Wilcoxon U - Test

	Gender	N	Test statistic	Table value@ 5%	P value	Accept/ Reject
Influence of behavioural finance	Male	78	10.5	2	-0.31334	Reject
	Female	72				
Test distribution is not normal Mann - Whitney - Wilcoxon U - Test Grouping Variable: Gender						

(Source: Primary Survey)

Interpretation: The table depicts the calculated value greater than table value at 5% level of significance. Thus the null hypothesis is rejected

and it means there is a significant difference between the influences of behavioural finance on gender groups.

Table No: 5, Awareness about investment avenues

Variable	Frequency	Percent
Extremely aware	52	34.67
Moderately aware	56	37.33
Somewhat aware	26	17.33
Slightly aware	16	10.66
Not at all aware	0	0
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that all the respondents are aware about the investment avenues in distinct ways. 37.33 percent of respondents are moderately aware about all kinds of investment avenues.

H0: There is no significant difference between male and female regarding awareness about investment avenues.

H1: There is a significant difference between male and female regarding awareness about investment avenues.

Hypothesis 2

Table No. : 6, Gender wise T test

	Gender	N	Test statistic	Table value@ 5%	Accept/ Reject
Awareness regarding investment avenues	Male	78	2.63	1.96	Reject
	Female	72			
Test distribution is normal T test Grouping Variable: Gender					

(Source: Primary Survey)

Interpretation: From the table it is clear that the test statistic is greater than the critical value at 5% level of significance. Thus the null hypothesis is rejected that the male and female get awareness in different ways.

Hypothesis 3

H0: There is no significant difference between age and awareness about investment avenues

H1: There is significant difference between age and awareness about investment avenues

Table No.: 7, Age wise – kruskal- wallis H test

	Age	N	Test statistic	Table value@ 5%	Accept/ Reject
Awareness level	20-30	17	6.524	9.488	Accept
	30-40	72			
	40-50	40			
	50-60	13			
	Above 60	8			
	Total	150			

Test distribution is not normal
Kruskal Wallis H Test
Grouping Variable: Age

(Source: Primary Survey)

Interpretation: From the table it is clear that the calculated value is less than table value. Hence we accept the null hypothesis. That means there is no significant difference between age groups and the awareness of investment avenues.

H0: There is no significant difference between male and female regarding awareness level of individual investment avenues.

H1: There is a significant difference between male and female regarding the awareness level of individual investment avenues.

Hypothesis 4

Table No.: 8, Awareness on individual investment avenues

Investment Avenue	Gender	No.	Mean	Standard Deviation	Calculated Value	Table Value	Accept/Reject
Bank Deposit	Male	39	4.025	.973	.671	1.96	Accept
	Female	36	3.88	.9038			
Post Office Savings	Male	39	3.71	.987	-3.58	1.96	Reject
	Female	36	7.416	6.135			
Insurance	Male	39	4.076	1.04	2.51	1.96	Reject
	Female	36	3.416	1.21			
Share	Male	39	2.79	1.38	2.30	1.96	Reject
	Female	36	2.11	1.17			
Bonds/ Debentures	Male	39	2.74	1.34	2.43	1.96	Reject
	Female	36	2.05	1.10			
Chit Fund	Male	39	4.23	.894	2.63	1.96	Reject
	Female	36	3.66	.97			
Real Estate	Male	39	3.66	1.43	4.18	1.96	Reject
	Female	36	2.5	.92			
Provident Fund	Male	39	3.897	1.23	2.6	1.96	Reject
	Female	36	3.11	1.35			

(Source: Primary Survey)

Interpretation: While considering post office savings, insurance, shares, bonds, chit funds, real estate, and provident fund, according to t-test calculated values are more than the table value, so reject the null hypothesis and accept the

alternative hypothesis that is awareness level of respondents towards various investment avenues are significantly differ in between male and female.

Table No: 9
Sources of awareness

Source	Frequency	Percent
News paper	40	26.67
Television	34	22.67
Friends or colleagues	24	16
Brokers or consultants	18	12
Journals or magazines	12	8
E- sources	22	14.66
Total	150	100

(Source: Primary Survey)

Interpretation: The table shows that 26.67 percent of respondents get awareness about investment avenues through newspapers or

dailies. Least of the respondents get the information from journals or magazines.

Table No: 10
Decision taken on investment

Variable	Frequency	Percent
Independently	27	18
Friends	41	27.33
Family members	38	25.33
Neighbors	15	10
Brokers and consultants	17	11.34
Others	12	8
Total	150	100

(Source: Primary Survey)

Interpretation: The above table depicts that most of the respondents are taking decisions

regarding investment by considering the words of friends, family members or by individually.

Table No: 11, Income set aside for investment

Category	Frequency	Percent
0-25%	79	52.67
25-50%	60	40
50-75%	11	7.33
More than 75%	0	0
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that 53 percent of respondents are keeping less than 25% of income for investment and none of them keep more than 75% of income for investments.

Table No: 12
Variables control the investment decision

Variables	Frequency	Percent
Confidence to invest	28	18.67
Regular review and comparison	7	4.67
Consistent investment strategy	13	8.67
Knowledge about avenues	36	24
Satisfaction with current investment avenues	10	6.66
Risk bearing capacity	32	21.33
Possible returns	24	16
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that 24 percent of respondents are considering knowledge about avenues as a control variable. Least controlling variable is regular review and comparison about 5 percent.

Table No: 13
Investment avenues preferred

Investment Avenues	Frequency	Percentage
Bank Deposit	42	28
Post Office Savings	30	20
Insurance	20	13.3
Shares	6	4
Bonds/Debentures	10	6.7
Chit Funds	26	17.33
Real Estate	0	0
Provident Fund	16	10.7
Total	150	100

(Source: Primary Survey)

Interpretation: The above table mentions that most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues have the least level of risk and most of the respondents have risk averse character.

Table No: 14
Factors considering while making investment decisions

Attributes	Frequency	Percentage
Assured return	130	86.7
Tax benefits	142	94.7
Child education	86	57.3
Daughters marriage	52	34.7
Speculation	33	22.0
Capital gain	21	14.0
Retirement benefit	79	52.7
Secured future	111	74.
Safety of investment	148	98.7
Quantum of investment	127	84.7
Potential risk	150	100
Potential gain	56	37.3
Liquidity	67	44.7
Customer service	31	20.7
Past experience	133	88.7
Time horizon	47	31.3

(Source: Primary Survey)

Interpretation: The table shows that the most concerning factors while making investment decisions are potential risk, safety of investment and assured return. The least affected factor is the capital gain earned from the investments.

Hypothesis 5

H0: There is no significant difference between male and female regarding the factors considered for making investment decisions.

H1: There is a significant difference between male and female regarding the factors considered for making investment decisions.

Table No: 15
Genderwise - Mann - Whitney - Wilcoxon U - Test

Factors	Male (N ₁)	Female (N ₂)	Test statistic	Table value@ 5%	Accept/ Reject
Assured return	58	72	96.5	75	Reject
Tax benefits	70	72			
Child education	20	66			

Daughters marriage	8	44			
Speculation	29	4			
Capital gain	18	3			
Retirement benefit	7	72			
Secured future	41	70			
Safety of investment	76	72			
Quantum of investment	57	70			
Potential risk	78	72			
Potential gain	50	6			
Liquidity	13	54			
Customer service	4	27			
Past experience	61	72			
Time horizon	13	34			
Total	603	810			
a) The distribution is not normal b) Mann – Whitney – Wilcoxon U test c) Grouping Variable : Gender					

(Source: Primary Survey)

Interpretation: From the above calculations it is clear that the test statistic is greater than the critical value. Hence we reject the null hypothesis which means there is a significant difference between male and female regarding the factors considering for investment decisions

Findings

The following are the major findings of the study.

52 percent of respondents are male. 48 percent of respondents are coming under the age group of 30-40. Most of the respondents nearly 50.67 percent earned an income up to 20000. Most of the respondents have a minimum plus two qualifications.

90 percent of respondents have heard about the emerging concept of behavioural finance.

32.67 percent are always influenced by behavioural factors and 10.67 percent of them are not influenced and not aware about that.

There is a significant difference between the influences of behavioural finance on gender groups.

All the respondents are aware about the investment avenues in distinct ways. 37.33 percent of respondents are moderately aware.

There is a significant difference between male and female on the awareness regarding investment avenues.

There is no significant difference between age groups and the awareness of investment avenues. While considering post office savings, insurance, shares, bonds, chit funds, real estate, and provident fund, according to t-test calculated values are more than the table value, so reject the null hypothesis and accept the alternative hypothesis that is awareness level of respondents towards various investment avenues are significantly differ in between male and female.

26.67 percent of respondents get awareness about investment avenues through newspapers or dailies.

Most of the respondents are taking decisions regarding investment by considering the words of friends, family members or individually.

53 percent of respondents are keeping less than 25% of income for investment and none of them keep more than 75% of income for investments.

24 percent of respondents are considering knowledge about avenues as a control variable.

Most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues

have the least level of risk and most of the respondents have risk averse character.

Most concerning factors while making investment decisions are potential risk, safety of investment and assured return.

There is a significant difference between male and female regarding the factors considered for investment decisions.

Suggestions

Following are the suggestions derived from the study.

The female investors should be encouraged to invest since they are very cautious about the avenues, risk and return.

The Government Should take initiatives to give adequate training programs to people with less literacy level.

Government should arrange awareness programs to the entire public to encourage them to create investment behaviour.

Respondents should take due care while making investment decisions.

Most of the respondents are ready to save their income rather than investing in risky avenues. So the concerned authorities should take initiatives to encourage the public for investment.

Conclusion

The researcher tried to compare the role of behavioural finance on investment decisions based on some demographic features like gender and age. From the study it is clear that almost all respondents opted for savings rather than investment. Because they regret taking the risk. The female respondents are not interested in investing in risky avenues and also they do not expect more earnings. The female respondents used the investment or savings for the future rather than male invest for making immediate return. They are not cautious about the future unlike females. All the respondents are aware about the investment avenues but distinctly. Most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues have the least level of risk and most of the respondents have risk averse character. The study was entirely conducted in the rural area of Thrissur district. So the respondents have not much idea regarding investment in shares, debentures as such investments. Thus the authorities should take initiatives for educating the rural people about investment avenues. There is a significant difference between male and females regarding the factors influenced while making investment decisions. The investment behaviour of

respondents are changed according to the variations in demographic features.

References

1. Kannadhasan, M. (2006). Role of behavioural finance in investment decisions. *Retrieved December, 29, 2014.*
2. Peteros, R., & Maleyeff, J. (2013). Application of behavioural finance concepts to investment decision-making: Suggestions for improving investment education courses. *International Journal of Management, 30*(1), 249.
3. Kumar, S., & Goyal, N. (2015). Behavioural biases in investment decision making—a systematic literature review. *Qualitative Research in financial markets.*
4. Jahanzeb, A. (2012). Implication of behavioral finance in the investment decision-making process. *Information management and business review, 4*(10), 532-536.
5. Antony, A., & Joseph, A. I. (2017). Influence of behavioural factors affecting investment decision— An AHP analysis. *Metamorphosis, 16*(2), 107-114.
6. Muradoglu, G., & Harvey, N. (2012). Behavioural finance: the role of psychological factors in financial decisions. *Review of Behavioural Finance.*
7. Forbes, W. (2009). *Behavioural finance.* John Wiley & Sons.
8. Hens, T., & Bachmann, K. (2011). *Behavioural finance for private banking* (Vol. 534). John Wiley & Sons.
9. Waweru, N. M., Munyoki, E., & Uliana, E. (2008). The effects of behavioural factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange. *International Journal of Business and Emerging Markets, 1*(1), 24-41.
10. Boda, J. R., & Sunitha, G. (2018). Investor's psychology in investment decision making: A behavioral finance approach. *International Journal of Pure and Applied Mathematics, 119*(7), 1253-1261.
11. Decourt, R., Accorsi, A., & Madeira Neto, J. (2007). Behavioral finance and the investment decision-making process in the Brazilian financial market. *Available at SSRN 960350.*
12. Bhatt, B. K., & Chauhan, A. (2014). Behavioral finance: A new Paradigm of finance. *International Journal of Application or Innovation in Engineering & Management (IJAIEEM), 3*(2).
13. Pompian, M. M. (2011). *Behavioral finance and wealth management: how to build investment strategies that account for investor biases* (Vol. 667). John Wiley & Sons.
14. Shefrin, H. (2001). *Behavioral finance.* Edward Elgar Publishing.

New Education Policy 2020 and Children with Disability

UMA¹ Dr.Ajay Kumar Mishra²

Research Scholar-Teacher Education) RSKD PG College(VBSP Uni) Jaunpur
Supervisor, RSKD PG College Jaunpur (UP) VBSP University, Jaunpur (UP)

E-mail: umag32713@gmail.com

Abstract: A large part of the youth population in India is suffering from single or multiple disabilities. It is often difficult for them to take their place in society. Education, health, and employment are a few challenges they face in daily life. The government brings policies, programs, and provisions from time to time for their well-being. Moving forward in this direction, the government announced the new education policy on 29 July 2020, which includes actions for the holistic development of the disabled. New Education Policy 2020 opens a new era in educational reform. This policy includes guidelines for "Equal opportunity" and "Barrier-free Education" for the well-being of the disabled. This article has been presented in the context of NEP 2020 and children with disabilities. Researchers have presented some suggestions in this paper, which can prove beneficial in future for disabled children.

Key Words - New Education Policy, Disability, Children with disability, Importance.

The Indian national education policy was first introduced in 1986, which was later amended in 1992. Since then, there were many changes in society and education, which constantly demanded amendments in the education policy. Therefore, the new education policy 2020 was introduced on 29th July 2020. This policy replaced 34 years old Indian national education policy. The education policy provides measures for foundational pillars of equality, quality, access, affordability, and accountability. The new policy provides instructions for equal opportunity and education to children with disabilities. The barrier-free education and access to education for children with disabilities were important provisions in the new educational policy 2020. According to Merriam-Webster "Disability is a physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person's ability to engage in certain tasks or actions or participate in typical daily activities and interactions."

Objective of the Study-

- 1- To individual development of disabled child.
- 2- To Providing opportunities for "Barrier Free Education" to all children with disabilities.
- 2- To achievement of national goal.
- 3- To bringing out the hidden talent in the child.
- 4- To achieving the goal of the national Education Policy.
- 5- To Bringing positivity in the relationship between the society, the disabled family and stakeholder.

Key Points of the New Education Policy 2020-

There are the main key points-

- NEP 2020, adopted on 29th July 2020.

- NEP 2020 which will replace the existing 10+2 school system with a new 5+3+3+4 school system.
- Ensuring Universal Access at all levels of school education.
- Early Childhood Care & Education with new Curricular and Pedagogical Structure.
- This policy for "Equal opportunity" and "Barrier-free Education" for the well-being of the disabled.
- Attaining Foundational Literacy and Numeracy.
- Reforms in school curricula and pedagogy.
- Multilingualism and the power of language.
- The aim of the new policy 2020 is the universalize of education from pre-school to secondary level with 100% Gross Enrolment Ratio ((GER) in school education policy 2030.
- Now the age group for the Right to Education (RTE) is now 3 to 8 years (earlier 14 years.)
- This education policy describes the much-awaited new reforms that the country and society have needed for a long time. This adaptation can be visible or beneficial for children with disabilities and other disabled stakeholders. Therefore, disabled children's methods of learning, teaching pedagogy, and teachers' ability are important concerns in this policy.
- PWD act 2016 has been kept in mind to provide barrier-free education to disabled children. Generally, children with

disabilities face barriers to access to education in preschool and primary school. Because studies find that some schools have less than 40% stairs and 17% have almost accessible toilets. Apart from this many other facilities related to disability are also not available in those schools.

Importance of NEP 2020 for Disabled Child-

Here some importance points-

- It speculates an India-centric education system and the provision of quality education and equitable access to all students in a sustainable manner.
- It allows the students to enjoy the education and gain confidence due to individual learning or the personal growth and development of the special children.
- According NEP 2020 will bring 2 crores out of school children back into the mainstream, through the open schooling system.
- The disability cases could include different variety like-emotional, mental, physical developmental.
- Under NEP recognizes the importance of creating enabling mechanisms for providing Children with Special Needs (CWSN) or Disabled.
- This policy promotes inclusive education and provides equal education to both. Normal children and children with disabilities.
- New Education Policy 2020 is an important attempt to provide "barrier-free education" to the disabled and also a concrete step toward bringing them into the "mainstream" education.
- New Education Policy 2020 aims to ensure that no child from birth misses an opportunity to read, write and excel that's why this new policy will lay special emphasis on disabled children.
- Under NEP 2020, it will be possible to provide resources for the inclusion of children with disabilities in the school and school premises, as well as assist in the appointment of trained special teachers to teach such students.
- This policy promotes inclusive education and provides equal education to both normal and children with disabilities.
- It will enable children with disabilities to fully participate in the regular schooling process from basic to the higher levels of education. It also includes providing cross-disability training with appropriate technology-based equipment and support mechanisms. The support of teachers will also be included according to the need of these children.
- The knowledge about teaching children with specific disabilities will be an integral part of all teacher education programs.
- There will be no discrimination in schools.
- Accessible school infrastructure, reasonable accommodation, personal support, and teaching with Braille and Indian sign language.
- School infrastructure can be used as free social consciousness centers.
- Recruitment of special teachers with cross-disability training.
- Disability awareness has been included in teacher education.
- Resources will be provided to school campuses for the integration of children with disabilities, along with the assistive devices, and teaching and learning materials.
- The home-based education will continue to be an option for children who are unable to attend school. They will be treated like other children based on the normal system.
- Special attention will be given to the safety and security of children with disabilities.
- Schools will be provided with assistive devices, suitable technology-based tools, and language-appropriate teaching-learning materials to facilitate the changes among children with disabilities.
- While preparing the National Curriculum Framework (NCF) for children with disabilities, NCERT will ensure that it consults expert and experienced persons with the national institute of DEPWDs.
- In addition, a high-quality module will also be developed for NIOS (National Indian Open School) to teach Indian sign language and other basic subjects using Indian sign language.
- Each state will be encouraged to set up "BAL-BHAWAN" in the district. To build the future of these disabled children, their

career-related, sports-related, and other interest-related activities will be addressed.

- Based on this policy, it has also been taken care of that child with benchmark disabilities have the option of regular or special school education as per RPWD Act 2016, (As per Section 2(r) of the Rights of Persons with Disabilities Act 2016. A person with a benchmark disability means a person having a specified disability of not less than forty percent (40%) as certified by the Certifying Authority). The resource centers with special teachers and trainers will be set up for different types of children with disabilities and will be made available to meet the rehabilitation and educational requirements of these children.
- Attention has also been given to women and transgender disabled students. An additional and necessary fund will be given to the states to build toilets for them, keep them clean, and provide bicycles and cash transfers.
- Evaluation and certification agency will continue to function for transparency. The new National Assessment Center PARAKH will prepare guidelines for assessment from the basic level to the higher education level to ensure equitable access and opportunities for all learning students.
- Barrier-free education will be main objective of the government, provided to all disabled children.

Conclusion-

New Education Policy 2020 developed according to the demands of the 21st century; it is very important step for all round development of Indian country and society. In which special attention has been given to children with disabilities along with normal children. Therefore, to fulfill this need, a comprehensive national education policy has been formulated by the nation. This will lead to the welfare and well being of the country along with the education system. It is step towards bringing them into the "mainstream" education.

In the end, it can be said that these reforms/changes will help in providing quality education and ensures well-being of the children with disabilities. All these features are under the pre-planned program of the government of India. It is a great move and hopes it goes well. The

researcher tried to highlight some important points on India's New Education Policy 2020 and Disabled students in this research paper.

Suggestions/Recommendations-

On the basis of many studies, the researcher has presented some suggestions for making children with disabilities prosperous and well-being, which can definitely prove useful in making their future bright.

1-The policy and provisions for the Welfare of children with disabilities should be properly implemented on the basis of NEP 2020 proposed by the government.

2-To facilitate the education of children with disabilities, schools should be provided with assistive devices, suitable Technology based equipment, and language-appropriate learning materials.

3-With regards to the modules developed to improve language quality, the government should ensure that it reaches every child with disabilities.

4-In relation to many policies and provisions proposed by the government, it is the duty of the central and state government as well as the local government and NGOs to make observations and help from time to time for the Welfare of these children.

5-The teacher must be 100% trained to teach handicapped children or only trained teachers should be hired in special or inclusive schools.

6- Any general School, inclusive school, or special school must admit the child on the basis of his/her uniqueness.

7- According to the policy, there is no separation in the stream of Science, Arts, and Commerce so the child who wants to stream admission in any stream must give admission on the basis of his merit or ability.

8-Schools should have the freedom to modify the structure of the school curriculum based on the interest and needs of the children.

9- It is the duty of the school and the teacher to try that the dropout of the child is minimized.

10- For the development of children, schools should ensure that they have sports material playgrounds and sports teachers.

11- Schools should ensure a healthy and fun-filled environment is available for the all-around development of the children.

12- It is the ultimate duty of every teacher to understand the attitude of the child and motivate him to do any work on the basis of that.

13- It is the duty of the teacher and the school that if the child is interested in any extracurricular activities more than the standard studies then they should be supported.

14- Society should support any handicapped/disabled child and their parents and not look at them with an inferiority complex.

15- Family society and school all together should always motivate the disabled child that he is the best as he is.

16- Based on the demand of the present circumstances, Science and Technology should be developed for handicapped children. So that they can contribute to building themselves and the nation.

17- Through policies and programs for the welfare of children, government and non-government organizations should help.

18- The NEP 2020 is a huge stride in the right direction — it focuses on the holistic development of students by ensuring access, relevance, equity, quality, and strong foundational learning. The new policy has numerous takeaways for education sector stakeholders.

19- The NEP 2020 seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030. This is NEP 2020 goal with India's learning outcomes. It has drawn much attention to the theme of inclusive and equitable education. 20- The government should strictly implement “Barrier Free Education” for the well being and development of children with disabilities.

I hope that the suggestions given by researchers regarding the new education policy and disabled children will definitely be beneficial for the students, teachers and family. Best wishes to all for the future. Thanks....

References-

1. Kumar, Deep, & Sing, Madhu, (2022, February), India's New Education Policy (NEP) 2020 Creating Children with Disability., St. Xavier's College of Education. DOI: [10.48175/IJARST-2505](https://doi.org/10.48175/IJARST-2505)
2. Das, Rajshree, (2021 December 23), Education for children with disabilities and NEP-2020, Gauhati University, Sentinelassam_files\logo.png, Sentinel Digital Desk. ruchadas98@gmail.com
3. Wecapable, (2021 Dec 23), Disability and India's New Education Policy (NEP) 2020 <https://wecapable.com/>

4. Wecapable, (2022 June 15), "Disability and India's New Education Policy (NEP) 2020, <<https://wecapable.com/disability-new-education-policy-nep-2020/>>
5. Ahmad, M, (2021 Feb 4), Education for Children with Disabilities and (NEP) 2020), Principal (I/C), Abhedanana Home, <https://kashmirobserver.net/>, abhome78@gmail.com
6. Equitable and Inclusive Education <https://vikaspedia.in/>
7. Nagari, Akhilesh, (2020 Jul 30), New Education Policy 2020, New Delhi, <https://www.hindustantimes.com/>
8. Sarkar, Tanushree, (2020 Aug 19), Examining Disability Inclusion in India's New National Education Policy Education and Disabilities, Policymaking, (2020 Aug 12), Cambridge Network for Disability and Education Research (CaNDER) <https://www.ukfiet.org/>
9. By - Bhatia Ruchi (Human Centered Designer . Researcher. Artist . Philosopher. Traveller)
10. Education for Students with Disabilities in India Feb 17, 2018
11. <https://medium.com/@ruchibhatia515>
12. Singal, Nidhi, (2009), (2010/ED/EFA/MRT/PI/21), Education of children with disabilities in India, program and meeting document, <https://unesdoc.unesco.org/home>, WWW.UNESCO.ORG
13. Importance of Special Education for Special Children, (2022 April 7), <https://educationtoday.org.in/>
14. m.jagranjosh.com, (2021 July 29,) <https://www.jagranjosh.com/>
15. Anurag, (2020 August 4), **National Education Policy : Recommendations and the current scenario** - <https://prsindia.org/>
16. <http://vikaspedia.in/InDG>.
17. <http://samajkalyan.up.gov.in/hi>
18. The Rehabilitation Council of India (RCI) (22 June 26). <http://www.rehabcouncil.nic.in/>
19. https://www.education.gov.in/shikshakparv/docs/Inclusive_Education.pdf

Chief Editor

Dr. R. V. Bhole

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102

Email- rbhole1965@gmail.com

Visit-www.jrdrvb.com

Address

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102

Research Article

Investigation of High-Temperature Wear Behaviour of AA 2618-Nano Si₃N₄ Composites Using Statistical Techniques

Santhi M. George,¹ Amel Gacem,² A. Kistan,³ R. Mohammed Ashick,⁴ L. Malleswara Rao,⁵ Vinod Singh Rajput,⁶ N. Nagabooshanam,⁷ Moamen S. Refat,⁸ Annah Mohammed Alsuhaibani,⁹ and David Christopher ¹⁰

¹Department of Science and Humanities, RMK Engineering College, Thiruvallur, Tamil Nadu 601206, India

²Department of Physics, Faculty of Sciences, University 20 Août 1955, 26 El Hadaiek, Skikda 21000, Algeria

³Department of Chemistry, Panimalar Engineering College, Chennai, Tamil Nadu 600123, India

⁴Department of Civil Engineering, Sri Sairam Engineering College, Chennai, Tamil Nadu 600044, India

⁵Department of Physics, SRI Y N College, Narsapur, West Godavari, Andhra Pradesh 534275, India

⁶Department of Mechanical Engineering, Nowgong Engineering College, Nowgong, Chhatarpur, Madhya Pradesh 471201, India

⁷Department of Mechanical Engineering, Aditya Engineering College, ABD Road, Surampalem, 533437 Andhra Pradesh, India

⁸Department of Chemistry, College of Science, Taif University, P.O. Box 11099, Taif 21944, Saudi Arabia

⁹Department of Physical Sport Science, College of Education, Princess Nourah bint Abdulrahman University, P.O. Box 84428, Riyadh 11671, Saudi Arabia

¹⁰Department of Mechanical Engineering, College of Engineering, Wolaita Sodo University, Ethiopia

Correspondence should be addressed to David Christopher; david.santosh@wsu.edu.et

Received 8 May 2022; Revised 17 July 2022; Accepted 18 July 2022; Published 16 September 2022

Academic Editor: Arpita Roy

Copyright © 2022 Santhi M. George et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The wear behaviour of hot pressed AA 2618 aluminium alloy matrix composites reinforced through nano Si₃N₄ elements (1 percent and 2 percent) has been investigated in this paper. Temperatures of 50°C, 150°C, and 250°C were used to examine the tribological characteristics of the models under a range of loads and pressures. The best wear performance was found in AA 2618/2wt percent Si₃N₄. Under a load of 30 N and temperature of 250°C, it was discovered that Si₃N₄-enriched AA 2618 alloy was 35.7% more wear-resistant than unreinforced AA 2618 alloy. Metal flow and plain delamination were the most common wear mechanisms at higher temperatures. Delamination is the most common wear mechanism at temperatures between 50 and 250 degrees Celsius. In the analysis of variance, the wear rate was influenced by temperature, load, and the presence of Si₃N₄ by 47.2%. In order to predict the wear rate, regression equations (linear and nonlinear) were developed by Taguchi method. Using a high determination coefficient, the nonlinear regression was the preeminent success rate (92.8 percent).

1. Introduction

Lightweight, inexpensive, and energy-efficient alloys are becoming increasingly popular. It is broadly used in the automotive industries for its maximum specific strength, corrosion resistance, and excellent low-temperature properties [1]. Although Al alloys have some drawbacks, the most significant one is their less amount of wear and mechanical properties at higher temperatures [2, 3]. Al metal matrix

composites have been developed to address these shortcomings (AMMCs). Al MMCs are commonly reinforced with a variety of materials, including SiC, Al₂O₃, B₄C, TiC, CNT, GNPs, GO, and Y₂O₃ [4]. Since Si₃N₄ has a high melting point and good thermal conductivity, it was a natural choice for Al MMC reinforcement. Research into MMCs' wear and friction patterns is essential [5–7]. In the event that two surfaces are in close proximity to each other, material loss can occur. Consequently, wear has become a major cause of

failure. MMCs wear more quickly when subjected to varying loads, sliding speeds, temperatures, and reinforcement content [8, 9]. Statistics and the Taguchi method have become increasingly popular in the field of materials science in recent years. The Taguchi method reduces the amount of time and money required to conduct experiments in order to optimise design parameters [10]. Wear rates and friction coefficients can be studied using the analysis of variance method. Wear rate is also predicted using a regression model. The wear behaviour of AA 2618 matrix composites has been studied by researchers. In addition to silicon carbide, aluminium oxide, and carbon nanotubes, a variety of reinforcements were used [11, 12]. While some research has been done on the tribological performance of stir cast AA 2618/Si₃N₄ composite (wt% of 3, 6, and 9 Si₃N₄ content), only a few studies have focused on the properties of 6 percent Si₃N₄. AA 2618/Si₃N₄ (4 wt%) composites were stir casted to investigate the dry sliding wear behaviour [13]. They found that composites have a higher wear resistance than AA 2618 alloy without reinforcement. It has dry sliding tribological properties at elevated temperatures between 30 and 300 degrees Celsius. The fabricated MMCs by stir casting were attributed to the increase in wear resistance [14–16]. The wear performance of AA 2618-SiC-hSi₃N₄ nanocomposites has been improved by the addition of SiC and hSi₃N₄ particles [17–20]. There have been numerous studies on AA 2618/Si₃N₄ composites based on the literature. A liquid metallurgy production method was used in these studies [21]. Additionally, statistical analysis was not used to examine the wear behaviour of the samples. Furthermore, no research has been done on the wear behaviour of monolithic AA 2618/Si₃N₄ composites made by powder metallurgy at elevated temperatures [22–26]. Fuselage structures below tension frequently use AA 2618 alloy because of its high specific strength, good machinability, and high fatigue strength and thermal conductivity [27]. The AA 2618 alloy's tribological performance is known to be poor at high temperatures. Ceramic particles have been added to AA 2618 alloy in order to increase its usefulness in high-temperature applications [28–30]. It is revealed that AA 2618 wear behaviour at elevated temperatures must be studied and improved. An investigation into hot pressing AA 2618/Si₃N₄ composites armoured with Si₃N₄ (1% wt and 2% wt) was primary goal of this research [31]. Different parameters (such as load, Si₃N₄ content, and temperature) were examined for their effects on wear rate using analysis of variance and regression models. It was also used in the search for the best process parameter that had the lowest wear rate [32–34].

2. Experimental Studies

2.1. Production and Materials. AA 2618 alloy powder was used as a matrix material in this research. Because of its ability to work at higher temperatures, AA 2618 is frequently used as pistons and spinning aviation components, as well as in automotive racing. The AA 2618 alloy chemical composition was determined to be 4.7Cu, 1.6Mg, 0.6Zn, 0.5Mn, and 0.2Si and a weight percentage of Al that was bal-

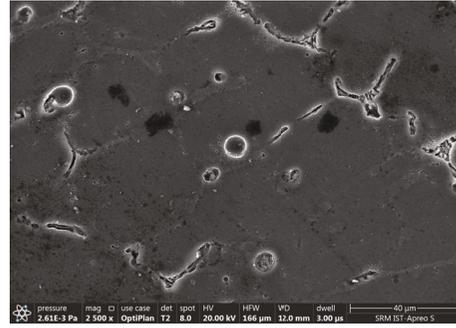


FIGURE 1: SEM image of powder used.

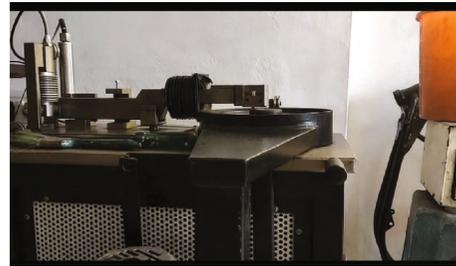


FIGURE 2: Pin on disc wear setup.

TABLE 1: Test parameters for measuring wear.

Levels	Applied load, N	Temperature °C	Wt percent of silicon nitrate
1	15	50	0
2	30	150	1
3	45	250	2

anced. Reinforcement was provided by Si₃N₄ nanoparticles (100 nm). The composites were made using semi-powder metallurgy. To separate the agglomerated particles, Si₃N₄ particles were ultrasonically treated in ethanol for one hour. Next, AA 2618 alloy powder was added to the solution containing Si₃N₄ nanoparticles. In a vacuum distillation system, a magnetic stirrer was used to mix the powders (AA 2618 alloy and Si₃N₄). After three hours, all of the ethanol had been flushed from the system. Previous studies provided a schematic diagram and detailed explanation of semi-powder metallurgy. Si₃N₄ nanoparticles of 0, 1, and 2wt percent were used in the samples. One hour of hot pressing at 525°C under 50 MPa pressure produced the test specimens. The rate of heating was 10°C/min. In an argon atmosphere, all the processes were carried out. Due to the size requirements of this study, the attained samples of 15 mm x 23 mm were maintained. Figure 1 shows SEM image of powder used.

2.2. Mechanical and Wear Tests. A hardness test device was used to take the hardness measurements. It was necessary to

TABLE 2: Specimens' densities and hardness.

Materials	(density) _{theoretical} g/cm ³	(density) _{Experimental} g/cm ³	(density) _{Relative} g/cm ³	Hardness, HV	% of raise in hardness
AA 2618	3.71	3.76	97.1	81.4 ± 3.6	92.4 ± 1.6
AA 2618/1% silicon nitrate	3.82	3.780	98.4	98.1	94.8 ± 1.9
AA 2618/2% silicon nitrate	3.78	3.798	9.4	16.2	10

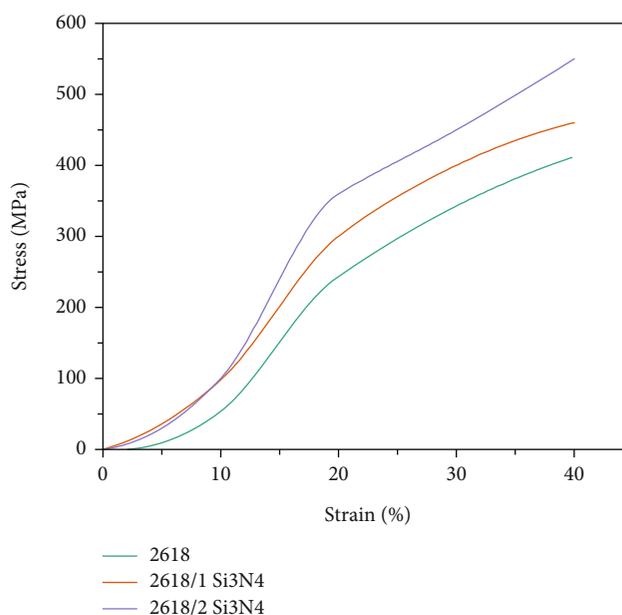


FIGURE 3: Curves of the samples' compression stress and strain.

conduct precise measurements using the metallographic preparation. A 1 kg load and a dwell time of 20 seconds were used to measure hardness. The average of five successful indentations was calculated. A universal testing machine with a 0.5 mm/min test speed was used for the compression tests. A pin-on-disc test device was used to conduct wear tests under dry sliding conditions. Temperatures ranging from 50 to 250 degrees Celsius were used for wear tests at a sliding speed of 120 millimetres per second with loads of 15 to 45 Newtons. The sliding distance was 200 metres. The AISI 52100 steel used for the counterface had a hardness rating of 63 HRC. Figure 2 shows pin on disc wear setup.

2.3. The Experiment Design. The Taguchi method was used with three factors and three levels. Si₃N₄ content, load, and temperature were all factors in the experiment. Table 1 provides the values of the parameters. The Taguchi design used the L27 array.

3. Results and Discussion

Table 2 displays the specimens' densities and hardness of the produced composites.

TABLE 3: Fabricated samples' mechanical properties.

Materials	Grain size,	CYS, Mpa	UCS
AA 2618	20.2	276.2 ± 11.2	516.7 ± 14.2
AA 2618/1% silicon nitrate	19.4	302.6 ± 10.2	591.6 ± 23.4
AA 2618/2% silicon nitrate	15.6	324.6 ± 9.1	665.8 ± 20.1

3.1. Mechanical Properties. According to these results, increasing the amount of Si₃N₄ results in greater compressive yield strength (CYS) and ultimate compressive strength (UCS). Comparing the CYS and UCS of the AA 2618/2Si₃N₄ composite to those of the AA 2618 alloy, 17.2% and 28.9% increases were observed. Figure 3 shows the curves of the samples compression stress and strain. Table 3 summarises the mechanical properties and average grain size for each type of cereal grain. The dislocations are also slowed by the presence of reinforcing particles. Due to the occurrence of reinforcement elements and an increased grain boundary area as a result of grain refinement, dislocation movement

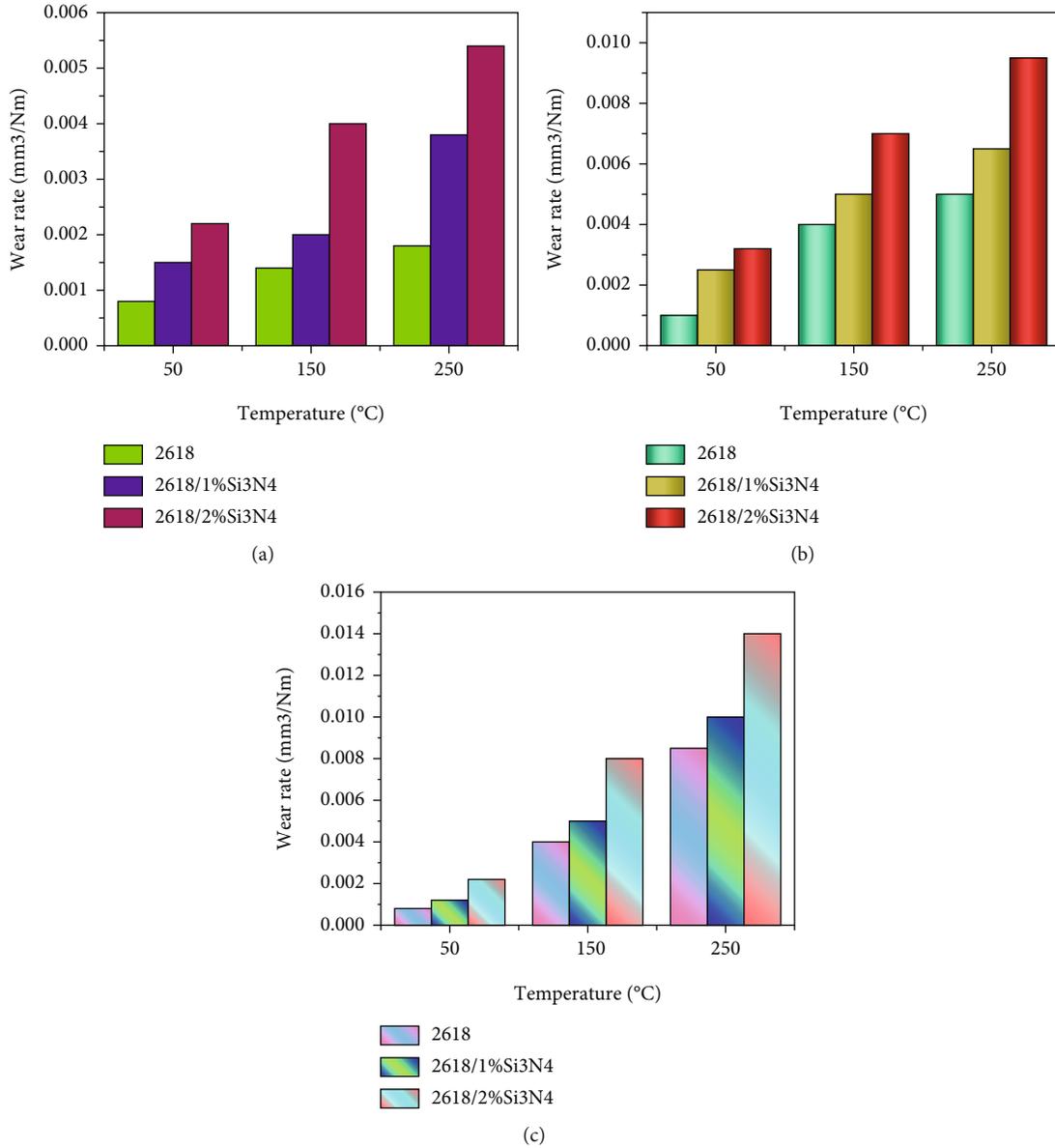


FIGURE 4: Temperature affects the rate of wear on the load: (a) 50°C, (b) 150°C, and (c) 250°C.

is hindered As a result, the strongest material has the smallest grain size. Grain size decreases as the Si₃N₄ content increases. AA 2618/1Si₃N₄ and AA 2618/2Si₃N₄ reduced the grain size by 7.8 percent and 21.9 percent, respectively, when compared to the AA 2618 alloy. Sintering grain refinement may be attributed to the hard Si₃N₄ elements in the structure acting as a wall to grain limit movement. There is also evidence to suggest that nano-reinforcement slows down grain growth by causing pinning at grain boundaries. It is also crucial to have a mechanism for transferring the weight of the load. The transmission of loads from the soft matrix to hard fortification particles has been credited with increasing the strength of composite materials. The interfacial bonding between the matrix material and the reinforcement particles is responsible for the increased strength.

Using Si₃N₄ particles, the researchers were able to transfer loads from a matrix to a reinforcement. Al matrix composites reinforced with nanoparticles can also benefit from the Orowan strengthening mechanism. Nanoparticles are used to form residual dislocation loops in the Orowan strengthening mechanism. The back stress created by the dislocation loops prevents the dislocation from moving forward. Composite materials become stronger as a result.

3.2. Wear Results

3.2.1. *The Effect of Load on the Rate of Wear.* There was a clear correlation between increasing load and increasing wear rate at all temperatures. Aside from that, the AA 2618/2Si₃N₄ composite's wear rate was the lowest. The

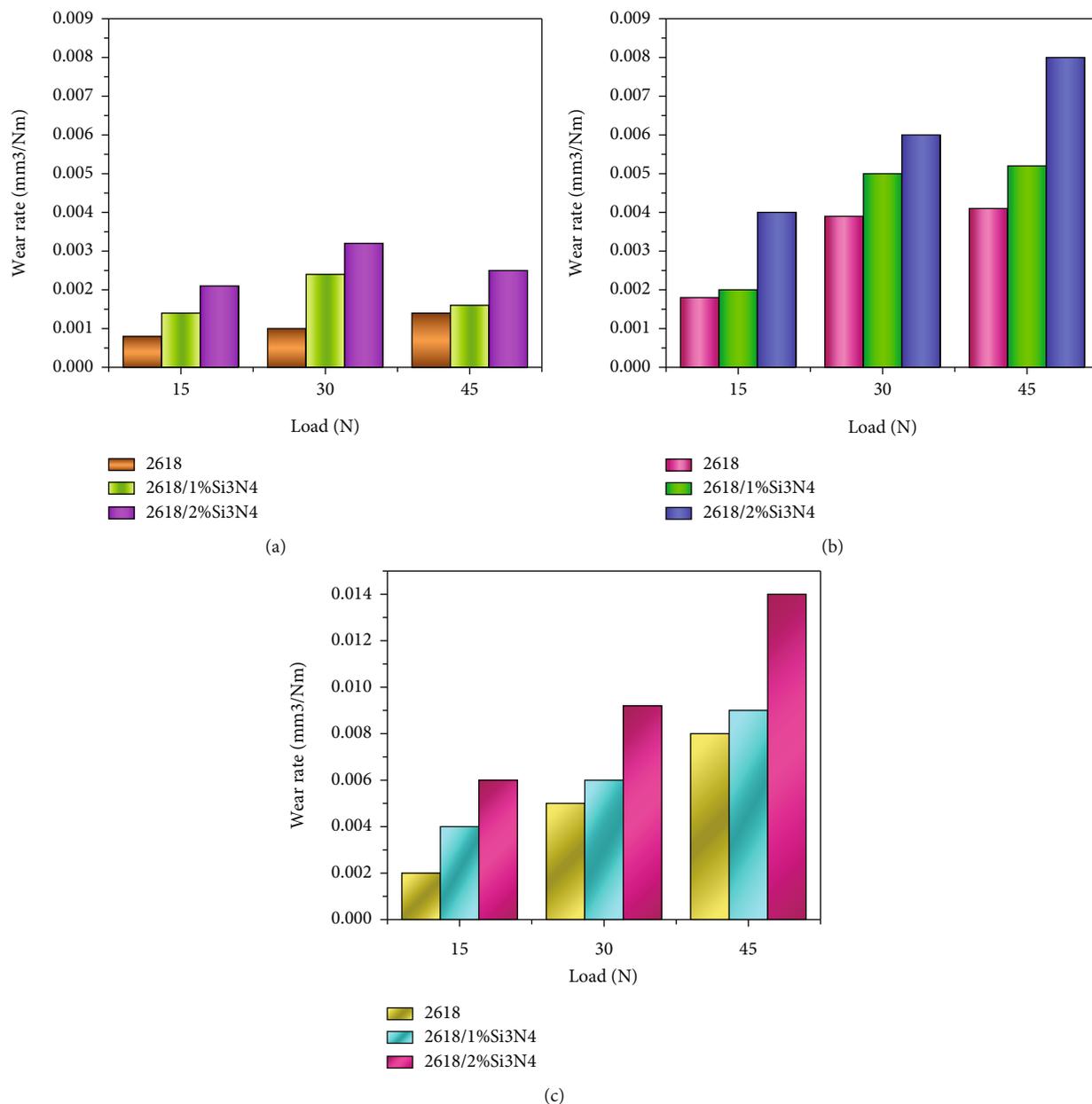


FIGURE 5: Temperature-dependent wear rates under a variety of load conditions: (a) 15 N, (b) 30 N, and (c) 45 N.

lubricating effect of Si₃N₄ particles contributes to the improved wear resistance of composites. Due to the Si₃N₄ particles, composite materials have a lower rate of wear because the metallic contact between sliding surfaces is reduced. A 45 N load on AA 2618/2Si₃N₄ reduces wear rates by 45.8 percent, 42.1 percent, and 35.7 percent compared to an unreinforced alloy at 50°C, 150°C, and 250°C. As the temperature rises, the wear rates of the samples also increase significantly. At temperatures of 50°C, 150°C, and 250°C, AA 2618 has a wear rate of 0.0024 mm⁻³/Nm. for the alloy, according to research.

Dislocation density increases when there is a mismatch in thermal expansion. This has a significant impact on the hardness of composite materials. Grains of AA 2618/Si₃N₄

composites have fewer grain boundaries, resulting in a higher wear resistance. The dislocation movement is hindered by the increased grain boundaries. The improvement in tribological performance was attributed to this. The improved wear performance of AA 2618/Si₃N₄ composites is due to the increased hardness and mechanical properties of the strengthening mechanisms.

3.2.2. Temperature Effect on Wear Rate. With increasing Si₃N₄ content at temperatures between 50 and 250 degrees Celsius, the wear rate of AA 2618/Si₃N₄ composites is reduced. Al matrix thermal stability is said to improve as the amount of Si₃N₄ in the alloy increases. The wear rate of the models also increases the temperature of the test

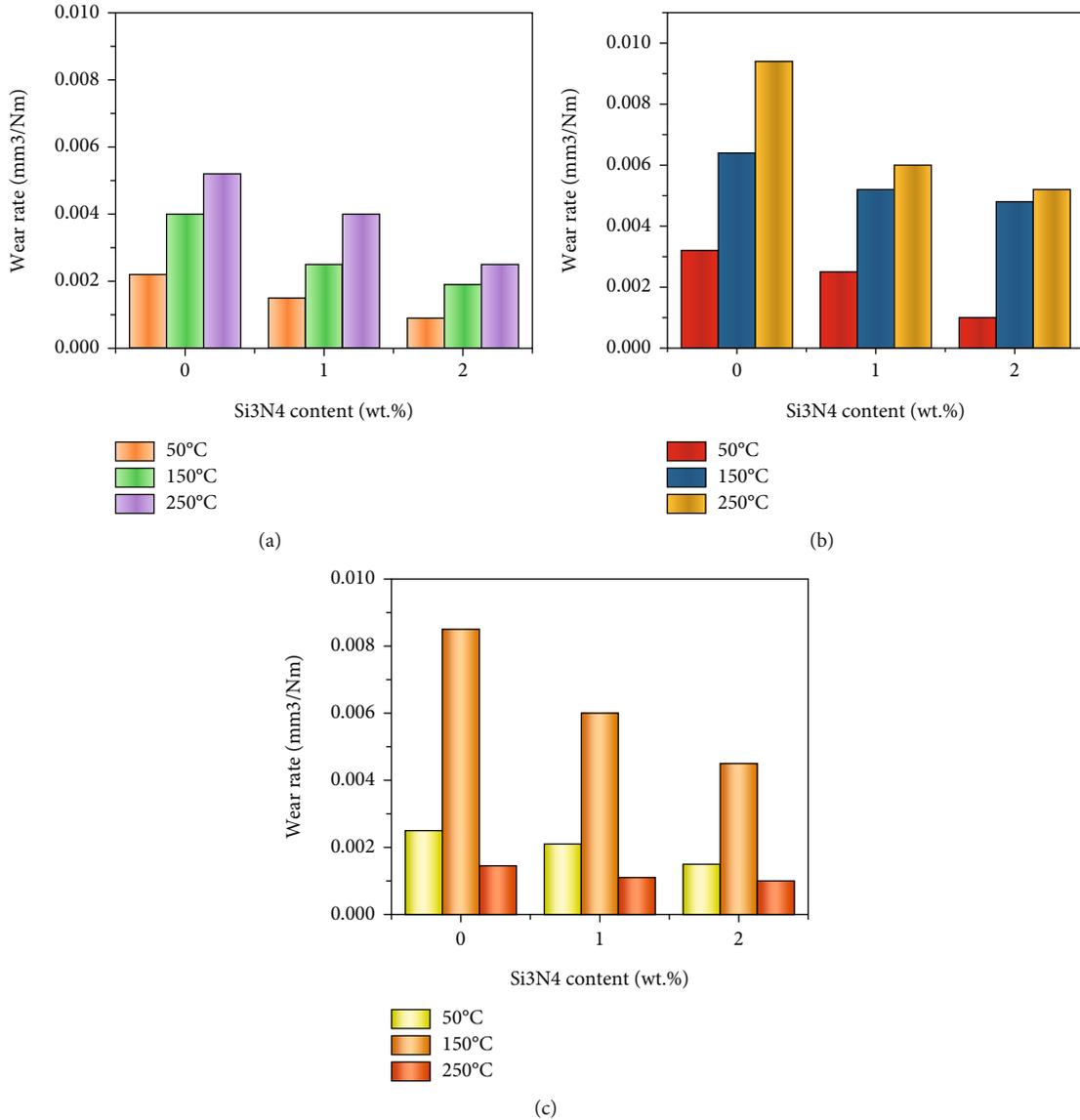


FIGURE 6: Si₃N₄ content's wear rate under various loads: (a) 15 N, (b) 30 N, and (c) 45 N.

increases. As the test temperature rises, the softening trend becomes more pronounced.

3.2.3. Effect of Wear Rate on Silicon Nitride. AA 2618 alloy wear rate is thought to be affected by silicon nitride content below 15 N, 30 N, and 45 N loads at temperatures of 50°C, 150°C, and 250°C. After adding Si₃N₄, the wear performance was noticeably improved in all conditions. Sample and counterface material are subjected to low shear stress because of Si₃N₄ particles in the structure. At a temperature of 250°C and a load of 45 N, the AA 2618 alloy showed severe wear.

3.2.4. Coefficient of Friction. In this graph, friction coefficient (COF) is plotted against load and temperature. Under all wear conditions, it can be seen that friction

coefficient reduces with increasing silicon nitride content. The COF of the samples rises in direct proportion to the increase in load and test temperature. The AA 2618/2Si₃N₄ sample had the lowest COF. This resulted in an average COF value of 0.333 for AA 2618/1Si₃N₄ and 0.210 for the AA 2618/2Si₃N₄ samples tested at a temperature of 50°C. At a temperature of 250 degrees Celsius and a load of 45 Newton, the average COF values of AA 2618/1Si₃N₄ were 0.668, 0.572, and 0.474, respectively, and all are shown in Figures 4 and Figure 5. Composites have low coefficients of friction because of a solid lubricant, Si₃N₄. Furthermore, it was discovered that the presence of hard reinforcement particles reduces the actual contact area between the counterface and the matrix. As a result, composite materials have a lower COF. It is well established that the matrix softens as the temperature rises.

TABLE 4: Taguchi L_{27} orthogonal array results and response value values.

Ex.No	Load	Temp	Si_3N_4 wt%	Wear rate	Ratio of S/N
1	15	50	0	0.0028	54665
2	15	50	1	0.0016	570881
3	15	50	2	0.0009	628482
4	15	150	0	0.0042	492846
5	15	150	1	0.0023	541128
6	15	150	2	0.0018	561086
7	15	250	0	0.0059	462127
8	15	250	1	0.0041	491218
9	15	250	2	0.0026	551342
10	30	50	0	0.0038	489720
11	30	50	1	0.0029	521535
12	30	50	2	0.0019	610012
13	30	150	0	0.0071	450182
14	30	150	1	0.0056	466710
15	30	150	2	0.0049	481312
16	30	250	0	0.0099	413421
17	30	250	1	0.0069	452817
18	30	250	2	0.0059	470816
19	45	50	0	0.0031	530124
20	45	50	1	0.0024	558428
21	45	50	2	0.0024	581868
22	45	150	0	0.0091	421868
23	45	150	1	0.0069	461828
24	45	150	2	0.0054	472858
25	45	250	0	0.0152	381824
26	45	250	1	0.0112	391524
27	45	250	2	0.0096	411015

As the counterface and matrix become more adherent, so does the matrix's adhesion to the counterface material. As a result, the samples' COF rises.

Adding Si_3N_4 particles improves wear performance in this study, according to researchers. The COF is also found to be reduced when Si_3N_4 particles are added. The wear behaviour of Si_3N_4 -reinforced aluminium composites was identified to be similar by several researchers. The Al matrix's wear performance was reported to have improved, and the COF was reported to have decreased and it is shown in Figure 6. Composites with the addition of Si_3N_4 reinforcement were found to be more resistant to wear because of the material's lubricant properties. Due to the matrix strengthening that occurred as dislocation density increased, wear resistance also increased.

Grain refinement and particle dispersion strengthening were both associated with an increase in composite strength and hardness. Composites have grain sizes that are smaller than those of the AA 2618 alloy, as shown in Table 3. Counterface material and matrix are separated by a thin layer of oxide, according to this theory. In this study, the surface was found to be oxidised when heated to high temperatures.

4. Statistical Analysis

4.1. ANOVA Results. Table 4 displays the Taguchi L_{27} orthogonal array results and response value values. The experimental data was analysed using ANOVA. ANOVA can be used to find which variables have greatest impact on the rate at which clothing wears out. The ANOVA studies were conducted with a 95% level of confidence. The ANOVA results are shown in Table 5. Temperature is widely believed to be the most significant factor in the rate of wear (46.21 percent). Load and Si_3N_4 content were found to be responsible for 23.97 percent and 12.92 percent of the total. Interactions appear to have a smaller impact than individual parameters. There is a 13.67 percent correlation between load and temperature, followed by a correlation between temperature and Si_3N_4 (2.43 percent).

Temperature and Si_3N_4 content were independent variables. It was determined that the wear rate was the dependent variable. The wear rate of samples was predicted using a linear and a nonlinear regression model and it is shown in Figures 7 and 8.

TABLE 5: The results of the ANOVA test for each sample.

Source	Degrees of freedom	Seq SS	% of contribution	Adj SS	Adj MS	F value	P value
Load (L)	2	0.000071	23.4	0.000071	0.000038	168.94	0.0000
Temperature (°C)	2	0.000138	46.4	0.000134	0.000069	316.18	0.0000
Si ₃ N ₄ wt%	2	0.000039	11.69	0.000039	0.000021	89.14	0.0000
L x T	4	0.000002	14.24	0.000041	0.000015	17.86	0.0000
L x Si ₃ N ₄	4	0.000009	0.31	0.000001	0.0000	0.79	0.5960
T x Si ₃ N ₄	4	0.000003	3.35	0.000008	0.000003	8.96	0.00070
Error	8	0.000289	0.61	0.000003	0.00000		
Total	26		100				

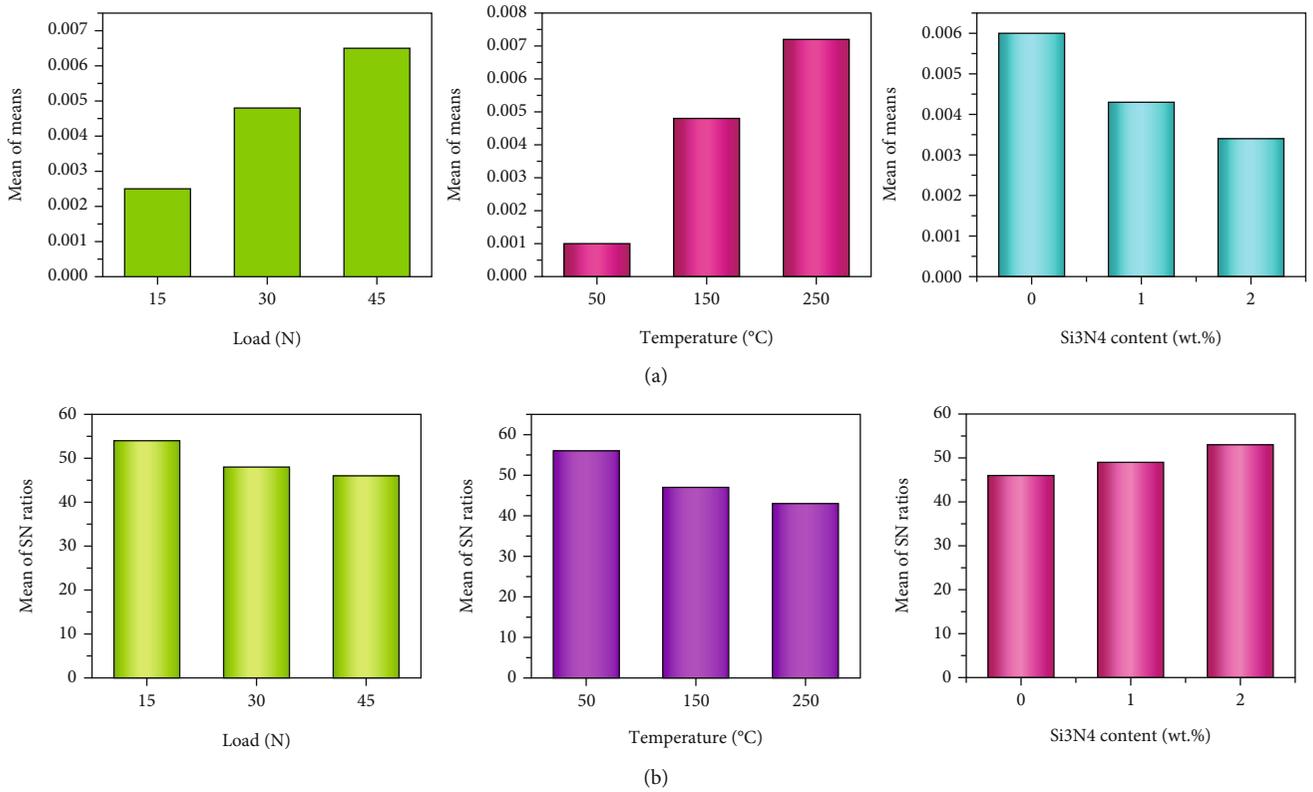


FIGURE 7: (a) Wear rate and (b) S/N ratios for the samples are shown in the main effects plots.

4.2. Analysis of S/N Ratios. This research made use of 27-row, 3-column full-factorial arrays. The constraints, wear rate, and signal-to-noise ratio are listed. Using the S/N ratio “Small is better” characteristic, this study was able to determine the wear rate. Each variable’s impact on output was evaluated using the S/N ratio. Given here is the S/N Ratio (S/N) in equation (1)

$$S/N = -10 \log \frac{1}{n} \left(\sum_{i=1}^n y_i^2 \right). \quad (1)$$

Signal-to-noise ratio (S/N) is the ratio of a signal’s strength to the background noise, and n is how many trials were conducted. This study looked at how different loads,

temperatures, and levels of Si₃N₄ content affected wear rates. Table 6 summarises the relative importance of various wear test parameters and their respective means. The best results are achieved when the S/N ratio of the combination of wear rate-related parameters is the highest. There is a correlation between wear rate and temperature, which is more pronounced than the effects of load and Si₃N₄. The effect of Si₃N₄ content was overshadowed by the effect of load. Plots’ wear rates are the primary goal of the analysis. Alloy AA 2618 must have a low wear rate and high Si₃N₄ content in order to function properly. For the interaction plots, the non-parallelism effect is well-known. If the interaction plot’s lines are not parallel, a finding of low interaction is valid. The wear parameters interact strongly at the intersection of lines. The relationship between load and temperature can

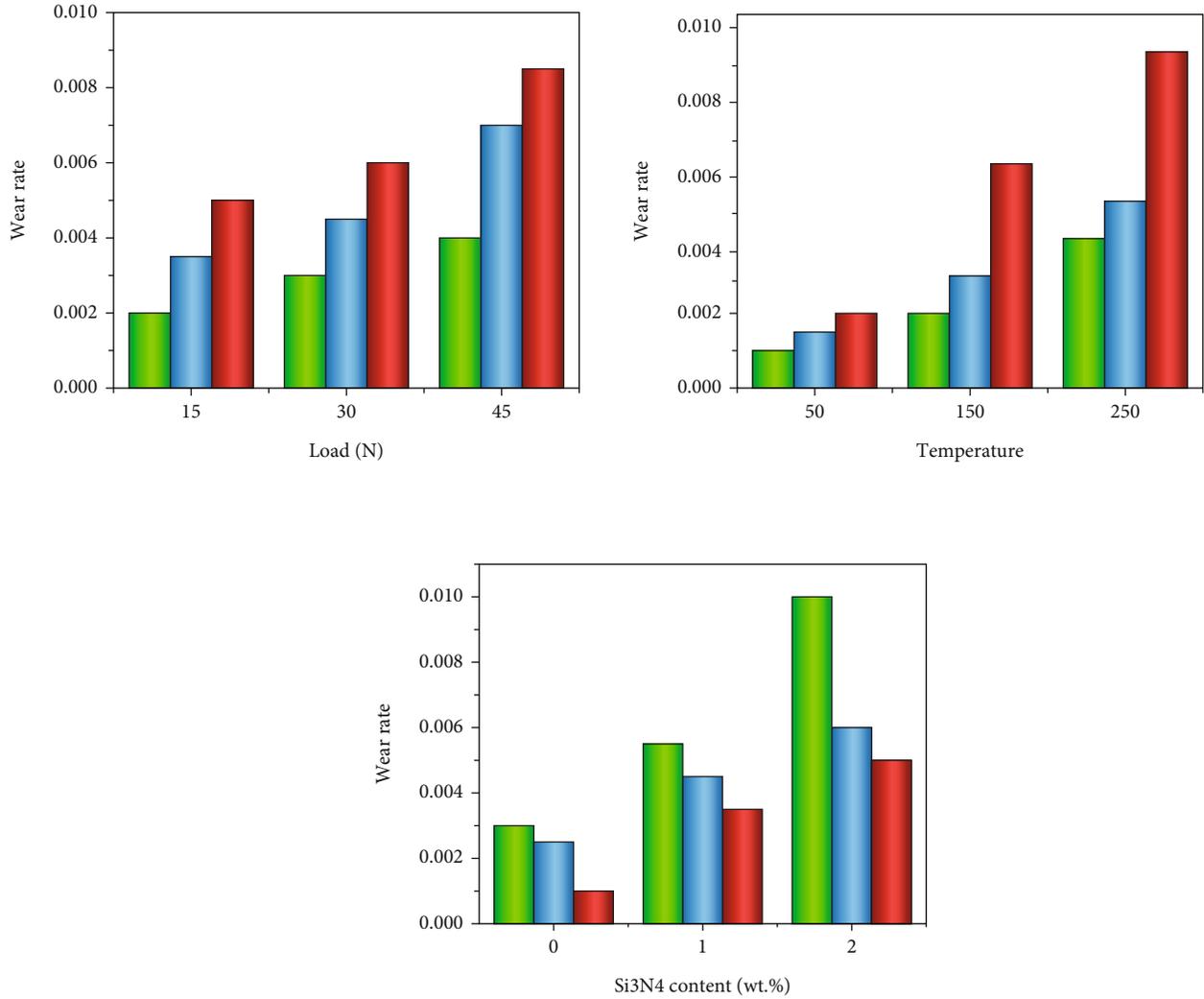


FIGURE 8: Wear rate is plotted as a function of the interaction between wear parameters.

TABLE 6: Responses to the sample S/N ratios.

Levels	Applied load	Temperature of control factors °C	Wt% of Si ₃ N ₄ content
1	54.8	54.8	46.4
2	48.6	48.4	49.8
3	47.1	45.2	53.3
Delta	8.1	13.1	7.4
Rank	2	1	3

be clearly seen. Temperature Si₃N₄ content and load Si₃N₄ content had a low interaction. The signal-to-noise ratio compares the strength of a signal to the background noise.

4.3. Evaluation Parameters. Regression models were assessed against two criteria in this study. R^2 and root mean square error were used to calculate the determination coefficient,

R^2 (RMSE). The following equations were used to calculate the RMSE in equation (2) and R^2 in equation (3).

$$\text{RMSE} = 1 - \left(\frac{1}{n} \sum_{i=1}^n (e_i - p_i)^2 \right)^{1/2}. \quad (2)$$

There are two values: e_i is the actual and p_i is the predicted one, respectively.

$$R^2 = 1 - \left(\frac{\sum_{i=1}^n (e_i - p_i)^2}{\sum_{i=1}^n (e_i - \bar{p}_i)^2} \right)^{1/2}. \quad (3)$$

For the regression models, R^2 is a measure of how well they perform based on the mean of the actual values. High R^2 and low RMSE values are what we are looking for in the model we are building here. Linear and nonlinear regressions have RMSE values of 0.0013 and 0.0009, respectively, for the two methods as in Figures 7 and 8. For linear and nonlinear

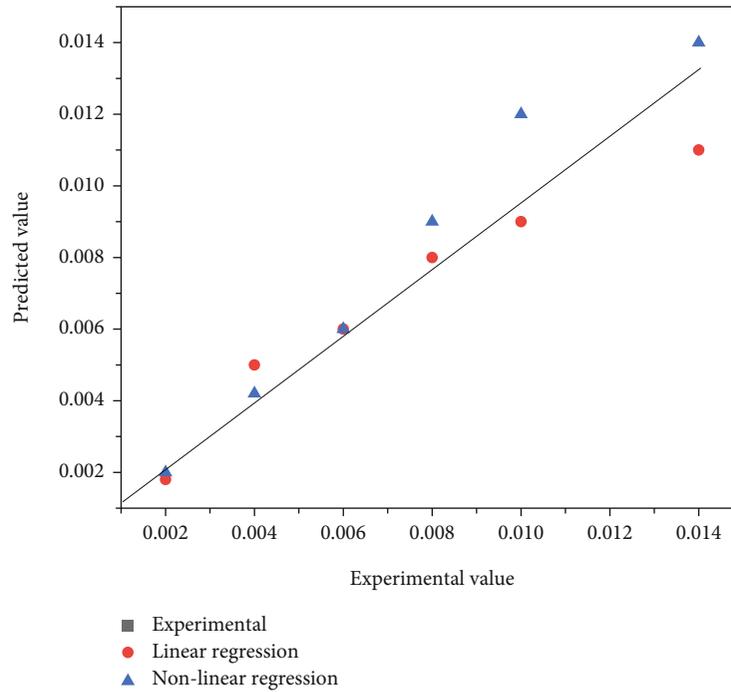


FIGURE 9: The dataset's regression model results.

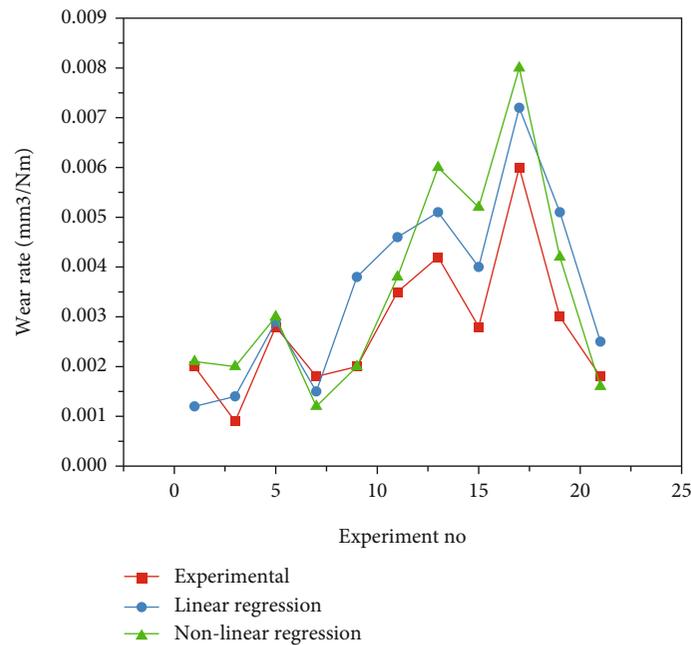


FIGURE 10: Comparison of experiment and predicted values.

regressions, the R^2 (percent) was 84.8 and 91.5, respectively. Regression models with low RMSE values are more likely to be successful. Nonlinear regression models outperformed linear regression models by 1.4 times as in tables.

Prediction accuracy is higher in models that use nonlinear regression than in linear regression models. Lower prediction values were obtained by using a linear regression model. For AA 2618/Si₃N₄ composites, nonlinear regression can be used to accurately predict the wear rate. Tribological

studies can save money and time by using the nonlinear regression model as shown in Figures 9 and 10.

5. Conclusions

This work used experimental and statistical approaches to investigate the wear behaviour of AA 2618/Si₃N₄ (1 and 2wt percent) composites. The following findings were obtained from this investigation. In all test settings, composites

containing AA 2618/2 wt percent Si₃N₄ demonstrated the best wear resistance. Delamination was most noticeable at 50 degrees Celsius, with substantial delamination and metal flow occurring at 250 degrees Celsius.

- (i) There was a 47.32 percent temperature, 24.96 percent load, and 12.51 percent Si₃N₄ content contribution to wear rate, respectively
- (ii) Linear regression had an R^2 of 83.4%, while nonlinear regression had an R^2 of 92.8%. By using nonlinear regression to predict wear rate, examining time and the number of examinations can be reduced
- (iii) Because of their superior elevated temperature tribological performance, AA 2618 with Si₃N₄ composites are the best choice for wear applications at high temperatures

Data Availability

The data used to support the findings of this study are included within the article. Further data or information is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgments

The authors appreciate the supports from Wolaita Sodo University, Ethiopia, for the research and preparation of the manuscript. The authors thank the RMK Engineering College, and Aditya Engineering College for providing assistance to this work. Taif University Researchers Supporting Project number (TURSP-2020/01), Taif University, Taif, Saudi Arabia.

References

- [1] E. Georgantzia, M. Gkantou, and G. S. Kamaris, "Aluminium alloys as structural material: a review of research," *Engineering Structures*, vol. 227, article 111372, 2021.
- [2] K. Subramani, T. Arunkumar, V. Mohanavel et al., "Investigation on wear characteristics of Al 2219/Si₃N₄/Coal bottom ash MMC," *Materials Today: Proceedings*, vol. 62, no. 8, pp. 5514–5518, 2022.
- [3] M. A. Afifah, O. M. Zaidi, H. Hanizam, S. M. Shukor, and M. I. Fadhilina, "Recent development in graphene-reinforced aluminium matrix composite: a review," *Reviews on Advanced Materials Science*, vol. 60, no. 1, pp. 801–817, 2021.
- [4] P. Ashwath, J. Joel, M. A. Xavier, and H. P. Kumar, "Effect of SiC and Al₂O₃ particles addition to AA 2900 and AA 2024 MMC's synthesized through microwave sintering," *Mater. Today-Proc.*, vol. 5, no. 2, pp. 7329–7336, 2018.
- [5] M. I. Ul Haq and A. Anand, "Dry sliding friction and wear behavior of AA7075-Si₃N₄ composite," *Silicon*, vol. 10, no. 5, pp. 1819–1829, 2018.
- [6] L. Zhang, Z. Wang, Q. Li et al., "Microtopography and mechanical properties of vacuum hot pressing Al/B₄C composites," *Ceramics International*, vol. 44, no. 3, pp. 3048–3055, 2018.
- [7] M. Irfan Ul Haq, A. Raina, A. Anand, S. M. Sharma, and R. Kumar, "Elucidating the effect of MoS₂ on the mechanical and tribological behavior of AA7075/Si₃N₄ composite," *Journal of Materials Engineering and Performance*, vol. 29, no. 11, pp. 7445–7455, 2020.
- [8] V. Mohanavel and M. Ravichandran, "Influence of AlN particles on microstructure, mechanical and tribological behaviour in AA6351 aluminum alloy," *Materials Research Express*, vol. 6, no. 10, article 106557, 2019.
- [9] M. L. Bharathi, S. Adarsh Rag, L. Chitra et al., "Investigation on wear characteristics of AZ91D/nanoalumina composites," *Journal of Nanomaterials*, vol. 2022, Article ID 2158516, 9 pages, 2022.
- [10] M. N. Akhtar, T. Sathish, V. Mohanavel et al., "Optimization of process parameters in CNC turning of aluminum 7075 alloy using L27 array-based Taguchi method," *Materials*, vol. 14, no. 16, p. 4470, 2021.
- [11] M. R. Akbarpour and A. Pouresmaeil, "The influence of CNTs on the microstructure and strength of Al-CNT composites produced by flake powder metallurgy and hot pressing method," *Diamond and Related Materials*, vol. 88, pp. 6–11, 2018.
- [12] E. Ghasali, P. Sangpour, A. Jam, H. Rajaei, K. Shirvanimoghaddam, and T. Ebadzadeh, "Microwave and spark plasma sintering of carbon nanotube and graphene reinforced aluminum matrix composite," *Arch. Civ. Mech. Eng.*, vol. 18, no. 4, pp. 1042–1054, 2018.
- [13] M. E. Turan and F. Aydin, "Improved elevated temperature mechanical properties of graphene-reinforced pure aluminium matrix composites," *Materials Science and Technology*, vol. 36, no. 10, pp. 1092–1103, 2020.
- [14] X. Zeng, J. Teng, J. G. Yu, A. S. Tan, D. F. Fu, and H. Zhang, "Fabrication of homogeneously dispersed graphene/Al composites by solution mixing and powder metallurgy," *Int. J. Min. Met. Mater.*, vol. 25, no. 1, pp. 102–109, 2018.
- [15] J. Su and J. Teng, "Recent Progress in graphene-reinforced aluminum matrix composites," *Frontiers of Materials Science*, vol. 15, no. 1, pp. 79–97, 2021.
- [16] X. Zeng, J. Yu, D. Fu, H. Zhang, and J. Teng, "Wear characteristics of hybrid aluminum-matrix composites reinforced with well-dispersed reduced graphene oxide nanosheets and silicon carbide particulates," *Vacuum*, vol. 155, pp. 364–375, 2018.
- [17] S. K. Selvaraj, M. K. Nagarajan, and L. A. Kumaraswamidhas, "An investigation of abrasive and erosion behaviour of AA 2618 reinforced with Si₃N₄, AlN and ZrB₂ in situ composites by using optimization techniques," *Archiv.Civ.Mech.Eng.*, vol. 17, no. 1, pp. 43–54, 2017.
- [18] K. B. Lee, H. S. Sim, S. W. Heo, H. R. Yoo, S. Y. Cho, and H. Kwon, "Tensile properties and microstructures of Al composite reinforced with BN particles," *Composites. Part A, Applied Science and Manufacturing*, vol. 33, no. 5, pp. 709–715, 2002.
- [19] S. Sardar, S. K. Karmakar, and D. Das, "High stress abrasive wear characteristics of Al 7075 alloy and 7075/Al₂O₃ composite," *Measurement*, vol. 127, pp. 42–62, 2018.
- [20] J. M. Mistry and P. P. Gohil, "Experimental investigations on wear and friction behaviour of Si₃N₄P reinforced heat-

- treated aluminium matrix composites produced using electromagnetic stir casting process,” *Compos. Part. B-Eng.*, vol. 161, pp. 190–204, 2019.
- [21] N. Idusuyi and J. I. Olayinka, “Dry sliding wear characteristics of aluminium metal matrix composites: a brief overview,” *Journal of Materials Research and Technology*, vol. 8, no. 3, pp. 3338–3346, 2019.
- [22] N. Kaushik and S. Singhal, “Wear conduct of aluminum matrix composites: a parametric strategy using Taguchi based GRA integrated with weight method,” *Cogent. Eng.*, vol. 5, no. 1, p. 1467196, 2018.
- [23] A. H. Idrisi and A. H. I. Mourad, “Wear performance analysis of aluminum matrix composites and optimization of process parameters using statistical techniques,” *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, vol. 50, no. 11, pp. 5395–5409, 2019.
- [24] M. O. Bodunrin, K. K. Alaneme, and L. H. Chown, “Aluminium matrix hybrid composites: a review of reinforcement philosophies; mechanical, corrosion and tribological characteristics,” *Journal of Materials Research and Technology*, vol. 4, no. 4, pp. 434–445, 2015.
- [25] R. A. Khatavkar, A. K. Mandave, D. D. Baviskar, and S. L. Shinde, “Influence of hexagonal boron nitride on tribological properties of AA 2618-HSI3N4 metal matrix composite,” *Int. Res. J. Eng. Technol.*, vol. 5, no. 5, pp. 3792–3798, 2018.
- [26] T. Gangatharan, A. A. Moorthy, and T. Rameshkumar, “Enhancing the tribological properties of composite materials for centrifugal pump applications,” *IRJET*, vol. 3, no. 3, pp. 195–199, 2016.
- [27] H. Chi, L. Jiang, G. Chen, P. Kang, X. Lin, and G. Wu, “Dry sliding friction and wear behavior of (TiB₂ + h-BN)/2024Al composites,” *Materials and Design*, vol. 87, pp. 960–968, 2015.
- [28] P. Paulraj and R. Harichandran, “The tribological behavior of hybrid aluminum alloy nanocomposites at high temperature: role of nanoparticles,” *Journal of Materials Research and Technology*, vol. 9, no. 5, pp. 11517–11530, 2020.
- [29] M. M. Boopathi, K. P. Arulshri, and N. Iyandurai, “Evaluation of mechanical properties of aluminium alloy 2024 reinforced with silicon carbide and fly ash hybrid metal matrix composites,” *American Journal of Applied Sciences*, vol. 10, no. 3, pp. 219–229, 2013.
- [30] M. E. Turan, Y. Sun, F. Aydin, H. Zengin, Y. Turen, and H. Ahlatci, “Effects of carbonaceous reinforcements on microstructure and corrosion properties of magnesium matrix composites,” *Materials Chemistry and Physics*, vol. 218, pp. 182–188, 2018.
- [31] F. Aydin and M. E. Turan, “The effect of boron nitride on tribological behavior of mg matrix composite at room and elevated temperatures,” *Journal of Tribology*, vol. 142, no. 1, pp. 1–7, 2020.
- [32] M. Rahimian, N. Parvin, and N. Ehsani, “The effect of production parameters on microstructure and wear resistance of powder metallurgy Al-Al₂O₃ composite,” *Materials and Design*, vol. 32, no. 2, pp. 1031–1038, 2011.
- [33] F. Aydin and Y. Sun, “Investigation of wear behaviour and microstructure of hot-pressed TiB₂ particulate-reinforced magnesium matrix composites,” *Canadian Metallurgical Quarterly*, vol. 57, no. 4, pp. 455–469, 2018.
- [34] R. Prasad, H. Kumar, P. Kumar, S. P. Tewari, and J. K. Singh, “Microstructural, mechanical and tribological characterization of friction stir welded A7075/ZrB₂ in situ composites,” *Journal of Materials Engineering and Performance*, vol. 30, no. 6, pp. 4194–4205, 2021.

BATTERY MANAGEMENT IN ELECTRICAL VEHICLES USING MACHINE LEARNING TECHNIQUES

Dr V Sravan Kumar¹, Dr. A. Yasmine Begum², Md Moniruzzaman³, K.V.Daya Sagar⁴, Dr L Malleswara Rao⁵, Santhosh P.⁶

¹Department of CSE, Balaji Institute of Technology and Science, Narsampet, warangal

²Department of Electronics and Instrumentation Engineering, Sree Vidyanikethan Engineering College, A. Rangampet, Andhrapradesh

³Department of Business Administration, World University of Bangladesh

⁴Department of Electronics and computer science, Koneru Lakshmaiah Education Foundation, vaddeswaram, Guntur, Andhrapradesh, India

⁵Department of Physics, SRI Y N College (A), Narsapur

⁶Department of EEE, Sri Krishna College of Technology, Coimbatore

Email: sravan.vanam@gmail.com

DOI: 10.47750/pnr.2022.13.S06.434

Abstract

Electric vehicle (EV) manufacturers are increasing production in order to keep up with the fast growing demand from customers. To meet the ever-increasing demand for electric vehicles (EVs), both well enough and up-and-coming manufacturers of automobiles will need to immediately boost their production of EVs while simultaneously lowering their prices in order to compete. However, the production of electric vehicles comes with its own set of challenges for automotive manufacturers who are looking to survive in the years to come. By generating digital twins of both their products and their production processes, businesses have the ability to virtually develop and test complete assembly processes as well as entire facilities. This speeds up the process of transitioning to high-volume production without compromising the product's quality. Battery management is one of the most challenging components of driving electric vehicles (EV). Batteries and the amounts of energy that they can store were the focus of this research. Researchers make use of a technique that is referred to as "machine learning" in order to monitor and improve the management of electric car batteries. One of the most challenging factors in Electrical Vehicles (EV) is battery management. This research paper discussed the effective use of battery management and its capacity. Researchers use a Machine learning technique to monitor and improve the level of managing techniques in EV's batteries.

Keywords: Electrical Vehicle, Battery Management, Learning Technique -FNN.

I. INTRODUCTION

The battery management system (BMS) is required to be placed in the motor vehicle in order to assure the safe operation of a rechargeable battery, whether it be a single cell or a pack. This function protects both the user and the battery by ensuring that the power output remains within the appropriate parameters at all times. A battery management system (BMS) is able to adjust the flow of coolant through the pack by opening and closing a variety of valves in response to the temperature of the battery pack it is managing. This results in the battery being able to function at its highest possible efficiency while also achieving higher levels of performance.

Battery Management System:

The battery management system (BMS) of a "smart" battery pack that is connected to an external data channel has the ability to monitor and regulate the pack's internal components remotely. One of the ways that the benefits of a smart battery pack can be described is through its functionality. A fuel gauge, smart bus connection protocols, general-purpose input/output (GPIO) access, cell balancing, wireless charging, built-in battery chargers, protective circuits, and more are just some of the features and functionalities that are up for grabs. These indications are created to give you specific information about the capacity of the battery in a way that isn't possible with the other indicators. If the gadget has access to this data, it may be able to make decisions that are more informed regarding how to lower the amount of power it consumes.

In order to provide a complete and in-depth analysis of the topic, this article has provided a review of the most recent and advanced technology for electric car batteries as well as battery management (EVs). The most important components, as well as their benefits and drawbacks, any recent technological advancements, as well as the challenges and opportunities that they present, have all been discussed in detailed. The most important contributions are highlighted in this section.

Coal-fired power plants that do not dispose of their waste in an appropriate manner have caused damage to the environment and contributed to a general deterioration in the quality of the air throughout the world. The emissions of industrial gases and the use of automobiles powered by internal combustion engines are to blame for the worsening of air pollution in urban areas (ICE). In light of the poor state of the environment, there is a concerted effort being made on a global scale to make significant headway in the research and development of electric vehicles (Chau and Chan, 2007). There are four primary classifications of electric vehicles, and they are as follows: (Chan, 2007, Sanguesa et al., 2021, nci et al., 2021, Liu et al., 2021f). Electric vehicles (EVs) are becoming increasingly popular, which has a number of beneficial benefits, including I reduced dependency on oil and gas, (ii) less of a carbon footprint, (iii) the start of a green transportation revolution, and (iv) the fight against climate change (Chau, 2016). Because electric cars (EVs) are so dependent on their power source, raising the popularity of EVs in international markets is seen as a potentially fruitful technique for dealing with this challenge.

Besides the machine and drive (Liu et al., 2021c) and the auxiliary electronics, the rechargeable battery pack is one of the most important parts of electric propulsions, and researchers are constantly looking for ways to improve it (Shen et al., 2014). Figure 1 is an illustration of the primary findings of this investigation that countries usage of Li-ion batteries.

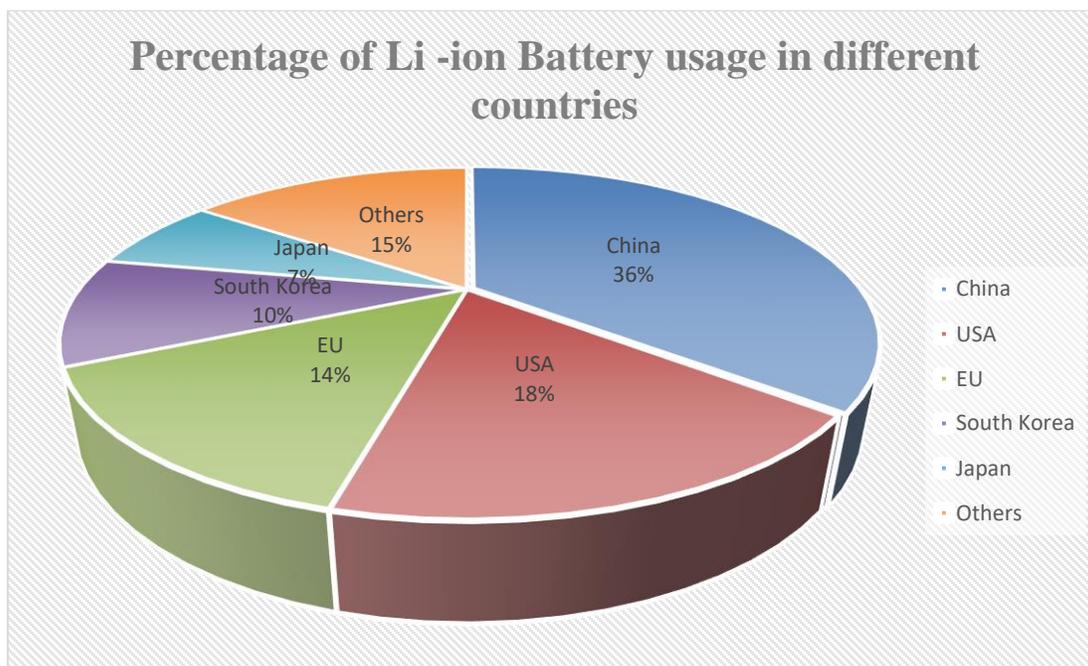


Figure 1. Percentage of Li-ion Battery usage in different countries

Features of the BMS:

The safety of an electric vehicle can be enhanced with the installation of a BMS. To review, the following is a summary of the four functions that the battery management system plays:

1. Monitoring the functioning of the battery
2. Regulating the temperature

3. Computations based on numbers any other relevant calculations
4. Facilitating internal and external communication

1. Monitoring the functioning of the battery

Monitoring is the key role that a BMS plays. For the purpose of determining its status within a cell, it keeps an eye on the following parameters:

With the help of the voltage metre, one is able to determine the total voltage of a cell as well as the overall voltage of the battery, as well as the highest and lowest voltages of individual cells.

2. Regulating the temperature

Displays the overall temperature of the battery, as well as the temperatures of each individual cell and the temperatures of the coolant input and output. The capacity of the battery can be determined based on its current level of charge. An indication of the overall health of the battery, represented as a percentage, demonstrating how much of the battery's initial capacity is still usable after it has been charged. The power state of the cell reveals the amount of energy that can be extracted from it at a given time given the conditions that are present, including the temperature, the load that is being applied, and any other relevant factors. Establishing the safety of the cell requires careful monitoring of all of its parameters as well as careful consideration of any potential problems that may arise from using it. How quickly and how much liquid is being pushed into the system. How much energy comes into and goes out of the cell in an electrical sense.

Temperature has the greatest impact on the life of a battery. The thermal management system of the battery is responsible for monitoring and controlling the temperature of the battery. These can either be passive or active systems, and the medium that does the cooling could be air, a non-corrosive liquid, or a substance that changes phase. Keeping a battery at a consistent temperature can be accomplished in the most straightforward way possible by using air as a coolant.

The majority of air-cooling systems either rely on the natural convection of the air around them or utilise an electric fan in order to effectively cool the area. Nevertheless, the fundamental problem with the system is that it does not work as anticipated. When compared to a system that uses liquid cooling, it has a very high energy requirement. Additionally, the additional components that are necessary for air-based systems, like as filters, can make vehicles heavier, which reduces the effectiveness of the batteries in bigger systems such as automobiles.

Liquid-cooled systems are superior to air-cooled ones in terms of their ability to remove heat from the environment. Either all of the batteries are fully submerged in the coolant, or the coolant can freely flow into the battery management system (BMS) without causing any harm to the batteries. Due to the extensive length of the cooling channels, this form of indirect thermal cooling might, on the other hand, cause large temperature swings across the BMS. However, the impacts can be reduced by increasing the pace at which the coolant is pumped through the system. As a result of this, there needs to be a balance struck between the rate of pumping and the consistency of the temperature.

3. Computations based on numbers any other relevant calculations

A BMS will establish the maximum charge and discharge rates that are safe for a particular cell by taking into account a number of different criteria, one of which is the maximum charge and discharge current. The following are some examples of these:

Since the previous time the battery was charged, how many KW hours' worth of power have been transferred?

- Measuring the open-circuit voltage of a cell is possible through the measurement of the cell's internal impedance.
- The amount of current that a cell is able to supply or store is what determines how much capacity it has, and this capacity is measured in ampere hours (Ah) (a "coulomb counter").

- The entire amount of energy that has been delivered by the battery in addition to the total number of cycles that it has gone through since it was initially put into use.
 - The sum total of the number of times the battery has been both charged and discharged is displayed here.
4. Facilitating internal and external communication

Controllers contained within a BMS are responsible for communicating with both the hardware and any devices that are linked to the BMS from the outside. The linked device is responsible for determining the level of complexity involved in these external communications. In most cases, a centralized controller will serve in the role of an intermediate for these types of interactions. It is possible to do so in a variety of methods, including the following:

There are many different types of serial communication that can be used.

DC-BUS communications are a serial protocol that operates across power lines. These communications are commonly used in vehicles that are equipped with CAN bus communicators.

Technologies that operate without wires include radios, pagers, mobile phones, and many others.

The only method utilised by low-voltage centralised BMSs to determine cell voltage is resistance division, but high-voltage BMSs are able to interact with one another. In order to have a distributed or modular battery management system, you will need low-level internal cell controllers or controller-to-controller communication. However, this presents a particularly difficult challenge in high-voltage systems as a result of the voltage differences that exist between the cells. That is to say, the ground signal in one cell may be hundreds of volts higher than the signal in the cell next to it in the array.

This problem can be fixed for volt-shifting devices through the use of either software protocols or hardware communication. Communication between pieces of hardware can take place either wirelessly or via an optical-isolator. The fact that a particular BMS architectural arrangement places limits on the number of cells that can be put to use is one factor that contributes to the complexity of internal communication. The modular hardware supports a maximum of 255 nodes, which is the maximum number of nodes that can be employed. Another drawback of high voltage systems is the length of time needed to complete the "searching" process, which involves reading the voltage and current of each cell. This can be a time-consuming endeavour. As a direct consequence of this, bus speeds are slowed, and several hardware configuration options are removed.

Optimizing Energy Usage:

Management systems for batteries ensure that the battery will continue to function in a safe and reliable manner while also ageing in a healthy manner. Multiple types of monitoring are utilised in order to keep track of variables such as the state of the battery, the voltage, the current, and the temperature of the surrounding environment. The battery management system (BMS) is in charge of monitoring and managing the charging process. It does this via communicating with the internal charger. By releasing the energy that has been stored, it extends the driving distance that can be covered by the vehicle. When it comes to electric vehicles, you need to steer clear of two potential issues: overcharging the batteries and draining them completely. This shields both the individuals inside the battery as well as the battery itself from any potential harm.

The electric car's battery is a key component that plays a vital role in the vehicle's ability to produce less pollution. The battery management system is an extremely important component of electric vehicles and hybrid electric vehicles. Its principal purpose is to guarantee that the battery will function in a reliable and risk-free way at all times. Cyient, a company that provides engineering services, is working closely with the most influential people in the business on two significant projects: developing sustainable energy solutions and expanding access to electric power.

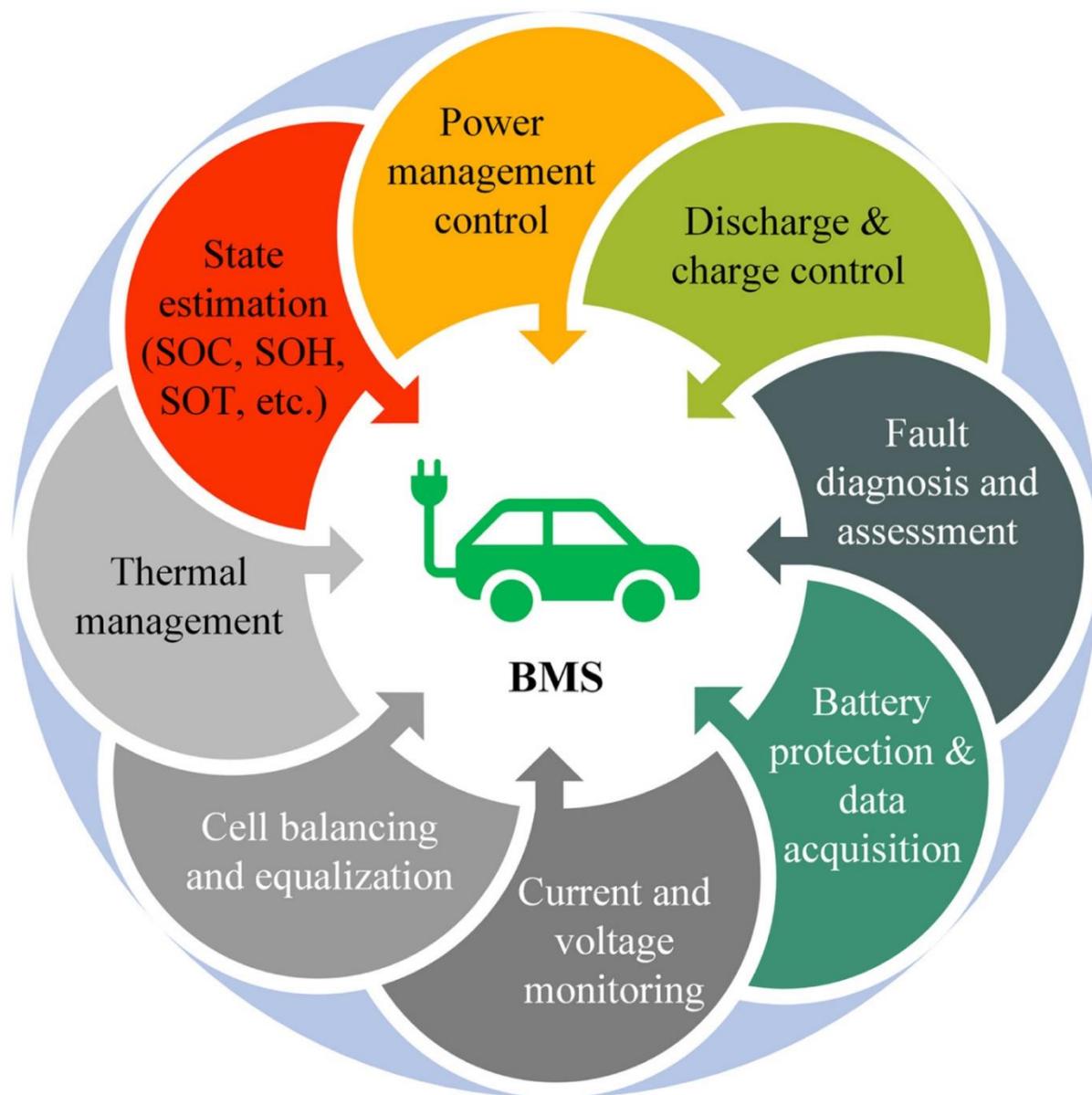


Figure 2. Functions of EV's BMS.

II. LITERATURE WORK

A Li-ion battery experiences a number of irreversible phenomena, including the deposition of lithium and the dissolution of the electrolytes. Although the battery's capacity decreases with time as a result of these processes, it continues to function normally for a greater span of time. The reliability of the system is directly proportional to the amount of time it will continue to operate normally. The estimation of the remaining life of the battery is an essential step in making certain that the device will perform as intended. It is well known that the amount of usable energy that can be stored in a battery decreases over time. If the capacity is expanded beyond a safe level, there is a risk of an explosion occurring.

After completing this method, the lithium-ion battery will be in a better state both in terms of safety and dependability. Because of this, it is absolutely necessary if you want to make an accurate prediction regarding the performance of the RUL battery [1].

It has been demonstrated that artificial neural networks (ANNs), namely feed-forward neural networks (FFNNs) and recurrent neural networks (RNNs), are capable of accurately estimating battery RUL [2]. It is believed that the RNN neural network technique for forecasting the RUL is useful because it makes use of and updates information obtained from degradation data [2-4]. RNN is a neural network technique. On the other hand, the fact that SVM can function with a small amount of training data is a significant advantage. As the size of the training data set grows, there is a proportional decrease in the number of support vectors [3]. Incremental and incremental algorithms have been created in order to integrate the significant SVR training data sample while leaving out the irrelevant part [4-6]. This has resulted in an increase in the robustness and stability of SVR when it is used with large-scale training samples. However, utilizing this method results in an increase in the cost of computing [5-7].

When generating uncertain predictions with kernel functions that have few parameters, RVM's performance is comparable to that of SVM, as shown in [8, 9]. Because of the manner that uncertainty is accounted for within the model, RVM is an effective method for calculating RUL. An incremental online learning method is proposed in [8] as a means of improving the RVM's ability to make accurate long-term predictions.

GPR is another kernel-based ML technique that, in addition to finding prognostic information, may also explain the uncertainty surrounding its mean prediction [10, 11].

RUL forecasts made with deep neural networks have lately gained popularity due to the high level of accuracy they provide [12-14]. In the study referred to as [13], a recurrent neural network (RNN) with long-short-term memory (LSTM) is trained in order to comprehend the interdependent long-term changes in the performance of lithium-ion batteries. The LSTM-RNN is adaptively optimized by employing the robust mean square back-propagation approach, and the dropout technique is used to alleviate the overfitting problem. Using an optimized LSTM-RNN, it is possible to construct a capacity-oriented RUL predictor. This predictor has the ability to identify the underlying long-term dependencies that exist between deteriorated capacities. The efficiency of this predictor's long-term learning is compared to that of the support vector machine, the particle filter, and the RNN that was originally developed.

Overvoltage and undervoltage are two of the most common sorts of problems that can occur inside a battery system; both of these issues need to be guarded against by the management system for the battery [15]. In the charge-discharge phase of the battery, irreversible chemical reactions take place. These reactions could potentially have an effect on the lithium plating and dendrite formation of the battery, particularly at lower temperatures. In addition, dendrites can grow between the anode and the cathode as a result of intercalation, which can cause an internal short circuit and put the battery's performance and safety at risk.

If this essential issue is not addressed, it may result in thermal runaway, which can lead to catastrophic failures if it is not addressed. In order to ensure the safety of the batteries, a significant amount of work has been done into the development of model-based and machine learning techniques for problem detection and safety management [16].

In the diagnostic and forecasting work that has been done over the course of the past few years, model-based approaches have become increasingly widespread. On the other hand, there haven't been many studies that make use of machine learning approaches such ANN [17, 18], SVR [58], and GPR [59]. A data-driven method for evaluating the state of a battery's health using a support vector machine is presented in the article [16]. RNN-LSTM is at the heart of a novel deep learning approach that was developed by Hong et al. for the purpose of accurately predicting the voltage of multi-forward-step battery systems. The findings of the investigation provided conclusive evidence in support of the viability of the proposed method for forecasting battery voltage. Comparisons of hyper-parameters [16] illustrate the dependability and precision of this method. [11] outlines an algorithm that is reliable and efficient for performing on-board diagnostics of a short-circuit (SC) battery malfunction. Keep in mind that the probability algorithm uses data from the power management integrated circuit on the voltage and current at the battery terminals. This information is gathered from the battery (PMIC).

The purpose of the research that is described in [12] is to investigate the effectiveness of various machine learning strategies for the classification of data by making use of supervised learning strategies.

Methods for diagnosing battery cells that are being tested include k-nearest neighbours (k-NN), logistic regression (LR), Gaussian naive Bayes (GNB), kernel space vector machine (KSVM), and neural networks (NN). It has been demonstrated that separating damaged or imbalanced Ni-MH battery cells can be accomplished using linear and nonlinear approaches. According to the findings of this study, the LR algorithm is the one that can be implemented with the fewest number of resources while still giving results that are satisfactory. The K-NN approach has poor classification performance because the edge of the curve

it produces is jagged. Because their radial base kernel functions may be modified to better suit the individual properties of the battery cells, KSVM approaches perform exceptionally well when it comes to categorization. The probabilities of events are used as the basis for the generation of a non-linear, highly accurate classifier by GNB. It is important to keep in mind that when the data have been correctly identified, NN will produce a high assessment score. On the other hand, there are parts of its categorization regions that don't correspond with the data pattern at all. Training data are required in order for this approach to make any progress in improving its performance.

In recent years, both diagnosis and prognosis have garnered a significant amount of attention.

They were conceived through the application of model-based processes. On the other hand, only a limited number of research projects have been presented that make use of machine learning techniques such as ANN [13], SVR [12], and [15].GPR [13]. A data-driven method is recommended for in [60], which may be accessed at evaluation and prediction of the state of health of a battery utilizing.

The Support Vector Machine Is Ready To Assist You With Anything You Need. Hong Kong and the rest of China's territory of et Everyone worked together to dig a brand-new and enormous hole. Acquiring the ability to make accurate forecasts across multiple steps RNN-LSTM voltage for battery systems. What we are looking at is the following: proven that the proposed method has a greater ability to anticipate the outcome. a battery's potential in terms of the voltage it can produce. Strength and pinpoint precision

Comparison to other methodologies is used to investigate the validity and precision of this approach alternate hyper-parameters [16]. A clear and solid explanatory algorithm installed in the car for the detection and diagnosis of battery short circuits.

An unusual item is handed out to the audience members. To be more specific, keep in mind that the probability technique is dependant on specific information regarding the terminal voltage and current of the battery that is the system keeps tabs on the amount of electricity that is used.

controller (PMI) (PMIC).

The organization of the paper is as shown above. The information presented in Section 2 is a summary of the Batteries' control units. In the third and last section, a comprehensive proposed techniques of the EV's battery management is presented. In Section IV, the analysis of the device is presented. A comparison is made of the many different approaches that BMS programmes take to making education more accessible. The final section provides a summary as well as some ideas to wrap things up.

III. MACHINE PROPOSED LEARNING TECHNIQUES

There is a wide range of potential applications for machine learning (ML). There is a comprehensive organization and explanation of the machine learning algorithms in [12], making it possible for anyone to use them. The primary objective of this research is to establish a system for classifying the plethora of different machine learning strategies that have been applied to BMS issues.

Feed Forward Neural Network:

The following section presents work that is relevant to the application of ML approaches to the determination of a battery's SOC.

The "state of charge" (SOC) of a car's battery can be thought of as being comparable to a gas gauge in a traditional gasoline-powered vehicle. Even though it is not possible to directly monitor the SOC in order to figure out how much useful energy is still left in the battery, like you would with a fuel gauge: You'll just have to make an educated guess and go from there. This can be accomplished in a number of ways using measurable signals, such as the voltage, current, and temperature at the battery terminals [4]. Each of these methods has its own unique set of advantages and disadvantages.

Because of the way the battery works, it's not exactly an easy task. It is essential to have a precise evaluation of the SOC in order to improve the performance, safety, and comfort of the vehicle. This will prevent wasting money by overdesigning or undersizing the pack, which will in turn save money.

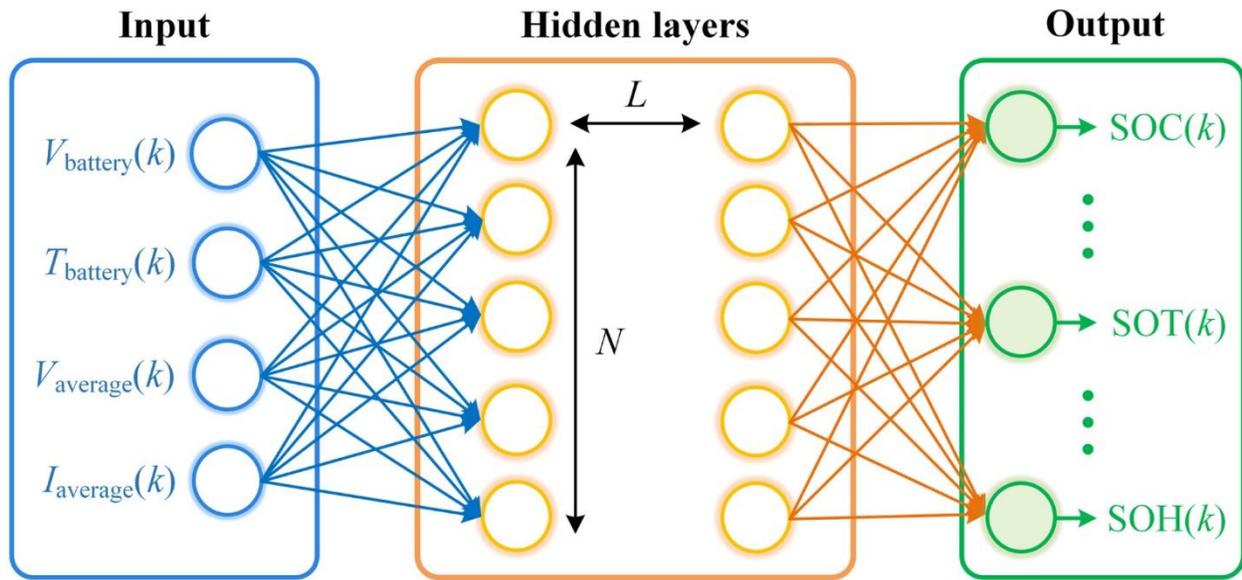


Figure 3.1 FFN for BMS.

An FNN has the potential to generate mappings that are non-linear between any real and imaginary inputs and outputs. It is among the NNs that are easiest to utilise that can be found. Figure 3 illustrates the simple perceptron FNN, which consists of a single output, many inputs, and one hidden layer in its representation. A nonlinear activation function, denoted by the letter F, is required to be predetermined in addition to the construction of the FNN. The hyperbolic tangent function, which is utilised on a regular basis, is depicted in the following equation (1). Its output is consistently in the range of -1 and 1.

Rectified linear units, also known as RELUs, are yet another possibility; these units are represented by a function that always returns zero in response to a negative input value (see Eq. 2).

$$F(x) = \frac{2}{1 + e^{(-2x)}} - 1 \text{ (Equation 1)}$$

$$F(x) = \max(0, x) \text{ (Equation 2)}$$

During training, the weights W_N and bias b of the one-layer perceptron are optimised to reduce as much as possible the squared sum of errors caused by the loss function.

When it comes to training a model, the backpropagation method [10] is utilised rather frequently. This method first estimates the partial derivative of the error based on the values of the weight and bias, and then adjusts the weight and bias in accordance with those estimations. This helps to keep expenses to a minimum. The total number of epochs equals the number of times the entire training set was completed in its entirety. This is the benchmark that will be used to establish when a training programme should come to an end. It is also possible to terminate the process based on how rapidly the error is dropping; however, this is something that is determined by the training algorithm that is currently being utilised.

The SOC of FNN is shown in table 1.

Table 1. SOC of FNN

State of Charge Error (SOC)	FNN Solutions
1.5-16%	6
1.6-17%	9
1.7-18%	12
1.8-1.9%	11
1.9-2.0%	5
2.0-3.5%	6
Did not converge	1

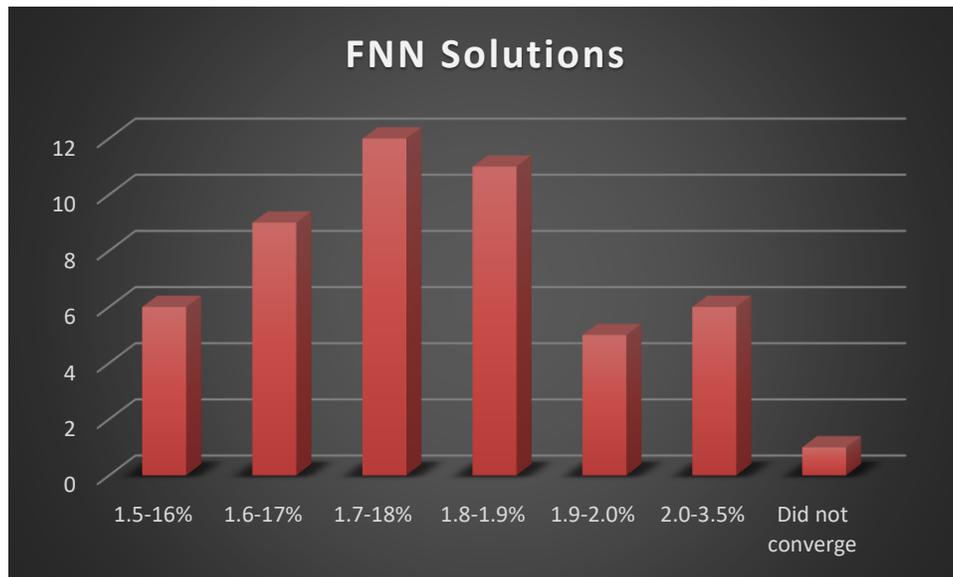


Figure 3. Shows the SOC Estimation Error of FNN Solution for an Effective Battery Management.

Table 1 provides a summary of the SOC estimation error for some of the techniques that are presented in this section. It also includes the data profiles that were used to train and test the techniques, the network inputs and outputs, a qualitative ranking of the dataset quality, the battery type(s) that were used, and the temperatures that were investigated.

The raw data are used in almost all of the studies, with only a few exceptions (voltage, current, and temperature). The first half of the study consists of driving cycles similar to those in automobiles and/or constant temperatures, while the second half of the study consists of continuous or pulsed current cycles and/or constant temperatures. Studies that use data sets that are not very complicated, such as those that have a temperature and current that remain stable, are given a score of, whereas studies that use data sets that are overly complicated are given a score of. The FNNs currently have an error rate of 0.7% on average.

IV. CONCLUSION

This research examines the use of Machine Learning strategies to the predict an EV's battery management.

According to the findings of the research that are being discussed in this article and summarised, a broad variety of machine learning strategies can be applied in order to produce estimations for battery management. According to the findings of this analysis, a few of the included studies were missing a sufficient quantity of real-world data, which is the kind of information that would be included in an authentic xEV application. This critical analysis will give a strategy for the advancement of battery-

related technologies, battery replacement technologies, and battery technologies for electric cars. The goal of this critical analysis is to provide a strategy for the advancement of these technologies. When one considers the possibility of an information and energy internet for the purpose of transferring data and power, the significance of this issue becomes further clearer. Among its most significant problems are limitations on storage space, charging speed, safety, and the ability to produce accurate real-time forecasts of LIB states using a realistic dataset. The ultimate objective is to create a live, data-driven electrothermal model that can be used for state prediction, health monitoring, and charge regulation in real time. This will be accomplished over the course of several years.

REFERENCES

1. A. Emadi, *Advanced Electric Drive Vehicles*. New York, NY, USA: CRC Press, 2015. R. Zhang, B. Xia, B. Li, L. Cao, Y. Lai, W. Zheng, H. Wang, and W. Wang, "State of the art of lithium-ion battery SOC estimation for electrical vehicles," *Energies*, vol. 11, no. 7, p. 1820, 2018.
2. M. Berecibar, I. Gandiaga, I. Villarreal, N. Omar, J. Van Mierlo, and P. Van den Bossche, "Critical review of state of health estimation methods of lithium batteries for real applications," *Renew. Sustain. Energy Rev.*, vol. 56, pp. 572–587, Apr. 2016.
3. S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, 1st ed. New York, NY, USA: Public Affairs, 2019.
4. I. Goodfellow, Y. Bengio, and A. Courville, *Deep Learning*. Cambridge, MA, USA: MIT Press, 2016. A. Shrestha and A. Mahmood, "Review of deep learning algorithms and architectures," *IEEE Access*, vol. 7, pp. 53040–53065, 2019.
5. C. Vidal, M. Haußmann, D. Barroso, P. M. Shamsabadi, A. Biswas, E. Chemali, R. Ahmed, and A. Emadi, "Hybrid energy storage system state-of-charge estimation using artificial neural network for microhybrid applications," in *Proc. IEEE Transp. Electrific. Conf. Expo (ITEC)*, Long Beach, CA, USA, Jun. 2018, pp. 1075–1081.
6. H. Liu, A. Gegov, and M. Cocca, *Rule Based Systems for Big Data*, vol. 13. Cham, Switzerland: Springer, 2016.
7. Zhang G., Cao L., Ge S., et al. In situ measurement of radial temperature distributions in cylindrical li-ion batteries. *J Electrochem Soc*, 161 (10) (2014), pp. A1499-A1507
8. Hande A. Internal battery temperature estimation using series battery resistance measurements during cold temperatures. *J Power Sources*, 158 (2) (2006), pp. 1039-1046
9. Yanhui Sui., Wen Wang., Baojia Xia., et al. Optimization analysis of ventilation structure of NiMH battery pack for hybrid vehicles. *Automot Eng* (03) (2010), pp. 203-208.
10. Alliance, 2019 Alliance G.B.A Vision for a Sustainable Battery Value Chain in 2030: Unlocking the Full Potential To Power Sustainable Development and Climate Change Mitigation. *World Economic Forum*, Geneva, Switzerland (2019), pp. 1-52.
11. Attanayaka et al., 2021 Attanayaka A.M.S., Karunadasa J.P., Hemapala K.T. Comprehensive electro-thermal battery-model for Li-ion batteries in microgrid applications. *Energy Storage*, 3 (2021), Article e230.
12. Guangzhong Dong, Jingwen Wei, Zonghai Chen, Han Sun, and Xiaowei Yu. Remaining dischargeable time prediction for lithium-ion batteries using unscented kalman filter. *Journal of Power Sources*, 364:316–327, 2017.
13. Tatsuya Inagi, Yoshikatsu Kamisawa, Makoto Yasuhira, and Shigenori Fujiwara. Power management method, power management server, and office machine for managing electric power, February 20 2018. US Patent 9,898,023.
14. Meir Adest, Lior Handelsman, Yoav Galin, Amir Fishelov, and Guy Sella. Battery power delivery module, March 12 2019. US Patent App. 10/230,245.
15. Akbarzadeh et al., 2021 Akbarzadeh M., Jagemont J., Kalogiannis T., Karimi D., He J., Jin L., et al. A novel liquid cooling plate concept for thermal management of lithium-ion batteries in electric vehicles. *Energy Convers. Manage.*, 231 (2021), Article 113862.
16. Ali et al., 2019 Ali M.U., Zafar A., Nengroo S.H., Hussain S., Junaid Alvi M., Kim H.J. Towards a smarter battery management system for electric vehicle applications: A critical review of lithium-ion battery state of charge estimation. *Energies*, 12 (2019), p. 446.
17. Assaworrorarit and Fan, 2020 Assaworrorarit S., Fan S. Robust and efficient wireless power transfer using a switch-mode implementation of a nonlinear parity-time symmetric circuit. *Nat Electron.*, 3 (2020), pp. 273-279
18. Bhargav et al., 2020 Bhargav A., He J., Gupta A., Manthiram A. Lithium-sulfur batteries: Attaining the critical metrics joule, 4 (2020), pp. 285-291.
19. Z. Yang, Improving the Conversions Between the Various Passenger Vehicle Fuel Economy/CO₂ Emission Standards Around the World, Jan. 2017.

Peer reviewed Journal

Impact Factor: 7.265

ISSN-2230-9578

Journal of Research and Development

A Multidisciplinary International Level Referred Journal

July 2022 Volume-14 Issue-7

Chief Editor

Dr. R. V. Bhole

*'Ravichandram' Survey No-101/1, Plot
No-23, Mundada Nagar, Jalgaon (M.S.)*



Address

'Ravichandram' Survey No-101/1, Plot, No-23, Mundada Nagar, Jalgaon (M.S.) 425102

Journal of Research and Development

A Multidisciplinary International Level Referred and Peer Reviewed Journal

July-2022 Volume-14 Issue-7

Chief Editor

Dr. R. V. Bhole

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102

EDITORIAL BOARD

<i>Nguyen Kim Anh</i> [Hanoi] Vietnam	<i>Prof. Andrew Cherepanow</i> Detroit, Michigan [USA]	<i>Prof. S. N. Bharambe</i> Jalgaon[M.S]
<i>Dr. R. K. Narkhede</i> Nanded [M.S]	<i>Prof. B. P. Mishra,</i> Aizawal [Mizoram]	<i>Prin. L. N. Varma</i> Raipur [C. G.]
<i>Dr. C. V. Rajeshwari</i> Pottikona [AP]	<i>Prof. R. J. Varma</i> Bhavnagar [Guj]	<i>Dr. D. D. Sharma</i> Shimla [H.P.]
<i>Dr. AbhinandanNagraj</i> Benglore[Karanataka]	<i>Dr. VenuTrivedi</i> Indore[M.P.]	<i>Dr. ChitraRamanan</i> Navi ,Mumbai[M.S]
<i>Dr. S. T. Bhukan</i> Khiroda[M.S]	<i>Prin. A. S. KolheBhalod</i> [M.S]	<i>Prof.KaveriDabholkar</i> Bilaspur [C.G]

Published by-Chief Editor, Dr. R. V. Bhole, (Maharashtra)

The Editors shall not be responsible for originality and thought expressed in the papers. The author shall be solely held responsible for the originality and thoughts expressed in their papers.

© All rights reserved with the Editors

CONTENTS

Sr. No.	Paper Title	Page No.
1	Urban Water Management in India: An Analysis Dr. Tippanna B. Kolkar	1-5
2	Malnutrition: What is malnutrition? Prof. Mrs. Baig Zareen Fatema	6-10
3	Usage of Library Service by the Researcher in COVID-19 at the Punyashlok Ahilyadevi Holkar Solapur University, Solapur Mr. Vinayak Sayanna Gadagi	11-13
4	Post Modern Youth Sensibility in Chetan Bhagat's One Night @ the Call Center Naween Kumar Pareek	14-16
5	'The Sins of the Father are to be Laid upon the Children' as seen in Amitav Ghosh's The Ibis Trilogy Dr. Sharmila Priya S	17-20
6	Urban Tourism and Challenges: A Study of Varanasi City Pragya, Prof Ujjwala R. Khare	21-27
7	Sericulture Is a Boon and Tradition of Tamil Nadu; Growth and Deve3ographical Analysis Dr. J. Nandhini, Dr. J. Sarala Devi	28-33
8	Knowledge of Anganwadi workers and their problems in rural Areas Premavati S Patil, Dr. S. H. Honnalli	34-38
9	Survey of Medicinal Plants used by Local people of Armori taluka, Gadchiroli District, (M.S.) India Vasanta I. Kahalkar	39-42
10	Use of Information Communication Technologies (ICTs): For Accessibility of Grey Literature in Medical College Libraries Dr. Khandekar Ganesh Bajirao	43-47
11	Library Automation - An Introduction Shashikala S Angadi	48-52
12	A Study of Impact of Bibliotherapeutic Approach on Challenges Faced By Students of Teacher Education Institute Mrs. Suvarna S. Parab, Dr. K. O. Mandgaonkar	53-55
13	"A Study of Virtual Banking in India" Mrs. Rohini Sampt Bhosale	56-59
14	Cultural Gems in the Fictions of Chinua Achebe and Mulk Raj Anand Dr. Dnyaneshwar Kisan Satbhai	60-63
15	Opportunities after Covid in vegetables marketing Vinod Hanumant Awaghade	64-66
16	A Geographical Study of Occupational Structure in Beed District (M.S) Dr. Suryakant S. Pawar	67-69
17	Gender Gap in Literacy- A Case Study of Malda, West Bengal Arunima Bhattacharya	70-73
18	Representation of Fantasy in Salman Rushdie's Luka and the Fire of Life Dr. V Ponnulexmi, Dr. S Ambika	74-77
19	The Impact of English Language Teaching Methods on Academics through Digital Material Mrs. Md. Roshan Jameer, Mr. Ollala Srinivas	78-82
20	Ganigas: Condition of Cold Pressed Oil Industry Meghana G	83-86
21	The Taliban's Neo-Old Afghanistan: Humanitarian Crisis and Emerging Refugee Problem Mr. Sagar Gopal Rathod	87-90
22	Impact of online Education on the Mental Health and Physical Health of the Students (Raigarh, Chhattisgarh, India) during Covid 19 Pandemic Lt. Dr. Sharda Ghoghre	91-93
23	Women Entrepreneurship and Papad Industry Dr. P. S. Girase, Smt. S. G. Wankhede	94-96
24	Interpreting Brain activity and Behavioural quantification of Humans towards the challenge and visualization of the dataset Nethra S, Rajha Priya A	97-102
25	Impact of Motivation on the Performance of Employees of NCR Gaurav Bhati, Dr. Richa Kaugshal	103-108
26	Civic Amenities and Characteristics among Small Urban Towns in India: A Case Study of Kushinagar Dr. Jyotsna Pandey	109-112
27	A Positive Effect of Nanotechnology on Global Warming & Climate Change Dr. L. Malleswara Rao, Dr. APV Appa i Rao, Ch. Sundar Singh, P Rama Krishna i Rao, Ch. Kanaka Rao	113-117

28	Social Media Used By the Academic Libraries during Covid-19 Pandemic Lockdown to Provide Information to the Library Users Mr. Amol B. Meshram, Dr. Kishorsingh Chungade	118-120
29	Yoga and Mental Peace: A Study Nipan Haloi	121-124
30	Traditional Uses of Medicinal Plants in Treating Bone fracture, Urine stone, Stomachache and Jaundice in Chandgad Tahsil (District Kolhapur) of Maharashtra, India Arun Patil, Varsha Jadhav	125-127
31	Population Characteristics of Malegaon & Nandgaon Tahsils of Nashik District Dr. Sunil Ashok Deore	128-134
32	Women in the Teaching Profession: Problems and Challenges: A Special Reference To Female Lecturers Dr. Prathima. PS, Sheril Tellis, kusuma PS, Hajira Khanum	135-138
33	A Study of Internet Awareness among Higher Secondary School Students Dr. (Mrs.) P. Kanmani	139-141
34	Economic Development and Human Development Mrs. Kamble Shiladevi P.	142-145
35	Insurance Literacy – Tool to Save Our Life Mrs. A. Maria Bharathi, Dr. (Smt) R. Muthu Lakshmi	146-152
36	Role of Behavioural Finance on Investment Decisions: A Comparative Study Femy Moni , Nanet Joy	153-162
37	New Education Policy 2020 and Children with Disability UMA, Dr. Ajay Kumar Mishra	163-166

Urban Water Management in India: An Analysis

Dr. Tippanna B. Kolkar

Professor of Economics Govt. First Grade College, Kittur Tq: Kittur Dist Belagavi- Karnataka

Email: drtippannakolkar@gmail.com

Abstract: *Today urban area is growing very fast with the challenges of infrastructure facilities, among basic facilities water is a critical natural resource for the growing urban areas. Commercial, residential, and industrial users already place considerable demands on this resource, which often requires treatment, may be located at great distance from the city, and is almost always in demand by multiple sectors. According to the UNDP 2006 report, the industrial and domestic water demand expected to double by 2050, competition among urban, semi-urban, and rural areas will likely worsen. Today the world's population has reached 7 billion, and more people live in cities than in rural areas, yet the benefits of city life are not available to all. Water Management involves the fields of Proper water supply, Maintenance of urban drainage, wastewater treatment and sludge handling. The challenges facing today's major cities are daunting, and water management is one of the most serious concerns. Potable water from pure sources is rare, other sources of water must be treated at high cost, and the volume of wastewater is growing. Urban water management is now on the verge of a revolution in response to rapidly escalating urban demands for water as well as the need to make urban water systems more resilient to climate change. At the same time, because of climate change, more frequent and extreme weather events are expected to alter the quality, quantity, and seasonality of water available to urban centers and their surroundings. Cities are facing a series of challenges: on-going urbanization, resource depletion and emissions, an ageing and deteriorating urban water supply infrastructure and the effects of climate change. To meet these challenges and to be able to drive sustainable economic growth, cities need to become smart and tap their innovation potential through the use of Information and Communication Technologies; this will allow us to create cities with a smaller water footprint overall. Urgent actions are needed to combat water stress, to remedy the vulnerability of infrastructures, and to modify water use patterns in agricultural, industrial and domestic processes.*

Introduction

Urban water management is now on the verge of a revolution in response to rapidly escalating urban demands for water as well as the need to make urban water systems more resilient to climate change. At the same time, because of climate change, more frequent and extreme weather events are expected to alter the quality, quantity, and seasonality of water available to urban centers and their surroundings. Cities are facing a series of challenges: City populations are expected to increase and have a growing share in resource consumption and emissions. According to the United Nations, city dwellers are expected to double by 2050, with most of this urban growth expected to occur in developing countries. The need to increase water efficiency and water savings by investing in resource efficiency has been widely acknowledged as one of the top research and policy priorities for the upcoming decades, in view also of the urgency to adapt to climate change. This will be achieved by optimizing the operation of water utilities, thus saving water and energy, and minimizing network leakages and non-revenue water. At the water

utility level, smart pressure management and optimized operation based on smart algorithms, network intelligence, and the installation of pressure and flow sensors throughout the network can significantly improve operations, save water and energy, and successfully follow the new trends in cities. The use of relevant ICT and social computing can be instrumental in raising awareness of stakeholders on the significance of the water sector in sustainability, and can be used to change behaviors and attitudes among citizens. ICT can help water managers drive aggressive information campaigns and integrate the water sector with other city services, in order to deliver sustainable services and quality in urban life. Cities located near water bodies may be at risk of climate change-related disasters. In response to such threats, water managers are revisiting conventional practices as they search for efficient ways to ensure human well being while safeguarding the integrity of the resource base. There are many challenges to the efficient and effective operation of the water supply network, especially since leakage levels often remain high, leaking not only

water but revenue at the same time, since water distribution is an energy-intensive business, with water being pumped. With an ageing infrastructure, burst rates are rising, while replacing affected network sections requires large capital investments. Given the fact that most networks are still controlled manually, the operational costs of managing these challenges are also rising. Pressure management is really a central issue in tackling the challenges of leakage, bursts and high operational costs. The dilemma faced here is: on the one hand pressure needs to be consistently high enough to satisfy customer needs providing water in adequate pressure, while on the other hand, excessive pressure drives up leakage, burst frequency, energy consumption and operational costs, while decreasing the lifespan of network assets. So, the goal of pressure management is pressure optimization, which usually follows a successful network simulation.

Goal of urban water management

About 30% of people in India live in cities that are expected to double in population by 2050. With a growing economy and changing lifestyles the pressure on already strained water resources is increasing. The government has shown an interest in Integrated Urban Water Management (IUWM) as a new framework and approach for the nation. Some cities already face acute water shortages and deteriorating water quality. The goals of urban water management are to ensure access to water and sanitation

infrastructure and services; manage rainwater, wastewater, storm water drainage, and runoff pollution; control waterborne diseases and epidemics; and reduce the risk of water-related hazards, including floods, droughts, and landslides. All the while, water management practices must prevent resource degradation. Conventional urban water management strategies, however, have strained to meet demand for drinking water, sanitation, wastewater treatment, and other Most cities in India are water stressed, with no city having 24/7 water supply. According to the Ministry of Urban Development, 182 cities require immediate attention in regards to proper water and wastewater management. According to official statistics, the coverage of sanitation has increased but resource sustainability and slippages are very common in that coverage. Moreover, in cities with more than one million people, the official water supply after 35% loss in leakages is just 125 liters/day per capita which is considerably lower than the demand of 210 liters/day per capita. Infrastructure development and regulations have not kept pace with population growth and urbanization and as a result wastewater management has become a major challenge. Government has made significant efforts to reduce surface water pollution but they remain jeopardized by the lack of wastewater treatment. An estimated 160 million latrines and septic tanks contribute to 80% of the pollution of the national surface waters.



Situation of Girls pumping from water from communal pump



Effective water governance with an IUWM

perspective encompasses many aspects with the main following key elements: adopting a new mind set, a holistic and cross sectoral approach linking urban water management with overall urban planning; adjusting some of the policy and legislation concerning the use of water and reuse of waste water; analyzing aspects of centralized and decentralized management; assessing the economic and financial impact of adopting an IUWM approach; building the capacity of technical and managerial staff; and sharing information with the public and users.

Potential solution for India

So why is IUWM right for India? The IUWM approach is a paradigm shift for urban water management. It is not a prescriptive model but a process that invites existing cities and emerging ones to adjust their current planning and management practices, given their own priorities, in a hydrological, environmental and socio-economic context. It is based on the following key concepts. There is also major groundwater exploitation in urban India as many towns and cities depend on groundwater for their supply. Reform is needed which reduces non-revenue water, groundwater exploitation, considers waste as a resource, and looks at the water cycle in a holistic way. with population growth and urbanization and as a result wastewater management has become a major challenge. Participation of key stakeholders coming from the public, private and social sectors representing different socio-economic activities that have an interest in water in urban areas. There can be many stakeholders involved but an agreement needs to be reached with the representatives of local government who remain the main convener. Not all have the same role and responsibility, but all need to be aware and contribute.

Wastewater Management

Urban wastewater represents a significant pollution load. Where sanitation facilities are inadequate, all available channels become a means for wastewater disposal example, waterborne sanitation systems and pollution mitigation facilities may not be sustainable. World Health Organization guidelines (WHO, 2006a) provide an integrated preventive management framework for safety along the chain from wastewater generation to the consumption of products grown with the wastewater and excreta and recognize that wastewater treatment is one possible component in an integrated risk-management approach. Strict and expensive treatment technologies, however, are not universally feasible or reasonable. Urban water security through a holistic approach implies managing water resources and its waste in a new integrated way, with a focus on: considering the whole urban water cycle as one system within the watershed; aiming for water security through diversity and optimum use of all potential sources of water and matching water quality with purpose of use; aiming for a better utilization of natural systems for water and wastewater treatment; considering storm water/rainwater catchment systems as a potential source; better managing use of water, effluents and water demand and hygiene behavior; strengthening leakage management and maintenance; strengthening resilience of urban water systems that are facing drought or floods. Wastewater is a resource that can be used productively. Grey water can be reused for irrigation, urban agriculture and industrial processes, treated or untreated depending on the purpose of its use and its legislation; nutrients in wastewater can be used for energy production and fertilizer production.

Water quantity

Worldwide, irrigated agriculture may account for 70–80 percent of water withdrawals. Industrial use amounts to an estimated 20 percent of total water use, although this is increasing in urbanizing economies. The proportion of domestic water use is approximately 10 percent of the total. With industrial and domestic water demand expected to double by 2050 (UNDP, 2006), competition over water sources will escalate. Given the pressure on the water resource base, use of existing supplies must become more efficient. Service providers lose large volumes of water to leaks in the distribution system, an estimated 32 billion cubic meters per year worldwide; and illegal connections or shortcomings in water billing account for another 16 billion cubic meters per year (Kingdom et al., 2006). The difference between the amount of water that goes into the distribution system and the amount that eventually reaches – and is billed to – the customer is referred to as nonrevenue water.

Quality of Water

Water scarcity problems, exacerbated by poor water quality, may limit the volume of water available for specific uses. Degradation often results from human activity – intensive agriculture, resource-heavy industries, and rapid urbanization – that distorts natural water cycles and processes across the rural-urban spectrum. In cities, for example, the concentration of built-up impermeable areas means that less water infiltrates to groundwater. The base flows of streams are affected and the volume of surface runoff increases. The resulting storm water flows can convey greater amounts of pollutants, which reduce water quality. Nonpoint source pollution can seep undetected into aquifers, damaging downstream ecosystems and drinking water sources.

Water reclamation and reuse

Reclamation and reuse are essential elements of any sustainable urban development strategy. Used water is harvested and treated to different quality standards for reuse in agriculture, industry, and other sectors. Cities can thereby improve human and environmental health, while supporting economic activities and the recycling creates a multiplier effect, whereby a given volume of water can be made more productive. In some peri-urban areas, treating and reusing reclaimed water for food production is an option for increasing food security. Farmers derive a range of benefits from the use of

wastewater for irrigation, it is a reliable source that is usually free and readily accessible, and available near their urban market. In addition, wastewater tends to contain significant levels of nutrients, thereby reducing the need for chemical fertilizers. The use of wastewater in agriculture supports the livelihoods of farmers, traders, and other actors along the agricultural value chain. It reconciles the public health and environmental resource protection interests of a city with the local farming community's desire to maintain an agricultural way of life.

Rainwater harvesting

Rainwater harvesting can help address water scarcity at the household level and may be easy and cost-effective to implement. Flow- or roof-water harvesting provides a direct water supply and can recharge groundwater, 62 Integrated Urban Water Management GLOBAL WATER PARTNERSHIP while reducing flooding. Such measures may be an immediate solution to accompany long-term infrastructure improvements in water supply and drainage. To date, comprehensive documentation of the design criteria, costs, benefits, impacts, and constraints of large-scale adoption is generally lacking and would be needed to evaluate the viability of scaling up.

The Future of Urban Water Governance

Sound urban water governance is fundamental to ensuring human and environmental health. It requires robust national policies, plans, and programmes, as well as instruments to measure and benchmark progress. Urban areas need to move from a status of water users to that of water suppliers and managers. With today's technologies and management options, water quantities and qualities can be managed more effectively and efficiently for different purposes. Integrated approaches can deliver water to specific users in appropriate quantities, qualities, and at appropriate times, without compromising the availability of the resource for others. Managers can tackle existing, or prevent impending, water scarcity by promoting water use efficiency and alternative sources of water, including wastewater and storm water. New approaches to the collection, transport, treatment and management of sewage can improve resource recovery and mitigate the strain on water resources under challenges such as high population density, urban sprawl, and climate change.

Conclusion

It is need to increase water efficiency and water savings by investing in resource efficiency has been widely acknowledged as one of the top research and policy priorities for the upcoming decades, in view also of the urgency to adapt to climate change. This will be achieved by optimizing the operation of water utilities, thus saving water and energy, and minimizing network leakages and non-revenue water. At the water utility level, smart pressure management and optimized operation based on smart algorithms, network intelligence, and the installation of pressure and flow sensors throughout the network can significantly improve operations, save water and energy, and successfully follow the new trends in cities.

Reference

1. Southern economist 58th year of publication volume 58 May- 15 - 2019
2. Baxamoosa, S. 2009. Karachi Water Partnership. Review of Phase 1 (January 2007- December 2008). Hisaar Foundation. 38 p
3. Southern economist 58th year of publication volume 58 May- 15 - 2019.
4. Braga, B., Porto, M. F. A. and Silva, R.T. 2006. Water Management in Metropolitan São Paulo. International Journal of Water Resources Development. , Vol. 22, pp.337-352.
5. Danilenko, A., Dickson, E. and Jacobsen, M. 2010. Climate change and urban water utilities: challenges and opportunities. Water Working Note No. 24. World Bank, Washington, D.C.
6. P. and Pullin, R.S.V. Wastewater-Fed Aquaculture. Proceedings of the International Seminar on Waste water reclamation and Reuse for Aquaculture. Calcutta, India, 6-9 December, 1988.
7. Dubey M.K (2000) Rural and Urban Development in India, Ajay Verma for common Wealth Publishers Published by 4831/24,Prahlad Street Davya Ganji, New Dehli.
8. Dr Soundarapandean M.,(2005) Economic Reforms and Employment Discover Publishers Private Limited., New Dehli

Malnutrition: What is malnutrition?

Prof. Mrs. Baig Zareen Fatema

Sir Sayyed College of Arts, &sci & Commerce Roshangate, Aurangabad

E-Mail:-mohdathar2020@gmail.Com

Malnutrition is when a person's diet does not provide enough nutrients or the right balance of nutrients for optimal health.

Causes of malnutrition include:

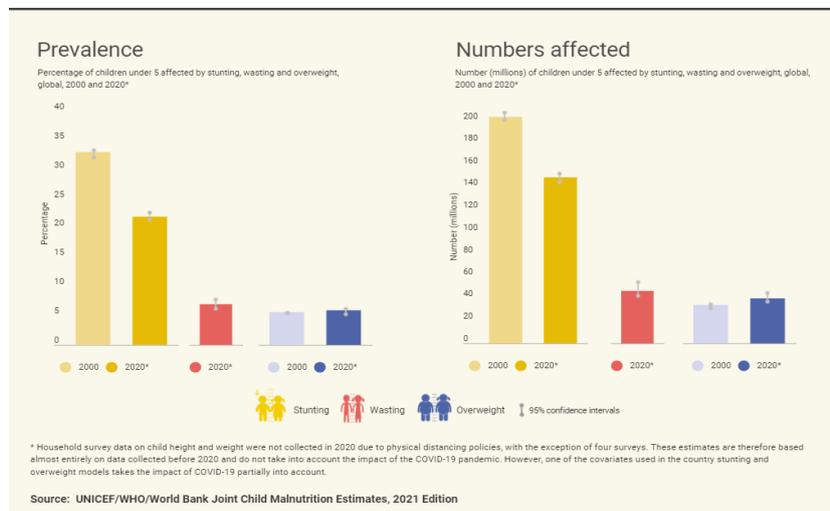
1. unsuitable dietary choices
2. having a low income
3. difficulty obtaining food
4. various physical and mental health conditions

Undernutrition is one type of malnutrition Trusted Source. It occurs when the body does not get enough food and enough necessary nutrients. It can lead to:

1. delayed growth
2. low weight
3. wasting

If a person does not get the right balance of nutrients, they can also have malnutrition. It is possible to have obesity with malnutrition. When a person has too little food, a limited diet, or a condition that stops their body from obtaining the right balance of nutrients, it can severely impact their health. In some cases, this can become life threatening. This article looks at malnutrition in detail, including the causes, symptoms, and treatments.

What is malnutrition?



Malnutrition is an imbalance in dietary intake. It occurs when a person has too much or too little food or essential nutrients. A person with malnutrition may lack vitamins, minerals, and other essential substances that their body needs to function. People may become malnourished if they do not eat enough food overall. However, people who eat plenty but do not have enough variation in their diet can also become malnourished.

Malnutrition can lead to:

- short- and long-term health problems
- slow recovery from wounds and illnesses
- a higher risk of infection

Some deficiencies can trigger specific health problems. For example:

Lack of vitamin A

Around the world, many children develop vision problems Trusted Source due to a lack of vitamin A.

Lack of vitamin C

A lack of vitamin C Trusted Source can result in scurvy. Scurvy is rare in the United States (U.S.), but it can develop if a person does not have a varied diet with plenty of fruits and vegetables. Fresh, frozen, and canned fruits and vegetables all contain vitamin C.

People who are particularly at risk of scurvy include:

older adults
young children
those who consume a lot of alcohol
some people with certain mental health conditions

An overall deficiency

Malnutrition can lead to marasmus, which is a severe form of malnutrition. Marasmus is a deficiency of protein and overall energy intake.

A person with marasmus will have very little muscle or fat on their body.

Over nutrition

Over nutrition is another type of malnutrition. It occurs when a person takes in more nutrients than they need. The result may be an accumulation of body fat from the excess nutrients, resulting in overweight or obesity.

Over nutrition has several health implications Trusted Source. People who have overweight or obesity are at greater risk of:

heart disease
high blood pressure
diabetes
cancer
high cholesterol

The rate of over nutrition is growing worldwide. The World Health Organization (WHO) reports that in 2020, 5.7% of children fewer than 5 were overweight, an increase from 5.4% in 2000.

In addition, the number of adults with obesity almost tripled Trusted Source worldwide from 1975 to 2016.

Symptoms

Some signs and symptoms of malnutrition include:

Weight loss
a lack of appetite or interest in food or drink
tiredness and irritability
an inability to concentrate
always feeling cold
depression
loss of fat, muscle mass, and body tissue
a higher risk of getting sick and taking longer to heal

longer healing time for wounds

Eventually, a person may also experience heart failure Trusted Source.

Symptoms in adults vs. children

Children may present with different malnutrition symptoms than adults.

In children, there may be:

a lack of growth and low body weight
tiredness and a lack of energy
irritability and anxiety
slow behavioral and intellectual development, possibly resulting in learning difficulties

Treatment is possible. In some cases, however, malnutrition can have long-term effects.

Causes

Malnutrition can occur for various reasons. The sections below outline these potential causes in more detail.

Causes of malnutrition

Malnutrition in developed countries is unfortunately still more common in situations of poverty, social isolation and substance misuse. However, most adult malnutrition is associated with disease and may arise due to:

reduced dietary intake
reduced absorption of macro- and/or micronutrients
increased losses or altered requirements

Increased energy expenditure (in specific disease processes).²

Dietary intake

Probably the single most important aetiological factor in disease-related malnutrition is reduced dietary intake. This is thought to occur due to reductions in appetite sensation as a result of changes in cytokines, glucocorticoids, insulin and insulin-like growth factors.⁶ The problem may be compounded in hospital patients by failure to provide regular nutritious meals in an environment where they are protected from routine clinical activities, and where they are offered help and support with feeding when required.⁷

Malabsorption

For patients with intestinal failure and those undergoing abdominal surgical procedures, malabsorption represents an independent risk factor for weight loss and malnutrition.

Increased losses or altered requirements In some circumstances, such as enterocutaneous fistulae or burns, patients may have excessive and/or specific nutrient losses; their nutritional requirements are usually very different from normal metabolism.

Energy expenditure

It was thought for many years that increased energy expenditure was predominantly responsible for disease-related malnutrition. There is now clear evidence that in many disease states total energy expenditure is actually less than in normal health. The basal hyper metabolism of disease is offset by a reduction in physical activity, with studies in intensive care patients demonstrating that energy expenditure is usually below 2,000 kcal/day. The exception is patients with major trauma, head injury or burns where energy expenditure may be considerably

higher, although only for a short period of time.^{8,9}

Low intake of food

Some people develop malnutrition because there is not enough food available, or because they have difficulty eating or absorbing nutrients.

This can happen as a result of:

cancer

liver disease conditions that cause nausea or make it difficult to eat or swallow taking medications that make eating difficult — due to nausea, for example Mouth problems such as poorly fitting dentures may also contribute to malnutrition.

Mental health conditions

Undernutrition or malnutrition can affect people with:

depression

dementia

schizophrenia

anorexia nervosa

Eating disorders can severely affect the quality of life of people living with these conditions and those close to them. Early intervention and treatment greatly improve the likelihood of recovery.

Social and mobility problems

Factors that can affect a person's eating habits and potentially lead to malnutrition include:

being unable to leave the house or go to a store to buy food

finding it physically difficult to prepare meals

living alone, which can affect a person's motivation to cook and eat

having limited cooking skills

not having enough money to spend on food

Digestive disorders and stomach conditions

If the body does not absorb nutrients efficiently, even a healthful diet may not prevent malnutrition.

Examples of digestive and stomach conditions that may cause this include:

Crohn's disease

ulcerative colitis

celiac disease

persistent diarrhea, vomiting, or both

Alcohol use disorder

Consuming a lot of alcohol can lead to gastritis or long-term damage to the pancreas. These issues can make it hard to:

digest food

absorb vitamins

produce hormones that regulate metabolism

Alcohol also contains calories, so a person may not feel hungry after drinking it. They may,

therefore, not eat enough healthful food to supply the body with essential nutrients.

Risk factors

In some parts of the world, widespread and long-term malnutrition can result from a lack of food.

In wealthier nations, however, those most at risk of malnutrition include:

older adults, especially when they are in the hospital or in long-term institutional care

people who are socially isolated — for example, due to mobility issues, health problems, or other factors

people with a low income

people recovering from or living with a serious illness or condition

those who have difficulty absorbing nutrients

people with chronic eating disorders, such as bulimia nervosa or anorexia nervosa

When to contact a doctor

A few key signs of malnutrition indicate that it is time for a person to seek care from a doctor.

These signs include:

unexplained, unintentional weight loss of more than 5% in the last 3–6 months

presence of other malnutrition symptoms

a worry that someone else may be showing signs of malnourishment

if a person experiences signs of an eating disorder, or sees these in someone else

Likewise, a person should encourage a loved one to see a doctor if they show signs of malnourishment. Some people may not recognize the symptoms in themselves, while loved ones sometimes can.

Diagnosis

If a person shows or notices any symptoms or signs of malnutrition, the first step is to find out why.

If a doctor suspects Crohn's disease, celiac disease, or another condition, they may evaluate the patient's condition by:

asking about medical history

conducting a physical exam

ordering testing

Treating underlying conditions can improve a person's nutritional status.

A healthcare professional may also carry out the following Trusted Source:

blood tests for general screening and monitoring tests for specific nutrients, such as iron or vitamins

prealbumin tests, as malnutrition commonly affects levels of this protein

albumin tests, which may indicate liver or kidney disease

A tool to identify risk

Some tools can help identify people who have or are at risk of malnutrition.

One way to assess adults is by using the Malnutrition Universal Screening Tool (MUST). 2018 research Trusted Source has shown this to be a reliable tool.

Experts designed this tool to identify adults, especially older adults, with malnourishment or a high risk of malnutrition. It is a five-step plan to help healthcare professionals diagnose and treat these conditions.

The five steps are as follows:

Measure a person's height and weight, calculate their body mass index (BMI), and provide a score.

Note the percentage of unplanned weight loss and provide a score. For example, an unplanned loss of 5–10% would give a score of 1, while a 10% loss would score a 2.

Identify any mental or physical health conditions and provide a score. For example, if a person has been acutely ill and taken no food for over 5 days, this would lead to an additional 2 points.

Add the scores from steps 1, 2, and 3 to obtain an overall risk score.

Use local guidelines to develop a care plan based on the score.

The score will be one of the following:

low risk: 0

medium risk: 1

high risk: 2 or more

Doctors only use MUST to identify overall malnutrition or the risk of malnutrition in adults.

The test will not identify specific nutritional imbalances or deficiencies.

Nutritional deficiency anemia can result if a person's diet cannot provide the nutrients they need. Learn more about it here.

Treatment

If a doctor diagnoses malnutrition, they will make a treatment plan for the person. The person may also need to meet with a dietician and other healthcare professionals.

Treatment will depend on the severity of the malnutrition and the presence of any other underlying conditions or complications.

It may include:

ongoing screening and monitoring

making a dietary plan, which might include taking supplements

treating specific symptoms, such as nausea

treating any infections that may be present

checking for any mouth or swallowing problems

suggesting alternative eating utensils

In severe cases, a doctor may administer nutrients intravenously (through an IV).

The person's healthcare team will continue to monitor them to ensure they get the nutrition they need.

Prevention

To prevent malnutrition, people need to consume a range of nutrients from various food types.

Older adults, young children, people with severe or chronic illness, and others may need additional care to obtain the nutrients they need.

Anyone who starts to show signs of malnutrition or Undernutrition should see a doctor for a diagnosis and treatment.

In the U.S., effective treatment is usually available, although the outlook and time needed for recovery will depend on the cause of the malnutrition.

Summary

Malnutrition is the result of an improper diet. It can result from too few nutrients (Undernutrition) or too many nutrients (over nutrition).

People who experience Undernutrition often have:

low weight

difficulty recovering from injuries

lack of appetite

fatigue

depression

among other symptoms

But malnutrition is not the result of poor diet choices in every case. Sometimes, malnutrition occurs because a person:

does not have easy access to food

cannot leave their home to buy food

cannot cook meals

has a digestive disorder that prevents their body from properly absorbing nutrients

Helping patients treat malnutrition is an important goal for many healthcare professionals. Together, a doctor and patient can review possible causes of malnutrition and help develop more nutrient-dense eating plans.

Reference:-

1. <https://data.unicef.org/topic/nutrition/malnutrition/>
2. <https://www.who.int/news-room/questions-and-answers/item/malnutrition#>
3. <https://www.medicalnewstoday.com/articles/179316#summary>
4. https://www.google.com/search?rlz=1C1CHBF_enIN962IN962&sxsrf=ALiCzsaMH-LBpibSLlcmzx0ki6Oyqa9qw:1657546358795&q=5+effects+of+malnutrition&sa=X&ved=2ahUKEwjRrqiV-

[fD4AhVTSmwGHdqCOgQ1QJ6BAgeEA](#)
[E](#)

5. <https://data.unicef.org/resources/jme-report-2021/>
6. <https://my.clevelandclinic.org/health/diseases/22987-malnutrition>
7. <https://www.nhs.uk/conditions/malnutrition/>
8. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/malnutrition>

Usage of Library Service by the Researcher in COVID-19 at the Punyashlok Ahilyadevi Holkar Solapur University, Solapur

Mr. Vinayak Sayanna Gadagi

Librarian, Department of Library and Information Science, Santosh Bhimrao Patil Arts, Commerce and Science College, Mandrup, Taluka- South Solapur, District-Solapur,

Abstract: *The current paper pretensions at determining the delectation position of investigator with digital coffers and amenities in the university library during the COVID- 19 period. The check fashion espoused for gathering data from the target population. A well-conditioned design questionnaire participated through the google form with the exploration Researcher at the “Punyashlok Ahilyadevi Holkar Solapur University, Solapur”. The outgrowth demonstrations that utmost of the exploration Researcher is satisfied with library installations, ever access of databases during the COVID- 19 Epidemic period in the (Library)K.R.C. (Knowledge Resource Center), subscribes to 90 public and 26 transnational exploration journals and also an-source-journals Business Source Elite. It was observed that further than half of the exploration Researcher use UGC- INFONET Digital Library Consortium in comparison with- Gate Plus for their exploration.*

Key Words: *resources, services, Covid-19, EzProxy, J-Gate, UGC-INFONET*

Introduction: -

All the time, the library is considered as the information centre of any institute. During the COVID- 19 Epidemic libraries are playing a veritably significant part for the experimenter. COVID- 19 was completely changed the operation of library coffers and services in the current script. All Students they don't come to the library, can pierce the library at their remote position. The librarians should observe the current client delectation with the library amenities to make sure that the students are satisfied in time. The academic libraries should arrange colorful digital services and installations the users. Digital information means must be handed grounded on needs in academic libraries. Ever since the original spring of 2020, academics libraries have been passing an exceptional massive “migration” from traditional services to the online services their end users. Due to the Coronavirus complaint (COVID- 19) in India, following the administration's musts of “continuous tutoring and literacy,” most Indian academic libraries have started to give online operation of their library coffers and services. Beyond India, with the spread of COVID- 19 across the world, as of March 24, the Government of India under Prime Minister Narendra Modi ordered a civil lockdown for 21 days, limiting movement of the entire 1.3 billion population of India as a preventative measure against the COVID-19 epidemic in India. This paper thus classifies the high- impact reiteration values of online advanced tutoring and delivers a case

study for associates at seminaries to consider a leading online tutoring in analogous conditions. Digital information coffers must be handed grounded on the users' needs in academic libraries. The services and installations have the most influence on the satisfaction of users and can support the users in educational procedures.

Review of Literature: -

Bilawar B.P. (2020), in his work “Lockdown Period and Information Sources,” explains the ages of COVID- 19 lockdown and the impact it had on libraries and he raises points about the impact on the declined profitable cycle, employment reduction, and restriction of traveling to important places. The author suggests ways to support online users with the help of social media and government- backed information sources. The author explains that the lockdown period has made it clear about the significance of the operation of digital coffers.

Mestri (2020), in the study “Continuing libraries in COVID- 19 epidemic challenges and recommendations,” has suggested that the libraries have to borrow new styles to help the spreading of COVID- 19 until the contagion is part of mortal life. The author suggested different way to breaking the chain from the contagion to spread in library demesne. Formulated four situations of library performing grounded on the number of active cases of COVID in the place; they're more or less usual, many restrictions, minimal service, and the complete check of the library at places

where the number of COVID- 19 cases is above 5000. The author connoted certain approaches while running the library, similar as formulating library policy, handling accoutrements, running of the things, conservation of social distancing, staff safety, limitations on stoner’s entry, etc

Singh, Kuldeep (2019) Concluded that, the current literacy amenities on the alertness and its operation of-resources by the patrons subscribed by the Punjabi University, Patiala. The literacy reveals the difficulties while using-resources as well as the delectation position of the pupils. The conclusion of the literacy demonstrations that there should be a particular database of the Library, Internet Connectivity, velocity and Acceptable Arrangement. The literacy also transports out the pets and recrimination of-resources for the patrons.

Aravind, S (2019) Concluded that, to study analyses the mindfulness and compliance to library rules and regulations by the Researcher of Madurai Kamaraj University, Madurai. The thing of the literacy is to catch out the pupil's position of mindfulness about the library rules and regulations and determine their compliance position of Researcher and descry their views on library structures and installations. Survey design examined the study and a systematized form is used to gather data from pupils are aimlessly designated for the reading. A model of 96 was used for the literacy. The conclusion of the modification reveals that the knowledge position is 92 and obedience position is 82.29. The complete delectation position about the library schemes and installations is 89.17.

Pandey, Sunita and Shailendra Kumar (2020) Concluded in the paper is about the accession of information means in Rajasthani trades and culture in the select premises and institutions library of Rajasthan. Gathering expansion in different types of libraries of trades and culture has numerous tasks, and one of them is enterprises about the purchase strategy espoused by the library. It's initiate that there's no published purchase strategy in the library. The paper deliberates the approaches of application of information means.

Objective: -

- ❖ To find out the usage of online records by researcher and the access of researcher to the scientific databases.

Methodology: -

In this study, the check system was named for the data collection through a questionnaire. The addition of the formula for sample size estimation revealed 210 samples in AHSU. The slice fashion which has been applied to this study is the analysis system. The experimenters distributed the structured questionnaires among the sample population who were the exploration Researcher from different departments covering departments of PAHSU. The authors collected information through google form to gain the position of analysis of the exploration regarding library installations and database access in the university during COVID- 19 Epidemic.

This study is limited to collect the data from exploration Researcher in the PAHSU. Social advisability could be a factor in this study as a limitation because the scales are grounded on experimenters’ tone- report data.

Table No.1
UGC-INFONET DIGITAL LIBRARY GROUP

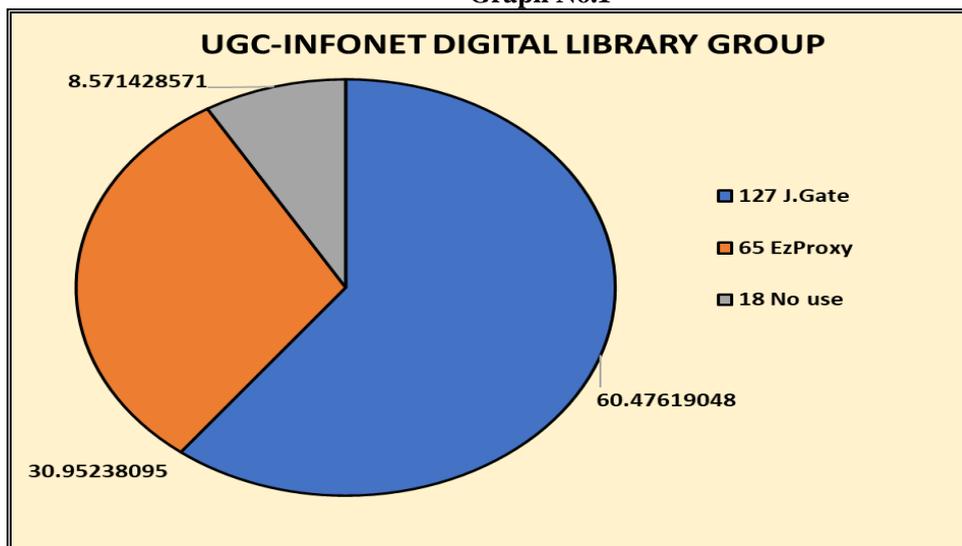
No. of Responses	E-Resources	Percentage
127	J-Gate	60.47619
65	EzProxy	30.95238
18	Don’t Use	8.571429
210		100

(Sources: -Primary Data)

In India one of the online databases generally used by the exploration community is UGC- INFONET Digital Library Consortium. In this regard the investigators

asked with experimenters whether they use it or not. Out of 210 of repliers, 60.47Percent use J-Gate, 30.95Percent use Ez-Proxy and 8.57 Percent don't use.

Graph No.1



The issues of the literacy exposed that utmost of the exploration Researcher are fulfilled with access to the databases in the university. The position of satisfaction with the library installations is nearly good. It shows that the “Punyashlok Ahilyadevi Holkar Solapur University, Solapur” is furnishing good services to the exploration Researcher. To pierce the online databases which university library has delivered to the exploration Researcher, nearly half of them have the word to pierce the databases during COVID- 19 epidemic.

As the access to the databases is veritably important to do the exploration, this service can be handed for utmost of the exploration by mindfulness of the off- lot service. This result isn't as what it's anticipated from the exploration Researcher in the PAHSU. According to the exploration outgrowth, further than half of the exploration Researcher use UGC- INFONET Digital Library Group, which is good. thus, it can be prognosticated that they're apprehensive of this.

Conclusion: -

To conclude the status of the library installations and database access at the PAHSU is good, as utmost of the exploration Researcher are satisfied with the databases access, and it can be bettered in the future. Use of UGC- INFONET Digital Library group is further than J-Gate Plus by exploration Researcher. It's suggested to the university library that the operation of the colorful databases is essential for the exploration Researcher and it can ameliorate the quality of the exploration work in the future. For this purpose, the university library should contend the exploration Researcher to apply for an off- lot word and to use the e- coffers to the

maximum extent. This result will be useful for university library to expand their library services effectively, specifically in aiding academic staff in tutoring and exploration.

References: -

1. Bilawar. B. P. (2020). Lockdown Period and Information Sources.
2. Mestri, D. (2020). Reopening libraries in COVID 19 pandemic: challenges and recommendations. *IP Indian Journal of Library Science and Information Technology*, 5(1), 16–23.
3. Aravind, S. (2019). Awareness and Opinion about Library Systems and Services: A Study. *Asian Journal of Information Science and Technology*. Retrieved from
4. Pandey, S. K. (2020). Rajasthani Arts and Culture: Acquisition of Information Resources and their Utilization in Select Universities and Institutes of Rajasthan. *Journal of Indian Library Association*, 56(1), 43–55.
5. Singh, K. (2019). Awareness and Use of E-Resources among the Users of Library of Punjabi University Patiala: A Case Study. *Journal of Indian Library Association*, 55(4), 59–66.

Post Modern Youth Sensibility in Chetan Bhagat's One Night @ the Call Center

Naween Kumar Pareek

Assistant Professor, Government Girls College, Sardarshar

Abstract

The novel, One Night @ the Call Center explores the complexities of modern life and post modern youth sensibilities which are crushed under the impacts and exploitations in the age of globalization. The plot of the novel is an admixture of past memories and present realities. The story of the novel encapsulates the span of one night. It is the portrayal of six call center executives who are representatives of thousand of lives professionally confined to the globalized world of call center. Every character from the novel symbolically represents the anxieties and insecurities of the rising Indian middle class, including questions about career, inadequacy, marriage, and family conflicts in postmodern India. All the characters from the novel are in frustration for their unfulfilled aspirations and job insecurity.

Key words – Post Modern, Youth, Sensibility etc.

Introduction

Chetan Bhagat has established himself as one of the best novelists in the world. He has written six novels and two non –fictions which are best-seller like *Five Point Someone* (2004), *One Night @ the Call Centre*(2005), *The Three Mistakes of My Life* (2008), *2 States* (2009), and *Revolution 2020*(2011), *Half Girlfriend* (2014), and non-fiction *What Young India Wants* (2012) *One Indian Girl* (2016). Most of them are adopted in Bollywood movies. Indian youth, their despairs, hopes, aspiration, and their problems remained at the center of his every work. His work is not only a picture of the harsh reality of the youth in India but spiritual guidance, moral support, and technical suggestions also. The youth from different backgrounds with their ethos, aspirations, sentiments, and isolations in their life is the key concern of Chetan Bhagat's Novel. He has used the novel as a perfect tool to entertain, motivate and inspire the youth of 21st century India. His novels are nothing but a great projection of post modern youth sensibility.

The novel, *One Night @ the Call Center* explores the complexities of modern life and post modern youth sensibilities which are crushed under the impacts and exploitations in the age of globalization. The plot of the novel is an admixture of past memories and present realities. The story of the novel encapsulates the span of one night. It is the portrayal of six call center executives who are representatives of thousand of lives professionally confined to the globalized world of call center. All of them are working at Connexions in Gurgaon, Harayana. They have to answer American customers who have complaints against their home applications like refrigerators, ovens, vacuum cleaners, etc. They are facing the threat of job insecurity in the name of right-sizing, though their working hour's

odd and satisfy rude American customers. Thus professional and personal anxieties of the modern youths are key concerns of the novel.

Every character from the novel symbolically represents the anxieties and insecurities of the rising Indian middle class, including questions about career, inadequacy, marriage, and family conflicts in postmodern India. All the characters from the novel are in frustration for their unfulfilled aspirations and job insecurity.

The characters like Shyam Mehra, Priyanka, Varun Malhotra, Esha Singh, Radhika Jha, and Military Uncle are introduced by Chetan Bhagat in a distinguished way. Shyam Mehra, shortly called Sam Marcy, is intellectual and efficient but he lacks self-confidence. He wants to do B.Ed and join a School, but insufficient funds wedged him into his least interesting job at the call center. He pursues the post of team leader not because of his will for the high post but to marry Priyanka, whose mother wants a well-settled groom for her only daughter. Shyam, the protagonist of the novel, is not acknowledged in his family as he works in a call center whereas his cousins are doctors and engineers. On his cousin's marriage, nobody cares for him. Working at a call center is not a prestigious job for them. Shyam describes:

It wasn't surprising; I am only cared for so much.

Every cousin of mine is becoming a doctor or engineer.

You can say I am the black sheep of my family.

Though I do not think that expression is correct.

After all, what's wrong with the black sheep- don't people wear black sweaters?"

(*One Night @the Call Center* p-15)

So he considers himself as a black sheep of the family as he can't earn properly. Shyam represents 300000 BPO employees in India who are working day and night. They are treated as resources and not by their names or real names. The names that suit American accents are used for everyone. In W.H.Auden's words, they are 'Unknown Citizen' who is identified by their pseudo names or Id numbers.

Priyanka, a heroine of the novel who is an ex-girlfriend of Shyam, is introduced as an ultra-modern woman. She is sandwiched between her own aspirations and her mother's ambitious possessiveness. Chetan Bhagat portrays the female characters as ultra-modern women. They have two edges of choices; they want liberty and freedom at times, and at the same time they have to make their parents happy and compromise with their views. The same happens in the life of Priyanka; the female protagonist of the novel, who is Shyam's ex-girlfriend. After a long premarital affair, Priyanka breaks up with Shyam. But she is at sea, between her own aspirations and her mother's over-ambitious possessiveness. Circumstances force her to follow her mother's will as it is her intention also to keep her mother happy. So, she accepts to marry an NRI, who works 57 in Microsoft, whom she doesn't meet earlier, but she seems happy to get married to the NRI Mr. Microsoft. The happiness is not for her own sake as Ganesh is the right choice for her but it is to keep her mother happy, as Priyanka feels that her mother always thinks about her bright future. She confesses her love with Shyam but agrees to marry Ganesh just because her mother ponders over him as creditable husband material. She shares the good news with her colleagues but when notices the altered photo of the hiding bald of her fiancé, she rejected the marriage, and the love birds are reunited but have to wait for two years to marry as their career is their main priority.

Varun Malhotra is one most important characters in the novel. He is shortly called Vroom or agent Victor Mell. His pseudo name Vroom itself suggests that he is fond of speed and bikes or anything on wheels. Vroom has to earn money for maintaining a high standard with his friend circle. To ride a bike so fast is his own solution to get relaxed from stress. Shyam reveals his mental and physical condition,

"I couldn't sleep at all.

Just lay in bed all day and now I feel sick.

Need to get some energy back."

(ONCC, 21)

Vroom is representative of the modern youth of India who likes wearing branded clothes and shoes, joining clubs and night bars, smoking cigarettes, and using the internet excessively.

The face of urban fashionable girls in the novel is Esha Singh or agent Eliza Singer. She is the nice-looking and the most fashionable girl in the group. The narrator Shyam describes her;

"She is an ambitious girl who wants to become a model.

Her life represents the ambitious middle-class youth

who are running after blind race of materialism"[72].

She represents today's modern young girls who leave their homes for their passionate desires to become a model. Esha has joined a call center job to get a livelihood. She becomes mad about her passionate dream to become a model. Her ambition leads her even to lose her character and obliged to sleep with the forty year man to get the model opportunities. She feels guilty. She reveals to Shyam :

The guy I slept with- forty-year-old designer. —

He told my agent later I was too short to be

a ramp model.....and that son of a bitch sends

some cash as compensations afterward...||

She further says —

I hate myself, Shyam. I hate myself.

And I hate my face and the stupid mirror that shows me this face...

can I get my face altered? (142-143)

Radhika Jha, or agent Regina Jones is an only representative of a middle class married woman that works to support the family. She belongs to a joint family which is too traditional but Radhika accepts it for her love for her husband. She is torn between the modern culture and the traditional culture of her family. She tries to be an ideal wife and sacrifices herself for her husband and his family. But when she comes to know the decisive nature of her husband and takes a harsh decision which she herself has never expected so far that will happen in her life. Radhika decides to take divorce with Anuj and starts living with Esha

Conclusion

Thus, while depicting the life of call center employees, Chetan Bhagat has explored the harsh reality of Indian youth. Everyone has

his aspirations as well as problems also. These characters are the representative of the Indian young generation who wants to make their way in this age of competition. Metropolitan youth culture, cross-cultural issues, broken interpersonal relationships, rising individualism, condition of women, generation conflicts, and influence of foreign culture are the aspects touched by Chetan Bhagat.

References

1. Bhagat, Chetan. 2005 *One Night@ the Call Center*. New Delhi: Rupa & co.
2. Vaghela, Baldevbhai M.2004, "*Thematic Studies of Chetan Bhagat's Novels*", Paradise publication, Las Vegas.
3. Jadhav, Arvind. —*Representing Metropolitan Youth Culture: An assessment of Chetan Bhagat's Five Point Someone and One Night @ the Call Center*|| The Criterion: An International Journal in English Vol.3.2 (2012): (1- 5).
4. <https://www.audible.com/author/Chetan-Bhagat/B001IQWOKY>
<https://shodhganga.inflibnet.ac.in/jspui/bitstream/10603/251130/7/chapter-pdfhttps://dictionary.cambridge.org/us/dictionary/english/isolation>
5. <http://ijellh.com/OJS/index.php/OJS/article/view/869/869>

'The Sins of the Father are to be Laid upon the Children' as seen in Amitav Ghosh's The Ibis Trilogy

Dr. Sharmila Priya S

Assistant Professor, Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu.

Email: sharmila.priya1@gmail.com

Abstract

Amitav Ghosh's 'The Ibis Trilogy' is a chronicle spanning continents and countries, history and commerce, success and disappointments, journey and the destination. The sins committed by the parents have greater implications on their progeny and this is proved in the Ibis Trilogy. Important characters like Ah Fatt and Raja Neel Rattan Haldar undergo sufferings created by the laxity and foolhardiness of their fathers. Their nexus with the British lead to the sufferings of many people thus increasing their sins, which later on affects their sons. The concept of children suffering for their fathers' crimes can be seen in religious concepts too.

Key Words: father, son, suffering, sin.

"The sins of the father shall be visited upon by the son", so says Launcelot to Jessica in William Shakespeare's *The Merchant of Venice*. The sins that Shylock had committed would be later visited upon on Jessica, his daughter, is the interpretation of these lines. The original phrase 'sins of the father' finds reference in the Holy Bible. Hindu philosophy also believes that the sins of the parents will be borne by the children. In other words, the children to some extent suffer for the misdemeanors committed by their parents. Amitav Ghosh's *The Ibis Trilogy* exemplifies this aspect in some of the important characters. The Ibis Trilogy consists of *The Sea of Poppies*, *River of Smoke* and *Flood of Fire*. In the three novels are found myriad characters from different countries and races, leading completely diverse lives and coming together for a grand finale in the end.

Raja Neel Rattan Haldar is the Zamindar of Raskhali dominion. An English educated son of a promiscuous Zamindar, Neel is unlike his father. He just has one mistress, as opposed to his father who had many concubines for the upkeep of which he had spent a lavish amount of money. The old Raja liked to live life King-size, drinking and lording it over his many lands and subjects. He neglects his people and forgets his duty as a ruler and protector. Like his forefathers before him he hooks himself to whichever power is ruling over the country at that particular point of time. The old Raja forms a partnership with Mr Burnham, a trader in opium and bonded human labour. He leaves all the complications and bureaucratic muddle to the Englishman, receiving only his allotted money. The total lack of concern for his subjects deeply mired in penury is of no concern to him. He has no understanding of their plight and how the people

are forced to sell their lands and forced to work in opium fields and factories.

His business dealings with Mr Burnham costs his son dearly, when the English educated Neel finds the ideologies of the English at subpar with his own. The English with swift and planned calculation slowly and surely take over the lands of the people, both wealthy and deprived. Neel's lands are also confiscated after a tiff with Mr Burnham. The nature of the British is such that they even disregard those families which helped them in the past and will spare no expense to torment them if they do not continue to follow their orders. Neel, the Raja of Raskhali is transported out of the country and his property confiscated as he does not comply with the wishes of the British overlords. Neel is thrown in prison on charges of forgery and fraud. All his property and lands are transferred to Mr Burnham. The punishment for the former King comes when the alien powers move him to the jail at Alipore.

In Alipore silence weighs down like the lid of a coffin. It is synonymous with Neel's sentence of transportation to the penal settlement of Mauritius for seven years. When Neel's carriage, accompanied by the guards reaches prison, he is reluctant to get down and face his bleak and terrible future. He is compared to a reluctant dog, tugging at his leash. He suffers the fate worse than that of a dog. The guards unravel his dhoti and call him Draupadi and Shikhandi. Draupadi, wife of the Pandavas in *The Mahabharata* is humiliated by the Kauravas and protected by Lord Krishna. As her sari is unraveled, he keeps providing her with fresh saris and her modesty is thus saved. But no Krishna comes to save Neel as he is subject to the ignominy and mortification of a thorough body check-up. Shikhandi is another character in

The Mahabharata who is born as a girl to King Drupada and later changed to a man to avenge the great Bheeshma. Shikhandi is neither man nor woman and is likened to a transgender or eunuch. This exposure of Neel's manhood or lack of it comes up often –previously when his wife's veiled face is exposed. The identity of the Raja is peeled off as he is exposed to the prying eyes of the policemen.

This is the zone of transformation for Neel, the inevitability, the plight and struggles he has to undergo to overcome it. He is plagued by the vision of the shedding off his old skin and acquiring a new skin. It is the experiences in the prison, which modifies his mind and makes him question his priorities.

Neel is not allowed visitors and has to eat what is made by unknown hands. This is unlike when his food would be prepared by specific people according to their varnas. Neel feels a deep disgust at the food served to him at the jail but somehow manages to swallow it. Neel as the Raja and his father before him, have not only failed in their duty to protect the common people but also their means of subsistence from the British invaders. Neel, himself once a King and responsible for opium cultivation, due to the irresponsible and selfish nature of his ancestors, is driven out of his native soil to live in hiding in an alien soil. Neel is to be shipped off to Mauritius. His head is shaved, he is dressed in a convict's clothes and his only property is a bowl, glass and a blanket. The once opulent lifestyle is shredded to a basic garb and he is condemned to live a life of a person in the lowest rungs of humanity. The King who has lost everything clings on to words to create a world for himself.

Bahram Moddie, an opium trader by profession fathers an illegitimate son with a Chinese washerwoman. He veers from his duty towards his wife Shireenbai and their two daughters who he has left behind in India. He is a well-established trader of opium in China, thereby dealing a double blow to his karma. In China he forms a relationship with Chi-mei with whom he bears a son, Ah Fatt. Unknown to Shireenbai, he leads a double life in Canton spending time with Chi-mei and their son. In the end he has to answer for his sins as Ah Fatt gets addicted to opium and becomes a complete mess, being forced to escape the country and ending up in a jail in far off Calcutta. Ah Fatt is fascinated by stories of his father's country- India. He wants to go there and meet Father's Big Wife and her family. Bahram is aghast when he hears of this suggestion. He forbids Ah Fatt to ever talk of it again. If Ah Fatt goes to India, Bahram

would be ruined as his family would find out the truth of his double life. The prospect of facing social death is tortuous to Bahram. Ah Fatt resents his father as he does not allow him to get in touch with his roots and visit the land of his forefathers. He takes to opium and becomes such a slave to it that he turns into the walking dead. It is ironic since Bahram had been instrumental in spoiling the lives of many youth in China. He has to pay the price for that sin, with the abject deterioration in the life of his beloved son and also ultimately his own life. This is exactly what opium does. It takes over the life of a human in such a way that he becomes a habitual addict. When Neel hears of Ah Fatt for the first time from the jail jemadar, he's in a terrible state. Opium has ravaged his body and made him suffer the ultimate despondency.

Ah Fatt's psyche is damaged when Chi-mei tells him she is his aunt and his real mother is dead. Bahram is also introduced as a benevolent guardian. She prevents him from playing in the water with the other boys as she fears he will be eaten by a fish. Ah Fatt is denied of his birthright from both his parents. He is not allowed to be a true son of the river, with his mother denying his desire to play in the river like the other children and his father making sure he gets an English education and upbringing. Later on, when Ah Fatt realizes the truth about his parentage, he feels deceived, more so when his father does not publicly own him.

Bahram's relationship with his illegitimate son with Chi-mei leads to a lot of complications in their lives. Bahram, although he provides money to his second family, cannot provide the one thing Ah Fatt wants-acceptance. This leads to Ah Fatt drowning his sorrows and inadequacies in the comforting arms of opium and steadily moving towards friendship with dangerous drug peddlers like Lenny Chan. Bahram is also responsible for this state of the youth of China which is reflected in the fate of his son. When Bahram robs China in the name of trade, his son, comes to India in search of his roots. Unfortunately, as a punishment to his father he is transported out of India on charges of being a robber and opium addict. The atonement for Bahram's sin is borne by Ah Fatt.

He is charged with illegal possession in Bengal and thrown in prison where his cell mate is the displaced Raja, Neel. He is incidentally called Aafat by the jail people which means calamity. Neel himself is atoning for the sins of his ancestors, who had given the Englishmen charge to carry on the opium trade in India, thus creating afeem khors or opium addicts. "... Neel

had already begun to feel that he was somehow implicated in his cell-mate's plight: it was as if their common destination had made their shame and honour a shared burden" (SP 324-25). They both carry the shame of their fathers' role in the opium trade and atone for it in their own ways. It is ultimately the son who pays the price for his father's sin.

Ah Fatt insists that he should go to his father's land. This is the soul's longing to be rooted in the ancestral soil. Bahram tries to orient Ah Fatt to the western world but the unconscious pulls the boy to his father's land, Hindustan. The soul yearns to go to the native soil and this is a psychological problem for the boy and he feels as if he is a fish out of water. The land of the father or one's ancestors is the place of atonement for any soul in order to have its psychological balance. But this is denied to Ah Fatt as he is an illegitimate child. The land of one's ancestors is very essential as a background for a healthy mind. This psychology is imbibed in Ah Fatt and that's why he goes in quest of India.

Money making by ill means will eventually dissolve the ancient traditions which help keep the families intact. But due to such illegal and immoral means of earning money families collapse, old values are shattered bringing shame to the individual involved as well as their children. Bahram at this stage of his life questions himself and his actions in dealing with opium. On the one hand he is terrified at the idea that he will lose all his money and consequently his family. On the other hand, he is worried at the implications his actions will have on his soul. The sin of taking a million Chinese lives hangs on the shoulders of the traders.

Ah Fatt later sees the vision of his dead parents inside the water. He says, "I can hear them, lah – calling me, the two of them, my mother and father" (FF 454). Bahram and Chi-mei call out to Ah Fatt with the promise of the affirmation and embrace he always craved. Bahram who enjoys all the pleasures of life through his ill-begotten money gives birth to a son who suffers from identity crisis and at the end starts seeing the ghost of his own father like Hamlet. Thus, Ah Fatt is already called out to his final resting place by his parents. And it is his and Chi-mei's spirit which calls out to their son as they know that his time is up, and so that they can be united in death as they could not be in life. Ah Fatt slowly enters the spirit world with the help of opium. He dies at the hands of Lenny Chan's men, who ultimately takes revenge on Ah Fatt. Thus, passes away Ah Fatt- the troubled son

of two soils, at war with each other. The war outside is reflected in his mind too and his two different identities.

Tess in Thomas Hardy's, *Tess of the d'urbervilles* gives birth to an illegitimate child and names him Sorrow. She dotes on him but unfortunately, he passes away and Tess is devastated. "So passed away Sorrow the Undesired□ that intrusive creature, that bastard gift of shameless Nature, who respects not the social law..." (111).

Ah Fatt on the other hand receives acceptance from Shireen, a part of his birth right he had always wished for. Orphaned and adrift he finds a mooring in Shireen's acknowledgement of her husband's illegitimate and distressed son. The first time she meets him, she sees in his eyes a type of wildness, "it was as if the curtains of adulthood had parted to give her a glimpse of a deep well of suffering that went back to his boyhood." (FF 323) Shireen arranges for Ah Fatt to be buried next to her husband, thus giving him the acceptance and acknowledgement, he had craved since his birth. She invokes the wrath of the influential traders of the Parsi community, but threatens to expose their double standards to their families back in India. Most of the men have another family in China which they conveniently hide from their relatives.

The illegitimate children suffer from lack of rootedness to the soil. Born to traders who move from place to place they themselves do not have an identity. Their fathers do not realize the importance of historical sense or have any responsibility. Their lack of belongingness to one particular land destroys their psyche. No ancestral memory or understanding of the past and present of one's country, leads them to broken lives with no redemption.

The sins of the father as borne by the children also lies in the story of King Bhagirath, who had brought the Holy Ganga to Earth. Neel tells the story of the Ganga Sagar Island to the migrants reminding them of the story of the King who atoned for the sins of his ancestors. Neel tells the story of Bhagiratha, the young King who persuades Ganga to come to the earth and fill the seas, thus redeeming the ashes of sixty thousand Ikvakshu princes who were his ancestors and cursed by Sage Kapila for disturbing his austerities. King Bhagiratha brings down the Holy Ganga at whose touch the sins of his ancestors are washed away. Neel and Ah Fatt too thus atone for the sins committed by their fathers and forefathers, of having neglected their duties and indulging in the opium trade. Neel

through his total downfall realizes the mistakes of his forefathers and also his own in neglecting his duties and family. His pride falls and his wife and son take foremost place in his mind, as he works towards the day they can come together as a family.

References

1. Ghosh, Amitav. *Sea of Poppies*. London: Penguin Books, 2009. Print.
2. *Flood of Fire*. London: Penguin Books, 2015. Print.
3. Hardy, Thomas. *Tess of the D'urbervilles*. New Delhi: UBS Publishers' Distributors Ltd., 1996. Print.
4. Priya, Sharmila S. *A Study of Symbols and Imagery in Amitav Ghosh's The Ibis Trilogy*. Bharathiyar University. Coimbatore. 2021. Print.

Urban Tourism and Challenges: A Study of Varanasi City

Pragya¹ Prof Ujjwala R. Khare²

¹Research Scholar, Nowrosjee Wadia College, SPPU, Pune.

²Co-ordinator and Head of the Research Centre, Nowrosjee Wadia College, SPPU, Pune.

Abstract

Tourism in 19th century itself, was considered as one of the basic human needs, thereby becoming the necessity of society. Cities have always been tourist destinations from a cultural-historical nature to the now more modern form of business and medical tourism. As a result of this transformation, a new concept appeared; Urban Tourism. Now Urban Agglomerations are the leading destinations. Tourism being an important source of income for many developing countries, had been the most affected industry due to the COVID 19 pandemic. It has developed social and medical emergencies along with profound adverse consequences on the global economy. Varanasi being a tourist destination from time immemorial, faces the challenges of Urban Tourism and also the setbacks due to the pandemic. Rampant urbanization and an increase in population has adversely affected the quality of life. Being one of the largest agglomerations of the Uttar Pradesh state, the city needs to re-build tourism after the pandemic to a more sustainable pattern. This paper is a critical analysis of tourism in Varanasi, its problems and looking at most appropriate post – pandemic perspective for Urban Tourism. This is a descriptive study depending on the synthesis of early literature and sources of published news and reports related to tourism management.

KEY-WORDS: Urban Tourism, Urbanization, Sustainable Tourism, COVID 19, Carrying Capacity, Digital Tourism, Pro-poor Tourism.

Introduction

Tourism contains the activities of people, travelling to different places, which is outside their habitual environment for business, medical or simply leisure purposes, with staying there for not more than one continuous year. The definition given by Humzikhor and Krapf about the concept of tourism, which was subsequently adopted by the International Association of Scientific Experts in Tourism (AIEST) involves three distinct elements of Tourism; involvement of travel by Non-residents, stay of temporary nature in the area and stay not connected with any activity involving earnings. According to Zivadin Joviac, 'It is a social movement with a view to rest, diversion and satisfaction of cultural needs.'

Manila Declaration on World Tourism of 1980 talks about its direct effects on the social, cultural, educational and economic sectors of national societies and on their international relations. Tourism rather than being a separate discipline, overlaps with other activities, interests and processes. The study of tourism by just a demographic point of view is now a thing of the past. In the start of the 21st century itself, we witness tourism which is more socially and politically driven phenomenon. The COVID 19 pandemic has been quite obstreperous event, with huge impacts on tourism. Tourism has also been one of the causes of the pandemic and hence so badly affected. International tourists' arrival, saw a decline by 74 percent in 2020 when compared to the last year. Many developing countries witnessed a 80-

90 percent downfall in tourists' arrival. UNCTAD reports, see a pre-covid scenario for tourism sector by 2023 or later.

India holds an enviable position with 5,000 years of history, geographical diversity, heritage and culture. The country has been stereotyped for it, basically being a cultural destination. A new paradigm is indeed in progress where we see more diversified form of tourism. A lot of problems which deaccelerates the country's tourism industry are lack of hygiene and comfortable accommodations, absence of an information system, lack of integrated tourism promotion programmes, challenges in managing urban infrastructure, etc. there are many environmental and socio-economic factors affecting tourism which further reduces the desired quality of tourism.

Urban Tourism

Urban agglomerations provide for and extensive and assorted collection of various historical, cultural, architectural, social, natural and as well as manmade experiences. Thus, a type of tourism activity emerges, Urban Tourism, in an urban space with non-agricultural based economy being the innate characteristic of the region. Urban Agglomerations being the leading destinations for urban tourism are more affected by pandemic because most cases of infections and deaths are accumulated in cities, badly affecting the city's attractiveness. Varanasi, owing to its rich tradition, attracts more than 60 lakh domestic and international tourists each year. The peak season is regarded as October-March with tourist inflow being 60

percent of the total domestic tourist coming in a year while for the foreign tourist it is 71 percent. The average stay is 2-3 days for both domestic and foreign tourists. All the important (Hindu) festivals like Dev Deepawali, Ganga Mahotsav, Ram Leela are celebrated between October-March. The city Ghats, historical and cultural attractions, religious significance, philanthropic significances, makes it even more attractive to the tourists. Most domestic tourists are from Bihar, West Bengal, Madhya Pradesh and other parts of Uttar Pradesh, while the majority of foreign tourists are from Sri Lanka and Japan (JNNURM).

Tourism is a combination of inter related industries like hotel, restaurant, transport, etc. also there is backward and forward linkages and cross-sectoral synergies with sectors like agriculture, horticulture, poultry, transport, construction, handicrafts, etc which leads to large scale employment generation and poverty alleviation. The lively city of Varanasi, which never stopped, came to a standstill during the pandemic, when the ghats were deserted and its revered temples were closed, times which even the eldest of the generations here have seen for the first time in their lives. The city paid the price of the pandemic not only economically but also physically and emotionally. Apart from the pandemic there are many factors which effect the city's tourism like, historical and cultural factors, weather conditions, accessibility, amenities: both manmade and natural, socio-economic factors, etc. which needs the attention of the policy makers. Being a cultural and historical destination with tourism, the second largest sector of the city, Varanasi's economy, also comprises of the priests, hotels, the florists and tour guides. The flower markets of the city have seen a downfall, during the COVID times with almost all the major temples closed, which badly affected the farmers associated with floral farming. There were times when the flower wholesale markets at Bansphatak and Englishia Line saw a huge gap in their production and sales. Clearly the pandemic affected the economy at large of this sector. With the lockdowns imposed, major rituals performed at the ghats like the Ganga Aarti which attract tourists all over the world, came to a halt; greatly effecting the hotel industry. There has been a major occupational shift among the tourists guides as their scope of earning was limited to the commissions they make at several stages of booking and travel. The city needs to re-build its tourism along a sustainable form, for the future.

Challenges Of Urban Tourism In Varanasi

In their analysis of tourist satisfaction in Varanasi through important performance analysis, Sujoy Vikram Singh and Naresh Tanwar concluded that for the tourists in Varanasi, clean environment and hygiene were the critical issues. Many schemes like Swachh Bharat Abhiyan, HRIDAY, PRASAD needs to be effectively executed in order to maintain positive reviews, the Destination Management Organizations (DMO's) should invest in improving the core facilities like maintaining pedestrian pathways, enhancing the role of Tourist Information Centres for there are discrepancies in the information present at the destination and at online sources. Placement of direction and signage boards at every tourist place, cleanliness and maintenance of public convenience facilities were other issues.

The COVID 19 pandemic has caused great havoc to the world economy. Hygiene and health conditions have become of utmost importance for tourists travel decisions. The pandemic has certainly provided the policy makers to think about the challenges that lay ahead for Urban Tourism. According to the Tourist Statistics Department, Uttar Pradesh, 2017, Varanasi ranks eighth among top sixteen places in U.P. according to domestic tourist visits and according to foreign visits it ranks third with Sarnath at second place.

Uncontrolled Urbanization –

Varanasi ranks 18th in terms of population in the state. The percentage share of urban population in the district is 43.4 as against 22.3 of the population in urban areas of the state. Varanasi district has population density of 2,395 persons per square kilometre which is more than the state average 829 persons per square kilometre. Total population of the district is 36,76,841 in which urban population is 15,97,051 comprising 43.4 percent of the total population.

There is a huge gap in opportunities and facilities in some of the areas of the city. Varanasi witnesses a recent socio-economic growth and modernization in all fields of activities which has brought radical changes like, spontaneous building constructions (both legal and illegal), consequent landscape alteration and downgrading. The components responsible for urbanization in Varanasi are socio-cultural and religious attractions, being an ancient educational centre, trade and commerce, a tourist centre, rural-urban transformation, medical hub. The main problem of urbanization is that it's concentrated in some particular areas only. Speedy growth of population over the last two

decades has rendered the central part of the city over crowded.

Managing Urban Infrastructure –

The urban infrastructure system is managed using certain social and technical principles, providing basic services for the urban habitat. The services like water, energy, transportation are the foundations of any city and a lack of sustainability in any one sector can lead to a havoc for the whole ecosystem. Hence, governments should aim for sustainable, more resilient and efficient infrastructural development. Of course, the pre-existing unplanned infrastructure, doesn't help with the further advancements and hinders further development but irrational infrastructural development leads to cities historicity damage. Already Varanasi is a congested place with the main city still not developed enough to tackle traffic jams and crowding. Footpath erosion, problem of increased littering, sensitive habitat destroyed and converted into hotels and stay rooms have become quite common in the city. Infrastructure and real estate development are growing very rapidly in cities and in the outskirts, apartment culture is keeping pace with the metro cities. And this advancement of human civilization has put serious questions on the safe use of natural resources. The forest cover is awfully low, accounting for not more than 5 percent of the total area. In addition, there has been an exceptional rise in built-up area, which has grown by 53 percent. This signifies a spree in construction activity, mainly on account of increasing demand for residential accommodation and expansion of commercial activities. Agricultural land has gone down by 5.3 percent. The area under vegetation cover and wasteland, too, has declined by 20 percent and 28 percent respectively.

Carrying Capacity –

UNWTO defines carrying capacity 'the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural, environment and an unacceptable decrease in the quality of visitors satisfaction'. The demand of the present is to probe into possible theoretical solutions for managing not only the resources but also the entire city facilities like, limiting the access, firm restrictions on certain activities, enforcing rules and regulations, providing more information and educating the masses. Tourism sector needs to re-analyse, keeping in view the change in travellers' behaviour post-pandemic and to

redefine future tourism by more sustainable means.

Even a modest but unregulated rush of tourists raises the wages of labour, prices of land and articles of daily use in the tourist region. More demand and less supply of water and power, shared by both the tourists and local residents, creates shortages- the worse sufferers are always the local people. Tourist carrying capacity of the city needs to be matched to the growing tourist traffic and the increase in the number of incoming job seekers to check these problems. There is a need to support facilities and also provide opportunities to support higher income segments. Presently the sewerage system of the city is inadequate with 70 percent area of uncovered sewer system and discharge of untreated sewage in open drains, into Ganga. This already drastic scenario with its inadequate carrying capacity poses a threat to city's environment, with an add on of large tourist influx.

Effects On Environment –

A declining bio-diversity as a result of all sorts of human activity, came to light in the latest United Nations report on assessment of ecosystems. How sensitive is the tourist industry to all the adverse changes in environment if it is not properly conserved is a burning question? Nature's beauty, wild life, cultural attractions and ecology needs to be conserved in order to protect the very resource base of tourism from destruction. The city came into limelight in 2015, when Central Pollution Control Board (CPCB) data highlighted that the city didn't have even a 'single good air quality day' that year. In fact, Varanasi is among the 43 critically polluted zones across the country. Data revealed that pollution levels in Varanasi were 20 times more than WHO's standards. The city's air quality was found to be more toxic than in Delhi.

A good quality and sufficient quantity of water is equally essential for keeping alive the tourist industry. It is required for many direct and indirect uses, which grows on increasing as the number of tourists increases. The shortage and pollution of water adds to the prevailing insanitary conditions and the diseases in densely populated areas of the city. An unregulated inflow of visitors to tourist places in the vicinity are so affected by such conditions that they may decide to keep away from the city, the next time. The city is threatened by groundwater extinction, shrinkage of surface water and its contamination, polluted air and enormous land pressure. Also, the city is producing huge amounts of municipal solid waste and due to the absence of a proper

dumping ground, it is being disposed in low-lying areas in every nook and corner of the city as well as at the banks of the River Ganga, Varuna and Assi or in and around ponds and wells in the city.

The combined effect of low flow and discharge of polluted effluents into the Ganga has caused severe deterioration in the quality of water. A latest report of the Ministry of Environment Forest and Climate Change on the Ganga River shows that the stretch of Allahabad to Varanasi has more than 6 mg/l dissolved oxygen and huge faecal coliform, which implies that it is not suitable for even bathing purposes.

Effect On Local Culture –

Varanasi being basically a cultural tourism destination witnesses an encounter between foreign tourists and the local people. It's a clash between two sets of cultures observed at a number of tourist places here. There is only a commercial relation between the tourists and their hosts just as is between the sellers and buyers of goods and services in the market. Treating local people as objects of curiosity by the tourists cause irritation among the former. Tourists are generally members of a high consumption society of pleasure seekers landing in the midst of society suffering from wants. Youths of the host area suffer from cultural alienation by imitating the behaviour pattern of the tourists and losing the hold of their family traditions. It is the major negative impact of urban tourism, more harmful in the stages of early growth. Increasing number of modern restaurants and clubs alongside the Ghats, are attracting tourists but adversely affecting the culture of this ancient city.

Tourism is generally the spread of local culture amongst the travellers, but this has some adverse effects on the local residents also. High end café, bars and clubs are introduced to please and welcome a certain group of tourists in the city, which is mainly concentrated along the banks of the river Ganga, leading to unnecessary congestion and pollution also. To attract western tourists and create a favourable environment for them the local cuisines and entertainment hubs take a back seat and get further neglected. The local culture is currently thriving to survive against this manicured tourism set up. Many new starts ups and cultural organizations and groups work steadily to keep the originality of tradition and culture of a region alive. Administrative support for these groups can bring a good balance between tourism for commerce and tourism for cultural experience. Tourism indeed acts as a

catalyst for economic growth but there is a need of balance between economic and cultural prosperity.

Health And Hygiene –

Only 32 percent of the households are covered by the sewerage network in the city. The remaining is covered via septic tanks and pits; and rest are not covered at all. 18 percent of the city's population has no access to toilets, either independent or shared. Also, the existing sewerage network is very old and in need of repair. The carrying capacity of the sewerage lines is adversely affected due to garbage dumping and a heavy footfall of tourists lead to pressure on this existing scenario.

Despite much remaining unknown about the future of travel post COVID 19, the world is seeing emerging trends about health and hygiene in travel and tourism concerning traveller booking behaviour and resident sentiment. This means that the city's tourism managers and policy makers need to re-think, re-build and reposition the city's focus on health and hygiene accordingly. In light of growing health and safety concerns, travellers will increasingly turn to authorities they trust for timely and accurate information ahead of and during their travels.

Lack Of Integrated Tourism Development Programme –

The National Heritage City Development and Augmentation Yojana (HRIDAY), a central sector scheme of the Government of India, was launched on 21st January 2015 with the aim of bringing together urban planning, economic growth and heritage conservation in an inclusive manner and with the objective of preserving the heritage character of the city. The mission period of the scheme ended on 31st March, 2019. The scheme has supported development of core heritage linked civic infrastructure projects which includes revitalization of urban infrastructure for areas around heritage, religious, cultural and tourism assets of the cities. These initiatives include development of water supply, sanitation, drainage, waste management, approach roads, footpaths, street lights, tourist conveniences, electricity wiring, landscaping and other citizen services.

Mostly tourism is considered as a way of commercial engagement, leading towards profit for a state in economy. Mostly this is done by establishing commercial zones, instead of promoting and preserving the places of sightseeing or of historical importance. Some other times, a certain zone is overly developed to either compensate for the lack of commercial

prosperity in the other spots. For example, if city has x, y, z places having good amount of footfall, but only x has the capacity to convert the footfall into commerce, that spot would be given more focus and would be developed more than other ones. The Vishwanath Corridor is one such place which has been overly developed for the tourists while many other tourist places are struggling to survive without lack of attention. The Varanasi Smart City Mission aims to provide for the aspirations and requirements of the people, while also developing the institutional, physical, social and economic infrastructure to build a complete urban ecosystem. The objectives of the mission are to provide basic infrastructure, improve and enhance the quality of life, ensure and strive for clean and sustainable environment, apply smart solutions, set examples which can be replicated within as well as outside the smart city, so as to enhance the creation of more smart cities. The Heritage Development Plan for Varanasi, aims to regulate its heritage zones, conserving the built cultural heritage, provide and interface of heritage management with spatial planning to come up with a regulatory framework for development that is heritage sensitive.

Lack of resources, lack of co-operation between various stakeholders like public officers, business community, locals, politicians, industry fragmentation, no volunteer enthusiasm, leadership skills efforts from individuals have led to increased problems of urban tourism in the city. The Varanasi's City Development Plan (CDP) lacks the survey and understanding of the present ground realities faced by the city. The pandemic has indeed made the governments to work in a more collaborated manner at all levels, thus emphasizing on the need of more consolidated tourism policies for faster recovery of the sector; with the objective to have more instinctive and pliable policies which is able to adapt to changes faster, a sturdy safety and health policy issues and crisis management.

Re-Building Tourism

The UN Secretary General, Antonio Guterres says 'As we restart and recover from the pandemic, UNWTO, has a key role in rethinking tourism and its interactions with our societies, economies and natural resources and ecosystems'. The pandemic driven slowdown has given the opportunity to uplift more revolutionary changes in the sector with new models, opening up new destinations and thriving for sustainable tourism patterns. Also, the pandemic has provided for new approaches to be adopted for maintaining the overall balance

of environmental, social and economic results of the tourism. This can be achieved by introducing new technologies, executing more of green recuperating strategies and shifting to more resilient policy and business practices. The future of the tourism industry definitely sees a paradigm shift, due to the pandemic and the G20Tourism ministers in the Diriyah Communique assured the governments to work together for the cause and support of sustainable retrieval of the tourism sector. The disruption brought about by the pandemic has provided the policy makers to grasp the opportunity and reset the economy of this sector, with stronger sustainable base. Since this sector is the most affected by the pandemic, it's the top most priority of the international institutions like, UN, World Bank, WTO to revive the economy of this sector.

Sustainable Tourism –

Varanasi needs a serious re-consideration about its tourism industry according to sustainable pattern. On the one hand flowing of more than 5 million tourists per year, and on the other hand inadequacy and inefficiency of infrastructure for welcoming the tourists, lead to an increased unsustainable condition

The term 'sustainability' emerged in 90's and gradually entered to economic and political context; until 1997, there was not established a relation between tourism and sustainable development. It became introduced for the first time in 'Agenda 21' for the 'travel and tourism industry' which draws its principles from the 1992 UN Conference on Environment and Development. 'Agenda 21' presents tourism as a factor in order to achieve promotion of quality of life and economic flourishing of the local people. Sustainable tourism is taking charge of all the resources in a way that economic and social needs are fulfilled along with maintaining the cultural and biological diversity of the region, intact. The objective of tourism is development of tourism without any ruinous effect on natural, historical, cultural or social resources in order to improve economic growth and to respect to customs of host community.

Indicators of sustainable tourism include controlled growth of tourism industry, capacity of surveying number of tourists according to possibility and infrastructure of place, encouragement of local communities in participating in tourism development in the name of improvement of the economic status of local communities and preserving natural resources. There are certain

barriers on adopting sustainable practices like; lack of financial resources, lack of knowledge/awareness, lack of available staff, etc.

Urban Infrastructure –

The COVID19 pandemic emphasized the need to re-consider the role of free spaces in Metropolitan areas as well as their accessibility. Challenges including crowding and impacts by over tourism on public free spaces will require joint strategies involving all public and private institutions (including local communities) responsible for the maintenance of green and blue free spaces. Strategically planned network of natural and semi-natural areas, which absorb precipitation and reduce water run-off even maintaining their retention function during heavy rainfall events. These measures primarily benefit the local population, but there may also be positive synergies for city tourism.

Preserving or enhancing green spaces and their diverse uses, creating water related structures in public spaces, as well as establishing an offer of water-based sports and recreational activities and wherever possible water-based mobility, can represent valuable elements for the design of summer tourism offers in City tourism. Tourism infrastructure can bring higher living standards to a destination. Benefits can include improved infrastructure, advancements in health and transport sectors, new sports and recreational facilities, restaurants and public free spaces, enhancing the rest and retreat facility with an inundation in better-quality commodities and food.

Policy Implications –

The policy makers need a change of perspectives in their policies: focusing more on inclusive and bottom-up approach in defining the strategies. Necessary changes for a post COVID 19 recovery can be the changes of target markets, new collaborations, focus on quality tourism, technological advancements in the sector. Government should focus on policies that make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity. Policies ensuring viable, long term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable environment, income earning opportunities, social services to host communities and contributing to poverty alleviation. Effective policies can help in bringing tourism back on track and restoring the confidence of travellers regarding health issues,

risk of cancelled travel plans and becoming stranded overseas. It can also help to mitigate the socio-economic impacts on livelihoods.

Pro-Poor Tourism –

tourism is the third largest foreign exchange earner in India, with accounting for 10 percent of the total GDP. The tourism industry has the upper hand of occupying even the unskilled workers. Hence, the sector can help in fighting poverty, but obviously not compromising with the quality of the sector. Pro-poor tourism including the vulnerable section of the society, has also been a priority of Uttar Pradesh government's 2016 tourism policy and also India's fifth five-year plan. There are many ways to help spread benefits of tourism. In general, the poor do better when tourists spend on local products, rather than glamourizing the local market. A minimum wage can be enforced in order to make long lasting benefits with promotion of local products and more of job opportunities.

Digital Tourism –

Social media is critical in promoting cultural tourism destination, being an excellent platform to promote products such as high quality, guided, experiential tourism routes, which should characterise the cultural tourism of the future. The difficulties of movement during the pandemic and the necessary constraints on the number of visitors to cultural tourism destinations mean, and will continue to mean, that not all the potential tourists will immediately be able to travel to their desired destination and may resort to virtual visits online.

Conclusion

Travel and tourism provide a substantial contribution to business operations and ultimately contribute to the worldwide economy. The travel and tourism sector are an economic driver to the destination country's local GDP (Wondirad). The pandemic has reflected social, psychological and socio-economic and cultural influence on various tourism stakeholders, and they will suffer from the adverse effects for a longer time: the pandemic has provided an 'abundant' new framework in which tourism scholars and researchers can conduct studies with applicable research models. Tourism impact surveys need to ignore or drop the previous methods to execute the tourism and travel industry (Michael Hall). Researchers need to implement feasibility studies, tourism demand forecasting, and active and best practices that would be beneficial and appropriate to explore the COVID 19 consequences on various geographic organizations and stakeholders.

The focus should be on the increase in visitor numbers through a better more comfortable travel personalized service with maintaining affordable prices. During this low flow of tourism, policy makers should consider renovating hotels, improving staff quality and moving to digital technology. Also, attention should be paid to high quality sanitation measures. This study draws an empirical assessment for the travel and tourism industry in Varanasi. Travellers have become more selective and hence focus should be on long time trips rather than fewer trips. This pattern will reduce the negative effects of the travel industry. E-tourism can bring a definite change in the travel and tourism industry's future by providing assessable and multi-functional value structures, structural definitions, theoretical trends and substantial and flexible technical concepts.

References

1. Beriatis, E. (2008) Uncontrolled Urbanization, Tourism Development and Landscape Transformation in Greece C. 44th ISOCARP Congress 2008.
2. Corbisiero, F. and La Rocca, R.A. (2020) Tourism on demand: A new form of urban and social demand of use after the pandemic event. *TeMa. Journal of Land Use, Mobility and Environment*. P. 91-104.
3. Feizabadi, T.N. A Critical Review of The Sustainability of Tourism in Varanasi. *Urban Studies and Planning. Urban Planning and Management. The Islamic City*.
4. Gohar A. (2021) Tourism and Urbanization, An Interconnected Evolution. *Sustainability In Environment*, Vol 6, No 3.
5. Hall, C.M. (2011) Policy learning and policy failure in sustainable tourism governance: from first and second order to third order change? *Journal of Sustainable Tourism*, 19(4-5), p. 649-671.
6. Haywood, K.M. (2020) A post covid future: Tourism community re-imagined and enabled. *Tourism Geographies*, 22(93), p. 599-609.
7. Rana, P.S. and Singh, P.B. (2000) Sustainable Heritage Tourism: Framework, Perspective and Prospect. *National Geographical Journal of India*, 46, p. 141-158.
8. Singh, S.V., and Tanwar, N. (2020) An analysis of tourist satisfaction in Varanasi as destination perspective through importance performance analysis. *Avahan: A journal on Hospitality and Tourism*, Vol 5 Issue 1 p. 70-83.
9. Singh, P.B. (2017) Kashi: The Sense of preserving Heritage is missing. *GOVERNANCE* now, p. 32.
10. Sustainable development of Heritage City: Varanasi. *Department of Urban Planning, School of Planning and Architecture, New Delhi*.
11. Singh, P.B. (2009) Banaras: making of India's Heritage City. *Planet Earth and cultural Understanding*. Cambridge Scholars Publishing, New Castle

Sericulture Is a Boon and Tradition of Tamil Nadu; Growth and Deve3ographical Analysis

Dr.J.Nandhini¹ Dr. J. Sarala Devi²

Assistant Professor, Department of Geography, Queen Mary's College, Chennai –Tamil Nadu

Guest Faculty, Department of Geography, Queen Mary's College, Chennai –Tamil Nadu

Abstract

Sericulture activities are highly successive and productive in nature. Sericulture is a source of providing employment to the marginal people. It is astonishing to know that sericulture industry is providing gainful employment to 60 lakhs of people every year in India. This sector employs one man throughout the year for producing every 3.07 kg of silk produced and used in handlooms. This potential is very high and no other industry generates this kind of employment, especially in rural areas. Sericulture is highly suitable to small and marginal farmers, because of its capacity to generate a high income with comparatively less investment Economically benefit in different stages of silk industry like mulberry cultivation, silkworm rearing, reeling, twisting, dying and weaving. Every stage is income generating in silk industry like sericulturists to weavers. The study result showed that the area under Mulberry plant and silk worm production has increased in various districts of Tamil Nadu. It also reveals the employment generation and new planting areas also has steep lift in various districts of Tamil Nadu.

Keywords: Sericulture, Silk industry, Cucoon, Mulberry

Introduction-

The Present Study aims the Geospatial analysis of Rearing silk worm and Silk production in various districts of Tamil Nadu, and the objectives are to analyses the spatial distribution and temporal distribution of mulberry growth and new planted area in Tamil Nadu. To delineate, the various types of cocoons and silk worm production and also to evaluate silk reeling and sarees production in various districts of Tamil Nadu 2015-2020.

Data Source and Methods

This paper mainly depends on secondary sources of data, Agriculture department in DMS and in Chepauk and also data collected from various published and unpublished sources and websites. Data has been analysed simple statistical methods and Excel diagrams. Main theme has been shown with the help of Arc GIS 10.6 has been used to

create some thematic maps for spatial distribution of mulberry plants and located bar diagrams to show the silk worm area and also the silk production of various distributions of Tamil Nadu. Silkworm has four stages in its life cycle viz., egg, caterpillar, pupa and moth. Man interferes in this life cycle at the cocoon stage to obtain the silk, used in weaving of the dream fabric. The sericulture activities were broadly divided into two divisions' viz., pre-cocoon technology and post cocoon technology. The activities of each division were further divided into sub-sectors. The main product of one subsector becomes a raw material for another sector, thus, interlinking each other and changing the value, form and quantity to enhance the preference by the consumers.

Plant



Layings



Silk moth coming out of cocoon



Mulberry silk is considered to be superior in quality as compared to other varieties. Bombyx mori, the mulberry silkworm feeds on mulberry

leaves. About 92 per cent of the total production of the country consists of mulberry silk.

Rationale of the Study

Sericulture production was significant for the development of the human civilization from different aspects. Clothing is a very essential component for human shelter. Tamil Nadu is ranked fourth place among the silk producing state of our country. In 1956, Sericulture was practiced in limited pockets of Coimbatore and Dharmapuri district in our state, accounted 500 hectares only. Then with the implementation of many developmental schemes in the state sericulture activity was introduced into the plains of the state.

From 1979, Department of Sericulture with headquarters at Salem is functioning as development wing under Department of Industries and Commerce. During the year 2016-2020, 1184.62MT of raw silk, have been produced in the state, of which 609.12MT are cross breed silk and 575.50 MT are bivoltine silk. Tamil Nadu continues to occupy the fore-front position in the country in bivoltine silk production. Tamil Nadu stands first in cocoon productivity

Fidings and Result of the Research

Irrigated Area Under Mulberry Plant In Tamil Nadu 2015-2020

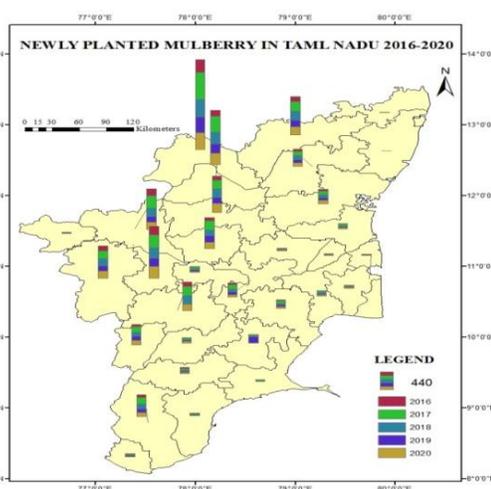
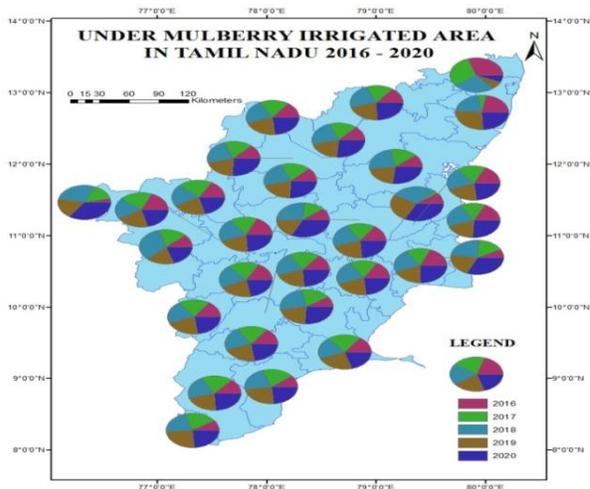
SI.NO	District	2015-16	2016 -17	2017-18	2018-19	2019-20
1	Kancheepuram	15.3	3.2	14.37	18.42	16.4
2	Thiruvallur	15.1	15	12.96	3.64	3.24
3	Cuddalore	59.4	111.6	155.57	140.18	179.05
4	Villupuram	191.6	282.9	406.17	350.71	453.64
5	Vellore	745.6	854.5	1185.93	1064.88	1274.49
6	Tiruvannamalai	224.36	298.32	399.98	337.91	447.55
7	Salem	613.94	873.22	1110	1009.09	1233.58
8	Namakkal	674.8	607.5	779.66	721.15	875.24
9	Dharmapuri	850.62	1106.7	1482.13	1284.15	1639.51
10	Krishnagiri	2090.92	2599.3	3207.35	3073.48	3323.36
11	Erode	1436.5	1830.6	1823.2	1813.99	1818.87
12	Coimbatore	753.7	1108.8	1128.64	1067.31	1266.19
13	Tiruppur	1969	2229	2138.52	2135.68	2287.81
14	The Nilgiris	3.2	14	26.32	17	32.39
15	Tiruchirappalli	288.32	329.16	410.24	393.64	435.24
16	Karur	54.8	94.2	147.37	127.33	157.89
17	Perambalur	23.2	25.8	54.05	36.23	65.38
18	Ariyalur	47	45.2	53.85	53.64	60.53
19	Pudukkottai	184.8	185.2	248.18	233.6	259.11
20	Thanjavur	72.2	96.8	136.84	120.24	160.73
21	Nagapattinam	28.2	24.2	34.41	29.55	40.28
22	Thiruvarur	22.2	46	67.61	58.3	89.68
23	Madurai	118	154.2	175.71	164.17	197.98
24	Theni	555.6	672.8	764.17	754.66	806.68
25	Dindigul	1109.8	1282.3	1421.36	1367.25	1439.78
26	Ramanathapuram	57.6	75.4	78.74	87.25	76.72
27	Virudhunagar	145.2	183.2	212.15	210.32	222.27
28	Sivagangai	51.2	95	133.77	112.75	136.72
29	Tirunelveli	436.84	612.84	698.08	656.9	775.2
30	Thoothukkudi	43.84	79.44	91.03	96.19	95.08
31	Kanniyakumari	40.18	78.78	91.3	99.57	97.37

Source: Agriculture department, DMS

Irrigated Area under Mulberry Plant in Tamil Nadu 2015-2020

Spatial distribution of mulberry plant found to be very high in area such as Krishnagiri, Erode, Dindigul and Tirupur districts shows consistent growth of mulberry plant under irrigation. It is followed by Dharmapuri, Namakkal, vellore and Salem districts shows steady growth in area under mulberry plant. On the other hand Perambalur the Nilgris, Kancheepuram and Thiruvallur are newly

emerged areas under mulberry plant. Tamil Nadu mainly rely on North East Monsoon. The spell of rainfall is dynamic and to only three months. Rainfall mainly because of Tropical cyclone originated over the Bay of Bengal and Indian Ocean. The area under Mulberry plant mainly depends on the irrigation only minor area which receives enough rainfall. Coimbatore, Erode and Salem shows steep increase.

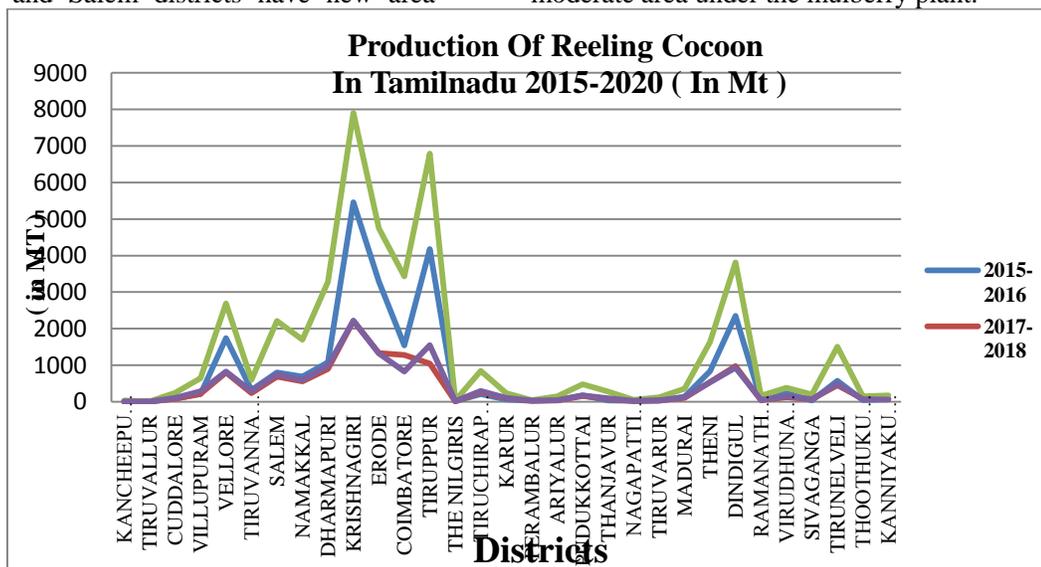


Source: Compiled by Researcher

Newly Planted Areas Of Mulberry Plant 2016-2022

In the year 2016 the Area under mulberry plant about 426 Sqkm in Krishnagiri and 569.8 Sqkm in 2020 whereas in Tirupur 286.7 Sqkm it has increased into 390 Sqkm in 2020 in Tirupur Dharmapuri and Salem districts have new area

under mulberry plant and also shows gradual increase of areas from 2016 -2022. Apart from that Coimbatore, Vellore and Erode also register more area under new mulberry plant. This district also shows an increase of areas within five years. Dindugul, Tirunelveli and Namakkal register moderate area under the mulberry plant.



Source: Agriculture Department , DMS Chennai

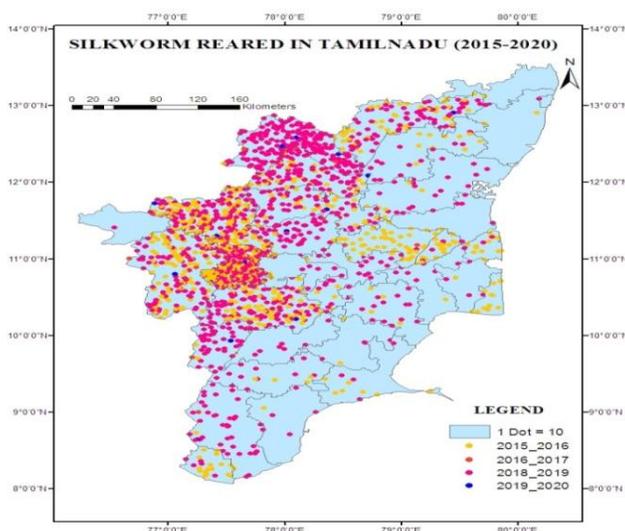
Production Of Reeling Cocoon In Tamilnadu 2015-2022

Krishnagiri Place first in production of cocoons in 2015 (5457.35 tonnes) it shows drastic change of production in next three years but sudden fall in the year 2019-20 only 2217.78 tonnes of production , reason behind this the erratic rainfall destroyed the mulberry plant in that year. Next to Krishnagiri Tirupur records high production of cocoon about 4176.67 metric tonnes which has sharp increase in 6792.75 tonnes in 2018-19, the sharp decline in 2019-20 because on tropical cyclone Nivar devastated the mulberry plants. High production is also found in Erode 3294.49 tonnes, Dindugul 2352.82 tonnes , Vellore 2694.39 tonnes in 2018-19 and Dharmapuri records 3280.9 tonnes

in the above mentioned year. Almost all the districts shows fall in production during 2019-2022 because of the monsoon.

Silk Worm Reared In Districts Of Tamil Nadu 2016-2020

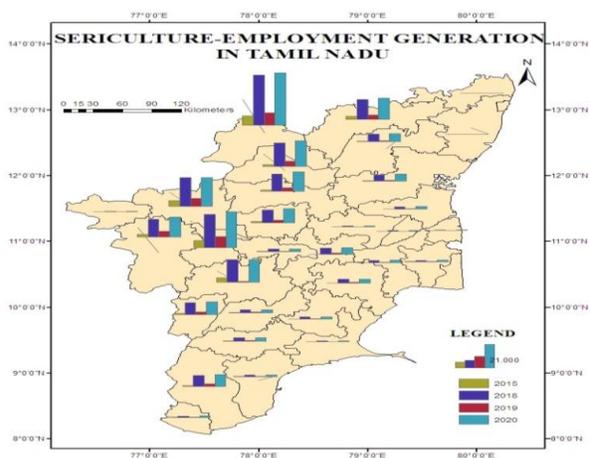
Tamil Nadu is the leading State in bivoltine silk Production. The handloom silk sarees including Kancheepuram silk sarees produced in Tamil Nadu are World famous because of their enchanting craftsmanship. Venpattudhoties produced in Salem are very unique and also got authorization to use '**Geo-Index**' number. Krishnagiri 1614.6 tonnes, Erode 974.7 tonnes and Tiruppur(1235.7 tonnes)are the leading producer of silk worm in 2016. Raw silk production in Tamil Nadu found.



Source: Agriculture department DMS

Sericulture– Employment Generation In Tamil Nadu -2015-2020

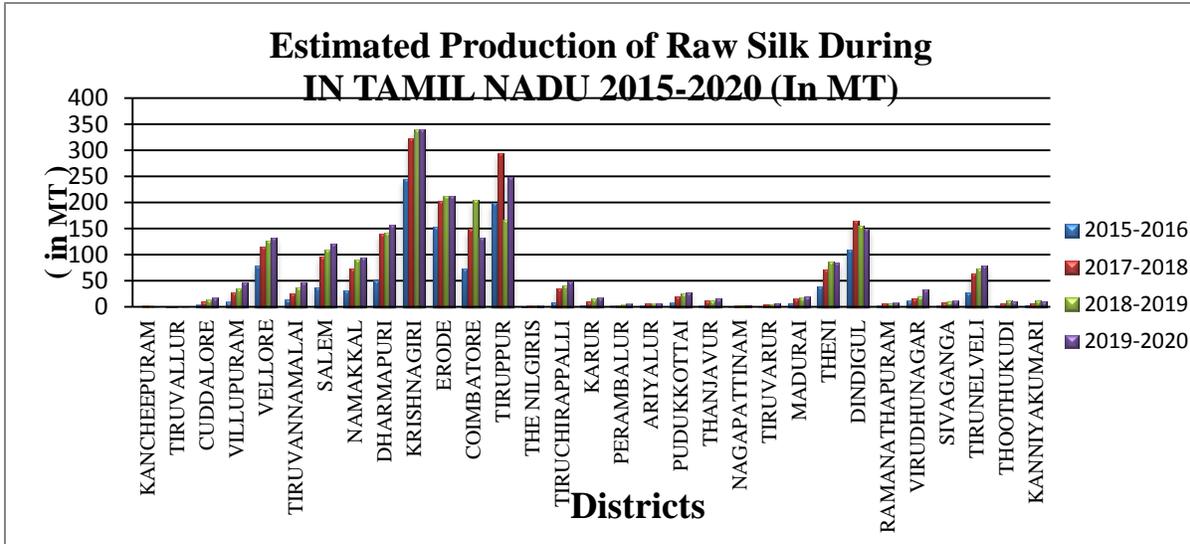
Dharmapuri ranks first in giving employment generation the weavers of silk. Nearly 3.4 billion engaged in sericulture activities during 2016. Area under Mulberry plant also found to be high in this district. Ideal climatic condition and environment enriches the sericulture production in Dharmapuri..Next to Dharmapuri Erode comes second highest employment opportunity , around 2.05 million people are under sericulture in 2016 the employment opportunity has declining due to various factors. Tirupur gives more employment opportunity for the marginal people to engage in rearing silk worm. Around 1.02 million people are engaged in sericulture



Activities during 2016. Following with the above

Districts, Salem Namakkal and Vellore districts also show high employment than the other districts of Tamil Nadu

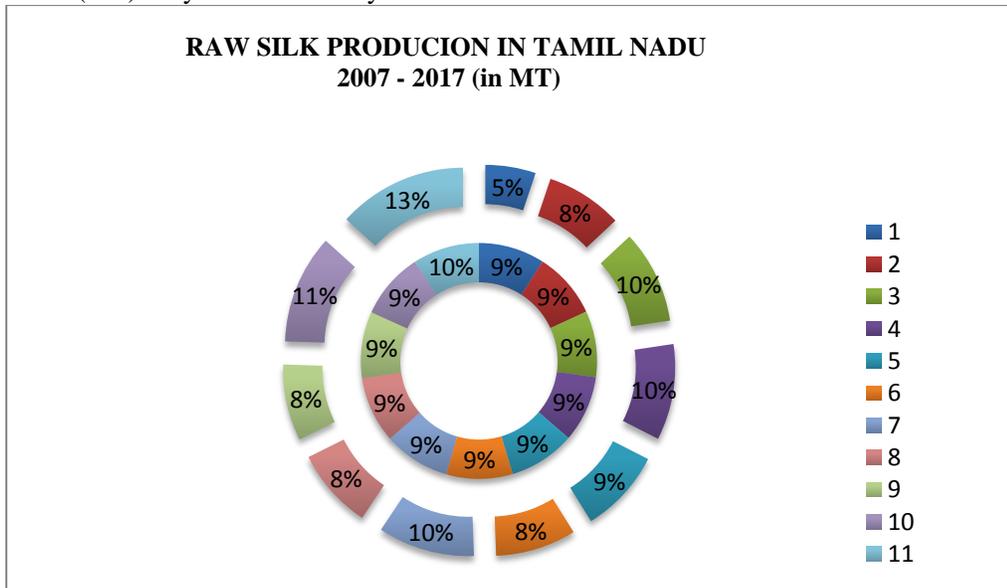
Production Of Raw Silk In Districts Of Tamil Nadu



Raw Silk Production In Tamil Nadu 2007- 2017 (In Mt)

Women in South India in general in fond of silk sarees. In Tamil Nadu for marriages it's a traditional wearing silk sarees and dhotis so, the demand of product increase in day by day. In this above mention table the production of Raw Silk has been increasing constantly. In the year 2007 which is above 737 (MT) only. But within a year

above 8% of increased. In the year 2009-2010 remind stagnant about 10% of increase when compare with 2008. Every year nearly 9-10% of increase has been recorded new Raw Silk Production of Tamil Nadu. In 2017 it has been increase slightly above 13% of Raw Silk Production in Tamil Nadu which is about 1818 (MT).



Common Challenges Faced During Sericulture:

Inadequate equipment and technology for producing silkworm eggs

Insufficient technicians in sericulture

Inadequate tools and QC measures

Lack of capital for investment

No empowerment thus makes the worker feel demotivated

Im proper and availability of technologies for silk processing

References:

1. Rao, V.K.R.V. 1984. Some Neglected Factors in Integrated Rural Development in Lakshman and Narayan (Ed.). Rural development in India, Himalaya Publishing House, Bombay.
2. Savithri, G., Sujathamma, P., Neeraja, P. (2016). Sericulture Industry – An overview. Book published by Agrobios. Pp: 88 – 122
3. Basu, A. (2015). Advances in Silk Science and Technology. Woodhead Publishing Series in Textiles Pp: 261-282.
4. Kraybil, D., & Johnson, T. (1989). "Value - added activities as a rural development strategy." Southern J. of Agri. Eco. 74(5), 56-62.
5. Royer, & Jeffrey, S. (1995). Potential for cooperative involvement in vertical coordination and value added activities. Agribusiness 11(5), 473-481.
6. Iyengar, M. N. S. (2009). Silk by-products: potential cleanse of chemical dye effluents. Indian silk, 47(12), 28
7. Web sources
8. <http://www.agritech.tnau.ac.in/sericulture>
9. <https://krishnagiri.nic.in/departments/sericulture/>
10. <https://dharmapuri.nic.in/sericulture/>
11. <https://www.tendersontime.com/authority/departments>

Knowledge of Anganwadi workers and their problems in rural Areas

Premavati S Patil¹ Dr.S.H.Honnalli²

¹Assistant Professor, Faculty of Business Studies Sharnbasva University, Kalaburagi

²Professor and Dean Faculty of Business Studies Sharnbasva University, Kalaburagi, Karnataka

Email- Premapatil773@gmail.com

Abstract:

Anganwadi is a Government sponsored child care and mother care centre in India. It caters to children in the 0-6 age group. These were started by the government in 1975 as part of the integrated child development services programme to combat child hunger and malnutrition. The Anganwadi system is mainly managed by the Anganwadi worker (AWW) and Anganawadi helper (AWH). The Anganawadi Worker is the community based voluntary frontline worker of the Integrated Child Development Service Scheme programme. Selected from the community, she assumes a pivotal role due to her close and continuous contact with the beneficiaries. Children grow and develop amazingly. Mothers and their children age between 0-6 years, not only constitute a large proportion of the community but also vulnerable or special risk group. The first five years of child's life are most crucial for the foundations for physical and mental development. Main objective of the study is to study the profile of Anganawadi workers and to assess knowledge of anganawadi workers and problem faced by them while working

Keywords: Anganwadi worker, Anganawadi helpers, ICDS, Child care,

Introduction:

Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world's largest and unique programmes for early childhood care and development. It is the foremost symbol of country's commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers. Anganwadis are India's primary tool against the scourge of child malnourishment, infant mortality and curbing preventable diseases such as polio. Their services can also be important tool to fight mental and physical disability in children. India has the world's largest population of malnourished or under-nourished children. Various researches have considerably explored many aspects of this scheme with variable results, but the coverage has been patchy and difficult to compare because of complexity involved in wholesome approach of the service and their constituents.

Children are the most important assets of a country because they will be tomorrow's youth and provide the human potential required for a country's development. The strength of the

nation lies in having healthy, protected, educated and well- developed children who may grow up to be productive citizens of the country. It is estimated that around 40 per cent of children are vulnerable or experiencing difficult circumstances characterized by their specific social, economic and geo-political situations. All these children need special attention. Children in the age group 0-6 years constitute around 158 million of the population of India (2011 census). These Children are the future human resource of the country. Ministry of Women and Child Development is implementing various schemes for welfare, development and protection of children.

Literature Review

Review literature gives an insight into different aspects of the problem under the study. It helps the investigator to design the framework, develop the methodology and tools for data collection and plan the analysis of data.

Das et.al (1990) This study explore that Anganwadi worker is the key person in the programme, her education level and knowledge of nutrition plays an importance role related to her performance in the Anganwadi centre. It has also been reported that, in addition to education level, training of Anganwadi workers about growth monitoring plays a valuable role in improving their performance.

Sandip B. Patil, Doibale M. K. Study of Profile, Knowledge and problems of Anganwadi workers in ICDS blocks: A cross

sectional study. In his study, Most of the AWWs in ICDS Blocks were from age group 41-50 years, matriculate, experienced, having knowledge of more than 50% in their daily functions at AWCs. The knowledge increases with experience as an AWW, but has no relation with their educational qualification. Problems felt by them were mainly due to inadequate honorarium and excess work load. So, timely increments in honorarium should be considered.

Sulakshana Shridhar Baliga, Padmaja R. Walvekar,(2017),”A study on knowledge of anganwadi workers about integrated child development services at three urban health centers” Study reveals, Anganawadi workers has poor knowledge of health services and The knowledge had no relation with experience and their educational qualification. This difference was not found to be statistically significant. Hence regular training camps should be organized for AWWs to increase their knowledge regarding different aspects especially growth monitoring and supplementary nutrition

Kalpna Joshi (2018) in her study: “Knowledge of anganawadi workers and their problems in Rural ICDS Block” AWCs need to be strengthened in structure and supplies and AWWs need to be given more in-service educational programme and training programme along with salary so that they can be motivated to take interest in all activities of the project

Statement of the Problem

The present intension to find the research gap a succeeded with the help of existing literature and research gap identified

Hence with the evidence of existing literature no extensive research done on “Anganawadi Workers and their problems in rural Area” researcher have interested to undertake a research on “Knowledge of Anganawadi Workers and their problems in rural Area”

Objective:

1. To know about the Anganawadi centre
2. To know about the Service and benefits to the Anganawadi workers
3. To assess the role & responsibilities of anganwadi worker
4. To understand the Problems and challenges faced by the Anganwadi workers

Research Methodology:

The research technique chosen to gain insight into Anganwadi workers and helpers in Anganwadi centre is exploratory in nature. For the purpose of fully understanding the idea, literature from certain research papers, data from trusted sites and newspaper, articles regarding the stated topic are used. According to the objective of the study, the research design used is descriptive in nature.

Anganwadi Centre:

The word Anganwadi is derived from the Hindi word “Angan”, it refers to the courtyard of a house. Angan is a rural Indian term for “a place where people get together to discuss, greet, and socialize their matters”. The Angan is also used occasionally to cook food or for household members to sleep in an open air. This part of the house is seen as the heart of the house and is considered a sacred place. Therefore, the significance of this part of the house comes across in the way a worker works in an Angan and visits other Angans to perform the indispensable duty of helping with health care issues. After all, they are the most important link between the rural poor and good healthcare.

Anganwadi is a government sponsored child-care and mother-care center in India. It caters to children in the 0-6 age group. These were started by the Indian government in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition. The Anganwadi system is mainly managed by the Anganwadi worker. She is a health worker chosen from the community and given 4 months training in health, nutrition and child-care. She is in charge of an Anganwadi which covers a population of 1000. 20 to 25 Anganwadi workers are supervised by a Supervisor. Four supervisors are headed by a Child Development Projects Officer (CDPO). They provide outreach services to poor families in need of immunization, healthy food, clean water, clean toilets and a learning environment for infants, toddlers and pre-schoolers. They also provide similar services for expectant and nursing mothers. According to government figures, Anganwadis reach about 58.1 million children and 10.23 million pregnant or lactating women. Anganwadis are India's primary tool

against the scourges of child malnourishment infant mortality and curbing preventable diseases such as polio. While infant mortality has declined in recent years. Integrated Child Development Services (ICDS) is the only major national program that addresses the needs of children under the age of six years. It seeks to provide young children with an integrated package of services such as supplementary nutrition, health care and pre-school education. Because the health and nutrition needs of a child cannot be addressed in isolation from those of his or her mother. The program also extends to adolescent girls, pregnant women and nursing mothers.

Service and Benefits to the Anganawadi workers and Anganawadi helpers

1. In the event of death of an employee of child (Anganawadi worker/helper) while in service, the legal heir of the deceased in given compassionate appointment under scheme by the government. The order came into force since November 2009.
2. Two days casual leave allowed at time in a month including the unavailed leave of previous months
3. Festive advance ₹ 2000/- is sanctioned once in a year to the staff of anganawadi centres, Medical allowance of ₹ 100/- per month to all the staff of AWCs
4. Additional charge allowance is increased from ₹ 2/- to ₹ 10/- per day to Anganawadi Workers will be taken into account for calculating the pension for those who are appointed as Grade II supervisors / Multipurpose health workers/Teachers before 1-4-2003, and 10 days medical leave will be allowed to those staff who undergo surgery under the new insurance scheme.
5. Further promotional activities to the eligible Anganawadi Workers for appointment as office assistants/clerks in the social welfare and nutritious meal programme department and to the anganawadi workers as Grade II supervisors, travelling allowance is enhanced to ₹ 20/- per month to ₹ 40/- per month to Anganawadi workers
6. Maternity leave allowed for 6 months and two sets of uniforms (sarees) per year have been provided to all the Anganawadi workers/helpers etc.
7. The Honorarium hike is seen as a move to bolster services by giving anganawadi workers honorarium that given them dignity

and motivate them to cater to the development needs of children in the 0-6 years age group and lactating mothers. Increase in honorarium of anganawadi workers ₹ 6000/- to 8000/- and Anganawadi helpers ₹ 3000/- to 4000/- respectively.

8. 15 days summer holiday given during the month of May in every year. Death relief fund ₹ 50,000/- is given to both Workers as well as helpers of Anganawadi centres
9. If anganawadi workers/helpers die while in service, or are suffering from severe ailments, their families are given some compensation and financial relief. A sum of Rs.20,000/- is sanctioned to the legal heir of the deceased anganawadi worker and Rs. 10,000/- is sanctioned to the legal heir of the deceased Anganawadi Helper as death relief fund.
10. From September 2014 the death relief amount has been increased to Rs.50000/- for both AWW and AWH. AWWs/Helpers who have completed a minimum of one year of service are eligible for financial assistance under the scheme.
11. New Pension Scheme (NPS) Lite, A contributory pension scheme. In the scheme anganawadi workers and Helpers will contribute Rs.150/- and Rs.84/- as monthly contribution respectively and State government will contribute the same amount.

Role and responsibilities of Anganawadi workers:

There are many responsibilities and duties to be performed by an Anganawadi Worker recommended by the government. Some of them are:

1. Showing community support and active participation in executing this program
2. To conduct regular quick surveys of all families
3. Organize pre-school activities, provide health and nutritional education to families especially to pregnant women as to how to breastfeeding practices etc.
4. Motivating families to adopt family planning, educating parents about child growth and development,
5. Assist in the implementation and execution of Kishori Shakti Yojana (KSY) to educate teenage girls and parents by organizing social awareness programs, identify disabilities in children and so on.

6. To weigh each child every month, record the weight graphically on the growth card, use referral card for referring cases of mothers/children to the sub-centres/PHC etc., and maintain child cards for children below 6 years and produce these cards before visiting medical and para-medical personnel
7. To carry out a quick survey of all the families, especially mothers and children in those families in their respective area of work once in a year.
8. To organize non-formal pre-school activities in the anganwadi of children in the age group 3-6 years of age and to help in designing and making of toys and play equipment of indigenous origin for use in anganwadi.
9. AWWs shall share the information relating to births that took place during the month with the Panchayat Secretary/Gram Sabha Sewak/ANM whoever has been notified as Registrar/Sub Registrar of Births & Deaths in her village.
10. To make home visits for educating parents to enable mothers to plan an effective role in the child's growth and development with special emphasis on new born child

Problems of Anganwadi workers:

In many problems which affect the anganwadi workers in performing their role effectively. The important problems faced by Anganwadi workers were in the following.

1. The problems of Anganwadi workers in the inadequate honorarium. That the Anganwadi workers they are considered with the "honorary workers" and thereby given only "honorary" and not minimum wages. The work load of the Anganwadi staff was heavy work but the status of the wages in low, the monthly honorarium of Anganwadi teachers was only 5.500 Rs until 2014. The Anganwadi workers themselves belonged to the below. Poverty- line category these inadequate honorarium is main problem for Anganwadi workers.
2. The workload of the Anganwadi staff was heavy if their house visits were also included, a lot of record maintenance or they have to assist for other health programmes

apart from their Anganwadi related work like in pulse polio programme, Vitamin A distribution programme in conducted by municipal Corporation it all functions in involve from Anganwadi workers.

3. Inadequate infrastructural facilities are a major constraint in the effective functioning of Anganwadis. In building facilities in terms of space and nature of construction are unsatisfactory.
4. The anganwadi workers are total 12 registers that were maintained by the workers

Ex: survey register, immunization register, ANC register, referral register, dairy cum

visit book etc. those anganwadi workers who had maintained that all registers properly.

These records heavy work for anganwadi workers.

5. Inadequate supervision among Anganwadi workers like immunizations, prophylaxis against blindness and anemia, nutrition and health education, Supplementary nutrition, growth monitoring and referred services.
6. There is a lack of help from the community participation or help from the community was always made available as and when required sometimes people help in food distribution if worker was busy with some other activities. The Anganwadi workers are supposed to make periodic visits to beneficiary families. These are problems of anganwadi workers
7. Anganwadi Workers all around the country are being treated as though they are unskilled. Their monthly remuneration, which is quite low in comparison to the Minimum Wage requirement, is insufficient to cover their living expenditures.
8. According to report of Kasturi Rangan's committee, it is nearly impossible to fix the curve of education as an individual advances in age unless the imparting of education is done methodically starting from the toddler level. Anganwadi centres (AWCs) are the ideal location for this, however suffering from a variety of ailments necessitates immediate attention

Conclusion:

Anganawadi programme is one of the world largest child and women development programme in India. Anganwadi is focal point of ICDS scheme. Each anganwadi has one worker and one helper. A good anganawadi workers has some qualities like leadership, decision making skills, problem solving skills, communication etc. Anganwadi workers play a role of bridge between the community and ICDS, they play a important role in bringing the services to the door step of the beneficiaries. But the department of women and child welfare it has to look into the matter of remuneration and very importantly providing accurate knowledge with regard to the responsibilities of anganawadi workers through the organizing all the anganawadi workers under one roof so that the anganawadi workers will be enhanced with the knowledge and tier adults will be cleared and they can deliver the services in a better manner

References:

1. <https://www.ipinnovative.com/journal-article-file/7204>
2. <http://www.ijmsph.com/fulltext/67-1418191976.pdf?1653377334>
3. https://www.iapsmgc.org/index_pdf/11.pdf
4. <https://targetstudy.com/articles/role-of-anganwadis-in-early-schooling-of-rural-children.html>
5. <https://www.ijset.net/journal/205.pdf>
6. https://www.ijmra.us/project%20doc/2019/IJMIE_JANUARY2019/IJMRA-15003.pdf
7. <https://www.nipccd.nic.in/file/reports/bestprac.pdf>

Survey of Medicinal Plants used by Local people of Armori taluka, Gadchiroli District, (M.S.) India

Vasanta I. Kahalkar

Assistant Professor Department of Botany, Mahatma Gandhi Arts, Science and Late N. P. Commerce College, Armori

Email- Vasantak30@rdiffmail.com

Abstract :

The current work is based on a thorough field study of medicinal plants conducted in Armori taluka area. Locals in this region rely on the forest flora for their livelihood and on herbal remedies to treat illnesses and disorder. There are 49 reported species of medicinal plants, which belongs to 48 genera and 30 families of the plants used by the local people. Botanical names of all the plants have been arranged alphabetically. Local names, part use and medicinal use have also been provided.

Key words: Documentation, medicinal plants, Armori.

Introduction:

Since the beginning human beings have been coexisted with nature, and plants have been important to their existence as they supply the necessities of life; including food, shelter, medicine, clothing, etc. Our prehistoric forebears were able to use numerous wild plants in diverse parts of the world for their specific use in the process of trial and error. The knowledge on the medicinal plant was transferred from one generation to next generation orally or without any published records. India is rich in ethnobotanical knowledge. The ethnic and rural people of India have preserved a large bulk of traditional knowledge of medicinal use of plants growing around them (Yigra 2010). This knowledge is handed down to generation through word of mouth and extensively used for the treatment of diseases (Mishra *et al.*, 2008). However, there is now a big generational gap between the young and old. As a result, traditional information has not been effectively transferred. Therefore, the present effort was undertaken in order to gather and record the traditional knowledge of the local Medicine Man (*Vaidu*) from Armori taluka (same medicinal

plants used to treat various ailments and disorders).

Materials and Methods:

Field tours were organized frequently to collect the information, many interviews were conducted with old Medicine Man (*Vaidu*) belonging to different categories. As much as 49 different plant species have been surveyed and collected. The collected plant species were identified with the help of floras and processed according to standard method of herbarium preparation. All the specimens are deposited in herbarium of Department of Botany, Mahatma. Gandhi. Arts, Science and Late N. P. Commerce College, Armori.

Results and Discussion:

All 49 species of flowering plants from 48 genera and 30 families were included in the assessment of medicinal plants in the study area. These plants are used to cure a variety of illnesses and diseases, including Cholera, Diabetes, Dysentery, Asthma, Fever, Cough etc. From present study. It is revealed that there is still need to collect information on traditional knowledge which will be helpful for further scientific study on drug formulation and discovery of new drugs.

Table: - List of Ethno-medicinal plant used by local people.

Sr. No.	Botanical Name	Local Name	Part Use	Uses
1.	<i>Abrus precatorius</i>	Gunj	Leaves	Leaves chewed and juice swallowed in stomatitis.
2.	<i>Acacia catechu</i> (L.f.) Willd.	Khair	Bark	Bleeding gum
3.	<i>Achyranthes aspera</i> L.	Aghada, Kutri	Root	Dog bite, Scorpion bite
4.	<i>Adhatoda zeylanica</i> Medic.	Adulsa	Leaves	Cough and asthma.
5.	<i>Aegle marmelos</i> (L.) Corr.	Bel	Fruit	Stomachache, leucorrhoea
6.	<i>Ailanthus excelsa</i> Roxb.	Maharuk	Bark	Stomach pain and cholera.
7.	<i>Alangium salvifolium</i> (L.f.) wang.	PandhariAkwal	Bark	Stomach pain due to worms
8.	<i>Andrographis paniculata</i>	Bhuineem	Leaves	Malarial fever and

	(Burm.f.) wall. ex Nees			worm's infestation.
9.	Aristolochia indica L.	Aristolochia indica L.	Leaves	Snake bite as an antidote
10.	Asparagus racemosus Willd.	Shatavari, Marbat	Tuberous root	Lactation after delivery, acidity, leucorrhoea weakness and weight gain
11.	Azadirachta indica Juss	Kadu-Neem	Leaves and seed	Used in fever, worm fusc and internal body heat. Seed oil is used in scabies.
12.	Bacopa monnieri (L.) Penn.	Brahmi	Leaves	Used for cough and hair falls
13.	Balanities aegyptica (L.) Del.	Hinganbet	Fruit	Food poison.
14.	Baliospermum montanum (Willd.) Muell-Arg	Jamal-gota	Root	Root decoction used for stomach pain due to indigestion.
15.	Bauhinia racemosa Lam.	Apta	Bark	Menstrual irregularity.
16.	Boerhavia diffusa L.	Khaperkhuti	Root	Jaundice
17.	Bombax ceiba L.	Kate-sawar	Bark	Menorrhagia, blood purification.
18.	Boswellia serrata Roxb. ex Colebr.	Salai	Bark	Wound healing.
19.	Butea monosperma (Lam.) Taub.	Palas	Flower & Seed	Flowers used against burning sensation and seed used for urinary problem
20.	Caesalpinia bonduce (L.) Roxb.	Sagargoti	Seed	Menorrhagia, also used for abortion.
21.	Calotropis gigantea (Ait.) R. Br.	Rui	Flower	Asthma and bronchitis.
22.	Cassia fistula L.	Bahava	Pod and root	Pod is used to treat stomach pain
23.	Catharanthus roseus (L.) G. Don.	Jagannath	Leaves	Used to treat diabetes.
24.	Celastrus paniculatus Willd.	Malkanguni	Seed	Seed oil is used for paralysis
25.	Celosia argentea L.	Kombda	Root	Kidney stone.
26.	Chlorophytum tuberosum Bakar	Safedmusali	Tuberous root	Root tubers are used as a tonic.
27.	Costus speciosus (Koen.) J. E. Smith	Kewakanda	Tuber	Used for to treat arthritis.
28.	Cullen corylifolia (L.) Medik.	Bawachi	Seed	Seed oil is used for scabies and skin diseases.
29.	Diplocyclos palmatus (L) Jefdrej.	Shivalingi	Seed	Used to enhance ovulation in woman.
30.	Elephantopus scaber L.	Rantambhaku	Root	Used for bleeding piles.
31.	Emblca officinalis Gaertn	Awala	Fruit	Used for constipation, it is the one the ingredient of triphala churn.
32.	Euphorbia hirta L.	Dudhi	Leaves, stem	Shoot with leaves are used to enhance milk secretion in mothers.
33.	Gymnema sylvestre (Retz.) R. Br. ex Schult.	Gudmar	Leaves	Leaf juice is taken internally to control

				diabetes.
34.	<i>Helicteres isora</i> L.	Muradseng, Atai	Fruit	Fruit paste is given to cure stomachic.
35.	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	Kuda	Root and stem bark	Stem bark is used for dysentery and root bark is used as a worm infestation
36.	<i>Martynia annua</i> L.	Wagnaki	Leaves	Leaf warmed and applied to cure wound.
37.	<i>Maytenus senegalensis</i> (Lam.) Excell.	Bharati	Leaves	Young leaves are chewed and juice spitted out to cures mouth sores.
38.	<i>Nelumbo nucifera</i> Gaertn.	Kamal	Leaf and seed	Seed with spongy testa is used in worm infestation. Leaf is used for skin diseases.
39.	<i>Pergularia daemia</i> (Forssk.) Choiv.	UtaranVel	Flower	Flower juice is used in cough.
40.	<i>Phyllanthus amarus</i> Schum &Thonn.	Bhuiawala	Root	Used to cure jaundice.
41.	<i>Ricinus communis</i> L.	Erandi	Leaf and Seed	Leaf is applied over swelling. Seed oil is used for constipation.
42.	<i>Schleichera oleosa</i> (Lour.) Oken	Kusum	Stem bark	Stem bark powder is used in dysentery.
43.	<i>Semecarpus anacardium</i> L. f.	Biba	Fruit	Oil is used as an antiseptic, cuts and foot cracks.
44.	<i>Sphaeranthus indicus</i> L.	Gorakhmundi	Leaf	Leaf juice is used for toothache, cough and indigestion.
45.	<i>Spilanthus calva</i> DC.	Akkalkara	Flower	Flowers are used to cure cough.
46.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Behada	Fruit	Fruit powder is used for cough, constipation and indigestion. It is also used in the preparation of triphala powder.
47.	<i>Terminalia chebula</i> Retz.	Hirda	Fruit	Fruit is useful for cough, indigestion, gases, constipation, stomachic. It is also one of the ingredient of triphala powder.
48.	<i>Tinospora cordifolia</i> (Willd.) Miers. ex Hook. &Thoms	Gudvel	Stem	Used in fever, jaundice,
49.	<i>Tridax procumbens</i> L.	Kambarmodi	Leaf	Fresh leaf used in cuts and wounds.

Conclusion:

All the medicinal plants are harvested from the forest to treat illnesses and other usages, but they are not conserved. Therefore, it is important to raise awareness among traditional practitioners about the need to protect local plant species before their extinction from the area.

Acknowledgements:

The author is grateful to the principal for providing facilities for this work. Author also thankful to the Head of the department for their valuable suggestion and local people of the study area for giving important information about the use of plant.

References:

1. Jain S. K. 1987. A manual of Ethnobotany. *Scientific publisher, Jodhpur*, India.
2. Lakshminarshimhan P, Sharma B. D. 2000. Flora of Maharashtra State Dicotyledons, Vol. 1 (Ranunculaceae to Rhizophoraceae). *Botanical Survey of India*.
3. Mishra S. B. Dwedi S, Shasi A. and K. Prajapati 2008. Ethnobotanical uses of some plant species by Ethnic and Rural people of the Salem dist. with special reference to the conservation of vanishing species; *Ethnobotanical leaflet*, 12 : 873-887.
4. Singh N. P., Lakshminarshimhan P, Karthikeyan S, Prasanna 2001. Flora of Maharashtra State Dicotyledons, Vol. 2 (Combretaceae to Rhizophoraceae). *Botanical Survey of India*.
5. Yigra G, 2010. Ethnobotanical Study of Medicinal plants in around Almata, Southern Tigray, northern Ethiopia. *Current Research Journal of Biological Sciences* 2 (5): 338-344.

Use of Information Communication Technologies (ICTs): For Accessibility of Grey Literature in Medical College Libraries

Dr.Khandekar Ganesh Bajirao

Librarian. (Asst. Prof.) Night College of Arts & Commerce, Ichalkaranji - 416115 (MS)

Email-Klp.ganesh@gmail.com

Abstract:

Rapid developments of Information and Communication Technologies (ICTs) have changed the conception of traditional libraries. Modern Medical College libraries are more important, dynamic, and can serve without the restrictions of geographical boundaries. In this global period, libraries are fleetly switching to digital mode and are widely accessible. With the arrival of new communication technologies libraries redesigned their services to a borderless world and come the lifeblood of the community. In today's ICT Environment, the Internet has become a major source for spreading and retrieval of grey literature. Well-designed websites offer users access to a body of digitally produced grey literature that complements the existing body of print materials. ICTs are the main source of information retrieval and dissemination system. The Ease of access and the speed, with which large quantities of information can be available, will have implications for science policy shaping and public attitude. This Research paper focuses on the study of Information Communication Technologies (ICTs) to Accessibility of Grey Literature in Medical College Libraries.

Keyword: ICT application; ICT services; Medical library resources; e-learning; grey literature; librarians' role, library

Introduction

Grey Literature "publication" platforms correspond to the multitudinous types of GL producers as described supra. The development of the Internet handed for yet other ways how to make GL available, e.g. on the company or personal websites, blogs, or in the institutional repositories. Standard general search engines (like Google) do not provide for solution of this problem as the GL is located mainly in the "deep web" that is not indexed wholly by them.¹

"Grey Literature is a term used to describe information products which are created and distributed to circulate knowledge (ideas, facts, opinions) rather than to sell for a profit. In practice, and for that reason, Grey Literature is known as information that isn't retailed and distributed by marketable publishing houses. The term 'grey' stems from the fact that such information isn't published and is not available through the traditional channels of publishers and booksellers. "Grey doesn't indicate any qualification; it is merely a characterization of the distribution mode."² "In fact, a large proportion of Grey Literature is distributed in both modes: 'grey' in the form of pre-prints, 'white' in the form of a published article. The quality is often identical; the main difference being that 'white' literature has a quality stamp provided by the publisher and its embedded peer-review process."³

The **value and importance of grey literature** lie substantially in its complexity, topicality, and financial availability. As noted by Schöpfel, and Farace the GL "*represents a substantial part of*

the scientific production".⁴ As the GL is not published in the "traditional way" it logically contains information not available/searchable/indexed by the standard librarian tools (e.g. standard library catalogues). Due to this fact, the GL should be always included in literature searches as it limits the potential bias.⁵ A mere reliance on the officially published sources may lead to a "*subjective one-sided research path*".⁶ The GL also contains more detailed information, an example being a technical report with detailed descriptions, diagrams, and data sets that would be never published in traditional journals.⁷ Compared⁸ to the "white literature" the GL tends to be more up-to-date as it is usually not subject to traditional and time-consuming pre-publishing processes. The quality of GL literature is still debatable⁹ as it is usually not subject quality processes like peer-reviewing in the case of published papers in traditional scientific journals. However, Seymour¹⁰ claims that the grey literature is subject to various levels of internal quality assessment - an example being the review process in the case of master or Ph.D theses. Also, the "publishing's" institution's name and reputation is at stake, therefore a certain quality check is to be expected. Lastly, due to its non-commercial character, the GL is usually available for free as in "free beer"¹¹, i.e. without monetary compensation. As discussed in the next section with the emergence of the Open Access movement the GL is also opening up in the sense of free as in "free speech".

ICT Tools:

ICT tools stand for **Information Communication Technology tools**. The ICT tools mean to digital infrastructures like computers, laptops, printers, scanners, software programs, data projectors, and interactive teaching box. Information and Communication Technologies (ICTs) have become central to education and training in Library and Information Science/Service (LIS) because of the great influence of these technologies on the professional world.

The arising new technologies have revolutionized the methods of information storage and retrieval in the Medical library field. In this Internet era more and more libraries in the world make use of these new technologies for storage, retrieval, and dissemination of information in a further effective way. Libraries can store a huge quantum of information using new technologies and transmit this information anywhere anytime without any geographical hedge. Scholars fulfill their thrust of information using new technologies without wasting their precious time. ICTs facilitate for rapid transmission of information globally through their networks. It helps library professionals to manage their housekeeping and documentation activities such as circulation, acquisition, maintenance of catalogue, periodical management, etc. in the libraries by automating them. These innovative technologies made accessible platforms for the scholars to make use of the information as well as to explore them. The other automated services in the libraries are storage, dissemination and advance searched for the scholars such as SDI, compiling bibliographies, indexing/abstracting, etc. The traditional library housekeeping methods are now carried by using newer technologies. Newer technologies have given better solutions to most of the problems encountered in the field of libraries related to the acquisition, organization of information, reference services, circulation, and bibliographical services.

Grey Literature @ Medical College Libraries

Medical college libraries produce vast literature, which is not going to publish in the traditionally documents. This literature can be defined as Grey literature. This can be used for research, teaching, and learning. Some institutions, universities issue pre-prints or e-prints before their formal publications and these can be considered as a part of Grey literature. These unpublished Grey literature have potential value to the scholarly community globally. Most of the time, this literature is limited to its creator's desktop and does not have a method to access or

identify globally. Some institutions, universities provide mechanisms to access this information through their academic libraries. This non-conventional collection comprises doctoral dissertations, Annual reports of medical colleges, Reports of clinical trials, Current Controlled Trials, Clinical Study Results WHO Clinical Trials, In-house case-studies or case papers, Patient records, Medical literature given by Medical Representatives (MRs) conference proceeding and papers, scientific reports, etc. Today most of the non-conventional literature can be found in electronic format. In this ICT era libraries do not necessarily to have all the documents in their libraries. Instead of that library professionals should know from where to get what they need. They can access whatever information they need by doing a systematic searches on the web. They should have a direct relationship with the main producers of grey literature.

Objective:

To examine the potential of Information and Communication Technology as a tool to access the Grey literature.

The Rationale for Research Topic

The Librarians of Medical Colleges can play a vital role in bringing together all the Grey literature related to health care. There is a need to disseminate current information from the Grey literature through ICT.

Methodology

For this research, a descriptive method has been used. For collecting data, an Interview method was used.

Tool used for Data Collection

The investigator has used both primary and secondary data for the research work. An Interview method was administered for collecting the required primary data. Secondary data were collected mainly from the brochures, newsletters, records, and different types of publications available in Medical College Libraries.

Scope and Limitations

The Researcher covered Selected MBBS (Government and private) Medical College Libraries for the Study.

Result and Discussion

These days almost the medical college libraries have computerized their cataloguing system. Classification not only brings related documents together, but it also helps in storing and deciding their location. Consider that a medical college library starts with a core collection of GL at some point in its life. Then it is necessary to have an adequate, relevant, comprehensive, and

up-to-date collection of GL which should be accessed when required.

A. Awareness and Organization of GL

Grey literature is not a very new concept. The concept was there, but, not many of the respondents may know that it is called Grey Literature. Some may not have a clear idea regarding the broadness of the concept. Even

they may not be aware of all types of GL. How familiar are the respondents with the organization of GL in their own libraries? These issues are explored in the sub-sections.

B. Awareness of the Concept of Grey Literature

The users were asked whether they had known the concept of Grey literature or not.

Table No. 01, Awareness of Grey Literature

Know the Concept of GL	Faculty	Student	Grand Total
No	6	9	15 (3.75%)
Yes	194	191	385 (96.25%)
Grand Total	200	200	400

The above table shows that Grey Literature was known to the majority i.e., 385 (96.25%) of users, this means that 96.25% of the respondents

had aware of the concept of GL, and the remaining 15 (3.75%) were not aware of GL.

Table No. 02, The Features of GL, Means, and Ranks

Features	Mean of Means	Rank
Ease of Access	3.10	3
Avoids Duplication: Helps Selection of Topics for Research	2.72	7
Teaching Purpose: Extent of Use	1.41	12
Research Purpose: Extent of Use	2.71	8
Up-to-datedness and Recentness	2.61	9
Adequacy and Comprehensiveness	3.20	2
Old GL: Extent of Use	2.73	6
Relevant and need-based GL	2.91	5
Library permits Borrowing	3.02	4
Digitized catalogue Entries	3.37	1
Text-based Access through CD or Server	1.96	10
Facilitating Online Access	1.58	11

Table No. 03, Rank-wise Features

Rank	Features	Mean of Means
1	Digitized catalogue Entries	3.37
2	Adequacy and Comprehensiveness	3.2
3	Ease of Access	3.1
4	Library Permit to Borrow	3.02
5	Relevant and need-based GL	2.91
6	Old GL: Extent of Use	2.73
7	Avoids Duplication: Helps Selection of Topics for Research	2.72
8	Research Purpose: Extent of Use	2.71
9	Up-to-datedness and Recentness	2.61
1	Text-based Access through CD or Server	1.96
11	Facilitating Online Access	1.58
12	Teaching Purpose: Extent of Use	1.41

The table above is self-explanatory. 'Digitized Catalogue', 'Adequate and Comprehensive

Collection' and 'Ease of Access' are the top three ranking features expected of a good GL

collection. These are the minimum requirements expected of a GL collection. 'Text-based Access' and 'Online Access' are the needs at high-end. The other needs are in between and much based on the policy and management of the library in question.

In addition to the above, there are some other expectations of users from the libraries housing the Medical GLs.

Online Access for GL Collection

Library facilities are improving fast and the users expect IT-based services and everything on their desktop. Accordingly, the infrastructure facilities were being installed to help the information seekers. In medical colleges, many of the in-house publications were in digital format. They can be accessed through the Local Area Network or Intranet. The year 2001 and onwards, most of the Medical College Libraries have computerized their cataloguing system. Therefore, a majority of the medical college

libraries are having a computerized catalogue or Online Public Access Catalogue (OPAC) to assist the users in finding out the GL and the other documents. Library OPAC is an outcome of the automation process. It is useful to access the documents available in the library through LAN or campus network or intranet or it can be uploaded on the web and made searchable. Such web-based access can be provided in today's era.

Online Access to Institutional Publications

The present time is referred to as the electronic age. Automation of library functions and services has become the order of the day. Academic and research institutions have created their websites to host various information services for remote and wider access, breaking the barriers of time and distance. In this direction, libraries have started maintaining websites or servers for hosting information to their users. GL also can be digitally generated, stored, accessed, and disseminated.

Table No. 04, Online Access to Institutional Publications

Sr. No	Online Access to Institutional Publications	Faculty	Students	Total
1	Yes	138	142	280 (70%)
2	No	56	49	105 (26.25%)
3	No Answer	06	09	15 (3.75%)
	Total	200	200	400 (100%)

Above Table No. 04 shows the online access of Institutional Publications including internally generated GL. As it is seen in the chart, 280 users access Institution or Library Websites to see the information about Institutional Publication such as Annual reports, Developmental reports, Budget reports, and In-

house publications, including Newsletters clinical tests, etc., GL. The balance includes 105 users not accessing Institution or Library Websites for Institutional Publications and 15 respondents have remained silent on this issue. These 280 respondents are further categorized as shown the Table 05

Table No. 05, College Libraries Hosting Information on

Sr. No	Responses	Faculty	Students	Total
1	On the Website	39	33	72 (25.71%)
2	In the Intranet Server	99	109	208 (74.29%)
	Total	138	142	280 (100%)

The above table shows that 72 (25.71%) users indicated that they access institution or library websites to see information about Institutional Publications. However, 208 (74.29%) respondents, access the intranet server to see the information about Institutional Publications.

Access to Institutional Publications also is accessible through the web or intranet. Online Access for GL collection is made possible through ICT.

Findings

Institutional publications and annual reports play a vital role in preparing proposals and reports concerning the institution. Considering all medical colleges in Maharashtra, 280 users (70%) (Please see Table No. 04) expect access to the digital version of institutional publications such as annual reports, developmental reports, budget reports, and in-house publications, including newsletters.

As it is seen, 208 respondents out of 280 (74.29%), (Please see Table No. 05.) access the server for the information regarding Institutional

Publications. On the other hand, 72 respondents out of 280 (25.71%) indicated that they access institution or library websites to seek knowledge regarding Institutional Publications. Almost all activities related to scanning websites/databases for relevant GL, identification, selection, ordering, procurement and processing i.e., cataloguing, classification, providing metadata are done through ICT or the internet. Further, the entire text or graphics can be scanned and stored, so that the document can be directly accessed. Besides, these days it is much simpler because all the GL are born digital. Once it is in machine-readable form then it can be subjected to any ICT application. RSS Feed and other 'Alerting Services' are the other major gifts of ICT which help in effortless access to new GL. Today one can search and access directly any GL unless it is an official trade secret or classified Defense related information. ICT helps access full-text of the latest addition of GL. Internet facility and web technology have made it easy to access.

Suggestion

It is with this context that, there is an urgent need to study the existing situation in Medical/Health Colleges/Universities in Maharashtra, especially about the current development of ICTs and the opportunities the national Fiber-optic network is offering to universities in the country. Overall there is a great potential on the ground in terms of ICT possibilities; it is up to Health Universities and the Governments to exploit them to enhance access and use of grey literature.

Conclusion

The holding of GL is an up-to-date collection in the Medical college libraries. However, it is encouraging note that the majority of the users aware of Grey literature and users also use Information Communication Technologies for accessing the GL. Users access the Institution or Library website to see the latest GL e.g. institutional publication, annual reports, clinical tests, etc. through an Internet server. Online access for GL collection is made possible through ICT. Almost all activities related to scanning websites/databases for relevant GL, identification, selection, ordering, procurement and processing i.e., cataloguing, classification, providing metadata are done through ICT or the internet. Thus, ICT helps access the full-text of the latest addition of GL. Internet facility and web technology have made it easy to access.

References

1. HE, Bin, PATEL, Mitesh; ZHANG Zhen; CHANG, Kevin Chen Chuan. Accessing the

- deep web. *Commun.ACM*. Vol. 50, No. 5. (May 2007), pp. 94-101, doi:10.1145/1230819.1241670
2. Owen, J. M. (1997). *The expanding horizon of Grey Literature*. Retrieved 08 08, 2017, from <http://eprints.rclis.org/5654/1/glpaper.html>
3. Ibid.
4. SCHÖPFEL, Joachim; Farace, DJ (2009). Grey Literature. In: Bates, MJ; Maack, MN (eds). *Encyclopedia of Library and Information Sciences*. 3rd edition. Taylor & Francis. As cited in: Usage of grey literature in open archives: state of the art and empirical results, p. 74.
5. See MCAULEY, Laura; PHAM, Ba'; TUGWELL, Peter; MOHER, David. Does the inclusion of grey literature influence estimates of intervention effectiveness reported in meta-analyses? *The Lancet*. 2000. Vol. 356, Issue 9237, pp. 1228-1231.
6. HOPEWELL, Sally; McDONALD, Steve; CLARKE, Mike J; EGGER, Matthias. Grey literature in meta-analyses of randomized trials of health care interventions. *Cochrane Database of Systematic Reviews*. 2007, Issue 2. Art. No.: MR000010. Available at
7. VASKA, Marcus. In: PEJŠOVÁ, Petra (ed.). *Grey literature repositories*. Zlín: VeRBuM, 2010. 156 p. Available at . ISBN 978-80-904273-6-5. p. 12.
8. DE CASTRO, Paola; SALINETTI, Sandra. Quality of grey literature in the open access era: Privilege and responsibility. *Publishing research quarterly*. 2004. Vol. 20, No. 1, p. 4. ISSN 10538801.
9. For a thorough comparison between 'grey' and 'white' literature, see MACKENZIE, Owen, John. *The expanding horizon of Grey Literature*. 1997. In *GL3 : Third International Conference on Grey Literature*, Luxembourg. 1997. Available at .
10. See supra FN 10. 13 SEYMOUR, Deni J. Sanctioned Inequity and Accessibility Issues in the Grey Literature in the United States. *Archaeologies Journal of the World Archaeological Congress*. 2010. 6(2). pp. 233-269. DOI 10.1007/s11759-010-9144-6.
11. Paraphrasing the famous characterization of Free Software by Free Software Foundation
12. Matěj, Myška. *A Model Framework for publishing Grey Literature in Open Access* from <https://www.jipitec.eu/issues/jipitec-4-2-2013/3744/myska-savelka.pdf>

Library Automation - An Introduction

Shashikala S Angadi

Librarian, Shri Mailaralingeshwar Post-Graduate College Rangampet Tq-Shorapur, Dist-Yadagir,
Karnataka.

Abstract

This article focused on the overview of library automation and the changing scenario of library management. The impact of ICT has changed the library operation and its functionality in to s fast to faster mode. Clients need not to visit shelf to shelf to find out a find out a document. They just get their documents sitting in front of a desktop automation has reduced the man power. This article will discuss about the concept the concept of automation its requirement and various components helps to automate library. Some software package has given which are available for automation purposes.

Keywords: Automation, Cataloging ,Library software, OPAC

Introduction

The library plays a critical role in our society it is an important component of any educational institution, which is hub of the teaching and learning activities where students, researchers and teachers can explore the vast resources of information. In the age of information communication technology computers are being used for day- to-day housekeeping activity of the library which saves the tine of the library service smooth and effective. In the age of ICT library scenario has been drastically changed in terms of collection, organization and services. Simultaneously user's demands and attitudes have changed in its kinds. Also the information seeking behaviour of user has dynamically changed. They want relevant authentic information very quickly within a single place at their hand. This concept has posed challenges for library professionals for library professionals for quick delivery of library services and information. This development in library field has brought the ides of library automation. Library automation is inevitable in this age of information and information technologies. Library automation is the use of automatic and semi automation data processing machines to perform such traditional activities as acquisition cataloguing and circulation. Library automation may thus be distinguished from related fields such as information retrieval automatic indexing and abstracting and automatic textual analysis.

Definition Of Automation:

According to the encyclopaedic dictionary of library sciences automation is the technology concerned with the design and development of the process and system that minimizes the necessity of human intervention in their operation (Ishvari et.al, 1993).

According to the encyclopedia Americana automation may be defined as any continuous integrated operation of a producing system that

uses electronic computer on related equipment to regulate and coordinate quantity and quality of what is produced. Automation is automatic control of an apparatus process or system by mechanical or electronic devices that take the place of human organs or observation efforts or decision (Webster Dictionary. 1966).

The word automation was first introduced by D.S. harder in 1963. He defined in 1936. He defined automation as the automatic handling of parts between progressive production processes. Library automation may be defined is simple sense as 'a process of mechanization of library operations which are of routine and repetitive nature. Computerization of library housekeeping operation, predominance of computerization is know as library automation.

Library Automation: A Brief History

Library automation refers to use of computers in library work including services computers were engaged in library service in USA in 1950s in a very modest way. Dr H P Luhn had organised computerized indexes in 1950s computers entered and found some place in American library during this decade. However, their use and application was very limited and restricted due to the high cost of hardware and non-availability of application software packages. During 1960s the cost of hardware came sown and appreciable attempts were made towards developing library application packages. This led to increased use of computers in library and printing industries. In April 1960 the American chemical society published its chemical titles through computers.

In this decade, one of the most significant developments in this direction was seen in MARC I. In the year 1963 W K Gilbert prepared a report on computerization of Library of congress. On the basis of this report the MARC I project was initiated in 1966, and the work of bringing out the Library of congress catalogue in machine-readable catalogue (MARC) form was

started and completed. There was a heartening welcome of the tape containing the catalogue. MEDLARS and INTREX projects are similar examples of producing machine-readable catalogues. Now-a-days computers have become almost essential components of library work in developing countries.

The Indian statistical institute, Calcutta was the first in India to install a computer system in 1955, and to develop an indigenous computer in 1964. In India computers were used in library work for the first time possibly by INSDOC by bringing out the roster of Indian scientific and technical translators with the help of computers. INSDOC brought out the first union scientific and technical translators with the title regional union catalogue of scientific serials, Bombay Poona in 1973. In 1978 INSDOC initiated SDI service as a NISSAT project with chemical Abstracts and INSPEC databases, with the use of CAN/SDI software of IIT, madras, in 1970's many library ventured in preparing computerized databases. Through the initiative and financial support of NISSAT many library networks was initiated and are operative. Notable of these networks are CALIBNET (Calcutta library network) DELNET (Delhi libraries network) INFLIBNET (information and library network) PUNENET (Pune library network) etc. Some other notable networks are NICNET, INDONET, SERNET, ERNET etc. Nowadays, many institutions such as DRTC, INSDOC, DESIDOC, NISSAT etc are engaged in imparting training for computer application in library work through regular sponsored and part time courses. The price of computer hardware and software has come down considerably. Owing to these factors computers have become popular with Indian libraries.

Indian Scenario Of Library Automation:

In view of enormous capacity of data storage, quick processing access retrieval, dissemination of information, library and information centre of our country have started using computers for these activities. In the beginning computers were used by big academic institutions like DTs, IIMs, and other national institutions like CSIR, INSDOC, NASSDOC, DRTC, DRDO, BARC and other institutions of higher learning of national importance. The condition of academic libraries, and information center was very poor. Except a few central University like JNU, Hyderabad University, Pondicherry University IGNOU, and some state universities like Punjab University of Mumbai, cochin University of science and technology Osmania University few deemed

universities like tata institute of social sciences etc. The use of information technology was not evident before the 1990's the new education policy, 1986 recommended the improvement of library and information centres of universities/institutions of higher learning. It categorically emphasized that information technology should be used in the libraries for providing effective library and information services to the academic communities.

Government of India directed the UGC to constitute a committee to give recommendations for modernization of university libraries and information centers. UGC recommended in 1992 accommodation of a special paper in "Application of computer in Library Activities" in Library and information science courses in India. The introduction of computers for library operations has brought revolutionary changes and new dimension in the whole library and information management in India. The government of India has taken prime steps for computerization automation and networking of library and information centres. A number of national regional and city library and information networks such as NICNET, INDONET, ADINET, CALIBNET, DELNET, MALIBNET, ERNET etc. Have emerged and found their way. In order join and effectively participate in these library networks, library and information centres will have to be modernized and automated (Vashishith 1994). After recommendation of a high powered committee, UGC established INFLIBNET centre which is an inter-university centre with its headquarter at Ahmadabad for computerization automation and networking of university libraries, HTs, RECs, libraries of institutions of national importance for resource sharing among the libraries (Sinha and Satpathy, 1998) till date 142 universities been funded by INFLIBNET, to create IT conscious environment in the libraries. Almost all university libraries have taken steps to change over to automation. Some of them have fully automated their activities and some other have started automating their library activities. The prime minister of India has recently announced special grants for the College libraries of North East India and Jammu and Kashmir for purchasing SOUL software for automating their libraries to cope with the changing environment library schools in India have introduced paper on computer application in libraries in their academic programs. Besides this, different organizations are organizing in-service training courses on computer application to the working library professionals. As manpower development is one

of the important factors in this changing over to automated library system, training of personnel is a must.

Need And Objectives Of Library Automation

Information explosion has resulted in the production of a large amount of literatures in every field of knowledge. Accordingly the print documents are coming to the library in huge numbers which is not possible for a library to manage the collection manually.

Now a day's no user has time to search the required and relevant information from dense heap of information collection. They have no time to go shelf by shelf to pick up a book. So it necessitated for library automation. In most of libraries are yet to be automated. The various factors that necessitated changing a manually operated library system an automated library system are as follows.

The need for automation is emphasized because of the following factors:

1. Traditional methods for handling the information are inadequate. Out is bulk and growth rate of information.
2. Difficult to update the information due to voluminous increase and rise in the degree of specialization involved.
3. Techniques are suggested for applying computers with its advantages of speed, vast storage capacity and accuracy to library works.
4. The need for cooperation and resource sharing and hope achieving some saving through automation made to switch over to automation.
5. Operational advantages
6. Offers flexibility
7. Speeds up processing
8. Greater accuracy, efficiency, consistency and improved work control.
9. Reduces repetitive clerical work.
10. Permits easy of bibliographic control checking and updating
11. Permits improved budget control (Jagadesha and Mahesh 1998)

Essentials For Library Automation:

The essential things for the automation of a library are

1. A good collection
2. Finances
3. Suitable computer hardware
4. User friendly computer software
5. Staff training
6. User training

Automated Libraru Services

There are various types of automated services provided by the automated library. The automated services are:

1. Current awareness service (CAS)
2. Online search service
3. Printed Indexes
4. Selective Dissemination of Information (SDI)
5. Inter library loan
6. Stock verification
7. Reference service

Factors Behind Library Automation:

Some factors which prompted automation of library services are given below-

Computer is extremely fast in processing information and magnetic tape as storage making reduce storage space.

Many a time we require searching a database with a number of keywords with different combinations. This requirement makes a manual search very complex and tedious. Such searches can easily be made on computerized system by random accessing of information and rapid retrieval of information by creating proper information database.

Computerized database can be accessed in interactive mode as per user requirements.

Methodology To Be Followed During Automation:

Decide various functions of each activity

Identify the input requirements (data elements) for each of the function.

Identify the input in terms of records, files and the media, also determine the size of the files.

Identify the output required for each of the functions.

Identify the output in terms of records, files and the media, also determine the size of the files.

Development of programs (to get the desired output from the given input using the available hardware) or buying the commercial software to computerize some or all functions of the activities to be computerized.

Implementation and evaluation.

Problems Of Library Automation

1. Lack of motivation towards latest information technology
2. Lack of organization effort towards library.
3. Lack of fund.
4. Lack of trained personnel
5. Lack of proper/standard technology
6. Ignorance of senior library staff about the technology
7. Lack of suitable library management software packages.
8. Selection of appropriate software packages.

Components Of Library Automation:

Careful planning is a critical step in automating library services. Several points are to be taken into consideration before a library gets into automated activities.

(A) **Aim:** first Component of automation is its aim the purpose the reason why the set of library activities are to be computerized. This aim will be the focal point for integrating automation into the activities and for operating and managing the activities after automation.

(B) **Processing:** Second component is processing consisting of step by step operations performed in an orderly and predetermined sequence on information materials or other items to achieve desired result or service.

(C) **Computer System:** The third component is the computer system supporting the activities. The supporting computer may be a mainframe. The size depends upon the nature of functions to be automated, the number of functions to be supported by the computer, the anticipated volume of processing activity, the size of the information files to be written in the machine storage and funds available to the library. The computer must have the following capabilities:

sufficient memory to store

- a) The operating system
 - b) Application software
 - c) Process the volume of work
 - d) Enable sufficient users to be online to it
 - e) Capacity in future growth
- The computer system should have sufficient auxiliary storage for all the files essential to the activities with capacity for future growth.
 - Sufficient terminals and other devices such as scanners and printers.
 - The location of the computer can be in the library or outside the library.

(D) **Computer Software:**

The fourth components are the software supporting the activities of the library. Computer software is nothing but step by step instructions that command the machine to perform its share in the processing software may be developed by a commercial vendor or another library or it may be developed locally. The software supporting the library activities can be either stand alone or integrated. The stand alone software only one automated activity such as acquisition circulation etc. An integrated

system covers all the library activities such as acquisition circulation cataloguing serial control etc. And share common information and files.

(E) **Data Communication:**

The fifth component is data communication through data communication command and information can flow from the computer system supporting the automated activities to the points in the library where processing is required even though the main server is located in another part of the building or away from the library.

System Documentation

The sixth component is documentation in the form of memoranda, reports and manuals. These are written descriptions of various aspects of the automated activities to be used by the library staff and others for training references and quality control purposes while operating managing and maintaining the activities

(F) **Human Resources:**

The seventh component is the human resources needed to share processing with computer supporting the activities, provide, management and leadership for the activities and operate, manage and maintain the computer system supporting the activities. Staff is needed to initiate processes provide the computer with information to be processed and make decision during process steps and regarding services to be provided etc. Apart from attending to activities not supported by the computer system. Training is required for the staff who handles the automated system.

(G) **Environment:**

Eights and last component is environment. Automated activity must have sufficient physical space to be performed efficiently and be provided with proper levels of lighting, temperature, humidity noise control and cleanliness etc. Any delay at this stage will delay the very installation of the automation itself.

Areas Of Automation:

Ranganathan's five laws of the library science stipulate that the documents of the library should have maximum number of users. With the application of information Technology in the areas of library and information centres has been a tremendous improvement in the library services offered by the library to the users. Library automation usually covers all library housekeeping functions such as acquisition cataloguing circulation and serial

control . in some libraries it has expanded to the library management system to incorporate OPAC's SD-ROM networks, DTP, office automation etc.

1. Acquisition
2. Cataloguing
3. Circulation
4. Serial control
5. Article indexing system
6. Information Retrieval system
7. OPAC system (online public access catalogue)
8. Web OPAC system
9. Information services

Conclusion

Now a day library automation has become the buzz word in library profession and has become a bare necessity for any libraries. An automated library can provide better services to their users and can maintain the library more properly which a manual library can't do. The record keeping activities and various report generation becomes very easy in an automated library system. But the success of any library automation programme depends upon its proper planning and execution. Hence library professionals need to take right initiatives in right direction.

References

1. Bhanja, M, & Barik, N.(2009) library automation problems and prospect paper presented at 10th national convention of MANLIBNET organized by KIIT university 2009
2. Cholin, V.S. & Prakash, K. (1997, March). Status of computerization and networking of university libraries in India. Paper presented at 4th national convention for automation of libraries in education and research of INFLIBNET on I.T. application library Patiala.
3. Gupta R.C., & Dass, Shir(1991) computerization of Serials control –a practical approach using a personal computer. IASLIC Bulletin, 36, 17-22.
4. Jharotia, Anil Kumar and Shukla, (2010) Development of consortia and library networking in India. National conference held at J K Business school, Gurgaon 19 march 2010 (ISBN-9788190938709) pp. 164-176.
5. Khote, Namita B, and Brije, Sunil R. (2009) prospective of library automation of networking of dental college library in Bangalore : status problem and prospective, international Journal of information Dissemination of technology 5[2]: 77-85.
6. Ramesh, L.S.R.C.V., (1998). Technical problems in University library on automation –an overview. Herald of library science, (37), 165-172.
7. Shilpa S Uploankar (2013). Use of electronic information sources and services in S. Nijalingappa Medical College : A Study. Library Progress. BPAS Publication, New Delhi. Vol. 33, Issue No. 01. Pp 1-11.

A Study of Impact of Bibliotherapeutic Approach on Challenges Faced By Students of Teacher Education Institute

Mrs. Suvarna S. Parab¹ Dr. K.O. Mandgaonkar²

¹Librarian, Chembur Sarvankash Shikshanshastra Mahavidyalaya Chembur, Mumbai – 400 071

²Librarian, Aabasaheb Parvekar College Yavatmal

suvarna.parab@gmail.com

Abstract

This paper focuses on aspects of bibliotherapy in respect to academic, psychological and social challenges faced by students of Teacher Education Institute. Bibliotherapy is helpful in treating long term mental illness in the form of depression, anxiety, low confidence, phobia, fear, shyness,. Investigator has used qualitative and quantitative methods of study on which this article is based. The result of the experiment is positive and draw inference that bibliotherapy has a positive effect after treatment. Investigator has conducted interview with the TEI students and it is classified that social well being has improved significantly so as self confidence and social interaction has risen up among students. The self help material investigator selected with the help of subject experts in education and Library and Information Science faculty had significant positive result. Investigator adopted methods like discussion, interview, conversation, debate, quiz to open up minds of students. So that they could openly share their challenges, issues, difficulties with the investigator. Bibliotherapy is effective method for psychological well-being. It improves self-confidence and social interaction. From user perspective bibliotherapy is an important tool of improvement.

Introduction

Bibliotherapy is the use of literature to promote psychological well-being , mental health has got significance in recent years. The bibliotherapy concept was known to us since beginning of 21st century. Through bibliotherapeutic activities like reading circle, book club, reading hours, books on wheels projects reading culture get impetus. Bibliotherapy is a quite well researched internationally. For psychological illness it is effective tool. Students suffering from long term anxiety, depression, phobia, shyness take part in bibliotherapeutic activities. These activities were in the form of reading circles, reading clubs have a potential to increase feeling of well-being among student, self-help material are very useful in mental illness problem. Considering the students old reading habits and inclination towards likings of particular genre may help immediately to treat challenges, problem among students. This therapy helps in curing psychological problems but concrete examples of how and how much psychological wellbeing was influenced were not provided(Hodge, Robinson and Davis, 2007) For bibliotherapeutic program students met for three hours twice in a week for 6 months from September till February. Literature was selected by the investigator and with the help of experts from education field. The investigator used conversation, discussion, quiz, reading aloud sessions. All students attended all the sessions enthusiastically. A questionnaire tool was used to get qualitative

data from the students. Five point rating scale was used in this research by investigator. Each questionnaire tool consists of 10 questions. Media influence variable has qualitative data to collect right answers from the students. It was experimental method of study, so pretest and posttest questions were forwarded to students to collect data. All data collected from the samples kept confidential. According to literary choices of students, their liking of reading, their tendency to particular genre were considered while providing literature to them.

Pim Cuijpers conducted considerable research on bibliotherapy, states that bibliotherapy is more successful for participants who are motivated and have significant reading experience.(Cuijpers, 1997). Reading has a curing function. Students were felt that reading was a pathway to their success in life and beating challenges and problems in their life.

Significance of bibliotherapeutic approach

All student participants were enthusiastic while reading sessions. Reading sessions had positive influence on psychological, academic and social well-being of student participant. These particular aspects are important for selection of the literature consciously. Further bibliotherapeutic activity helps in opportunities offered for social interaction

The literature in the bibliotherapeutic treatment.

All student participants expressed their happiness and appreciation of the literature

sessions during and in preparation for reading and conversation sessions.

It is observed that on some occasion student were in difficulty to concentrate during sessions. Literary quality plays a vital role during implementing bibliotherapeutic programme. Brewster points out that several of her informants reported that the act of reading itself was more important than the specific works read in helping them deal with their psychological problems (Brewster,2011)

In a bibliotherapeutic sessions the literature discussions were held, significance of the experts while implementing programme was ensured and significance of bibliotherapeutic activities in relation to other activities were noted.

Bibliotherapeutic Discussions

It is worth to note that aspects of literary discussions most appreciated by students participant. The attitude of the student was expressed in all the interviews. Bibliotherapy promotes changes in the students. Students use reading as a leisure activity. The bibliotherapeutic approach was meaningful to the students and has positive effect on their perception of health and psychological well being. Participant felt better than before. Participants are of the opinion that reading activity can help them prevent a worsening of well-being. Students reacted positively. So it is clear that bibliotherapeutic approach brought change in challenges intensity. Student put forward opinion that because of these bibliotherapeutic treatment they have started more reading. Participants gives feedback that their social interaction has risen up because of social interaction. The findings of this study are student participants have improvement in their challenges. Through bibliotherapeutic sessions self-confidence risen up, shyness has reduced, social skills are improved. Emotional challenges of the students can treat through bibliotherapy.

Statement of the problem

A Study Of Impact Of Bibliotherapeutic Approach On A Challenges Faced By Students Of Teacher Education Institutes.

Objectives

1. To identify the challenges faced by TEI students.
2. To identify the sources of challenges faced by TEI students.
3. To develop a bibliotherapeutic programme and study its effectiveness in the context of academic, psychological and social challenges.
4. To study the effect of bibliotherapeutic approach on academic challenges in context of

difficulties in understanding B.Ed. curriculum and academic procrastination.

5. To study the effect of bibliotherapeutic approach on psychological challenges in context of academic stress and study anxiety.

6. To study the effect of bibliotherapeutic approach on social challenges in context of media influence and family expectations.

Hypotheses

1. There is no significant difference in the mean scores of academic challenges in context of difficulties in understanding B.Ed. curriculum and academic procrastination at the pre and post test level.

2. There is no significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety at the pre and post test level.

3. There is no significant difference in the mean scores of social challenges in context of media influence and family expectations at the pre and post test level.

Methodology

In the light of objectives and to test the hypotheses of the present study, the researcher adopted experimental method of the study and for data collection questionnaire tool was used.

Statistical Treatment

Arithmetic mean, Standard Deviation, were used.

Results and Interpretation

H1 There is no significant difference in the mean scores of academic challenges in context of difficulties in understanding B.Ed. curriculum and academic procrastination at the pre and post test level.

There exist significant difference in the pre and post test scores of academic challenges. High mean value of the post test in respects of difficulties in understanding B.Ed syllabus and academic procrastination shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

H2 There is no significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety at the pre and post test level.

There is significant difference in the mean scores of psychological challenges in context of academic stress and study anxiety. There exist significant difference in the pre and post test scores of psychological challenges. High mean value of the post test in respects of academic stress and study anxiety shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

H3 There is no significant difference in the mean scores of social challenges in context of media

influence and family expectations at the pre and post test level.

There is significant difference in the mean scores of social challenges in context of media influence and family expectations. There exist significant difference in the pre and post test scores of psychological challenges. High mean value of the post test in respects of media influence and family expectations shows that bibliotherapeutic treatment applied was proved successful and outcome was positive.

Conclusion

- There is significant Mean difference in academic challenges scores of pre and post level. So bibliotherapeutic programme was proved successful.
- There is significant Mean difference in psychological challenges scores of pre and post level. So bibliotherapeutic programme was proved successful.
- There is significant Mean difference in social challenges scores of pre and post level. So

bibliotherapeutic programme was proved successful.

Suggestions for further research

- The study can be extended to state level.
- Further study can be undertaken considering male, female, student categories.
- Small sample may be taken for more reliable results.

References

1. Bibliotherapy by Shrodes Caroline : The Reading Teacher, Vol.9, Reading and Emotions (Oct, 1955), pp.24-29.
2. Bibliotherapy : Fitting the Resources Together by Gerry Bohning : The Elementary School Journal, Vol 82, No. 2 (Nov, 1981), pp166-170
3. Bibliotherapy : Aiding Children in Personality Developemnt by Hoagland, Joan, Elementary English, Vol. 49, No.3 (March, 1972) pp.390-394
4. What is Bibiliotherapy by Shephard Terry, Lynn B. Iles, Language Arts Vol. 53 No.5 (May 1976), pp 569-571.

“A Study of Virtual Banking in India”

Mrs. Rohini Sampt Bhosale

Assistant Professor, Department of Economics and Bank Management, Dhananjayrao Gadgil
College of Commerce, Satara

Email Id - rohini28bhosale@gmail.com

Bhosalerohini1992@gmail.com

Abstract:

The Revolution in transportation technology in transportation technology has revolutionized the world's industrial and agricultural sectors, and in all of this, the rapid revolution in the banking sector has led to virtual banking. Attempts have been made to change the face of the banking sector. The study collected data from primary and secondary sources. Online banking services like ATM, Personal computer Banking. Phone Banking and E-mail Banking will help people to get information and awareness. This paper shows that the introduction of virtual banking in India. The term virtual banking includes e-banking (mobile banking or banking through computers), debit and credit cards, card-swipe or point of sale machines and digital wallet system. It also explains the important theoretical points related to various modes of virtual banking and its trend.

Keywords: Virtual Banking, Electronic channels, Benefits, Trends.

Introduction:

Banking industry in India has also achieved a new height with the changing times. Information technology has given rise to new innovation in the products designing and their delivery in the banking and finance industries. Financial innovation associated with technological change to Tally changed the banking philosophy and that is further tuned by the competition in the banking industry. Virtual Banking also known as internet banking, E-Banking or virtual banking, in an electronic payment system that enables customers of a bank or other financial transaction through the financial institution's website. Internet banking services introduced so far include the ability to monitor account balances, transfer funds between accounts, pay bills, and apply for loans. Only few banks will allow customers to make electronic trades through brokerage accounts. A Virtual bank is a bank that offers banking services through electronic channels. All services of virtual banks can be performed online and there are no bricks-and-mortar branches. Clients can open an account, make deposits, taking out loans and performs other banking transactions via a mobile app or through the website of the virtual bank. Within the near future many banks will offer home banking via an interactive website.

Objectives of the Study:

1. To understand the concept of virtual banking.
2. To study the modes of transactions in virtual banking and its trend in India.

Research Methodology of the Research Paper:

The present study is based on secondary data. This data has used for getting a real result from research paper. Secondary data has been collected from the various RBI Annual Report, Books, Journals and Government Web-Portal.

Modes of transaction in Virtual Banking:

The cashless Economy in India has been amplified with the Indian Government's initiative of Digital India. This is a flagship programme with a vision to transform India into a digitally empowered society and knowledge economy. When the transactions in an economy are not heavily based on the money notes, coins or any other physical form of money but are aided by the use of credit cards, debit cards and prepaid payment instruments, such an economy is called cashless economy. The modes of transactions in virtual banking are as follows.

ATM – Automatic teller Machine:

Automatic Teller machine began to be introduced in the period 1969 -1984 all over the world ATM literally means electronic cash Dispensing, which is open round the clock and 365 day a year. The banks give an ATM cards to the user and allot a separate and identification number

Privet sector banks are going ahead aggressive ATM Plans Particularly off-site for wider reach with lower cost. They are also targeting ATM development in the top corporate offices or staff colonies – not only for the salary accounts but also for a piece of the corporate pie and also to get the following benefits-

- Reduction in transaction cost
- Reduction in paperwork involved in transfer of securities
- Right location of the ATMs
- Optimum population of ATMs at each Center

Table No.1, Branches and ATMs of Scheduled Commercial Banks (At end-March 2021)

Sr. No.	Name of the Banks	Branches					ATMs		
		Rural	Semi urban	Urban	Metropolitan	Total	On-Site	Off-Site	Total
	Public Sector Banks	28,828	24,028	16,654	16,801	86,311	78,007	59,106	1,37,113
1	Bank of Baroda	2,851	2,087	1,482	1,794	8,214	8,663	2,970	11,633
2	Bank of India	1,835	1,455	803	932	5,025	2,388	3,163	5,551
3	Bank of Maharashtra	611	461	372	471	1,915	1,505	445	1,950
4	Canara Bank	3,072	3,141	2,103	2,130	10,446	9,128	4,324	13,452
5	Central Bank of India	1,603	1,333	810	862	4,608	2,746	898	3,644
6	Indian Bank	1,940	1,589	1,259	1,214	6,002	4,239	686	4,925
7	Indian Overseas Bank	902	961	651	687	3,201	2,720	425	3,145
8	Punjab And Sind Bank	570	279	356	326	1,531	1,067	30	1,097
9	Punjab National Bank	3,900	2,680	2,257	1,931	10,768	8,610	5,171	13,781
10	State Bank of India	7,914	6,496	3,981	3,830	22,221	25,706	36,911	62,617
11	Uco Bank	1,074	818	609	555	3,056	2,146	215	2,361
12	Union Bank of India	2,556	2,728	1,971	2,069	9,324	9,089	3,868	12,957
	Total								

Source- RBI Bulletin

The table shows that, How many ATMs in public sector banks used in march 2021. In Rural branches, Semi urban branches, urban and Metropolitan Branches total use of ATMs On-side and Off- side are 1,37,113.

Credit Card:

In the process of evolution of money after paper currency, several forms of bank money of credit money came in to existence. The quality of these forms of money is the Convince in carrying and effecting the transaction. In this process of evolution, which incidentally, is a continuous process one latest from to enter in to the Indian financial system is credit card.

Benefits of credit cards –

1. To the Banker :

For the issuing banker credit card means an opportunity of making good Profit between the date of payment to business establishment and date of realization of the amount from the card holder period of 30 to 45 days is required.

2. To the member Establishment :

- i) Their sales increase and so do their profits.
- ii) They can sell goods on credit but not at their own risk.
- iii) Their payment is guaranteed by the issuing banker.

3. To the card – holder :

- i) Many banks allow withdrawals of cash against credit cards at any of their beaches.
- ii) In case of loss, the holder's liability is limited.

Debit Card:

Debit cards combine the function of ATM cards and Check. Debit cards are issued by banks but are used at stores, not at the banks themselves. When you pay with a debit cards, the money is

automatically deducted from your account. Debit cards, as we all know are very much in use in resent time. They have eliminated the need for carrying physical cash all around. Not only do they make transaction and paying easy in a matter of seconds ,but also, they are widely accepted.

Benefits of Debit Cards-

- Debit cards are extremely simple to use. Since the payment is deducted directly from your bank account a place where the money already exists, it can be done instantly.
- You pay your bill immediately, unlike when you use a credit card and get bill later.

Internet Banking: In Indian slowly but steadily, the Indian customer is moving to words internet banking a number of banks have either adopted internet banking on the threshold of adopting it. The banks started Internet banking initially with simple function such as getting information about interest rates, checking account balance and computing loan eligibility.

It was ICICI bank which initiated the electronic banking revolution in India when they introduced internet banking as early as 1997 under the HDFC in sept.1999. Global trust bank etc. as estimated 4.6 million Indian Internet users are banking through internet. This figure is expected to reach around 16 million by 2007-08.

SWIFT (society for worldwide interbank financial telecommunication :

SWIFT is the global financial community's foremost messaging infrastructure that is lowest risk and highest flexibility. SWIFT'S mission is to become a worldwide community of financial institution whose purpose is to be the leader in communication solution enabling inter-

operability between its members, their market infrastructure and their end-user community. In 2003 SWIFT had revenue of EUR 57 million and had assets worth EUR 413 million and had 1708 employees. It has reached 2 billion message marks. The growth rate in message traffic is 16.69%. It covers over 200 countries and the live users are over 7500.

RTGS – Real time gross settlement:

RTGS system was introduced in India on 26th march, 2004. RTGS system is a comprehensive and secured online payment mechanism.

Under RTGS system is interbank payment instruction are processed throughout the day, on transaction- by transaction basis. RTGS system was set up, operated and managed by Reserve Bank of India (RBI).

Benefits-

- a) For minimizing the cost of transfer of funds
- b) For reducing the risk of transfer of funds
- c) For providing liquidity to the beneficiary.

Digital Payments:

Large value credit transfers through RTGS dominated the overall payments landscape in the year 2019-20, according for 80.8% of the total value of digital transaction. In terms of volume however, credit transfer via multiple channels such as a unified Payments Interface (UPI), National Electronic Funds Transfer (NEFT) and Immediate Payment Service (IMPS) were the leaders. In case of card payments, the value of card transaction registered a growth of 35.6 % against 21.1% for credit cards.

Table No-2, Digital Payments

	Volume(Lakh)			Value(crore)		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
1. Large Value Credit Transfers – RTGS	1244	1,366	1,507	11,67,12,478	13,56,88,187	13,11,56,475
2. Credit Transfers	58,793	1,18,750	2,06,661	1,88,14,287	2,60,97,655	2,85,72,100
2.1 AePS	6	11	10	300	501	469
2.2 APBS	12,980	15,032	16,805	55,949	86,734	99,448
2.3 ECS Cr	61	54	18	11,864	13,235	5,145
2.4 IMPS	10,098	17,529	25,792	8,92,498	15,90,257	23,37,541
2.5 NACH Cr	7,031	9,021	11,406	5,20,992	7,36,349	10,52,187
2.6 NEFT	19,464	23,189	27,445	1,72,22,852	2,27,93,608	2,29,45,580
2.7 UPI	9,152	53,915	1,25,186	1,09,832	8,76,971	21,31,730
3. Debit Transfers and Direct Debits	3,788	6,382	8,957	3,99,300	6,56,232	8,26,036
3.1 BHIM Aadhaar Pay	20	68	91	78	815	1303
3.2 ECS Dr	15	9	1	972	1260	39
3.3 NACH Dr	3,738	6,299	8,768	3,98,211	6,54,138	8,24,491
3.4 NETC	15	6	97	39	20	203
4. Card Payments	47,486	61,769	73,012	9,19,035	11,96,888	15,35,765
4.1 Credit Cards	14,052	17,626	21,773	4,58,965	6,03,413	7,30,895
4.2 Debit Cards	33,434	44,143	51,239	4,60,070	5,93,475	8,04,870
5. Prepaid Payments Instruments	34,591	46072	53,318	1,41,634	2,13,323	2,15,558
Total Digital Payments(1+2+3+4+5)	1,45902	2,34,339	3,43,456	13,69,86,734	16,38,52,286	16,23,05,934

Source- RBI Bulletin

The table clear that, India is in progressive step in terms of using Digital Payments . RTGS has made digital payments of Rs. 11,67,12,478 crore in 2017-18, while it has increased to Rs. 13,11,56,475 crore in 2019-20. In the last three years the valume of Total Digital Payments of RTGS , Credit Transfers ,Debit Transfer and Direct Debits, Cards Payments, Prepaid Payments Instruments in 2017-18 it was 1,45902 , in 2018-19 it was 2,34,339 and 2019-20 it was 3,43,456 lakhs . Similarly in last three years the volume of Digital Payments is 2017-18 it was

13,69,86,734 , 2018-19 it was 16,38,52,286 and 2019-20 it was 16,23,05,934 crore respectively.

Conclusion:

The banking industry is now a very mature one and banks being forced to change rapidly as a result of open market forces such as threat of competition, customer demand, and technological innovation such as growth of internet banking. If banks have to retain their competitiveness, they must focus on customer retention and relationship management upgrade and offer integration and value added services.

Refernce :

- 1) E-Banking in India – R.K. Uppal and Rimpi Jatana
- 2) Modern banking – Dr.R.K. Datir
- 3) Economics Times of India
- 4) RBI Bulletin
- 5) Report on Digital Payments : source RBI
- 6) Report on Remittances through Payments Banks :Off-site return (domestic operations),RBI
- 7) Branches and ATMs of scheduled commercial Banks(At end- March 2021)

Cultural Gems in the Fictions of Chinua Achebe and Mulk Raj Anand

Dr. Dnyaneshwar Kisan Satbhai

Assistant Professor Dept. of English K.K.Wagh Arts, Science and Commerce
College, Pimpalgaon (B). Tal- Niphad, Dist- Nasik. Maharashtra, India.
Email: dnyaneshwar.satbhai123@gmail.com

Abstract:

The present research paper focuses on the interrelationship and interconnection between Culture and Literature, features, and the influential role of culture in literary creations; literature offers a platform to expose the conscious and subconscious thoughts, feelings and ideas. Cultural sense constantly exists in the mind of every individual, and intentionally or unintentionally the cultural doctrine of the artist peeps through his artistic creations, sometimes to express his inner voice and sometimes to communicate about his community. In the case of Achebe and Anand, literature has become a strong gizmo through which they have promoted their cultures and traditions, and attested the fact that their societies are not uncivilized, but possess an ancient cultural heritage. Their fictions illustrate that Nigeria and India have gracious and superior ethnic values.

Key Words: Multifaceted, Phenomena, Multidimensional, Ethos, Illustrate Essence, Polytheistic, Polygamy, Nurture, Ethically, Assault.

Introduction:

In the history of human civilization, culture and literature have been playing a substantial role. They are interrelated and interconnected; the former is multidimensional and multifaceted social phenomena and the latter incorporates artistic, factual, imaginative creations and recreations. According to E. B. Tylor, "Culture is that complex whole which includes knowledge, belief, art, moral, law, custom and of any other capabilities acquired by man as a member of society"¹ He considers that culture is complex concept and the member of the particular culture has to adopt certain codes and norms. Cooley, Argell & Carr in their book, *Introductory Sociology*, discuss about culture in detail. They define culture as:

Culture is the entire accumulation of artificial object, conditions, tools, techniques, ideas, symbols and behaviour patterns peculiar to a group of people possessing a certain consistency of its own and capable of transmission from one generation to another.²

The above definitions point out that culture has some unique features, such as, it is shared by all the members of the society, it is not in born or innate, it is learned and acquired, the elements of culture are interrelated and constitute a complex whole; culture is transmitted from one generation to another generation, it is materialistic as well as non-materialistic; it is something like a chair, a fan or a car and abstract like belief or superstition. Culture is not static; it has the quality of adaptability. The formation and continuity of culture is not depending on any

one individually, and it is collected ethos of the society. It is a social system of common heritage, and it is integral part of the society. The culture of people is revealed in their beliefs, rituals, festivals, customs, traditions, symbols, norms, values, dresses, food, works, languages and other activities.

Literature, as an art form includes fiction, non-fiction drama, and poetry, in which language is used as a medium to design an image to depict cultural life, as well as the perspectives of the author; culture is the source for literary creations. Chinua Achebe and Mulk Raj Anand have used literature, especially novels as a device to illustrate cultural dignity of their societies. Achebe, considering himself as the spokesman of Igbo clan, has presented the cultural identity along with the colonial confrontation and Anand has attempted to display the cultural essence and ethical ethos of the Indian life.

Truly outstanding in his literary achievements, Chinua Achebe exhibits a portrait of the past and present of African society. It is his conscious endeavor to present the African sensibility and atmosphere, because he realized that only an African can tell about Africanness, he states, "...the story we had to tell could not be told for us by anyone else no matter how gifted or well-intentioned."³ According to him the western world needs to know real Africa, he thought it is extremely important to set right the deeply embedded misconceptions about the African people. Through his novels he has tried to display "...that there nothing disgraceful about the African weather, that the palm tree is equally fit subject for poetry."⁴ It shows that

Achebe has certain aims and aspirations in writing the novels; the culture of the Igbo clan has played a vital role in quenching his thirst of showing the identity of real Africans.

Similarly, Mulk Raj Ananda an Indian novelist, has revealed exceptional insight in interpreting the Indian socio-cultural life, his novels are the authentic documentation of the pains and pleasure of humanity. He too has a purpose, literature for him is also not for entertainment but to manifest the cultural values along with the agonies imposed on the deprived and oppressed class in India. He considered literature as an instrument, and through it, he has presented the galleries of realistic pictures of Indian ethical and cultural life of Indians. He says, "I have always considered literature and art as the instrument of humanism."⁵ He firmly believes:

... that only in fiction, which is the transformation, through the imagination, of concrete life, in words, sounds and vibrations, one may probe into the many layers of human consciousness with various phases...the writer can evolve an organic pattern, showing the efforts of human being to grow...⁶

Both Achebe and Anand have looked at literature as the cosmic canvas on which they have tried to interpret socio-cultural, political, spiritual, and economical aspects of Africa and India. In the present research paper the research scholar has selected Achebe's *Things Fall Apart* and Anand's *Two Leaves and a Bud* to illustrate the role of culture in literature, especially in the novels.

Things Fall Apart (1958), the masterpiece of Achebe illustrates the fact that culture is an inseparable segment of literature; the novel mirrors the cultural identity of the people through the multidimensional panorama of the Igbo society. It shows that Igbo society has great cultural past to boast of, like any other ancient civilization of the world. Umuofia, the village described in the novel represents Nigeria, is held together by network of relationships, with a common recognition, much stronger than any European civilization, the misinterpretation of African society by the western writers is appropriately countered in the novel. Okonkwo, the protagonist of the novel exemplifies that they are not barbarians and inhuman, on the contrary they are tender and compassionate at heart it is revealed in the case of Ikemefuna, a hostage boy. Traditionally, the Igbo community is male dominated, so Okonkwo sticks to its norms, codes and conducts, being famous for wrestling and for masculine qualities and having deeply

rooted feeling of fear to show tender and female qualities can't stop himself from showing love for Ikemefuna, as the custom he kills Ikemefuna, but being a human he is deeply disturbed. Achebe writes,

Okonkwo did not taste food for two days after the death... he did not sleep at night. He tried to think about Ikemefuna, but the more he tried the more he thought about him... But he was so weak that his legs could hardly carry him... a cold shiver descended on his head and spread down his body.⁷

The man of heroic qualities and afraid of nothing falls apart after doing a cruel act, it is the sign of well-developed civilization. The way of treating the guest also shows the reality that the community is cultured and well-mannered. When guest arrive to the Okonkwo's Obi he offers them traditional kola nuts and palm wine. He has great respects for his clan brother, he firmly believes in the principles of ancestors. He says, "As our people say. A man who pays respect to the great paves the way for his own greatness. I have come to you pay my respect."⁸ The respect for elders and ancestors is the notable feature of the Igbo culture and Achebe has demonstrated it throughout the novel.

Achebe shows that the Igbo community assigns key role to the women for instance, women painted the houses of the Egwugwu, the goddess, They are primary educator of children, through strong telling and behaviour, inspiring in them the curiosity about social values, relationships and the human conditions, the stories the women narrate also develop the artistic consciousness of the children in addition to entertain them. Furthermore the first wife of a man in the Igbo society is paid some respect. It is illustrated in the palm wine ceremony at Nwakibie's Obi, Anasi, Nwakibie's first wife had not yet arrived and the other wives did not drink still her arrival.

The position of the woman in the community is exposed at the time of exile of Okonkwo; the motherland is respected more than the fatherland in Igbo society. At the arrival of Okonkwo to his motherland, Okonkwo's uncle Uchendu noting Okonkwo's distress, eloquently explains the supremacy of mother. He says:

A man belongs to his fatherland and not to his motherland. And yet we say Nneka- "mother is supreme. Why is that? It is true that a child belongs to its father but when a father beats his child it seeks sympathy in its mother's hut. A man belongs to his fatherland when things are good and life is sweet. But when there is sorrow and bitterness he finds refuge in his motherland.

Your mother is there to perfect you and that is why we say that mother is supreme⁹

The religious practices are the unified component of Igbo culture, Achebe has discussed in detail about the polytheistic religion practiced in Igbo culture, the Igbo people have different deities such as *Chukwu*, the supreme god, *Agbala*, the god of the future, *Ani*, the goddess of the earth and harvest, spirits and the ancestors, and they also have the concept of *Chi* which refers personal gods, the Igbos have polygamy system, it was considered a sign of prosperity of the man, a man with multiple wives is supposed to be successful, Okonkwo has three wives, in marriage is regarded a sacred union of two families, it is done with certain traditions and customs, such as giving the bride price from the side of the girl to the groom's family. They use bundles of broomsticks to negotiate the bride price. Farming is another aspect of in Igbo society, *Yams* is the main crop taken by the Igbos, it is brought in the compound after harvesting, if it excessive, it also sold in the market, they celebrate the "Week of Peace" in respect to the earth goddess, during the week Igbos visits their neighbors, they drink palm wine, sing folk- songs, and dance on the beating of traditional drums.

The place of woman in Igbo culture is not secondary. The saying, 'mother is supreme', by Unchendu to Okonkwo is the evidence that they bestow the great honour on a woman. The eldest wife is the head of women folk and have authority is exhibited in their custom of permitting her to wear the anklets of her husband's titles. Anasi, the eldest wife of Nakibie, is called by her husband and given a horn of palm wine before the others have their turn, in consideration of women's place in Igbo society, Michel Faber states.

Women never saw themselves as secondary of inferior in traditional Ibo society. They were different that is all... in fact, when a man died, he was taken to his mother's people to be buried, that showed the importance of mother and woman. Also on the economic level the market has always been there for the women to make money and they had grown in importance. In traditional Ibo society the wife was economically independent.¹⁰

Anand's *Two Leaves and a Bud* is an artistic work, it mainly deals with the widening gap between the haves and have-nots, the rulers and the ruled, the owners and the workers, but along with the clash between the two classes, from the perspectives of British the Indians are not civilized. The novelist states, "as compared

with their masters the, Indians were shocking barbarians in point of intellect and civilization."

¹¹Anand has insisted on the need for values, the civilizing values which nurture an enlightened and humane society. The novel presents the cultural supremacy of Indian society. He has shown that morally and ethically the Indians are far better than the British. Gangu a Panjabi farmer, along with his wife Sajani, his daughter and son Laila and Buddhu enlists as a worker in the Assam tea plantations. As the laborer, he is exploited and harassed by the colonizers, but he struggles to keep his family intact, Anand suggest that nothing the so precious than the family and the dignity of family members in the Indian culture,

The marriage is not just a formality; it is the amalgamation of two souls, husband and wife are the two wheels of the chariot of the home, in Indian society marriage is blessed and sacred union, Gangu is not only the husband of Sajani, he is "companion of her life and death."

¹² She decides to help her husband in every situation of life; her family is above all, she cares for her daughter and son, when Sajani is on death bed, her mind is haunted by the cares for the daughter's marriage, and even after her death, Leila's mind is haunted by the memories of her mother, Gangu, as a true companion, "wept bitterly...he sat choked and convulsed by the agony, the intense misery, the utter helplessness of his despair."¹³ It shows that the family members are so intimate and connected to each other and they can go to any extent to help each other, it found only in the civilized community. Anand has pointed out that the head of the family can sacrifice everything to save the dignity and the ethics of the woman in India, and Gangu is the best example of it, Ruggie Hunt is fascinated to the beauty of Laila and he is after her like a hunter behind a bird, though Gangu is helpless and poor but he sacrifices himself to prevent the virginity of his daughter. Anand deliberately reveals this virtuous side of Indian society; he indirectly suggests that the British man may consider superior "because of his clothes, respected for his knowledge and admired for his personal qualities"¹⁴ but culturally, virtually and morally Indians are far superior to them.

Anand has demonstrated the cultural greatness of Indian people. The European officers also accepted the fact that Indian people have great sense of manners, but they do not admire it, on the contrary they ridicule it. Indians give great respect to the quests, the quests are considered as the gods. They are respected and

the Indians are so hospitable to their quests, but the British officers like De La Harve thinks that the Indians are stupid, because they are hospitable. He says, "These Indians are bloody fools, they are so hospitable, they let themselves be robbed... Shah Jehan's daughter is ill. An English doctor attends her. The Emperor gives away valuable forts in reward."¹⁵ actually, it is the age old custom of Indian people to treat the guest as if he is a god. Anand has unfolded the glorious sides of Indians in his fictions. His Indian upbringing and familiarity with Indian rich cultural heritage has given him the opportunity to write about his own people so authentically. His knowledge of western philosophy and life style has enabled him to present the variations between Indian culture and British culture, the values and norms of two countries. While presenting Indian culture as suppressed by British people, Anand throws light on Indian family values. He talks about the glorious side of Indian cultural norms. The home in Indian culture is not the building of four walls, it is much more than that, it is a place of love and comfort, and it is a protection place for women. She gives solace and strength to all the family members, all the family members wait for each other to dine together. These qualities are not found in the European homes. Anand gives importance to the family. It is true that women are more liberal in European families, Maya is also aware of this fact, those women choose their men freely in Vilayat, but Lalu thinks that if he would allow her to think and behave like British women the family set up of his life will be no more Both Achebe and Anand have considered literary writing as a mission to stimulate the masses to esteem the indigenous cultural gems and present the panorama of their ancient and proud cultural immensity to those who discredited and disgraced it, they successfully and strategically developed the thematic content to convey the message that Africa and India have great historical, spiritual and cultural roots, which are deeply imbedded and still survived even after the several assaults of the outsiders.

References/ Web References:

1. Achebe, Chinua. *Things Fall Apart*, Google, Web.10 Jan. 2019
- 2.. <https://www.wikipedia.org>
- 3.. http://www.wikipedia.org/wiki/Two_Leaves_and_a_Bud
4. <http://www.contemporarywriters.com>
5. <https://www.Britanica.com>
1. Tylor. E.B. *Primitive Culture*, Volume 1. London: John Murry, 1871. P.1
2. Cooley, Argall and Carr, *Introductory*

- Sociology*, New York: C. Scribner's Sons, 1933. P..519.
3. Achebe, Chinua. "The African Writer and the English Language", *Morning Yet On Creation Day: Essays*, London: Heinemann, 1975. P. 70.
4. Achebe, Chinua. "The Novelist as Teacher, " *Morning Yet On Creation Day: Essays*, London: Heinemann, 1975. P.44.
5. Anand, Mulk Raj. 'Why I Write?' in *Perspectives on Mulk Raj Anand*. ed. K.K. Sharma, Ghaziabad: VimalPrakashan, 1978), P.8.
6. *Ibid.*, P. 6.
7. Achebe, Chinua. *Things Fall Apart*. London: Heinemann, 1983. P. 57.
8. *Ibid.*, P. 18.
9. *Ibid.*, P. 122-123.
10. Faber, Michel. Chinua Achebe on *Arrow of God, The Literary Half Yearly*, XXI, 1, Jan.1980. P.6-7.
11. Anand, Mulk Raj, *Two Leaves and a Bud*. New Delhi: Hind Pocket Books (p) Ltd., 1983 .P.27.
12. *Ibid.*, P. 1.
13. *Ibid.*, P. 84.
14. *Ibid.*, P. 42.

Opportunities after Covid in vegetables marketing

Vinod Hanumant Awaghade

Assistant Professor, Yashwantrao Chavan Mahavidyalaya, Pachwad. Department of Commerce
Shivaji University Kolhapur
Maharashtra

Email-vinodawaghade86@gmail.com

Abstract-

India is an agricultural country. Farmers in India mainly give priority to agriculture. Every farmer supports his family from the income from agriculture. Especially after the corona epidemic, leafy vegetables have become very important. A diet of leafy vegetables is very important for every person to have a good life. Farmers get a good income from the production of leafy vegetables, fruit vegetables and tuber vegetables. After covid, many opportunities are seen for the leafy vegetable business. Every person in the society, from children to the elderly, consumes leafy vegetables in their diet. Our country has a tradition of agriculture. Farmers grow a variety of crops. Farmers mainly focus on the production of leafy vegetables and fruits. This agricultural product provides cash to the farmers. The farmer is the king of all of us in the country. Only if the farmer survives can the country run smoothly. The farmer works hard to produce leafy vegetables and fruits and vegetables. Many factors in society depend on agricultural production. Agriculture generates a lot of employment. All agricultural products come in essential services. This means that you need vegetables every day. That is why the researcher has chosen to research this subject. Farmers can get higher yields in agriculture if they get good online tools.

Introduction -

India is an agricultural country. Farmers in India mainly give priority to agriculture. Every farmer supports his family from the income from agriculture. Especially after the corona epidemic, leafy vegetables have become very important. A diet of leafy vegetables is very important for every person to have a good life. Farmers get a good income from the production of leafy vegetables, fruit vegetables and tuber vegetables. After covid, many opportunities are seen for the leafy vegetable business. Every person in the society, from children to the elderly, consumes leafy vegetables in their diet. India is an agricultural country. Agriculture is the backbone of our country's economy. Good livelihood can be achieved by selling leafy vegetables, fruits and tubers. Mainly farmers are growing different crops. Changes are made in the production of vegetables as per the market demand. Everyone in the society is a consumer of agricultural products. If enough water is available, farmers can produce better. Farmers are determined to overcome any challenge.

Keywords- e-commerce, e-banking etc.

Objectives-

1. To study the concept of vegetables.
2. To study the types of vegetables.
3. To study the Importance of vegetables marketing.
4. To study the opportunities in vegetables marketing.

Research Methodology- The present study is based on secondary source of data . secondary

data is collected through various books , Journals, Websites and Internet. For the collection of primary data the researcher has paid visit to market committees (Secretary) ,farmers and agents .It is after having detailed discussion the present data is collected.

Data collection:

1. Primary Data:

For the collection of primary data the researcher has paid visit to market committees (Secretary), farmers and agent's .It is after having detailed discussion the present data is collected.

2. Secondary Data:

The secondary data is derived from the following sources:

1. Books
2. Magazines
3. Journals
4. News paper

Concept- The word vegetable refers the dictionary meaning, a plant or part of plant which is eaten as food.

Types of vegetables -

- a) **Leafy vegetable** - broad beans, spinach, Fenugreek, Dill leaves, Safflower, cluster beans, bell paper etc.
- b) **A root vegetable** - a potato, carrot, Sweet potato, onion, Garlic, ginger etc.
- c) **A fruit vegetable-** Bringel, Green peas, flower, Tomato, Pumpkin, Drum sticks, Ribbed gourd , Capsicum, Green chilies, Cabbage etc.

(Oxford advanced learners dictionary, Jonathan couter oxford university press 1995)

Marketing Concept: Marketing doesn't mean only buying and purchasing the things. The concept has a broad meaning. It deal with the needs of the people, consumer, marketing is to satisfy human the needs. Whenever a consumer goes to markets, he seeks the advantage behind the product. It can be well explained with the example. When a consumer wants to buy a facial cream, he doesn't need only a cream at all, he wants a fairness that's why he tends to buy a cream. Thus marketing doesn't remain in that limited contextual background. Traditional market was a physical place where buyers and sellers together exchange goods.

Importance of leafy vegetables:

1. **Leafy vegetables provide vitamins-** Consuming leafy vegetables in daily diet helps to get a lot of vitamins. The vitamin reduces the incidence of illness. From very young children to the elderly, everyone consumes leafy vegetables to help them stay healthy.
2. **Eating leafy vegetables improves health-** Consuming green vegetables in daily diet helps in improving health. Leafy vegetables contribute a lot to increase immunity in the body. In the current scenario, there is a huge demand for organic leafy vegetables and fruits.
3. **Suitable for dieting-**Mainly people who want to balance their body weight do diet. Leafy vegetables and fruit vegetables are consumed for diet. Leafy vegetables are important in every person's diet. Eating leafy greens helps boost your immunity. Doctors advise many people to eat leafy vegetables.
4. **Cash and Carry transaction-** Sale of leafy vegetables and fruit vegetables helps the farmers to get cash from daily transactions. The daily income from the sale of leafy vegetables helps a lot to support the family. Selling fruits and vegetables, mainly leafy vegetables, is considered a major source of livelihood.

Opportunities in vegetables marketing:

1. Buying and selling of leafy vegetables, fruits and agricultural products is highly profitable. This method of buying and selling is considered to be very important mainly for subsistence.
2. Leafy vegetables, fruits and all agricultural products come in essential services. There is no other option. Which means it's about to be the most delusional time of the year, as well.

3. Everyone in the community is a consumer of this product. Taking good products using organic fertilizers will create an opportunity to make good profits.
4. Vegetables are considered to be a very important part of the daily diet. There is a lot of demand for these products every day.
5. Good products make you dominant in the market. Quality products create opportunities to export agricultural products.
6. Collective farming by farmers will enable them to supply to the consumers as per their demand. The product can be supplied in less time, at lower cost.
7. There will be a lot of opportunities for agriculture in the future. Good demand for the product and good quality of the product will make it possible to get a definite advantage.
8. It will be possible to easily compete if the products are manufactured according to the changing market conditions.
9. Currently, chemical-free agricultural products are in high demand. It will be possible to get more benefits if all the people cultivate collectively.
10. It is possible to buy vegetable products with very little capital. That is, it is possible to make a profit in the least amount of capital.

Conclusions-

The purchase and sale of leafy vegetables, fruits and agricultural products has the potential for maximum financial gain. There are going to be a lot of opportunities in this farming sector in the future. It is possible to survive in the competition by farming with the help of new modern tools. It is important to make the right decision considering the market opportunities and demand. Agriculture is playing an important role in the development of our country. Agriculture definitely benefits from employment, imports, exports and the right investment. There is a risk in buying and selling leafy vegetables but there is also a definite benefit. The right decision ability is needed.

Bibliography

I. Books

1. **P.C. Bansil**, Agricultural problems of India, 2nd revised edition, 1975 published by bikas publishing House Pvt. Ltd. 5 Daryaganj, Ansari Road, Delhi 110006 savoy chambers, 5, wallace street, Bombay 400001. 10 First main Road, Gandhi Nagar, Banglore 560 009 ISBN- 07069-0363-3
2. **Andrew J. Taylor and Robert S.T. Linforth**, 2014 published by john wiley & sons Ltd. All rights reserved, Authorized

reprint by wiley India Pvt. Ltd. 4435-36/7,
Ansari Road, Daryaganj New Delhi –
110002. Page No. 1635 Food flavour
Technology, second edition ISBN -978-81-
265-4574-2

3. **B.N. Pandey, Sadhana D. Pandey, P.N.**
“Aquaculture” Published 2011, published by
S.B. nangia A P H publishing corporation
4435-3628, Ansari Road, Daryaganj New
Delhi- 110002 printer at Balaji Offset Navin
Shabdara, Delhi-32, ISBN-978-81-313-
0251-4 Page No.- 112.

II. Websites

1. www.maharashtra.gov.in
2. www.censusindia.gov.in 2011
3. <http://www.agricoop.nic.in/>

A Geographical Study of Occupational Structure in Beed District (M.S)

Dr. Suryakant S. Pawar

Research Guide, Department of Geography Shivaji Mahavidyalaya, Renapur, Dist- Latur.

Abstract:

Occupational structure is major indicators of socio economic development of the any nation. Its varied in and under developed, developing and developed countries in the world. The study of economic development of the people remains incomplete short of its reference to the occupational structure of a population. The aim of the present study is to study and examined occupational structure in the Beed district. Present work is based on the secondary data. According to 2011 census data the proportion of working population of the Beed district was 48.57 percent, most the people engaged in agriculture sector.

Keywords: Work, Worker, Occupation, Labor.

Introduction:

Occupational structure is also known as relatively continuous pattern of the activities that affords workers a livelihood and define their general social status. (Sills, 1968, P. 245). Proportion of persons involved in different types of occupations is a significant economic aspect of population. Occupations are grouped in to three classes viz. i) primary ii) secondary and iii) Tertiary Work has defined as participation in any economically activity with or without compensation, wages or profit. Such participation may be physical or mental in nature. Work involves not only actual work but also includes effective supervision and direction of work. (General Economic Tables, part III, census of India.). India census has classified occupation by four categorized by based on economic activity these are Cultivators, Agriculture labor, household industrial workers

Study Area:

Beed district is located in the middle part of Maharashtra state and extend between 18°27' and 19°27' north latitudes and 74° 49' and 76°44' east longitudes. The east-west distance of Beed district is 268 kms and 127 Km width of the north to south district. Total Geographical area of the district was 10693 sq. kms. and share 3.5 percent area of the Maharashtra state and 19.20 percent area of the Marathwada region. According to the 2011 census figure the total population of Beed district was 2585049 in which total population 1349106 are males and 1235943 are female.

Proportion of Working Population

Occupational structure is major indicators of socio economic development of the any nation. Its varied in and under developed, developing and developed countries in the world. The study of economic development of the people remains incomplete short of its reference to the occupational structure of a population.

and other workers. India is a rural nation of the world most of the people live in rural area and practiced agriculture; hence agriculture is a major economic activity and more than 70 percent people engaged in agriculture sector.

Objective of the study:

- To study and examined occupation structure in the Beed district.
- To study the working structure based on major economic activity in the Beed district.

Database and Methodology:

The present study is based Secondary data. The secondary data has been collected from numerous sources which includes both published and unpublished books, government and private publications. District census handbook, district statistical department, socio economic review and district statistical abstract of Beed district. Collected data is processed and presented in the form of tabular and graphical method.

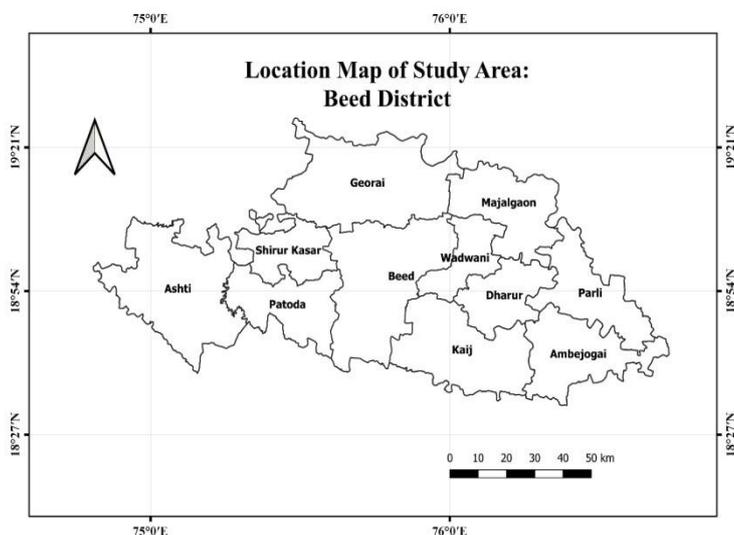


Table No. 1. Shows the occupational structure of the Beed district. According to 2011 census data the proportion of working population of the study region was 48.57 percent it means more than 50 percent peoples are non-workers.

Table No. 1. Occupational Structure of Beed District: 2011

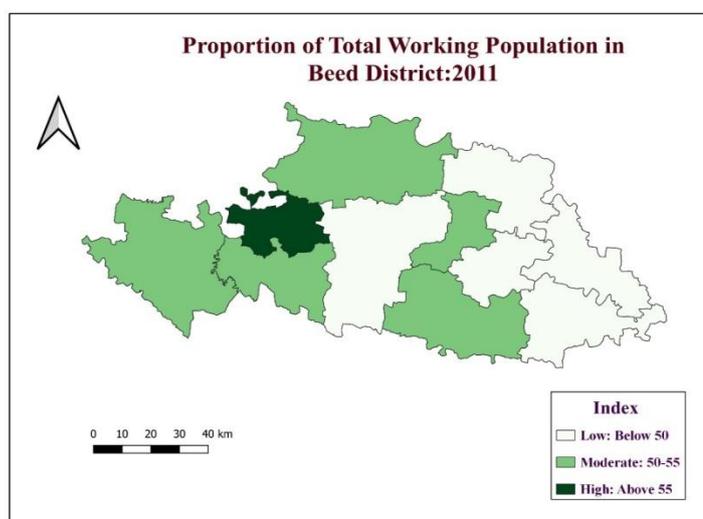
Tahsil	Total Worker	Cultivators	Agricultural Labor	Household Industrial Workers	Other workers
Ashti	54.38	67.04	19.57	1.44	11.95
Patoda	53.89	63.7	24.41	1.26	10.64
Shirur (Kasar)	55.48	65.97	23.52	1.45	9.05
Georai	53.03	55.21	30.73	1.71	12.34
Manjelgaon	48.52	35.99	45.84	1.36	16.81
Wadwani	51.25	48.74	35.88	1.72	13.66
Beed	43.72	41.24	20.5	1.82	36.44
Kaij	50.53	53.76	31.06	1.95	13.23
Dharur	49.03	41.71	42.05	2.04	14.21
Parli	43.28	33.64	32.23	1.99	32.34
Ambejogai	43.37	35.59	33.39	1.56	29.25
Total District	48.57	48.29	29.74	1.68	20.28

Source: Census Handbook Beed District 2011

At tahsil level the total working population of the study region was not uniformly distributed. The highest working population was observed in Shirur tahsil with 55.48 percent and lowest working population was observed in Parli tahsil. Ashti, Patoda, Shirur, Georai, Wadwani, Kaij and Dharura tahsil recorded above the district average working population while remaining district was recorded below the district average working population. Where the agriculture is a major activity and most of the people engaged in agricultural activity their working population recorded high.

Occupation Structure Based on Major Economic Activity

Working population of Beed district have been classified in four economic categories these are cultivators, agriculture labor, household industrial workers and other workers. The proportion of cultivators, agriculture labor, household industrial workers and other workers were diversely distributed in the study region. Most of the workers engaged in agriculture sector than the other sectors. In year 2011, the proportion of cultivators in the study region was 48.29 percent, highest cultivators was found in Ashti (67.04) and lowest in Parli tahsil (33.64), for the reason that it is an urban area and maximum people involved in other economic activity. Ashti, Patoda, Shirur, Georai, Kaij, and Wadwani tahsil recorded above the regional average cultivators while other tahsils were recorded below the regional average. Agriculture labors is a second most economic activity of study region. According to 2011 census data, the proportion of agriculture labor was 29.74 percent, Highest agricultural labor was found in Majlagaon tahsil and lowest was found in Parli



Tahsil and North Solapur tahsil. Household industry is defined as an industry conducted by one or more members of the household at home or within the rural areas and only within the precincts of the house where the household lives in urban areas (Census of India). In 2011 about 1.69 percent workers was engaged in household industrial sectors. The high house hold workers found in Dharur tahsil followed by Parli and Beed tahsil while, low household industrial was recorded in Patoda and Ashti tahsil. The proportion of other workers in the Beed district was 20.28 percent in 2011. It is a third largest economic sectors of the district. Highest other workers observed in North Parli tahsil followed by Beed and Ambejogai tahsil 2011 census year, due to most of the other workers are found in urban areas than the rural area and Parli Beed and Ambejogai has more urbanized.

Conclusion:

The proportion of total working population of the study region was 48.57 percent. Agriculture

is a major economic activity of the district with more than 80 percent peoples engaged in agriculture sectors. Where the agriculture is dominant economic activity their working population recorded high. Household industrial workers share less account with 1.68 percent and other sectors was 20.28 percent. Agricultural population was recorded high in Ashti, Patoda and Shirur tahsil while high other sectors workers was found in Parli, Beed and Ambejogai

tahsil due to growing market centers and Industrial development in urban city.

References:

1. K. C. Mitra (2012): Population Geography, Wisdom press, New Delhi.
2. R.C. Chandana (2011) Geography of Population, Kalyani Publishers, New Delhi.
3. Census of India, District Census Handbook Beed district in 2001 and 2011.
4. Socio-economic abstract of Beed district in 2012.

Gender Gap in Literacy- A Case Study of Malda, West Bengal

Arunima Bhattacharya

Assistant Professor Department of Geography Vidyasagar College for Women Kolkata

Abstract

The gender gap in education has evoked from several social and cultural beliefs pertinent to a region and results in huge differences in economic spin offs of that region. The study area is chosen to be Malda, a very prominent and rich in heritage district of the state of West Bengal. The major objectives of the study are to find out the disparity in literacy rate and availability of education among the males and females of the region. This consisted of the collection of secondary data and information from various sources. The study depicts that literacy rate is overall low in the concerned district with a huge gap in literacy between male and female. The disparity in male-female population of the blocks is calculated by means of Sopher Index and the fifteen CD Blocks of the region are divided into high, low and medium disparity zones. High disparity in literacy among male and female is found in the CD Blocks of Bamangola, Habibpur, Manikchak, Kaliachak III, Gazole, Harishchandrapur I. Several contributing factors have been identified and measures have been suggested likewise. Though several schemes have been initiated by both the Central and State Governments, yet the goodness is far from being reached to every household. Education of women plays a pivotal role in women empowerment and narrowing gender gap. Thus, corrective decisions are to be taken for the overall collective growth of the nation which requires to learn about the participation of males and females in the economy.

Keywords: gender gap, literacy, disparity, corrective measures, awareness.

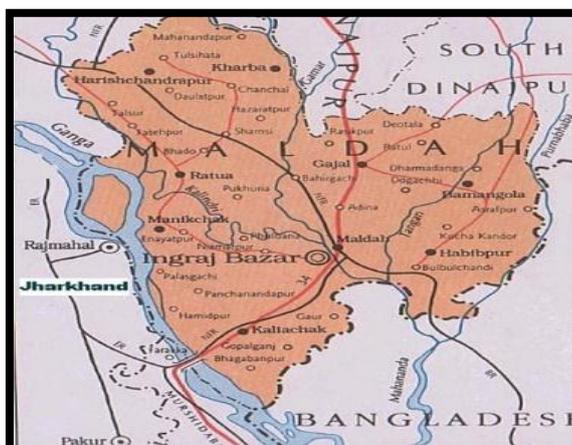
Introduction

The popular definition of literacy in the mainstream dictionaries has been the ability to read and write. However, this traditional concept has changed at contemporary times when the word is used to embrace a wide range of perceptions associated with the thought process manifested by this ability. The conventional concept of literacy is bounded by the skills of reading, writing and learning. But communication in an increasingly digital, text-mediated, information-rich and fast-changing world. Yet, in most parts of the world, the discrepancy remains on the attainment of education between males and females. The gender gap in education has

evoked from several social and cultural beliefs pertinent to a region and results in huge differences in economic spin offs of that region.

Study Area

Malda, being a very prominent district of the state of West Bengal, covers an area of 3733 square kilometres. It is bounded to the north by Uttar Dinajpur, to the south by Murshidabad, Bangladesh to the east and Jharkhand in the west. Malda shares an international border with Bangladesh and is the entry point of Siliguri from south Bengal- thus it has a central position in the state. The district has a rich heritage and history and is a popular tourist destination as well.



Source: Internet

Materials and Methods

This consisted of the collection of secondary data and information from various sources. Secondary data was collected from Census reports, District Handbooks, journal, websites and books. The disparity in education is calculated by Sopher's Index (1974):

$$\text{Sopher's Disparity Index} = D = \log(X_2 / X_1) + \log\{(100 - X_1) / (100 - X_2)\}$$

Objective of the Study

The major objectives of the study are-

- To identify the gender gap in literacy in the CD Blocks of Malda
- To assess the quantitative aspect of it
- To identify the contributing factors
- To suggest measures for improvement of the situation

The Gender Gap in Literacy

Malda district is composed of fifteen CD Blocks which fall under the two sub divisions of the district: Malda Sadar and Chanchal. Nine CD Blocks, namely, Gazole, Bamangola, Habibpur, Old Malda, English Bazar, Manikchak, Kaliachak-I, Kaliachak-II and Kaliachak-III fall under Malda Sadar. Six CD Blocks are under the Chanchal sub division, namely, Harishchandrapur-I, Harishchandrapur-II, Chanchal-I, Chanchal-II, Ratua-I and Ratua-II. Eight of the CD Blocks are having urban population while others only constitute of rural population. According to the Census 2011, the literacy rate in the district is 61.73 with a gender gap of 9.68. male literacy rate is 66.24 and female literacy rate is 56.96 in the district.

Table 1: Literacy Rate and Gender Gap in Male and Female Literates

Sl No	CD Block	Male Literacy Rate (%)	Female Literacy Rate (%)	Literacy Gap
1	Harishchandrapur I	57.37	47.21	10.16
2	Harishchandrapur II	57.21	51.23	5.98
3	Chanchal I	68.39	60.85	7.54
4	Chanchal II	59.97	54.66	5.31
5	Ratua I	64.17	55.81	8.36
6	Ratua II	58.31	53.98	4.33
7	Gazole	69.00	55.03	13.97
8	Bamangola	75.52	60.20	15.32
9	Habibpur	64.05	47.35	16.70
10	Malda Old	63.65	51.83	11.82
11	Englishbazar	67.21	59.10	8.11
12	Manikchak	64.18	50.89	13.29
13	Kaliachak I	66.71	60.20	6.51
14	Kaliachak II	69.86	60.13	9.73
15	Kaliachak III	59.54	47.61	11.93

Source: District Census Handbook, Malda, 2011

The table depicts that literacy rate is overall low in the concerned district with a huge gap in literacy between male and female. Kaliachak II records the highest male literacy of 69.86 and Chanchal I records the highest female literacy of 60.85. The lowest literacy rates of male are observed in Harishchandrapur II (57.21) and that of females are observed in Harishchandrapur I (47.21). the gender gap in

literacy is pronounced in Habibpur (16.70) followed by Bamangola (15.32) and Gazole (13.97).

The Disparity Index

The disparity in male-female population of the blocks is calculated by means of Sopher Index. This shows the regions where disparity is quite prominent in relation to other blocks of the district.

Table 2: Disparity in Literate Population by Sopher Index

Sl No	CD Blocks	Male Literates (%)	Female Literates (%)	A=Log(X ₂ /X ₁)	B=Log(100-X ₁ /100-X ₂)	S.I (A+B)
1	Harishchandrapur I	57.37	47.21	0.085	0.085	0.17
2	Harishchandrapur II	57.21	51.23	0.047	0.047	0.094
3	Chanchal I	68.39	60.85	0.051	0.051	0.102
4	Chanchal II	59.97	54.66	0.040	0.040	0.08
5	Ratua I	64.17	55.81	0.060	0.060	0.12

6	Ratua II	58.31	53.98	0.033	0.033	0.066
7	Gazole	69.00	55.03	0.098	0.098	0.196
8	Bamangola	75.52	60.20	0.098	0.098	0.196
9	Habibpur	64.05	47.35	0.131	0.131	0.262
10	Malda Old	63.65	51.83	0.089	0.089	0.178
11	Englishbazar	67.21	59.10	0.056	0.056	0.112
12	Manikchak	64.18	50.89	0.100	0.100	0.20
13	Kaliachak I	66.71	60.20	0.045	0.045	0.09
14	Kaliachak II	69.86	60.13	0.065	0.065	0.13
15	Kaliachak III	59.54	47.61	0.097	0.097	0.194

Source: Computed by Author

High Disparity Zone: High disparity in literacy among male and female is found in the CD Blocks of Bamangola, Habibpur, Manikchak, Kaliachak III, Gazole, Harishchandrapur I.

Moderate Disparity Zone: Moderate disparity in educational status are mostly found in the blocks of Chanchal I, Ratua I, Old Malda, Kaliachak II, Englishbazar.

Low Disparity Zone: Low disparity of literacy is found in Harishchandrapur II, Ratua II, Kaliachak I, Chanchal II.

Factors Contributing to the Disparity

It has been a trend in most parts of our country that a huge disparity exists between the educational attainment of male and females. Malda is no exception. The causes are deep rooted in the society which is a patriarchal one. Girls are mostly moulded to do the household chores to be better suited for the roles of daughters, wives and mothers. Malda has a very high drop out rate of girls who discontinue education after attaining the primary or the secondary level. Added to this are the class bias, religious barriers in attainment of education and untouchability. In many of the blocks, the primary and secondary schools are nearby, but the college and universities are far away from the villages. The safety of the female students becomes a question which the families are not willing to bargain. Thus, the education attended by them mostly gets restricted to school level. Household income always has a direct correlation with education. Most of the BPL families are unable and unwilling to send their daughters to school. Muslims contribute nearly 51.27% of the population in Malda (2011). The religious beliefs of some households, in many cases, acts as a barrier for women to attain higher education. The highest status accorded to marriage and motherhood in many communities' impacts negatively on female participation in education. The presence of female teachers sometimes affects the attendance rate in schools for the girls. The families with certain cultural beliefs feel comfortable when female teachers

are available in schools which the female students are attending. More or less the students after dropping out from upper primary classes were helping the parents in earning the money, either by getting them involved in the agriculture or other activities to earn money.

Suggested Measures

Education means to spread the light of knowledge to every corner of the society. But Malda presents a gloomy picture of reality. Gender gap in education is a long-talked issue in this region. Though several attempts have been made by the Central and State governments, yet the disparity prevails. Certain measures can be undertaken to include female in the mainstream education system. Apart from the existing system, vocational training courses must be introduced in schools according to the student strengths to prevent the dropout rates. Several programmes have been initiated by the governments but a clear observation of the socio-economic background of the villages must be taken into account for implementation of these plans. For enhancing accessibility to school the content of the school curriculum must be strong. Moreover, communication and transport facilities must be taken care of. Adult education plays a pivotal role here. Educated parents will feel the urge to educate their children irrespective of the gender. Thus, adult education centres and community awareness schemes must be present in the villages. The cumulative effect of all these factors when properly implemented can bring about positive results in the transformation of the society.

Conclusion

Education of women plays a pivotal role in women empowerment and narrowing gender gap. The literacy picture in India and in more or less every state of it shows a scenario where females stagger behind men in education. The social and economic scenario of our patriarchal society does not boost or motivate women in most cases to complete higher education. A huge pool of human resource goes unidentified and

unutilised in this way. In Malda, women are found to be economically poor. They are discriminated and marginalised at every level of society whether it is economic participation, social participation, political participation, access to education and also reproductive healthcare. They need economic power to stand on their own with men. This primarily requires similar education trend with that of men. However, the literacy gap between the genders marks the gap between their empowerment status. Corrective decisions are to be taken for the overall collective growth of the nation which requires to learn about the participation of males and females in the economy. Education thus remains the basic tool for a woman to take life changing decisions for herself and the society.

Reference

1. Development and Planning Department (2007): District
2. Human Development Report; Malda, Government of
3. West Bengal, Kolkata
4. Development and Planning Department, (2007) District Human Development Report, Malda, Government of West Bengal.
5. District Census Handbook, Maldah, Census of West Bengal, (2011), Series 20, Part XIII.
6. Govinda R, & Mathew A, (2018), Universalization of Elementary Education In India- Story of Missed Targets and Unkept Promises, Council For Social Development, New Delhi, pp 20-25
7. Jansson Bruce S, (2012), Reducing Inequality, Cognella Academic Publishing, pp 212-215.
8. Kerr K, Dyson A, Raffo C,(2006), Education, Disadvantage and Place, Bristol University Press, pp 135-160.
9. Mayabi C (2016), The Role of Education in Fighting Inequality, Grin Publishing, pp 36-42.
10. Potts P, (2002), Equality and Diversity in Education 1: Experiences of Learning, Teaching and Managing Schools, Brunner-Routledge Publication, pp 123-144.
11. Robertson M, Blackstone T, Lodge P, (2011), Educational Policy and Educational Inequality, Lodge and Blackstone, pp 15-22.
12. United Nations Development Programme, (2019), Human Development Report, 2019, Oxford University Press, New York.

Representation of Fantasy in Salman Rushdie's *Luka and the Fire of Life*

Dr. V Ponnulexmi¹ Dr. S Ambika²

¹Assistant Professor of English S.T. Hindu College, Nagercoil Affiliated to MS University, Tirunelveli

²Assistant Professor of English S.T. Hindu College, Nagercoil Affiliated to MS University, Tirunelveli

Abstract

Rushdie employs many rare and innovative techniques like fantasy, magical realism, time and space in terms of narrative and language. In general, it is observed that a novelist uses alternative characters to speak or act for themselves and by intrusively telling how they do these things. The novelist believes that the art of fiction does not begin until the novelist thinks of his story as a matter to be shown, to be so exhibited that it will tell itself. In *Luka and the Fire of Life* Rushdie adopts a number of supernatural elements. Magic is no longer quixotic madness. Realism functions as an objective, universal representation of natural and social realities. It functions ideologically, but less hegemonic ally of its program and is not centralizing but eccentric. It creates space for interaction of diversity. Magical realism could be seen as a significant international, contemporary literary mode. It is an important presence in the contemporary literary mode. Unlike mythical realism favoured by the west, it draws upon cultural modes and non-literary forms in their western novel form.

Key words: Arthashastra, Fantasy, Ogre, Magical realism, Supernatural elements

Introduction-

Salman Rushdie is hailed as a captivating novelist with startling imaginative and intellectual resources. There are many more reasons for the grand success of his novels. One of them is the unique style of his narrative technique. Rushdie employs many rare and innovative techniques like fantasy, magical realism, time and space in terms of narrative and language. In general, it is observed that a novelist uses alternative characters to speak or act for themselves and by intrusively telling how they do these things. The novelist believes that the art of fiction does not begin until the novelist thinks of his story as a matter to be shown, to be so exhibited that it will tell itself.

Critic Kathryn Hume's discussion of fantasy as a functional form reveals the power of fantasy in her book *Fantasy and Mimesis: Responses to Reality in Western Literature*:

Successful fantasy persuades us to consider the situation as it was possible. Or it persuades us to wish that the violation of consensus reality could take place. Or it suggests to us that a rich experience awaits us if we recognize the metaphoric ways in which the substitution or contradiction is true on a non literal level. (167)

The scope of Rushdie's allusions, images and vocabulary is overwhelming in its enormity. Jago Morrison, in the article "Imagining Nations: Salman Rushdie's Counter-Histories," is convinced that this allusion like that of the writer like Joyce is deliberate. "Excess and readily overload are attributes of Rushdie's aesthetic" (138). He feels that an informed reader and the ability to trace intertexts is a prerequisite to read

Rushdie. He interlaces with surplus of information. In the novel *Luka and the Fire of Life*, a thousand years ago, there was a curse by the Chinese that all dogs turned into pooches and pye-dogs. The dog kingdom became quick and bogs, they lost their sang power and can only bark. They lost their power and walk on four legs. " A thousand years old, it's true, But we were unmade by a Chinese curse, were turned into pooches and pye-dogs and a curs... (31). The word Arthashastra, is an ancient Indian treatise on statecraft. In the novel, it is mentioned to understand the Indian tradition and also there is a trust that all rules which are instructed in the book is followed by the people. Another character Bulbul Dev, the Ogre, in reality an Ogre is a legendary monster usually depicted as a large, hideous, manlike being that eats ordinary human beings.

Next episode is that the Respectorate of I, a city ruled by rats insisting on cultural relativism, which means the idea that a person's beliefs, values and practices should be understood based on that person's own culture, rather than be judged against the criteria of another. When Dog and Bear disable, Aag appears beside Nuthog, a shape-changer in the form of a dragon. It is a large creature that appears in the folklore of many cultures around the world. There is a strong belief about dragons, which vary according to region.

In the novel, Rushdie points out that, " The ancient gods of the North, the gods of Greece and Rome, the South American gods, and the gods of Sumeria and Egypt long ago" (127). The fact is that, in the magic world, myths are played as computer games. Romans are the lowest and

Egyptians are the highest. Almost the gods of Roman are borrowed from Greek myth. Rushdie has noted Coyote the next god, a figure of Native American legend, who distracts the gods to help Luka to steal the fire. "Luka squinted up into the sky. There she was, the Insultana, the Fairy Queen of the Otters, monarch of the skies, riding on King Solomon's Carpet"(82). The fairy queen or queen of the Fairies is a figure in Irish and British folklore, is believed to rule the fairies. Based on Shakespeare's influence in English speaking cultures, She is often named as Titania or Mab.

The Aztec, the deities from Mexico, is the god of the dead. He has a scary voice and he has received human sacrifices, the throat of the human being has cut and the blood has flown into the god. Luka is begged to stop praying to the Aztec god. Because while flying the god never help to get a life. Next Luka is flying over a phantasmagoric landscape there he hears the voice of Ozymandias, king of kings, in reality the king is arrogant and he has called himself as king. Next the sphinx a man with the hyena's body may destroy the house or temple. While moving they see the lion with a woman's head. Its duty is to stop the stranger and insist them to talk to her.

Rushdie's narrative is a retort to the process of the corridors of power. In order to show the reality, he engages with the knowledge and experience of the worlds. Magical realism is the literary form that encourages readers to suspend conventional definitions of reality and to enter a world where a boundary less imagination weaves its story. As Goonetilleke states, "Rushdie transforms biography into art"(67). Magical realism moves back and forth, between the dissimilar worlds of the real and the imaginary.

In *Luka and the Fire of Life* Rushdie adopts a number of supernatural elements. Magic is no longer quixotic madness. Realism functions as an objective, universal representation of natural and social realities. It functions ideologically, but less hegemonic ally of its program and is not centralizing but eccentric. It creates space for interaction of diversity. Magical realism could be seen as a significant international, contemporary literary mode. It is an important presence in the contemporary world. Unlike mythical realism favoured by the west, it draws upon cultural modes and non-literary forms in their western novel form. The novel is skillfully crafted, the bearer of a powerful and timeless message, and truly accessible to readers of all ages. The novel is an

accomplishment reminiscent of the act of a skilled juggler who keeps all balls suspended in the air as if by magic. So, it is not surprising that Rushdie's latest tale begins with a circus. When Captain Aag's Great Rings of Fire come to the city of Kahani, Rashid Khalifa refuses to take his family, citing the horrible mistreatment of the animals by the Grandmaster. After witnessing with his own eyes "a cage in which a mournful dog and a doleful bear stared wretchedly all about," (3) Rashid's youngest son, Luka, curses the circus master. Shortly thereafter, it is reported on television that the animals have revolted, and later that night, the circus goes up in flames. The next day, a singing dog named Bear and a dancing bear named Dog turn up at Luka's doorstep.

The scene makes the book enchanting and immensely funny while providing a glimpse of the astonishing depth of Rushdie's storytelling. Through the tale of a young boy who has travelled through the World of Magic to steal the Fire of Life that will save his father—a famous storyteller who has fallen into a deep sleep and cannot be awakened, Rushdie delves deep into matters to which every person can relate that is love, life, and death. Rashid Khalifa may not live to see his youngest son grow up and Luka may confront the fact of his father's mortality - as well as his own.

While travelling up the river, the group stops at the Respectorate of I, an oppressive city run by easily insulted rats who demand eternal respect. On getting ready to leave after lunch, Luka unexpectedly insults the Respectorate's national song. But before the rats can do anything the Otters of Ott attack, led by the Insultana of Ott, "a green-eyed girl wearing a green and gold cloak, her fiery red hair streaming in the wind, nor more than sixteen or seventeen years old" (78). Luka correctly guesses her name as Soraya, and helps her defeat the rats with an itching powder.

Later, Soraya joins them on their quest. Her flying carpet helps them pass through the Mists of Time and the Great Stagnation. Soraya sends the carpet extremely high above the Inescapable Whirlpool and El Tiempo for them to escape, "perhaps forty miles below them already" (106). The elephant birds help through the Trillion and One Forging Paths, where the true River of Time splits into thousands upon thousands of fake. Afterwards, they are temporarily detained by the Great Rings of Fire, the treacherous defense of the Fire. However, Dog and Bear reveal them to be both a fake, illusive and the handiwork of Captain Aag.

As soon as Bear and Dog disable the illusion, Aag shows up along with Nuthog, a magical changer in the form of a dragon. While Aag gloats Nobodaddy and tells Luka as, "His original name was Menetius, and he was once the Titan of Rage" (123). Right as Aag orders Nuthog to destroy Luka and company, Soraya arrives, having freed Nuthog's three sisters, who are imprisoned in ice by Aalim. With her sisters now freed, Nuthog betrays Aag and incinerates him. With the changers now with them, the group passes through the land of the ex-gods. After meeting with Coyote, one of the original fire thieves, the fire alarm goes off, alerting the gods that someone is going to try and steal the fire.

Instead of running, Luka and the group head towards the danger. After making it past the guards, by using the one time transformation of Nuthog's sister's one into Slippy, the Horse King, they wait for Coyote to begin the diversion. Coyote begins the diversion while Luka goes behind the Mountain of Knowledge, "with the Lake of Wisdom lapping at its shores, its water clear, pure, and transparent in the pale, silvery light of the Dawn of Days," (160) to find the Abyss of Time. Luka then enters the left-handed version of the Magic World, where he is soon captured. And, when the gods arrive and Luka delivers a speech to them, the world begins to fall apart. The gods, inspired by Luka's speech, allow him to take the fire. Soraya arrives, and the group begins the journey back towards the entrance.

With the world now ending and Nobodaddy nowhere to be found, the group is flying as fast as they can towards the dying Rashid. They are now joined by Prometheus, the original fire thief and the brother of Aag. After bare escape of El Tiempo, "the Carpet being sixty-one miles above the Earth's surface," (193) they enter the Mists of Time when Prometheus dissipates them. They are then captured in the cloud fortress of Baddal-Garh, which is now under the control of the Aalim and Nobodaddy who have betrayed Luka in order to complete his task of killing Rashid Khalifa. Prometheus grows to his full height and hurls Nobodaddy into outer space. Aalim finally shows them, whereas they begin speaking, causing everyone, but Luka, Dog, Bear, and Prometheus to collapse in pain. Luka curses Aalim, and then the god's revolt of destroying the fortress. Luka and the group speed towards the entrance, the gods defending them from the deadly rain cats, Aalim's final card. Luka makes it home

and gives the fire to Rashid and "the color returned to his face; after which a glow of health spread across his cheeks, almost as if he were blushing with embarrassment" (212). A deformed Nobodaddy arrives, whereas Bear sacrifices his immortality to destroy the phantom once and for all. Then, Khalifa who is enjoying a wonderful, happy, dinner, with Soraya now has to "put up with the stories of the Magical World from her husband and both her sons" (217). Soraya then puts the Fire of Life away somewhere, where hopefully it will return to the World of Magic.

In the novel, young Luka, a child, turns back time for his parents by virtue of his survival. The real power of imagination is best explored in the different engaging stories of Luka and Haroun brothers, unique but inseparable tales about father-son love and so on. *Luka and the Fire of Life* is a classic novel without any stodginess, combining the traditional elements of quest such as including fire-breathing dragons-with relatable contemporary references such as the video-game elements of Luka's magical world, where lives can be stored up and one's progress can be saved. Readers will enjoy the vivid imagery, fantastic characters, and clever wordplay, the sweeping action, nail-biting suspense and light hearted humour.

References to countless other tales and myths create a window to a world of literature, while details such as Luka's left-handedness and the diversity of The World of Magic create a platform to discuss timely issues and current events, especially surroundings, the topics of difference, tolerance, and respect. In addition to the central themes of love, life and death, Rushdie touches on a stunning range of secondary themes including the nature of time, ethics, authoritarianism and freedom, truth and illusion, which might be explored profitably by older students. Demolishing any boundaries between children's literature and adult literature, the story is an immensely enjoyable one that is truly growing and evolves along with its reader. *Luka and the fire of Life* is an explosive, magical exploration of filial love, courage, and the power of one's will. The novel says, "Eliminate the impossible, and what remains, however improbable, is the truth" (35). Luka reflects, and it is true that in Luka, the most interesting place that Rushdie writes about is neither reality nor the stunning lands of magic, but the place where the two meet-where imagination and reality collide and thought combines with

something more powerful than one's own nature to become the action is that what shapes the world.

Works Cited

1. Rushdie, Salman. *Luka and the Fire of Life*. London: Vintage, 2010. Print.
2. Goonetilleke, D.C.R.A. *Salman Rushdie: Macmillan Modern Novelists*. New York: St. Martin's, 1998. Print.
3. Morrison, Jago. "Imagining Nations: Salman Rushdie's Counter- Histories." *Contemporary Fiction*. New York: Routledge, 2003. 133-154. Print.
4. Hume, Kathryn. *Fantasy and Mimesis: Response to Reality in Western Literature*. New York: Methuen, 1984. Print.

The Impact of English Language Teaching Methods on Academics through Digital

Material

Mrs.Md.Roshan Jameer¹ Mr.Ollala Srinivas²

¹Associate Professor in English Avinash Degree College, KPHB Hyderabad

²PGT English, Telangana Minority Residential School Karimnagar Boys-3,TS

Email mroshan19@gmail.com

Email- ollalasrinivas@gmail.com

Abstract- As we are living in the information age the most important aspect of lifelong learning and development is language. People skills like reading, writing, speaking, listening (LSRW skills) enquiring, comprehending and problem-resolving are smartly managed with language skills. Information and communication technology has been claimed as the best tool in the English language teaching and learning process. This research paper highlights how the digital materials effect teaching methodology towards academic success. It aims at how students are benefitted with the replacement of old teaching methodologies with digital materials. English aspirants have a variety of methods to supplement their students for sharpening their interpersonal skills.

Introduction:

Nowadays, classrooms are equipped with interactive whiteboards (IWB), response systems, projectors, and computers. Many reputed universities and organizations are introducing this digital tool to enhance their English language skills. Many topics of the English language can be clearly explained and taught through this channel. Improvement of technology has led to many new inventions that English language teachers began to use in education. Social, psychological and emotional development can be attained through English language learning. Students can interact with people, convey their emotions, thoughts and easily connect with the external world, through the process of language acquisitions. Modern age brings developments which are useful for the students helping them with their jobs and everyday activities. The use of modern language teaching aids like digital materials for the English language learners is one such change in modern age. Whiteboards and markers are replacing the blackboard and chalk system, physical lectures are further enhanced by direct live lectures through the World Wide Web, seminars are transformed into webinars and for any sort of language queries, online English language Instructors are always available.

Review Literature:

P.C.Naga Subramani and V.Iyappan, Tamilnadu Teachers Education University, Karapakkam, Tamilnadu discusses in their journal "Innovative methods of teaching and learning" (2018) that innovative methods and tools of teaching-learning methodologies are available across the globe. Short lectures, stimulation, portfolio development and problem-based learning are very useful in swift technology used at the education system as well as workplaces in the

foreseeable future. Bureu Okmen, Abdurrahman Kilic, Duzce University, Turkey in his journal "The Effect of Language Teaching Methods on Academic Success in Turkey"(2016) opines that English Language affects the characteristics of individuals. He discussed that language skills must not be confined to the classroom education given at the school level. New approaches and methods to improve people's language skills must be implemented by every educational organization.

V. Raymond Lesikar in his book "Business Communication" indicates how the present technologies and trends can be blended together while keeping the fundamentals of the language intact. It helps in reducing communication relating issues, development of audience and gives a lucid picture of visuals and the English language.

Fennel(2001:267) as cited in Kenning(2007) states that the English language is treated as killer language, communication technology will be the major weapon.

Nurul Nadia Haron and Yasmin Hanafi Zaid, University Technology Malaysia discusses the various methods to educate through web-based learning like online journals, educational movies.

Objectives:

The main aim of this study is to understand how digital teaching materials effect the pedagogical method of education in this progressive era. The study also discusses the role of digital materials towards the personal growth of an individual as well as achieve academic success for any profession.

Discussions And Methodologies Adapted:

Introducing digital learning in the curriculum is benefitting the English aspirants in the real sense. This sophisticated teaching approach spears the students to achieve their required

targets in the fastest and unique manner. In the past centuries, teaching tools were of various kinds and teachers adopted myriad materials to educate the students like Sand, Stones, Leaves, and quills, the bark of a tree, blackboard and chalk. And in the recent past, we can see Printed materials in the form of academic books. But advances in science and technology have revolutionized the present-day world. The technology has made a remarkable place for itself in imparting education to young minds. Technology can be adopted at any level beginning from primary school, middle school, high school or up to the university level. It has transformed the traditional classroom into e-learning or digitalized class rooms such as Google classrooms. Wherein students have ample scope to learn and interact with different people across the globe. Students can learn about different subjects and cultures. They can also learn about the effectiveness and usefulness of learning the English language for the purpose of communication in their native lands or as a foreign language.

Modern Teaching Aids:

Teaching aids are something that makes teachers feel easier to teach their students. Their by training them to learn in a more enjoyable and effective manner. List of modern teaching aids are discussed below:

WEBINARS: [Webinar Centric]

A blend of words like web and seminar together is termed as Webinar. It can also be addressed as a web event, webcast/ web lecture/ virtual event. It is generally performed through the internet by the online audience. It offers various interactive opportunities like asking a question, chat, poll, test, call to action, twitter. The average viewing time for webinars currently stands at 56 minutes. The benefits of webinars offering to us are: can have direct contact and interaction with the target group. It saves time and money. By conducting WEBINARS, students can probe deeper into real problems and try to face the professional challenges. They express their point of view through this platform in the best possible way. Webinar post-click landing page examples to the model are:

- Kissmetrics.
- IBM Watson.
- Microsoft.
- Microsoft Azure.

Presentation Tools:

Attractive PowerPoint Presentation through different slides is another important component of Modern Teaching Aid [MTA] for English language aspirants. Google Sites, Prezentit,

Animoto, Vuvox, Viddix, Vcasmo, Preezo can assist students, Research scholars and English language Teachers to view their ideology in any projects of their research study. Users of PPT can effectively express their thoughts with captivating slides instead of real objects. Fennel (2001:267), as cited in Kenning (2007), claimed that "If English is to be seen as a "Killer" language, communication technology must be interpreted as one of its major weapons." Therefore, it is interpreted from the above a statement that students can learn the English language by using technology by not relying too much on the teacher's ability to engage them in classroom.

Voice Threads:

Currently, many web-sites make provision for uploading PowerPoint slides, videos, photos, etc. and also add voice narration to design multimedia presentations. One such web-service is "Voice Threads." It built and engages students to transform a cluster of media files, such as documents, images, videos and presentations to a convenient place so, that everyone can access easily. Educators make use of Voice Threads for documentary classroom conversations to online tutoring, professional development training. It's one of the great ways to deliver assignments or projects and get feedback. One can attain detailed information about Voice threads through following web links like:

Blogging-[Public Post]:

Students can use this Blogging for practicing their study session. They can post their notes on the class blog, where one can access, evaluate and rewrite a new material. Teachers may have a track of record to modify their actions. Our thinking can be crystallized through Blogging.

Prezi- Presentations:

To make professional like presentations, a versatile app like "Prezi" can be accommodated, as digital material. It's more usable and capable of covering advanced features compared to PowerPoint Software. It's new and can be easily accessible. Fresher can dive and flow easily through the entire app fairly well and produce nice-looking presentations. This app assists presenters to design embellished presentations with audio and video notes in it.

Social-Bookmarking:

Researchers or educators who have similar interests can have easy access through these useful websites like Bookmarking. There is one more great advantage of this app like it allows the user to save the bookmarks to our favourite folder automatically. And the unique flexibility is, it allows us to access and retrieve the

bookmarks saved in any computer device, other than the one which we saved. So storing and searching is made an easier task by this useful resource.

Podcast in classroom learning:

This feature of the digital app is not only resourceful to the common users but also much useful to physically challenged people like hearing impaired students. Podcasts provide serial recordings of oral lectures and news shared regularly online for the listeners. It is flexible and reusable technology available for reversing the oral lecture.

Screencast:

Screencast is an amazing instructional digital tool. It is a highly effective, powerful and affordable teaching-learning aid that can cater to education across any curriculum. Screencast procures a step-by-step methodological approach with data detailing theirs by enriching PowerPoint presentation along with narration and multimedia elements. Trainers of the English language can avail of the free software available on websites to instruct or train their students. Some of the freebies available are Screen jelly, Jing, Screen which facilitates learners to express in the most captivating way without wasting much time.

Moodle:

Moodle is a digital teaching-learning material that facilitates a virtual learning environment both teachers as well as learners to access. Ever note is a useful tool to explore and organize the research content.

Impact of social media into education:

Some well-known social communities in websites are Twitter, Face book, YouTube, blogs and My Space. The challenges by above cited social media are:

- Providing unnecessary information
- Losing control over data
- Commitment towards time is not attained

To keep students engaged, pooling students through social-media can generate resource to make understand and take feedback from the students or users of it.

Smart boards:

Instructional efficiency to smart products is brought by the instructors by making course content virtual and interactive to all.

Research Tools:

The most productive website links for any research scholars for equipping themselves and have a better result in their field of research are yolink, veezzle, specify, nibipedia, findthatfile, dogo etc.

Mobile Assisted Language Learning: [Mall]

Information technology in the form of digital material has provided many online or offline MOBILE APPS for comprehensive learning in the easiest way. LSRW skills can be well practiced and learnt at their own pace with this novel approach. Listening and speaking skills can be improved by the students who can't afford regular lectures. Audio tools like Audacity, Wavosaur, Chiribit, Raper, Vocaroo, Audio Pal, and Sound Cloud can enhance their listening and conversational skills a lot. It saves time and money for the students who live in the remote areas. Students can retain the learnt content for longer time and English language teachers can help students by providing speech training to the pupils through VIDEO RECORDINGS. This sort of teaching aid makes the abstract ideas concrete and thus help in making learning more effective. Business Correspondence is one of the most demanding aspects of the business entrepreneur. Constructing clear statements in English language and responding to the messages can be well trained through many resources. To mention a few, certain writing tools like: NetEditor, Smories, Student Publishing, FlipSnack, Mixboot are the variety of teaching materials available, to train the students how to draft the business communications. From any authoritative websites 'Readymade Templates and Wizards' can be availed by the students for effective correspondence.

Teachers can substitute real objects to training aids like videos, DVDs or videotapes to help students make learning equally meaningful. To create healthy competence among the students, English language trainers can encourage

Quiz and Poll Tools: Students learn to face the typical mindsets and quick approach to recall the relevant stuff at that point of participation. To train such competitive spirit tools like Kubbu, Quibble, What2learn, Quiz Egg, eQuizzer are more useful.

Benefits:

- Technology has brought radical changes in teaching-learning tools by grabbing student's interest in it.
- Digital materials provide PBL-Problem Based Learning which is very useful to the student community.
- Smart gadgets facilitate different tasks such as teaching, framing question papers, assessment of students' performance and feedback.

- Advance pedagogy creates rich experience for students as well as a rewarding experience to the educators.
- Hybrid teaching model combines both e-learning as well as face to face teaching. Such synchrony helps to teach and to learn in their systemic approach of study. In this way, out of class learning can be encouraged.
- Teaching learning with technology stimulates and engages students and trainers to accomplish their objective learning.
- By incorporating digital teaching and learning materials we can save money, labour and time
- Our Curriculum could be extended by adopting technological content knowledge to the teachers and learners to enhance professional and academic skills.
- New age education system is able to imbibe four key skills in the students, which include 4C's: Communication, Collaboration, Competition and Creative and Critical Thinking skills.
- It helps educator or facilitators to view education in a constructive way.
- It helps facilitators in differentiative instructions and value based assessments.
- NES-is trying to inculcate in students, values with a tinge of skill development.
- From Gurukul age to digitalization age, there has been a big leap, where teaching includes not only sending information but also receiving.
- Usage of digital materials or unique technology tools helps to grab and sustain the attention of students while pursuing their higher education.
- Digital tools help the students to perceive, comprehend and retain. Therefore helping them in learn and relearn
- The facilitator can make the content of the curriculum Concise, Crisp and Captivating for the students in their learning process.
- With the digitalization- organizations also reap the benefit of recognition in long list of acclaimed schools, colleges and reputed Universities.
- Digitalization provides the apt platform for Self-Assessed learning, thereby making classrooms making "Student-Centric.
- E-learning bestows equal opportunities to educate and learn, to harness their skills on a regular basis.
- Communication via e-mode gives students significant insight into their given situation.
- Web based learning tools give the flexibility to the student mob to complete the task outside the classrooms, yet connect to the classrooms.
- E-learning tools have eliminated the barriers of time and cost, as the students save the cost of travelling.
- Universities can attract more students register through online-learning
- E-learning, builds the confidence of a student, as they are given the opportunity to broaden their knowledge at their own pace.
- Online learning tools- give ample scope to the learners, to control their own learning process.
- Modern tools make students independent, as he/she has scope to eliminate unnecessary information and concentrate on required data.
- Students might overcome the insecurities that usually they face in classroom learning through this new mode of education.
- Online education material makes the content and format, easily adaptable to changing times.

Barriers:

Apart from the above mentioned multiple benefits in adopting-developing-adapting digital material in enriching the curriculum-based teaching and learning with technology. There are many hindrances to overcome and embellish the English language learning easier. To mention a few:

- Students should have prior knowledge, in the usage of technology otherwise it may effect the success of the e-learning environment.
- For students, who prefer their mother-tongue mode of communication may find it difficult to navigate as it is based generally in the English language.
- E-Learning is difficult to adopt, as it involves human skills, to be specific motor skills.
- The initial stages of an e-learning tool are time- consuming as the students find an alien culture of learning to be adopted
- Web-based learning may be apt only for students with self-discipline, as it depends on independent focus to understand the topic.
- Digital learning tools encourage, students to have prior training, which may be a barrier to gain knowledge through this innovative mode.

- E-learning materials expect students to have a focussed, which is a challenging task for their age.
- The negative impact of e-learning on the facilitators is that their creativity is side-tracked and not recognized.
- Digitalization has spoon-fed the students, which kills their cognitive skills.
- Unlike the traditional classroom learning process which is fun-filled, the e-learning curriculum may become monotonous, confining to individual four walls.
- Generally the human brain has data retention ability which is far more superior to artificial intelligence, but intervention of digital learning mode is degenerates the ability to store and retrieve. Due to excessive dependency on machines rather than using human intelligence.
- It became a bane to the young minds, confining them to four walls. Thereby giving the experience of Social isolation.

Conclusion:

Summing up, Technology based learning and teaching tools may be a boon to curriculum only if it doesn't ruin the chief objective of education process. The researchers or educators should aim at transforming the true essence of knowledge or information to the mediocre. With the adoption of modern tools, the young minds and facilitators can adorn the English language acquisition into limelight. At the same time, teachers as well as students should bypass the old system of learning and teaching modes and experience the new spur of education.

References:

1. P.C.Naga Subramani, Iyappan.I(21-04-2018) "Innovative methods of teaching and learning" published online, Dept. of Pedagogical Sciences, Tamilnadu Education university, Karapakkam, Chennai.
2. Kharinar. C. M. (2015) Advance Pedagogy : Innovative Methods of Teaching and Learning. International Journal of Information and Education Technology, Vol.5, No11, pp 869-872.
3. Gunn. E. (2014) "Using clickers to collect formative feedback on teaching: a tool for faculty development," International Journal for the Scholarship of Teaching and Learning, vol8, article11.
4. Bonk.C.J (1998) Cummings, "Recommendations for placing the student at the center of web-based learning," Educational Media International, vol.35, no.2, pp.82-89.
5. King S.B.(2014) "Graduate student perceptions of the use of online course tools to support engagement," International Journal for the Scholarship of Teaching and Learning, vol.8, n0. 1, pp. 130-132.
6. V. Raymond Lesikar in his book "Business Communication"
7. Bureu Okmen, Abdurrahman kilic (2016)"The Effect of Language Methods on Academic Success in Turkey."
8. URL:
9. <http://dx.doi.org/10.11114/jets.v4i10.1767>
10. <https://instapage.com/blog/webinar-landing-page-examples>
11. <https://www.slideshare.net/teachertraining398/4-important-modern-teaching-aids-102803002>

Ganigas: Condition of Cold Pressed Oil Industry

Meghana G

Research Scholars Department of Sociology Kannada university-Hampi

Gmail :meghanag034@gmail.com

Abstract: India is a vast country and the inhabitants of several of its regions have developed specific preference to certain oils among the oils available in the region. For example, people in the south and west prefer groundnut oil while those in the east and north use rapeseed oil. Likewise several segment in the south have a preference for coconut and sesame oils. The economic prosperity of a country like India depends upon the development of agriculture and cottage industry in a balanced manner and it reveals the importance of agriculture in the process of industrial development. The growth of organized industrial sector in the country was started with the development of agro based industries. Oil pressing, in view of its large potential, is now regarded as the sunrise sector of the Indian economy for growth and also exerts a great socio-economic impact specifically on employment and income generation. If properly developed, Oil pressing sector can make India a major player at the global level for marketing and supply of processed food, and feed a wide range of other plant and animal products. Most of the agro processing industries are traditional, cottage-based and small scale and among them, oil mills occupy a predominant place in India. The review of literature reveals that, the studies associated with the prospects and problems of Ganniga community in Karnataka in general and in particular are very low, and the studies associated with oil milling industry either in Karnataka are nil. It is a traditional oil expeller used by people of Ganiga in districts of Karnataka. It is a simple traditional technology widely distributed in the rural areas. The traditional oil press is used for extraction of oil by a particular community Ganiga who are the oil expeller and oil selling community in Karnataka.

Key words; Ganigas, oil, Industry, condition, socio-economic, Status Etc..

Introduction:

Ganigas basically belongs to Cold pressed oil trade called "Gaana". This is a trade based Community and considered trade as its soul. Once this was fore front industry among all the Cottage Industries. These bull driven oil Extractors, extracted the oil and fulfilled the need of pure oil to the locals and the people around the villages every day. Earlier the Ganigas were in joint family and the few family members were doing Gaana work and others used to travel, distribute and sell the Oil. Ganiga Community found in various states of India like Karnataka, Andrapradesh, Tamilnadu, Maharashtra, Gujarat, Bihar, Orissa, Bengal, Uttarpradesh. They were called by different names in different regions as Gandla in Andrapradesh, Chattiya and Chatte in Kerala, Vaniyan in Tamilnadu, Teli in Maharashtra and Gujarat, Saho in Bihar and Orissa, Guptas in Uttarpradesh and Madyapradesh, Jyothi in Bengal, Ganigas, Jyothi, Teli in Karnataka (Rajashekarappa M:2019:21). In Karnataka we can find Four sub categories in Ganiga Community as Sajjana Ganiga, Jyothi ganiga, Enne ganiga and Kariganiga. This is a widely spread community and it is our dire need to know how this vast community has gone far away from its main trade and also the condition of cold pressed oil industry or Gaana Udyama. There was a time when this Ganiga Community has provided oil to the entire society when there was no oil industry and converted machines.

Now we have to study how this community doing for its living and which alternative trade is following when it is left the Industry. Besides we also have to find whether this 'Gaana' industry is still existed or not. It's our responsibility to understand the Trade based Community.

Ganigas means : trade based Community. The process of oil making by using wooden or stone, oil mills are operated by a pair of bullocks and the people who extracted oil by this way are called as Ganigas.

Industry means: people and activities involved in producing goods. Industry is an organization and the persons who runs it called as an industrialist. The trade which is done for the sake of livelihood is also called as industry or Udyama.

What is Gana Industry? The people who extracts oil is a called Ganigas and that trade is called Gaanada Udyama. The people who extracts oil and sells its to the villages are identified as Ganigas or who provides best quality oil are also called as Ganigas.

Hypothesis

Social and Economically Ganigas well of from Oil industry

In modernity the original profession of Ganigas has disappeared

Purpose Of Study

To understand the Condition of Gaanada Industry

To find the Ganigas who involved in the industry and confront them with the Society

To Confront the Traditional Gaana with Modernization

To find the other Communities who are Practicing and Involved in this Industry except Ganigas.

Review of Literature

Thimmareddy S.Y., Kula kasubugalu mattu Adunikathe, Essay which is Submitted for Ph.D

Gaanagarike, the trade which is extracting oil from the oil seeds was existed before Vijayanagara Empire and it was also an important trade. Ganigas were there in all parts of the empire. And they are called as Hegganigas and Kiruganigas. Ganas were divided as Maragana and Kallugana. The oil was extracted from Hucchellu, Haralu, Kobbari, Hippe and Honge seeds. The cold compressed oil or Gaana Industry was so prominent that the tax was recovered by collecting money or Oil.(72:2010)

Vasudevan C.S.(A) 'Shasonokta ennenadu', Bhatsuri K.G.(e) 2006, Shasana Adyayana Samputa 3, Sanchike 2, Prasara Kanna university, Hampi, P.73-7.

"Few Edicts of Mysore and Chamarajanagara mentions Ennenadu, ennestala, and Ennenadu"(Va:2006:P:73). It is significant that the places in Ennenadu starts with 'HA(ಹ). For Example Haradanahalli, Harulukote, Handrahalli etc. May be these villages come from 'haralu'. Haralenne (Castor oil) is extracted from Haralu (Castor) seeds. Thereby the places of these regions starts with Ha (ಹ), means we can opine that the villages are named after the raw material used to extract the oil.(Vasudevan: 2006:P:75). In this article they have acknowledged the Edicts which belongs to Ennenadu or land of Oil shows how prominent the Gana Industry was.

SCOPE

Scope means the extent of the area or range. We should have a range when we involved in any studies. Here we have opted selected villages in various districts of Karnataka and only the Ganiga trade for our study.

Importance

Once the community which produced oil made it as an industry. We can explore how Industrial revolution made the Ganigas to leave their trade, why they have chosen an alternative trade, their condition. And also through this kind of study we can expect the progress of Ganiga Community.

Modes of Study

We have studied and reviewed articles, books essays to prepare the article about Present condition of Ganada Udyama or Cold

Compressed oil Industry. Also chosen situational data and simple random information along with questionnaire method.

Condition

Condition means a state of something, time means duration or process. Duration means the length of time one thing tasks to be completed.

The Process of Condition of Gana Industry

Ganigas lived by selling extracted oil. Their life is solely depended on Gana Industry. Once they are as known as cooking oil. People gives much respect to these ganigas who supplies varied cooking oils. They are called as ganiga shetru, oil extractors, ganada maneyavaru, and the woman from ganiga families are called by names ganagittiyaru, ganadodatiyaru and ganada maneyaki. Ganigas were well known in the localities that people used to come and talk to them wherever they are in those days. When there were no electric Lights, 5 feet Pole was built and ganigas used to provide oil to this pole in the evening. The extracted oil was sent to gram panchayat or village leaders. The entire village was lit by the oil given by them. Brahmims in Agraharas used to uy haralenne and ellene for temples to lit the lamps. There was a huge demand for oil from ganigas, and also we can find the edicts which informs that the kings also given ganas as gift/charity to temples to extract oil for lamps. Ganigas were financially stable during those days when the whole ganiga family is appointed for temple to manage those ganas and the suitable wages also given to their labor. The neem oil was huge in demand because of its medicinal values. The cows were the backbone of this industry and the neem oil plays a vital role in their protection. Kalu bai roga, charma turike diseases are resolved by this neem oil and some of the human diseases and wound were also cured by adding turmeric to neem oil. In those days tractors and advanced technologies were not there, cows are used for sowing it. To protect these cows people were in queue in front of ganigas house to buy the oil and hindi. Hindi is good for cattles and they give quality milk so that people pays the money to reserve the food in advance to protect the farms from the diseases like boodu roga and seede roga they used to mix the Hindi in water and sprinkles in the farm. The farm gives good yielding by this, Not only the oil but also the hindi() was useful.

Gaana may be a trade but we can also find many uses. Ganigas were making their livelihood by extracting oil from Ganas. As Population increased in India the government made a Pcat and started to import Palm oil or Tale Enne from The Arab Countries in 70's and 80's for over

Twenty years. The Compressed Oil industry came to extinct in these days. The imported palm oil was just 20/- per litre whereas Compressed oil is 40/-. People started to buy the oil which is very low in price. No one was asking about oil produced from the Ganas. They started to buy the palm oil which is available at cheap cost. When the things are not going well they left their trade. The ganas which are used for trade purpose now only meant for Pooja Ritual. They could not ar a single penny through this. The community which was paying tax now lost its breadwinning hands. They started new trades like textile showrooms, Provisional stores, general stores.. They invested their left amount and started a new life by selling readymade oil pockets and newly transformed cold pressed oil. The newly transformed oil mills, pocket oils and oil factories shook away the very existance of Gaanigas and Gana Industries. They couldn't compete with the modern oil Producing machines. Once highly demanded Cold pressed oil industry and the Gaaniga community has vanished because of pocket oils. They have

reached the zenith from nadir due to the modernisation of oil industries and machines.

TABLE: The details of traditional Enne ganas in present Day

When we observe the above table, can find the community which is largely involved in Oil production. Here all the communities have given importance to Tradition Enne gana or Cold compressed oil. Mainly the ganiga community is trying to preserve and save the trade. This way ganigas and ganas are again flourishing. The unheard sound of ganas are hearing everywhere now. The increase in the incurable diseases also lead a way to the flourishing of this industry and it has been working as a remedy to those diseases. Many people who are suffering from cough, blood pressure, diabetes, arthritis are using the oil which is produced by cold compressed industry or gaana. Now people have a opinion that the industry is again came into light and the stone and wooden gaanas are in use. It has given financial stability to the ganigas who solely depends on this industry. Besides with ganigas many other communities are practising this.

Sl no	Community	Stone gana	Wooden gana	Transformed gana	Others	Total
1	Ganigaru	7	3	8	4	32
2	Goudalu	2	1	3	Nil	06
3	Rajaparivara	Nil	1	Nil	Nil	01
4	Muslim	Nil	Nil	02	01	03
5	Lingayata	04	02	02	01	09
Total		13	17	15	06	51

Research Outcomes

Once the condition of Compressed Oil Industry was completely devastated but now its gradually raising its head.

Can maintain a family by a Ganada Udyama
 Earlier we can find 2 to 3 ganas now a days we could not find that.

Can find ganigas are reestablishing Gana industries again.

Ganigas' opines that they Can save the traditional age old oil industries

Oil is extracting through Stone, wood, and transformational form.

Others are also involved in the industry along with ganigas.

Most of the ganas are used for pooja ceremony only.

Suggestions: Government should encourage and facilitate the People who are running gana industries.

Government and organization has to come forward to save the Gana industry which is cottage industry.

Should encourage and develop wood and stone ganas

Create awareness among the youth about Enne gana trade

Should incorporate value based texts that includes social sensibility and conservation of basic trade.

Conclusion: On the whole we can say that the Ganada udyama or Industry has extinguished. Many people did not have the aware of Ganas and did not know Gana means Enne gana or oil extracting. They thought that gana means (Bellada) Jaggery gana or Sugar cane gana . Now the scenario is changing and the gana industry is breathing again. It has came into light because of people's much care and concern towards health, and it is a matter of joy that the Ganigas are trying hard to preserve and protect their trade and gana industry . They are creating opportunities and space to lead their life easier with the help and development of Gana industry. They are trying to confront the old age trade with new modern world and technology.

References

1. Timmareddy S.Y., 2010, Kulakasubugalu mattu Adunikathe, Essay which is submitted for PH.D thesis.
2. Vasudevan C.S(Athour) 'Shasanokta enne nadu', Bhat suri K.G.(E)2006, Shasana Adyayana, Edition 03, Episode 2, Prasaranga Kannada Viswavidyalaya, Hampi, P.73-7
3. Hnadralla Mrakandeya.2008, " Ballari Jilla ganigaru: Ondu adyayana"(Ph.D thesis submitted to Hampi University which is not published)

The Taliban's Neo-Old Afghanistan: Humanitarian Crisis and Emerging Refugee Problem

Mr. Sagar Gopal Rathod

UGC-SRF Fellow, Pursuing PhD, University of Mumbai.

Abstract: After a long period of twenty years, America has decided to stop the operations of USA in Afghanistan. And their army retreated. As soon as the US withdrew, the Taliban seized power in Afghanistan. The Taliban formed their government in Afghanistan through some violence. With the arrival of the Taliban, many Afghans and various minorities began to seek refuge in various countries to defend themselves, and many were internally displaced. Instability in Afghanistan is harmful and dangerous not only for the countries of South Asia but also for the entire world. Afghanistan has been unstable for the past several decades, but the arrival of the Taliban has created a new and frightening problem in the South Asian region. The current situation in Afghanistan is reminiscent of the geopolitical problems of the 1990s. Internal war, violence, disease, resistance to modernism, old religious traditions, economic, political, social, religious minority problems, health problems, education problems, gender discrimination, feeling of insecurity, patriarchal government etc. are causing internal displacement of people in Afghanistan. Or being forced to accept refuge outside the country thus creating a major humanitarian crisis.

Keyword: Taliban-USA, Insecurity, Humanitarian Aid, Refugee, Displaced, UNHCR

Introduction:

In 1994, a group of radicalized students who received religious training in a refugee camp in Pakistan took control of the city of Kandahar and began to seize power. This group was known as the Taliban. By 1998, almost all of Afghanistan was under Taliban control. The Taliban were a group of extremists who strictly enforced Sharia law in Afghanistan, women were deprived of education, girls were not allowed to go to school, women were not allowed to work, overall, the Taliban became a safe haven for international terrorists. Only Pakistan, UAE and Saudi Arabia recognized the Taliban. To put an end to terrorism, the USA and its allies ousted the Taliban regime in 2001.

Taliban's Neo-Old Afghanistan:

For almost twenty years from 2001 to 2021, the common people of Afghanistan could enjoy independence, gender equality, education, health, employment, etc. And an environment conducive to development was being created. once again in 2021, a vacuum was created by the departure of USA in Afghanistan. And the Taliban once again seized power. The current situation has created the same problems that occurred in the 1990s that will recur in Afghanistan.

The old Afghanistan was under the Taliban rule in the 1990s and now the new Afghanistan of 2021 which is again under the Taliban rule. For nearly twenty years, the extremist religious ideology of the terrorist Taliban was successfully suppressed in Afghanistan. During this twenty-year period, Afghanistan underwent drastic changes, including girls' schooling, women working openly, and development without Sharia

law. During these twenty years, emphasis was placed on education, health institutions and economic sector was continued, ideological

modernization was created, efforts were made to create harmony between the people and the government, non-violence and peaceful development ideologies were encouraged, international financial funds were used for the development of the weaker sections. So, today's Afghanistan is not what it was twenty years ago. The people of today's Afghanistan seem to be moving towards steady development and modernity along with religion. Economic, social, health, education, poverty, available means of livelihood. Such various problems are faced by common people. But the coming to power of the Afghan Taliban is emphasizing how the Afghanistan of the 1990s can be imposed on the country by religious Sharia law.

Humanitarian Crisis:

International financial aid organizations withdrew from Afghanistan. Also, financial crisis faced the Taliban. It became impossible to pay employees, the public health system was completely destroyed. The recent war has created various humanitarian crises. And the possibility of renewed violence arose. In addition, the people living in the urban areas of Afghanistan became unable to earn their own livelihood, while the situation in the rural areas became extremely fragile and miserable.

After the withdrawal of American troops, the Taliban government came to power in Afghanistan, but various problems arose in front of Afghanistan when they came to power. Issues such as health, hunger, employment, livelihoods and several million people's livelihoods

depended on international aid funds, but that too came to a halt with the arrival of the Taliban. Afghanistan's foreign financial assets were also frozen. Ongoing conflict, natural disasters, poverty, food shortages, pandemics like Covid-19 and sudden power transitions, violence and instability by the Taliban in August 2021 have disrupted the lives of people in Afghanistan and displaced many internally. This also put pressure on countries that aid in humanitarian crises. According to the UN, nearly 3.5 million people were internally displaced by the end of 2021, and at least 2.7 million were forced to take refuge across borders involuntarily. Afghanistan has the third largest number of displaced people in the world after Syria and Venezuela. 1.3 million and 780,000 registered Afghani refugees live in Pakistan and Iran respectively.¹

Millions of people in Afghanistan are in need of humanitarian aid due to the past twenty to forty years of war, frequent natural disasters, political turmoil, extreme poverty, drought and, of course, the Corona pandemic. After the arrival of the Taliban, only poverty and unemployment remain as people have no money to buy food. But the Taliban did not think about how to save the economy from collapse. On the other hand, different conditions under the Sharia Law such as how women should wear clothes, women should not leave the house, women should not work, girls should not take school education, are being announced day by day by the Taliban. A resolution was passed by the UN Security Council that the Taliban will allow people who want to leave the country to do so, and will not obstruct the delivery of humanitarian aid, violate human rights, and not commit coercion or crimes against women and children.²

Before the arrival of the Taliban, Afghanistan was dependent on international financial aid, with nearly 38 million people dependent on foreign aid. But after the hard-line Islamist faction of the Taliban seized power, foreign aid stopped. How will ordinary citizens, Afghan women and girls, journalists, academics, human rights activists, ethnic communities, religious communities and other minority groups be protected under Taliban rule? Now there is a question mark on this. Due to insecurity and violence, the lives of women and girls have become very insecure and dire. People are faced with shelter, food, water, and health needs.

According to a survey conducted by the United Nations World Food Program, almost 98 percent of people in Afghanistan do not have enough food to eat. The political transition has had a major impact on the country's basic services,

financial system as well as the market, and the lives of millions of people have rapidly shifted towards poverty, with the number doubling in 2022 from 2021. By 2022, nearly 97 percent of the population will be below the poverty line. Humanitarian organizations are also facing difficulties in assisting such a large population. As soon as a terrorist organization named Taliban took over the power of Afghanistan, the peace that had developed for a few decades was again disturbed and Afghanistan was broken again and people's lives began to fall. The advent of the Taliban has resulted in a massive increase in violence, war, pauperisation, degradation, fear, unrest, violence against women and girls, resulting in millions of people being internally displaced and many fleeing the country out of fear and taking refuge in various neighbouring nations. Afghanistan began to pose a global refugee problem. It is also beginning to affect neighbouring nations and regional security. The humanitarian crisis caused by the negative impact of the Taliban in Afghanistan. The Taliban had a negative impact on Education, Safety-security, Hunger, Water, Health, Economic, women, Children, Adult, Hazara ethnic and religious population, various tribes.

Taliban's Sharia and Women: The Taliban want strict implementation of Sharia law. Public hanging or mutilation, forcing men to grow beards, forcing women to wear veils, banning music, cinema and television, not allowing a girl above the age of ten to attend school. Women should not go out alone. The fate of women in Afghanistan is desperate, hopeless, unbearable, and disgraced. Women are imprisoned in a cloth prison called Burkha. After taking power, the Taliban continued the system of gender apartheid, stripping them of all their human rights, including the right to work, education, health care, and speech. Women and girls cannot be examined by a male doctor. It is also prohibited to employ women doctors or nurses in hospitals. Women can be brutally beaten and abused, publicly flogged and even sentenced to death if they disobey the Taliban's orders. Instead of the woman, the man of her household can also be punished.

Emerging Refugee Problem:

In the period leading up to the unexpected arrival and seizure of power by the Taliban, instability and violence escalated in Afghanistan, with covid pandemic, extreme poverty, inadequate food, epidemics, natural disasters, economic poverty, lack of health facilities, poor education environment, and starvation. And as a result, nearly several million

people were internally displaced or forced to flee the country.

After the Taliban seized power, thousands of refugees fled to the United States for their lives, Greece built a wall along its border with Turkey to prevent Afghan refugees from entering Greece. Refugees of Afghanistan started turning to different countries for refuge. In that, many people fled in neighbouring Iran, Pakistan and Turkey. After Turkey, Greece and after Greece, the number of refugees also started to increase in the countries of Europe. In order to prevent the increase of refugees and terrorism in Uzbekistan and Turkmenistan in Central Asia, the Central Asian countries have already started making agreements with the Taliban, including Russia. China-Pakistan Economic Corridor and Geopolitical Significance of Afghanistan, Also, The SAARC, TAPI natural gas pipeline and India's interest are important, that is why Afghanistan is considered to be an important territory under the control of the Taliban for various reasons. South Asian nations have not signed the 1951 Convention on Refugees and the 1967 Protocol Relating to the Status of Refugees. The number of Afghan refugees also started increasing in India. India has also made provision for six-month e-visa. It is also feared that the arrival of the Taliban will lead to the emergence of terrorist organizations like Lashkar-e-Taiba and Jaish-e-Mohammed. Regional stability is also threatened by terrorism and immediate security threat. Only a stable government in Afghanistan can provide a stable economy and stop displacement and migration. But the Taliban does not seem to be the right choice for Afghanistan. Therefore, international organizations should focus on solving this problem. It is necessary to provide immediate humanitarian financial assistance to Afghanistan. All nations of the United Nations must decide together how to maintain peace, order and stability in Afghanistan.

Literature Review:

A brief overview of the studies done in the context of topic some of the reviewed studies below:

- 1) **Donini, A. (2009). Afghanistan: Humanitarianism under threat. Feinstein International Center, Tufts University, Medford, MA.**

This briefing paper discusses the humanitarian challenges and opportunities in Afghanistan. Afghanistan is a serious threat to humanitarian conflict. insecurity and terrorism are contributing factors. The authors also suggest how to build and harmonize humanitarian consensus.

- 2) **UNAMA Human rights service. (2022). Human Rights in Afghanistan 15 August 2021 – 15 June 2022.**

The United Nations Assistance Mission in Afghanistan (UNAMA) released a report on the torture and ill-treatment of Afghan citizens, extrajudicial detention, extrajudicial killings, protection of civilians, rights of women and girls, forced displacement, fundamental freedoms, and the treatment of civilians by the Taliban. Concern has been expressed.

- 3) **United Nations Development Programme. (2021, September 9). 97 Percent of Afghans Could Plunge into Poverty by Mid 2022 [Press Release]. <https://www-dev.undp.org/geneva/press-releases/97-percent-afghans-could-plunge-poverty-mid-2022-says-undp>**

According to a UNDP press note published in 2021, nearly 97 percent of Afghanistan's population will fall into poverty by June 2022 due to economic crisis. It was pointed out that vulnerable people and communities in Afghanistan are in urgent need of humanitarian financial assistance. To protect women and girls, to develop local livelihoods, basic income and infrastructure an economic package was proposed but even today there is no solution to Afghanistan's poverty and hunger.

- 4) **United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Afghanistan. (2021). Afghanistan Humanitarian Fund Annual Report 2021**

The arrival of the Taliban in 2021 has increased conflict, violence, war-like conditions, strangulation of human rights. inadequate supply of food led to malnutrition among girls and women. Also, the International Development Fund was affected. The Taliban seize power, leading to economic crisis, instability and widespread hunger in the country. According to the report, nearly 24.4 million people are in need of humanitarian assistance by the end of 2022.

Objective of Study:

- Critically analysing the poor living conditions in contemporary Afghanistan and highlighting the lives of people under the control of the Taliban.
- Understanding the urgent need for humanitarian aid and studying the role of the Taliban in driving the growing refugee crisis.
- Exploring economic, political, religious, causes of unstable Afghanistan. To study the factors driving population migration abroad. seeking refuge in a new country.

Scope of the Study:

The scope of the proposed study will not be limited to only Afghanistan's instability; it will also have a direct impact on Iran, central Asia, and south Asia. It will indirectly have an impact on western nations, including the USA, in terms of geopolitical strategic interest and human security (refugees and terrorism). The study aims to comprehend the underlying causes of the complex issues faced by refugees, internally displaced people, and asylum seekers from Afghanistan. It covers on a number of the Afghan people's issues, including those that are religious, social, educational, political, economic, physical, psychological, and legal, which drive them to seek refuge.

Research Methodology:

Descriptive, analytical and exploratory research design has been used while studying the subject. We can call it descriptive because it displays a clear and accurate picture of the economic, socio-religious, geographical conditions and past customs of the people of Afghanistan, as well as numerous aspects and difficulties among the people that encourage them to flee and seek refuge. The study is based on secondary data. Collected from various sources like, newspapers, Lok Sabha debates, various libraries, institutes, government offices and reports published by them, journals, manuals, published books, articles, magazines, internet and past research reports, documentation of working NGOs.

Suggestion and Recommendation:

- The Taliban should be pressured to meet international human rights protections in Afghanistan through various regional and international organizations and UN.
- The problem of Afghanistan cannot be solved only with humanitarian financial aid but the economy of Afghanistan needs to be strengthened and for that the international community needs to negotiate with the Taliban.
- The Taliban must respect the rights of women and girls and ensure gender equality in accordance with international humanitarian law.
- Through the United Nations, Afghanistan's frozen money in various countries should be used to address humanitarian issues.

Conclusion of the Study:

Accepting financial aid is not a permanent solution, although it is an immediate need to help refugees. Once the political situation in Afghanistan stabilizes, economic life will get a chance to improve. A lot depends on the way the Taliban are treated by the common man and how the Taliban presents itself in international fora.

International recognition is the backbone of Afghanistan's economy. If economic transformation does not occur, and violent instability continues, civil war may break out. Economic weakness and instability may lead to the emergence of new terrorist groups. Afghans will flee from their own country and become a major problem (refugee crisis) for the international community in the coming years. Therefore, the Taliban must give the common population the right to live in peace and security, without discrimination on the basis of race, religion, and sex, without torture, cruel and degrading treatment, enslavement, as stipulated in international humanitarian law. So that new refugees can be prevented from being created.

References: -

1. *Afghanistan Refugee Crisis Explained.* (2022, June 29). *Afghanistan Refugee Crisis Explained*; www.unrefugees.org. <https://www.unrefugees.org/news/afghanistan-refugee-crisis-explained/>
2. *Security Council urges Taliban to provide safe passage out of Afghanistan* | UN News. (2021, August 31). UN News; [news.un.org. https://news.un.org/en/story/2021/08/1098802](https://news.un.org/en/story/2021/08/1098802)
3. Ahmadi, B., & Lakhani, S. (2017). *The Afghan refugee crisis in 2016*. United States Institute of Peace.
4. Banerjee, P., Chaudhury, S. B. R., Das, S. K., & Adhikari, B. (Eds.). (2005). *Internal displacement in South Asia: the relevance of the UN's guiding principles*. Sage.
5. Betts, A., Loescher, G., & Milner, J. (2013). *The United Nations High Commissioner for Refugees (UNHCR): The politics and practice of refugee protection*. Routledge.

Impact of online Education on the Mental Health and Physical Health of the Students (Raigarh, Chhattisgarh, India) during Covid 19 Pandemic

Lt. Dr. Sharda Ghoghre

Assistant Professor, Psychology Kirodimal Govt. Arts & Science College, Raigarh (Chhattisgarh)

Abstract: This research paper investigate how the online education during Covid pandemic effect the physical and psychological health of the students of Raigarh, Chhattisgarh, India. Covid 19 has caused destruction and devastation worldwide in the ways nobody can expect. The life of the people is totally changed and it affects the educational, social, emotional, economical, physical and psychological well being of the individual. During Covid -19 pandemic it is very challenging for the school administration, college administration, University of India and also for the Government of India how the teaching can be continuously going on without any interruption? But the challenge is how the classes will be taken whether from offline mode or online mode? There is also one question arouse in every one mind how the online teaching effective in learning process especially for students? And how its effect the mental health and physiological health of the students? To examine this study has been conducted on 450 students of Raigarh, Chhattisgarh India to know their views on how the online education has affected the psychological and physiological Health of the students. For this Kirodimal Government Arts and Science College, Raigarh Department of Psychology conducted a case study to investigate it. The finding of the study says that in positive and negative both the ways it affects the psychological and physical Health of the students.

Introduction

Covid 19 has caused destruction and devastation worldwide in the ways nobody can expect. The life of the people is totally changed and it affects the educational, social, emotional, economical, physical and psychological well being of the individual. During Covid -19 pandemic it is very challenging for the school administration, college administration, University of India and also for the Government of India how the teaching can be continuously going on without any interruption? But the challenge is how the classes will be taken whether from offline mode or online mode? There is also one question arouse in every one mind how the online teaching effective in learning process especially for students? And how its effect the mental health and physiological health of the students? To examine this study has been conducted on 450 students of

Raigarh, Chhattisgarh India to know their views on how the online education has affected the psychological and physiological Health of the students. For this Kirodimal Government Arts and Science College, Raigarh Department of Psychology conducted a case study to investigate it. The finding of the study says that in positive and negative both the ways it affects the psychological and physical Health of the students.

Online education has drastically changed the way we study but the year and half of attending online classes from home have led to a string of Mental and physical health problems for both students and teachers. In this study students reported that due to online teaching they become 95.11% irritable, 100% stressful, 41.33% feeling depressed, 71.56% lack of interest in the studies, 97.56% feeling isolated, 66.88% socially deprived, 94.67% problem in concentration.

Table:1 Mental and Physical problems faced during covid 19 Pandemic during online teaching

S.No	Mental/ Physical problems faced during online teaching (total Sample size 450)	Total Participants reported	percentage
1.	Mental Fatigue	349	77.56
2	Depressed	186	41.33

3.	Anxiety	436	96.89
4.	Irritability	428	95.11
5.	Stressful	450	100
6.	Lack of Interest in studies	322	71.56
7.	Problem in concentration	426	94.67
8.	Feeling isolated	439	97.56
9.	Socially Deprived	301	66.88
10.	Pain in Back	386	85.78
11.	Eye problems	318	70.67
12.	Overweight	249	55.33
13.	Migraine/Headache	148	32.88
14.	Pain in Muscles	342	76.00
15.	Sleepness/Sleepy	386	85.78

Several research studies reported that overuse of technology can result in mental overload and disconnect people from nature, play and people. A child who spends too much time in virtual worlds is less likely to have effective social skills to interact in the real world simply from lack of practice. J. Kim, R. LaRose, & W. Peng, 2009 posited technology negatively impacted social skills. J. Y. Yen, C. H. Ko, C.F. Yen, H. Y. Wu & M. J. Yang, 2007 reported those engaging in excessive technology use have a decreased sense of time and concentration due to multi-tasking. In addition, they are not future-thinking and are more impulsive. Park & Hyun also found academic performance was affected more than any other factor.

Due to online teaching students may experience stress due to increased pressure to perform independent learning and abandoning their usual routines, which may lead to psychological consequences such as anxiety, depression, difficulty in sleeping and stress eating (Liu N, Zhang F, Wei C, Jia Y, Shang Z, Sun L, et al., 2020). Same thing we have found in the case studies students may experience stress, feel depressed and feel irritability and lack of concentration. Students also reported its affect their learning skill and cognitive abilities also. In this case study they may feel socially isolated and mental fatigue due to spend more time in online learning.

The exposure students receive during school days, interaction with teachers and the activities they organise and interaction with

peers all these things play an important role in shaping the personality of student. But with the major change in the mode of education students have lost this opportunity. Increased screen time have lead to unfavourable effects on the learning and psychological health of students. Fazean Idris, I N Zulkipli et al, 2021 Prolonged screen time have worsen the critical thinking ability of the brain. Students are trapped in their comfort zone and are unwilling to move out of it. Many of the students were involved in high risk behaviour like gambling and porn addiction. And also they spend a lot of time in video gaming and other such activities which may lead to mental retardation.

The online mode of teaching not only affect the psychological health of the students its also affect the physical health problems like eyesight problems, sudden weight loss or gain, back pain, migraine, fibromyalgia pain and so on. The students continuously sitting in the front of screen it may leads to strain on the eyes and resulting in major headaches. This was applicable not only to the students but also for the teachers. Its also leads to the lack of classroom ethics The posture, regularity, lack of routine, attentiveness has all resulted in health hazards. Constant sitting has caused weight concern as well. No physical activity has made the students restless and frustrated. This too took a toll on the eating habits, thus resulting in damage to the physical health. Some times studying online has resulted in poor/bad ergonomics, thus resulting in a lot of issues as

regards back pain. The results of the case study reported that 99% students reported that they have eyesight problems, 43% students reported severe headache due to continuously focus on the screen, 84% students reported that continuously sitting in the front of screen leads to back pain as well problem in cervicl region. The case study finding revealed that how the online mode of education affect their physical health as well as mental health.

Finally we concluded that Covid -19 outbreak has disrupted the lives of many people across the world the rapid increas in cases worldwide has created uncertainty and anxiety about what is going to happen. It has also Caused a tremendous level of stress among students. Distance learning is an acceleration of this exsisting challenges. Physical activity seem to be a factor that could prevent mental health disorders such as an anxiety, depression and irritability. These are just some of the challenges students are facing as a results of online education. Humans are resilient species and learn to adopt and evolved when we as a nation have been through a such a tough time and found a way to out of it. We can definitely learn to make

online learning more creative and enthusiastic. In the scenario of so many changes it is crucial to take care of our mental health and wellbeing by doing physical workout, meditation and yoga. Although it is traumatic experience of all but we have to take some preventive measures to test our capabilities to adopt to certain stressful and life threatening events.

References

1. J. Y. Yen, C. H. Ko, C.F. Yen, H. Y. Wu & M. J. Yang, "The comorbid psychiatric symptoms of Internet addiction: Attention deficit and hyperactivity disorder (ADHD), depression, social phobia, and hostility," *Journal of Adolescent Health*, vol.41, no.1, pp. 93-98, 2007.
2. J. Kim, R. LaRose, & W. Peng, "Loneliness as the cause and the effect of problematic Internet use: The relationship between Internet use and psychological well-being," *Cyber Psychology and Behavior*, vol. 12, no. 4, pp. 451-455, 2009.
3. Fazean Idris, I N Zulkipli et al, "Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education" *BMC Medical Education* Volume 21, Article number: 542(2021)

Women Entrepreneurship and Papad Industry

Dr. P.S. Girase¹ Smt. S .G. Wankhede²

¹*Guide S.V. Sanstha's Dadasaheb Rawal College ,Dondaicha.*
email:-psgirase1966@gmail.com

²*Research student W.K.B.S. Mandal's Arts, Commerce and BCA College for Women,Deopur,Dhule*
email namratamore18408@gmail.com

Abstract: - Indian women are also called 'Annapurna', 'sugaran', 'Ruchira'. This Annapurna really takes care of the whole family. Caring for the preferences of each person in the family. Makes fresh and various type of food for family members. 'Papad' is one such food found in every Indian households. In today's fast paced world it is not possible for every women to make papad at home. Therefore, such women tend to buy ready-made papad. There is a huge demand for papad from caterers, hoteliers, shopkeepers, retailers, women who leave home for work. Some women feel that they are selling papad to help their family, while some women seem to be making papad from other and selling it in the market. From this, it seems that papad industry has been established. This research paper gives a brief overview of some of the women who have been successful in the papad industry in Dhule district. In this research success stories of women entrepreneurs whose making papad have been presented.

Keywords:-*Women, Entrepreneurship, Papad, Industry.*

Aims :-

- 1] To find out the women entrepreneurs who manufactured of papad.
- 2] To take record the success of women entrepreneurs who produce papad.

Hypothesis :-

The women of Dhule district have achieved success in the papad industry.

Settings:-

Women entrepreneurs who produce papad in Dhule District.

Design:-

Descriptive type of observational study.

Methods and Materials:-

Data were collected by interview of the women entrepreneurs engaged in this industry with a pre-designed and pre-tested schedule.

Conclusion

The women of Dhule district have achieved success in the papad industry.

In modern times, women are involved in every field like knowledge, science, space, research, politics, sociology, industry. Women have also made their debut in the formerly male dominated industry. It seems that, women have worked as entrepreneurs mainly in the fields of laundry, beauty salon, cottage industry, hotels, education and information technology. In the home based industry, it is felt that there are more women entrepreneurs. Also, women seem to have excelled as entrepreneurs of the 'Papad Industry'. In this research, the researcher has taken study of the success of women entrepreneurs in Dhule, who are entrepreneurs of 'Papad Industry'

The researcher feels the need to look at the definition of industry first in research.

1] The new encyclopedia Britannica

'An Industry is a group of company to produce an object to sell in market'.

2] Pro.EAG. Robinson:-

'An industry is a group of firms producing and distributing similar products and services'.

***Agro-Base Industries :-**

-Dr. V. B. Kondawar

'The agro-based industry is the industry that processes the products that come out of agricultural inputs'.

From the above definition of agro-based industry, it is evident that agriculture produces Rice, wheat, maize, Millet, sugarcane, Sunflower, Groundnut, Sesame, lentil, lentils, Soyabean, Nachani, Mustard etc. There are many industries that use and process these agricultural product. 'Papad Industry' is one of them. Many women in India seem to have helped their families financially through the papad industry. Many women from Dhule district work as entrepreneurs in this papad industry.

Women Entrepreneur:-

"A small scale industrial unit, industry related service or business enterprise, managed by one or more women entrepreneurs in proprietary concerns, or in which she / they individually or jointly, have share capital of not less than 51 percent as partners / shareholders / director of private limited company / members of co-operation society, is defined as a women enterprise".

Women Entrepreneur in Dhule District who produce 'papad'.

1] Renuka Lakhichand Chavan

Renuka lakhichand Chavan lives in 'Patalde' village in Dhule. Renuka and some women from her village make papad and sell it. Before the establishment of this industry, Renuka's financial situation was very poor. She did not have even her own house to live in. There was no money for Children's education. Her husband was not getting any job either. That's how Renuka saw a ray of hope from the 'papad' industry. With the help of MSRLM from Maharashtra, she set up a self help group with the help of women from the village and transformed her skills into papad industry. The business which started with the help of Rs. 8000 has now been transformed into a small scale industry. The annual turnover of Renuka's papad Industry has reached Rs.12 to 13 lakhs. Not only this, Renuka's own big house is also a godown for storing papad. During the seasons, Renuka and the women in her group work together to make up to 50kg of papad a day. Renuka's self-help group has received 'Rajmata Jijau Swavalamban Award' and 'Krishi Angrovan award.'

2] Sunita Prakash Mahajan:-

Sunita Prakash Mahajan from Dhule is in the business of making papad and also sells them 'Hat shevai'. Sunita learned the skill of making papads from her mother-in-law Meera Mahajan. The papad and Hat shevai made by Sunita are also bought by people from Dubai, Singapore and USA. The women members of the Annapurna savings group which she founded have a share of Rs 60,000 in the bank and an average annual turnover of Rs 11 lakhs from the home based industry.

3] Shubhangi Akesh Chhajed:-

Shubhangi Akesh Chhajed is a very famous entrepreneur from Dhule. She started 'Spark Food' papad industry in 2013. Her papad is known as 'Vimal Ashish papad'. The business started by Shubhangi's husband was transformed into a papad industry by Shubhangi. With an investment of Rs 30 lakh, it has an annual turnover of 70 lakh to 80 lakh. Vimal Ashish papad is located in Arvi, Dhadre, Dhule MIDC, Laling, Purmepada, Sadgoan area of Dhule. Vimal Ashish papad has 8 to 10 workers. Shubhangi Chhajed seems to be constantly emphasizing on expanding its entrepreneurial reach.

4] Swapnali Avinash Patil:-

Swapnali Avinash Patil is the resident of Shirpur. Swapnali invested Rs 15 lakhs and established Kamal Gruh Udyog in 2016. Swapnali was inspired by his family to set up a papad industry. Now this home industry has been

transformed into a micro-enterprise. Papad of Kamal Gruh Udyog is sold not only in Dhule but all over Maharashtra. 5 workers work in Swapnali's 'Kamal Gruh Udyog', is known to satisfactorily cater to the demand of its customer base. The business strives to make for a positive experience through its offerings. Customer centricity is at the core of Kamal Mahila Gruh Udyog in Shirpur and it is this belief that has led the business to build long term relationships.

5] Sangita Sanjay Yeole, Nardana

Sangita Sanjay Yeole is a very famous entrepreneur from Dhule. Sangita Sanjay Yeole started his own factory in Nardana MIDC in 2016 to produce 'papad' and other similar food item in M/S Kulsamini Industries. Sangita has invested over Rs 45 lakh in her papad industry. Her papad making factory has all the machines needed to make papad. About 10 workers work in this place to making and packaging of papad. Her papad is also sold outside of Maharashtra. Her aim is to sell papad from her factory in the country and abroad.

6] Vandana Lakshman Chaudhary:-

Vandana Lakshman Chaudhary is resident of Waghadi, Taluka Shindkheda. In the beginning Vandana used to roll the papad alone at home and sell it. When the order to make papad then used to make papad. She had profile by rolling papad alone, but it also took more time. The taste of papad spread everywhere and she started getting orders of 30-40 kg of papad per month, but this was not possible for Vandana alone. Then Vandana gathered 10 more women from the village and formed 'Jai Bhavani Self Help Group' for this she got a loan of Rs 5 lakhs from the bank. With the help of story of making papad. Each woman in the group earns an annual income of Rs 1 to 1.5 lakhs, from this business. This group of papad is in high demand from caterers and hoteliers. The aim of women in this group to transform this home used industry into a small scale industry soon.

7] Shweta Chetan Girase, Shirpur.

Shweta Chetan Girase is a resident of Shirpur. Entrepreneur Chetan Girase from Shirpur and his wife Shweta Chetan Girase founded 'Babaji Agro Industry' at Gartad. In her industry papad, appalam, and some other similar product are made. Shweta Chetan Girase started making papad in Babaji Agro Industry in 2019 with an investment of Rs. 50 lakhs. The factory employs about 25 workers. Shweta reached the pinnacle of success by succeeding in her entrepreneurship in a very short time.

Conclusion

From the information given in the relevant paper and other information, it is evident that in Dhule district also some women entrepreneurs have been success full in industries like papad. The women themselves have made great strides in the papad industry through their knowledge skills. In such a short span of time such entrepreneurial women have successes in creating financial independence place in society. Successful women entrepreneurs in such papad industry need to be published through the media so that the new generation of young women can be inspired by their entrepreneurship work ethic, risk taking ability , etc. Can inspired a new generation of young women and contribute to the economic development of the country by increasing overall entrepreneurship among women.

Suggestions:-

- 1] The women of Dhule District should look at the papad industry not only as a traditional industry but also look modernity to the papad industry.
- 2] To increase the participation of women in papad industry , it is necessary for the government to provide special encouragement to women in the industrial policy as well as in various schemes of the government and to Conway information related to trade and industrial management to women.
- 3] As there is a large amount of agricultural sector in Dhule District , a mechanism should be setup to provide guidance and information to women in agro-based papad industry and business.

References:-

Research paper :-

- 1] Shri Mahila Griha Udyog Lijjat Papad. [cited on 2008 Jan] Available from: https://en.wikipedia.org/wiki/Shri_Mahila_Griha_Udyog_Lijjat_Papad
- 2] Papadum.[cited on 2008 Jan] Available from: <https://en.wikipedia.org/wiki/Papad>.
- 3] Roy Sima , Dasgupta Aparajita(April2008) A Study on Health Status of Women Engaged in a Home Based Papad-making Industry in a Slum Area of Kolkata.Wolterskluwer-med know publication 12[1] 33-36 Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796775/>
- 4] Handbook of processing of papad . India Institute of Food Processing Technology . Available from: <https://www.lifpt.edu.in>
- 5] Sarode R.M. , Bhangale N.E. (July 2017) 21 vya Shatakati Mahila Udyojakata va Shakti , Tactful management Research Journal . Volume-Issue-10.

Books:-

- 1]Sharma D.D.(2002) Women Rural Entrepreneurship in India. Abhishek Pablication.Chandigarh.
- 2]Kaushik D.S.(2009) Women Entrepreneurship.Ritu Publication Jaipur .
- 3]Report of Papad Units Registered in Dhule District. DIDIC . Dhule.

News Papers:-

- 1]Dainik Sakal , 4 March 2018, page No.4
- 2]Dainik Lokmat , 8 March 2019 ,Page No.4
- 3] Dainik Sakal , 02 February 2020 ,page No.3.

web sites:-

- cat logu –kamal –mahila guruh Udyog in Shirpur , Dhule.
<https://www.justdial.com>

Interpreting Brain activity and Behavioural quantification of Humans towards the challenge and visualization of the dataset

Nethra S¹ Rajha Priya A¹

¹Padmashree Institute of Management and Sciences, Bengaluru, India.

E-mail – nethra.hari8@gmail.com

Abstract: The main principle of brain organization is the functional integration of brain regions into interrelated networks. Analysing brain activity and performance is the key objective of the study. The study focuses on the activity of the brain after one hour of a certain activity, which includes reading, editing, painting and physical activities like jogging etc. The use of these methods, however, is not limited to studying behaviour in the wild or strictly ethological settings. Here the quantification of human behaviour after being assigned a particular work was monitored. The reflection over the period and its impact on life were analysed. The data discloses the different age groups with different tasks for an hour and we discuss open challenges that remain for behavioural quantification and highlight promising future directions. Inferential statistics were carried over to visualize the correlation frequency between one or two or more datasets and the packages like corrplot, psych, and ggplot2 were used for interpretation of the data.

Keywords – Brain activity, inferential statistics, Study focus, behavioural quantification, one hour

Introduction:

Behaviour is a zestful phenomenon that necessitates changes to an animal's pose over time. Unlike the tracking of body parts, quantification of the temporal structure is a radically strenuous problem without a clear ground truth. It is often presumed that behaviour can be described as a sequence of distinct behavioural states, such as 'walking' or 'grooming'. The type of behavioural quantification can ease comparison between instances of individual behaviours (for example, in reaction to specific sensory inputs or across exploratory conditions) and generate hypotheses about the neural circuitry that gives rise to them (for example, by defining event boundaries or timescales of computation). Animal behaviour, as defined by humans, The simplest way to define a behaviour is by designating a fixed set of rules that describe the criteria that must be met to determine its happening at a given instant. These can be as simple as codifying instances when the animal's centre of mass is moving at a speed greater than a minimum threshold as 'locomotion', but can quickly become complex when establishing detailed inclusion and exclusion criteria based on fine specifications of postural features. Although easy to evaluate and interpret, fixed rules may fail to apprehend the full variability of behaviours that can be flexibly manifested, particularly when subject to experimental artifices that may alter the statistics of the features used in the classification criteria [5]. In the present study, the primary data collection was done using experimental activities on the Brain for 30 days to study the behavioural change of a person. Several hypotheses and examinations of populations have been practised using programming languages. The behavioural change reflected in the person's life and their

working environment was monitored for the results.

Objectives:

To study the population referred to the assigned task

To examine the behavioural changes in everyday life in samples subjected to the study

To analyse the dataset statistically

Materials and methodology:

The primary motive of this study was to analyse the patterns of concentration on a given task and also to study the impact of successful completion of the said task, especially how successful completion helps, build up a habit. The study was carried out on different age groups of people who were assigned tasks like reading, sketching, studying and various physical activities [8, 9]. Also, the gradual ageing with occasional memory patterns was also analysed [7]. The sample population volunteered for the thirty days of one-hour challenges on daily basis. The dataset represents the divergence and their activity in daily life was studied. Through this, the behavioural pattern of a person becomes noticeable towards the given object and situation [5, 10].

The present study promotes memory and is an effective way to build a habit. Every day the person's activity with the respective time utilised to complete the task was noted. Reading, writing, and colouring promote brain cell activity, which is the major communication practice area. Most of the population were going through depression and anxiety these days also measured for the performance of the Brain [2, 6]. The five-factor model of personality was noted in this study such as neuroticism, extraversion and openness to adventure, acceptance and conscientiousness. The behavioural patterns [3] show gradual enhancement throughout the duration of the

study. It acts as an interlinked chain connecting the objectives and personality of an individual. Development of a sense of responsibility [4] as well as purpose towards the task, and also the observance capacity of the individual can be figured. Also, studies were performed in combination with nutritional food uptakes to increase the neuronal activity in the Brain [1].

The study also involved inferential statistics for the relationship analysis with one or two variable data. The rational linear or non-linear relationships between the dataset were interpreted using inferential statistics with the help of packages. General data visualization [15] performed using RStudio.

The Corrplot package [14] gave a correlation matrix that helped to detect the hidden patterns among variables. It is very easy to use and gives a rich array of plotting options in visualization methods. It gives p-values and confidence intervals to provide information about the

significance of correlation in a statistical manner. Pearson correlation “psych package” [13] was used for scale construction using factor analysis, principal component analysis, cluster analysis and reliability analysis. Psych correlation is an extension of the pair’s function that allows easy addition of regression lines, confidence intervals and several additional arguments and it creates a graph of a correlation matrix colouring the regions by the level of correlation. The package called “ggplot2 package”(stands for The Grammar of Graphics)[11, 12] used here greatly improves the quality and aesthetics of graphs and gives more focus to almost every section of the data and it also gives efficient commands to create complex plots. Using this package, the scatter plot was observed for the correlation status between the data.

Location of the study - The primary data involved in the study was collected from the place Madurai, Tamil Nadu in India.

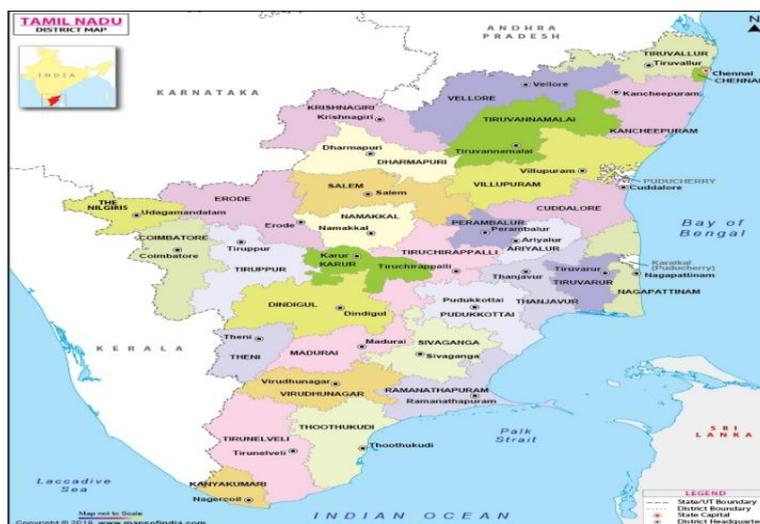


Fig.1: The study Location in India

- Annai Bharath Astrocity (Housing limited are), Madurai, Tamil Nadu, India

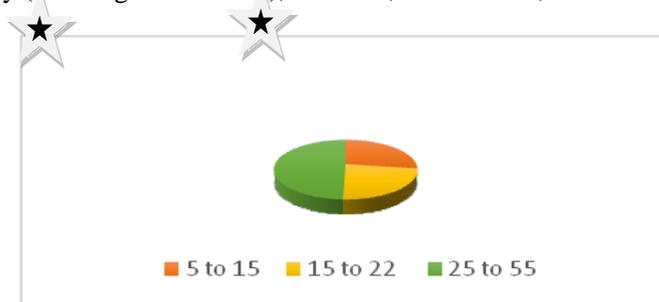


Fig.2: The pie chart represents the population taken for study according to their age.

The data analysis helped to understand the data clearly without missing out on any information. Also using statistical tools makes decision-making precise and frees, from any bias. The assigned task completed per day was converted to numerical data where the amount of assigned

activity completion was reported. General statistics of mean, median and standard deviation were performed over the dataset.

Inferential statistical analysis was performed using software to interpret and explore the frequency distribution between the day’s

progresses of an individual. Using tools, the efficiency and overall performance were identified using a graphical representation. Psych package was used to ascertain the correlation and confidence intervals among the variables. Corrplot package gave correlation matrix visualization in a different manner including shape, patterns, and colours. Ggplot2 package gave competent scatter plots of the matrix with the correlation.

Results and Discussion:

The raw data was collected by experiments for a month and the behavioural change towards the objects was screened. Noticeable positive changes in activity were seen, especially participants in the age group 5-15 showed a greater task completion rate. The stress over exams had been reduced and the behaviour pattern in doing chores was typically tolerable by routine rewards. There was a remarkable evolution pattern seen in academics and sports levels. Problem-solving abilities were

improved. In adults, between the age group 15-25, the characteristic process of learning things carved a different approach in tackling everyday challenges. This was applied to health and habits of automatic responses towards the force. Daily monotonous and academic growth was seen clearly. Most of the participants started becoming consistent. Most working young adults finished the task before deadlines. It was clear that self-reformation and increase in productivity caused positive results in the workplace, gradual commitments with the balance between work and family were seen and they were up for open and valuable communication medium. Elder citizens between the age group 25-55 found time for themselves through these experiments. They mostly seemed to be happy and free from trauma and stresses, and it was seen that regular walking improved the physical and mental health of a person. It reflected their positive ageing phase despite the trials in life, clearly mentioned in the below table.

Table.1: Projection of variations in life by the practice of challenge to Brain

Prominent changes in Life	According to Age		
	5-15	15-25	25-55
School/ College/ Work	Interest in asking more questions, determined for excellent academic performance in problem-solving	Open-minded for an efficient conversation, time management and self-moulding	Independent healthy working environment among the co-workers, positive ageing
At Home	Building good manners	Well-planned organization toward the activities	Stress-free smiling faces observed

By using RStudio, the data was interpreted for a better understanding of the study and several packages were used to find the relationship between the variables.

The fig.3 represents the boxplot of each variable minimum, maximum with the median value

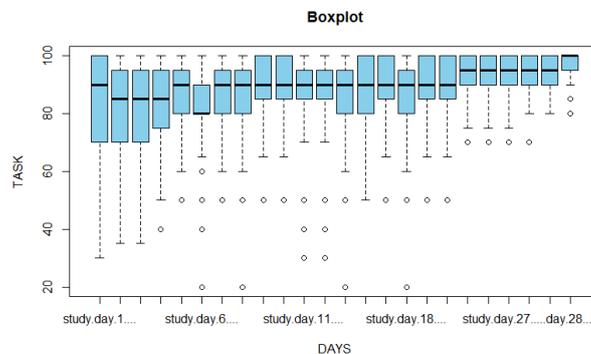


Fig. 3: Boxplot of data from day 1 to day 30

The corrplot represents the correlation matrix of days 1, 5, 10, 15, 20 and 30 in the manner of a circle

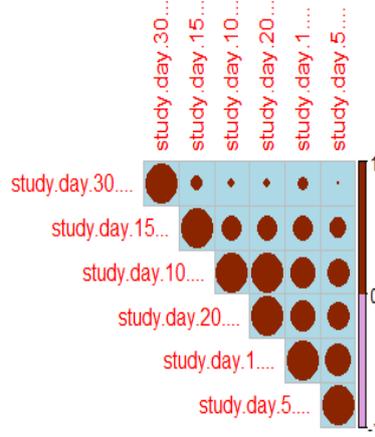


Fig. 4: Corrplot of the dataset

The below graph annotates the bivariate scatter plots of correlation between the variables, and

the observed results of p- values illustrate that the null hypothesis is true.

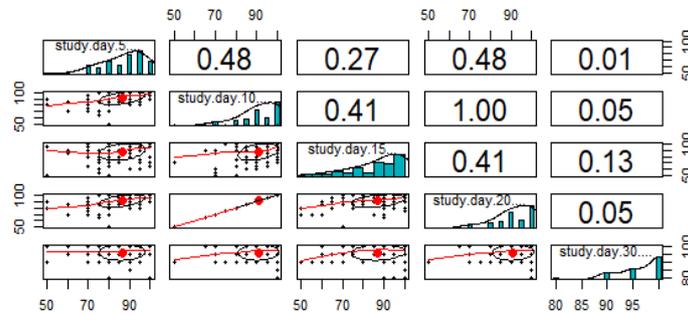


Fig. 5: Plot using “psych” package

The below scatterplot represents the performance of an individual with their activity scale over the time basis

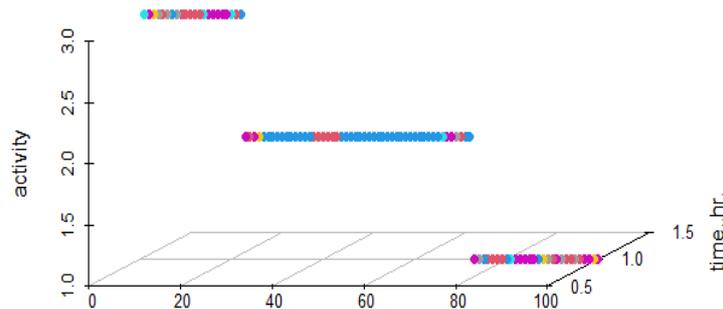


Fig. 6: Plot using the “ggplot2” package

Discussion:

Constant growth levels in studies and activities like reading, and problem-solving were perceived and visible good manners were also observed. This challenge helped them to build a habit and roots in a good work environment. The raw data expresses the persistent growth of healthy and stress-free life. Out of the test sample population, the 5-15 years old population shows 95% overall improvement and 15-22- and 25-55-years old shows 100% improvement. By this study, it is evident that improvement in

confidence levels and healthy good habitual activity were clearly detected.

Further, the statistical analysis was performed to interpret the dataset to get the significance level. The p-values of the sample population showed a positive correlation and the values demonstrations null hypothesis is true. Without losing the data, each variable was pictured in various graphs using packages which provide the interpretation of big data.

Summary:

The study mainly focused on the performance activity before and after the experiments and its impact on their behavioural pattern and confidence level was studied with different age intervals. The population of volunteers was constantly supervised to build a habit and their instant satisfaction over the task after completion was collected. The changes from physical to mental state were recorded for quality purposes.

Inference:

The statistical approach of the dataset shows a positive correlation and the significant p-values accept the null hypothesis. Also, graphs obtained using packages like `corrplot`, `psych` and `ggplot2` provide comprehensive information to interpret the data.

References:

1. Gómez-Pinilla F. Brain foods: the effects of nutrients on brain function. *Nat Rev Neurosci.* 2008 Jul;9(7):568-78. DOI: 10.1038/nrn2421. PMID: 18568016; PMCID: PMC2805706. Brain foods: the effects of nutrients on brain function.
2. Horrobin DF. Schizophrenia: the illness that made us human. *Med Hypotheses.* 1998 Apr;50(4):269-88. DOI: 10.1016/s0306-9877(98)90000-7. PMID: 9690763. Schizophrenia: the illness that made us human
3. McCann JC, Ames BN. Is docosahexaenoic acid, an n-3 long-chain polyunsaturated fatty acid, required for development of normal brain function? An overview of evidence from cognitive and behavioral tests in humans and animals. *Am J Clin Nutr.* 2005 Aug;82(2):281-95. DOI: 10.1093/ajcn.82.2.281. PMID: 16087970. Is docosahexaenoic acid, an n-3 long-chain polyunsaturated fatty acid, required for development of normal brain function? An overview of evidence from cognitive and behavioral tests in humans and animals
4. Bijsterbosch, J., Harrison, S. J., Jbabdi, S., Woolrich, M., Beckmann, C., Smith, S., & Duff, E. P. (2020, December 1). Challenges and future directions for representations of functional brain organization. *Nature Neuroscience.* Nature Research. Challenges and future directions for representations of functional brain organization
5. Pereira, T. D., Shaevitz, J. W., & Murthy, M. (2020, December 1). Quantifying behavior to understand the brain. *Nature Neuroscience.* Nature Research. DOI: 10.1038/s41593-020-00734-z Quantifying behavior to understand the brain.
6. Hajcak, G., McDonald, N., & Simons, R. F. (2003). Anxiety and error-related brain activity. *Biological Psychology, 64*(1–2), 77–90. Anxiety and error-related brain activity
7. Reuter-Lorenz, P. A. (2002, September 1). New visions of the aging mind and brain. *Trends in Cognitive Sciences.* New visions of the aging mind and brain
8. Hamer M, Sharma N, Batty GD. Association of objectively measured physical activity with brain structure: UK Biobank study. *J Intern Med.* 2018 Oct;284(4):439-443. DOI: 10.1111/joim.12772. Epub 2018 Jun 7. PMID: 29776014. Association of objectively measured physical activity with brain structure: UK Biobank study
9. Engeroff T, Füzéki E, Vogt L, Fleckenstein J, Schwarz S, Matura S, Pilatus U, Deichmann R, Hellweg R, Pantel J, Banzer W. Is Objectively Assessed Sedentary Behavior, Physical Activity and Cardiorespiratory Fitness Linked to Brain Plasticity Outcomes in Old Age? *Neuroscience.* 2018 Sep 15;388:384-392. DOI: 10.1016/j.neuroscience.2018.07.050. Epub 2018 Aug 3. PMID: 30077618. Is Objectively Assessed Sedentary Behavior, Physical Activity and Cardiorespiratory Fitness Linked to Brain Plasticity Outcomes in Old Age?
10. Kwasnicka D, Dombrowski SU, White M, Snihotta F. Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health Psychol Rev.* 2016 Sep;10(3):277-96. doi: 10.1080/17437199.2016.1151372. Epub 2016 Mar 7. PMID: 26854092; PMCID: PMC4975085. Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories
11. Wickham H, eBook ISBN978-3-319-24277-4, DOI <https://doi.org/10.1007/978-3-319-24277-4>, 2016, `ggplot2` book - Elegant Graphics for Data Analysis
12. Steenwyk JL, Rokas A. `ggpubfigs`: Colorblind-Friendly Color Palettes and `ggplot2` Graphic System Extensions for Publication-Quality Scientific Figures. *MicrobiolResourAnnounc.* 2021 Nov 4;10(44):e0087121. DOI: 10.1128/MRA.00871-21. Epub 2021 Nov 4. PMID: 34734767; PMCID: PMC8567791. `ggpubfigs`: Colorblind-Friendly Color Palettes and `ggplot2` Graphic

System Extensions for Publication-Quality
Scientific Figures

13. Revelle W, 2016, psych: Procedures for Personality and Psychological Research, North-western University, Evanston, Illinois, USA, <http://CRAN.R-project.org/package=psych> Version = 1.6.
14. Wei T, Simko V, 2015, *R package 'corrplot': Visualization of a Correlation Matrix.* (Version 0.92), <https://github.com/taiyun/corrplot>.

Impact of Motivation on the Performance of Employees of NCR

Gaurav Bhati Dr. Richa Kaughal ²

¹Dept. of Management, Lingayas Vidyapeeth Haryana

²Dept of Management, Lingayas Vidyapeeth Haryana

Abstract: Since motivation has been a key indicator of how well employees do their jobs for a long time, organisations and human resource managers have been very concerned about it. There are a lot of things that have to do with management, employees, the organization, and the workplace, which makes it hard and complicated to get people to work hard. So, the organization and the person in charge of human resources should use a variety of strategies and methods to get people to work hard. When a person joins a company, they have to meet different needs and meet different expectations. Human resource managers use both monetary and non-monetary factors to reach different goals for employees and the organization as a whole. Employee motivation can be regarded of as a force that drives employees toward the attainment of specific organizational goals and aims. These days, it is one of the most contentious issues in businesses, as every company strives to make the most efficient use possible of both its financial and human resources. The primary objectives of this research are to examine the kinds of factors that have an impact on employee motivation in NCR and to determine the extent to which motivation influences employee performance. A questionnaire that is self-administered is used to collect data from 200 teachers who work in government schools as well as private schools. In order to determine the effect that employee motivation has on employee performance, regression analysis is used. This study takes into account four variables: employee motivation; employee performance; intrinsic rewards; and employee perceived training effectiveness. The findings of this research indicate that there is a considerable and favorable relationship between the motivation of employees and the performance of such employees. Furthermore, this study came to the conclusion that a substantial positive relationship exists between intrinsic rewards and employee performance as well as employee motivation. According to the findings of this study, an employee's perception of the effectiveness of training has a negative correlation with their level of motivation. It is also proven from their comments that although they were provided with the training courses, they did not utilise this training in their routine teaching because they believed it to be unproductive. This can be proven from both of these aspects. The fact that they were dissatisfied with the training that was offered to them had a negative impact on their motivation to teach.

Key words: Employee Motivation, Employee Performance, Intrinsic Rewards, Employee Perceived Effectiveness.

Introduction

Motivation is derived from the word 'motive,' which refers to an individual's needs, desires, wants, or urges. It is the process of motivating individuals to take action in order to attain a goal. Need for Money, Respect, Job Satisfaction, Accomplishment, etc., might be among the psychological variables motivating people's actions in the context of their work goals. Motivation plays a vital role in the management process as a whole. This strategy is effective for encouraging employees to contribute positively to the achievement of company goals. Motivation is required because human nature necessitates some form of inducement, encouragement, or incentive for improved performance.

Employees are motivated by the following factors:

- Ask workers what they want
- Ask workers what they want
- Treating employees with respect
- Treating employees with respect

- Feedback and training from managers and leaders
 - Industry-standard benefits and remuneration
 - Carry a notebook for ideas
 - Explain the incentive system
- Motivate people to enjoy hard work. Today's workers must know why they're toiling. Every employee is driven differently. Employee motivation is a company's workers' degree of energy, devotion, and innovation. Managers get work done through staff. Managers must motivate staff to do this. Not so easy! Motivation is a multidisciplinary subject. Despite vast basic and applied research, motivation is poorly understood and implemented. Motivation requires understanding human nature. Problem! Man is simple yet complex. Understanding and appreciating this is necessary for effective staff motivation, management, and leadership. Every concern demands physical, financial, and mental motivation from employees and human resources to reach goals. Motivation maximises human resources. Building

employee work ethic helps. This helps the company maximise resource use. It increases productivity, reduces costs, and improves efficiency. Motivated co-ordination and cooperation can achieve goals. Stability of staff is vital for a company's reputation and goodwill. Only when employees feel like they're part of the management will they remain loyal. Employees' talents and efficiency benefit both employers and workers. This will lead to a good market image, which will attract skilled employees. In the context of today's globalised environment, businesses are continually looking for ways to improve the skills of their employees and to inspire them through the use of HR software and procedures. According to Güngör (2011), businesses will not succeed until they implement reward management. According to Barber and Bertz (2000), incentive management enables companies to better attract, retain, and motivate high-potential employees, which ultimately leads to improved business results. Money and bonuses are examples of extrinsic benefits, whereas recognition, security, a title, promotion, appreciation, praise, participation in decision-making, flexible working hours, workplace comfort abilities, feedback, work design, social rights, and other intrinsic rewards are examples of intrinsic benefits. Extrinsic benefits include things like money and bonuses (Yang, 2008). According to Grant, levels of motivation have an effect on staff performance and productivity (2008). According to what he discovered, motivated workers are more self-driven and respect autonomy. People that are motivated to work are interested in what they do and are eager to accept responsibility (Kuvaas & Dysvik, 2009).

The formalised process of obtaining new knowledge, skills, and capabilities is referred to as training. The orientation and magnitude of one's efforts, as well as the psychological quality that stirs an organism to motion, are both referred to as motivation. Training tactics have an effect on the motivation of employees as well as the commitment of organisations (Meyer & Allen, 1991). Rowden and Conine (2005) state that training leads to an increase in employee work satisfaction, which in turn leads to an increase in customer performance. Employees that are committed to learning report higher levels of happiness and have greater overall performance (Tsai et al, 2007). Tsai et al. (2007) and Harrison (2000) both

agree that training that is prompted by learning helps increase employee performance and is essential to the accomplishment of organisational goals (Harrison, 2000). According to the findings of the study, the performance of a company is determined by a variety of elements, the most important of which is the level of employee motivation (Saif ullah malik et al., 2012).

Intrinsic rewards are intangible awards of recognition or achieving motivation in any work when one sees in Maslow's hierarchy as conscious fulfilment. In other words, intrinsic rewards are motivation that comes from inside. It's having the satisfaction of knowing you did something positive or brightened someone else's day. Employees are encouraged through the use of incentive management systems, particularly intrinsic rewards, which affect both individual and organisational performance. Both Pool and Pool (2007) and Lok and Crawford (2004) feel that there is a connection between motivation and job satisfaction. According to Tsai et al research,

there is a considerable connection can be found between perceived training effectiveness and job satisfaction (2007).

Models and theories concerning motivation can be found in the field of organisational behaviour. Concentrate on the professional development of your staff. Progress is considered to be the most important factor in employee motivation by Maslow, Alderfer, McClelland, Hackman, and Herzberg. [Citations needed] There is a connection between employee motivation, work satisfaction, and organisational commitment (Basset-Jones and Lloyd, 2005; Chen et al., 2004). The success of any organisation, whether public or private, is directly correlated to the level of employee motivation (Chintallo & Mahadeo, 2013).

According to the findings of a study that was conducted by Sirota et al. (2005) with the participation of 135,000 respondents from a variety of different groups and countries, businesses that implemented motivation programmes that involved camaraderie, equity, and achievement were more successful than businesses that either had no employees or twice as many employees who were enthusiastic (of total 45 percent). According to the findings of a study, the productivity of workers improves when they experience higher levels of motivation (Asim, 2013).

Intrinsic reward

Intrinsic motivation is an interest in the activity itself rather than external influences and incentives. Organizations need something to keep their staff working, such as salary or bonuses, but motivation is highly vital to keep workers engaged and involved in their work so that their quality and quantity of work and productivity doesn't decline (Williams, 2004). Intrinsic reward is the enjoyment a person gets from working in a good organisation that compensates him for his work. Employees value extrinsic and intrinsic rewards. Intrinsic motivation comes from within (pleasure, satisfaction, pride) while extrinsic incentive comes from outside (salary, money, grades, etc). (Scott and Bruce, 1994),.

Intrinsically driven people work on math problems because they're entertaining or they're tough and provide them pleasure to solve. In both circumstances, extrinsic rewards such as payment or award are unimportant (Roberts, 1991 and Rothwell, 1992). It doesn't imply extrinsic incentive isn't necessary, but it's not enough to motivate someone (Eisenberger and Cameron, 1996; Janssen, 2000; Mumford, 2000).

A study indicated that rewards are key to reducing employee unhappiness. When employees are happy, they work harder and with more interest, leading to good performance (Mehmod, 2013). Intrinsic rewards influence employee performance, according to a study. When individuals receive intrinsic rewards, they realise their performance and work harder to be recognised. (2014)

Importance of Motivation

The concept of motivation holds a great place and function throughout the entirety of the management process. Encouragement of workers to make a constructive contribution to the accomplishment of organisational goals is a beneficial use of this strategy, which can be employed fruitfully. Because of the nature of the human race, individuals typically require some form of induction, encouragement, or incentive in order to achieve higher levels of performance. This points to the significance of providing incentives to workers. Increasing an employee's sense of motivation is one way to boost their performance, even if they are working at a lower level.

Along with their other responsibilities, managers are expected to fulfil the role of employee motivator as part of their job description. It is necessary for a manager to act

not only as a friend but also as a motivator to the people under his supervision. The ability to stay motivated is beneficial in all facets of life, including the interactions we have with our family. The situation is exactly the same in business. This strongly shows that having a motivated attitude is quite crucial. It is an integral component of the management process overall.

When it comes to getting employees excited about their jobs, management can put a powerful tool at their disposal: motivation. When employees are motivated, they are more inclined to put in effort at work, which ultimately leads to an increase in the efficiency of the firm.

Better usage of available resources; decreased incidence of labour issues; substantial gains in production and productivity; enhanced public perception

Objectives of the Study

To study the significant and positive relationship of Employee motivation with employee performance.

To study the significant and positive relationship of intrinsic reward with employee performance.

To study the significant and positive relationship of intrinsic reward with employee motivation.

To study the significant and positive relationship of Employee perceived training effectiveness with employee motivation.

Hypotheses of the Study

There has a significant and positive relationship of Employee motivation with employee performance.

There has a significant and positive relationship of intrinsic reward with employee performance.

There has a significant and positive relationship of intrinsic reward with employee motivation.

There has a significant and positive relationship of Employee perceived training effectiveness with employee motivation.

Research Methodology

This method of research is known as descriptive research, which implies describing and explaining a specific explanation. The focus of the descriptive research is on describing the current condition, rather than making evaluations or offering interpretations of the present situation (Creswell, 1994). Verifying the hypothesis that accurately reflects the current condition is one of the main focuses of the present situation.

Sampling Data

The population of this study consists of the faculty members of Government and private schools of NCR. A sample of 200 respondents were asked to complete a questionnaire. This study used convenience sampling, which is a non-probability sampling technique. Convenience sampling entails the gathering and collection of information and data from the sample of the study or the unit in the study that are easily accessible and convenient.

Instruments of the Present Study

There are two major objectives of the present study regarding survey instruments: The first is the relationship between various variables in the implementation of employee motivation. Second, it can be used to collect information on respondents with diverse characteristics in order to comprehend the variations. The survey of instruments has 2 parts.

Part 1 contains various individual and demographic factors. This part will collect information regarding the respondent's gender, age, income, and level of education.

The importance of Part ii in the current study cannot be emphasized. These variables consist of employee motivation, performance, intrinsic reward, and perceived training efficacy. This component of the study is based on previously utilized questionnaires and previous material. The study's scale was derived from previous research and published literature.

Procedure

The questionnaire was distributed to 200 NCR-based respondents. Before administering the questionnaire, the respondents were briefed on the goal of the study and the questions so that they could easily provide pertinent responses. 200 questionnaires were selected in total. After questionnaires were collected, they were categorized and placed into an SPSS sheet for further analysis.

Results and Interpretation:

After the prerequisites for reliability and validity have been met, this portion of the study tests the model. On dependent variables, the casual associations of the independent variable are measured. Motivation and Performance of Employees With (Beta=0.373) and ($p < 0.01$), the study's regression findings indicate the considerable positive relationship between Employee motivation and Employee performance. According to these findings, employee motivation exceeds employee

performance by 45%. The study's results support hypothesis 1.

Intrinsic reward and Employee Performance The employee motivation model's regression analysis suggests a significant positive relationship between (Beta=0.185) and ($p < 0.01$). The results indicate that intrinsic reward is approximately 21% greater than Employee performance. The study's results support hypothesis 2.

Intrinsic Motivation and Employee Reward

Employee motivation has a significant positive relationship with the variable intrinsic reward, according to the study's findings. This variable has a statistically significant positive correlation with (Beta=0.310) and ($p < 0.01$). This indicates that intrinsic rewards contribute more than 52% to employee motivation. The results of the present study confirm the hypothesis 3.

Employee perceptions of the effectiveness of training and Employee motivation

The study's regression results (Beta=-0.003 and $p > 0.01$) confirm the negative relationship between employees' perceptions of training effectiveness and employee motivation. According to these findings, training efficacy as viewed by employees contributes more than 5% to employee motivation. This study's result does not validate hypothesis 4.

Discussion

This research explores the relationship between employee motivation, performance, and perceived training efficacy. It encourages employee motivation. Business-to-business (B2B) employees said they were motivated by their autonomy, independence, responsibility, and position and tasks from management. Some respondents said art, design, or architecture could be motivational, but they didn't say for sure. Respondents said these three constructs boost employee engagement by improving the physical work environment. Improving the working environment improves employee well-being, emotions, and encouragement, which increases motivation. Some respondents disagreed since they weren't interested in the physical environment. Employee motivation, performance, intrinsic reward, and perceived training efficacy are relevant variables. Multi-item questionnaires based on empirical research were employed to measure these characteristics. The study used teacher data. According to their comments, they were given training courses but didn't use them in their everyday teaching because they were unsuccessful. Unsatisfactory training

reduced their motivation to teach.

Bibliography

1. Ameer-ul-Ameer & Hanif, F., 2013. Impact of Training on Employee's Development and Performance in Hotel Industry of Lahore, Pakistan. *Journal of Business Studies Quarterly*, Volume 4, pp. 68-82.
2. Asim, M., 2013. impact of motivation on employee performance with the effect of training: specific to education sector of pakistan. *international journal of scientific and research publications*, Volume 3, pp. 1-9.
3. Agwu, M.O., (2013) Impact of Fair Reward System on Employees Job Performance in Nigerian Agip Oil Company Limited Port-Harcourt, *British Journal of Education, Society & Behavioral Science*, 3(1), pp 47-64. Ahmad, M. B., Wasay, E., & Malik, S.
4. U. (2012). Impact of Employee Motivation on Customer Satisfaction: Study of Airline Industry in Pakistan, *Interdisciplinary Journal of Contemporary Research in Business*, 4(6), 531-539.
5. Azar, Alderfer, C. (1972), Existence, Relatedness and Growth: Human Needs in Organizational Settings, *Free Press, New York, NY*.
6. Barber, A.E., Dunham, R. and Formisano, R.A. (1992), "The impact of flexible benefits on Employee satisfaction: a field study", *Personnel Psychology*, Vol. 45, pp. 55-75.
7. Basset-Jones, N. and Lloyd, G.F. (2005), "Does Herzberg's motivation theory have staying power?", *The Journal of Management Development*, Vol. 24, pp. 929-43
8. Chen, Y., Lou, H., 2002. Toward an understanding of the behavioral intention to use a groupware application.
9. Chiaburu, D.S. and Tekleab, A.G. (2005), "Individual and contextual influences on multiple Dimensions of training effectiveness", *Journal of European Industrial Training*, Vol. 29 No. 8, pp. 604-26. Chintaloo, S & Mahadeo, J. (2013). Effect of Motivation on Employees' Work Performance at Ireland Blyth Limited: *Proceedings of 8th Annual London Business Research Conference Imperial College, London, UK*, 8 ISBN: 978-1-922069-28-3.
11. Deci, E.L. and Ryan, R.M. (2000), "The 'what' and 'why' of goal pursuits: human needs and the self-determination of behaviour", *Psychological Inquiry*, Vol. 11 No. 4, pp. 227-68 Lovelock, C.H. (1996), *Services Marketing*, Prentice-Hall.
12. Edirisooriyaa, W. A., 2014. Impact of Rewards on Employee Performance: With Special Reference to Electrico..
13. *Proceedings of the 3rd International Conference on Management and Economics*, pp. 311-318.
14. Greenwich, CT. Ryan, R.M. and Deci, E.L. (2000), "Intrinsic and extrinsic motivations: classic definitions and new directions", *Contemporary Educational Psychology*, Vol. 25 No. 1, pp. 54-67.
15. Harrison, R. (2000), *Employee Development*, Beekman Publishing, Silver Lakes, Pretoria. Pool, S. and Pool, B. (2007), "A management development model", *Journal of Management Development*, Vol. 26 No. 4, pp. 353-69. Kuvaas, B. and Dysvik, A. (2009), "Perceived investment in Employee Development, intrinsic Motivation and Work Performance", *Human Resource Management Journal*, 19(3), pp. 217-236
16. Kanelopoulos, C. and Akrivos, C. (2006), "Career development in Greek management", *Spoudai*, Vol. 56 No. 1, pp. 79-106.
17. Meyer, J. and Allen, N. (1991), "A three component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1, pp. 61-90.
18. M & Shafiqhi, A. (2013). The Effect of Work Motivation on Employees' Job Performance: *International Journal of Academic Research in Business and Social Sciences*, Vol. 3, No. 9 ISSN: 2222-6990.
20. Rowden, R.W. and Conine, C.T. Jr (2005), "The impact of workplace learning and job satisfaction in small US commercial banks", *Journal of workplace Learning*, Vol. 17 No. 4, pp. 215-30.
21. Satisfaction: Study of Airline Industry in Pakistan: *Interdisciplinary Journal of Contemporary Research in Business, Institute of Interdisciplinary Business Research*, Vol. 4, No. 6.
22. Tsai, P., Yen, C.Y., Huang, L. and Huang, I. (2007), "A study on motivating employee's learning commitment in the post-downsizing era: job satisfaction perspective", *Journal of World Business*, Vol. 42 No. 2, pp. 157-69.
23. Vansteenkiste, M., Lens, W. and Deci, E.L. (2006), "Intrinsic versus extrinsic goal contents in self-determination theory: another look at the quality of academic motivation", *Educational Psychologist*, Vol.

- 41 No. 1, pp. 19-31.
24. Yang, H. (2008), ‘Efficiency Wages and Subjective Performance Pay’, *Economic Inquiry*, 46(2), pp. 179–196.
25. Yazıcı, N. K., ‘the Effect of Reward System Applications on Employee Performance In Service Sector’, (2008), *Marmara University, Institute of Social Sciences, Master Thesis*.

Civic Amenities and Characteristics among Small Urban Towns in India: A Case Study of Kushinagar

Dr. Jyotsna Pandey

Associate Professor, S.B.M.P.G.College, Fazilnagar, Kushinagar, U

Abstract-

In India, from very beginning the concentration of development is mainly taking place in Metros or class 1 cities as compared to the small and medium size towns. The small urban centers can provide a better ground for the modern urbanization have become the victim of serious problems and therefore unable to play a proper role in the context of socio-economic world. In fact, the challenges of urbanization are badly affected due to this urban poverty which is largely an extension of rural poverty. Thus, in the context of development, if these centers are provided with proper provision of urban facilities along with employment, education, urban amenities and social protection which attract the rural people and fulfill the rural needs. With this view, the present paper try to study the position of infrastructural facilities like water supply, sanitation, electric, telecommunication, education, health, recreation, shops, road and transport in small urban centers of Kushinagar, which is the district of middle Ganga Valley and one of the most populous region of India.

Keywords; small urban centers, urbanization, urban amenities, infrastructure.

Introduction:

Some empirical studies suggest a strong relationship btw infrastructure and economic growth. According to the 'world bank' 1% increase in infrastructure is associated with a 1% increase in GDP across all countries. A study by Deichmann (2002) for Mexico shows that a 10% increase in market access leads to a 6% increase in labor productivity. Broadly speaking, the development of infrastructure has five fold impact on the economy: Creating access to employment and providing future earning opportunities. Creating access to previously inaccessible commodities and services. Increasing production efficiency. Saving time, which can be better utilised in productive activities. Improving the health and physical condition of the population. Study Area With this view, in the present paper, tried to study the condition of urban facilities of Kushinagar district, one of the small urban centres of India. Kushinagar is the district of middle Ganga valley, which is one of the most populous regions of India. It is lying $26^{\circ}38' - 27^{\circ}18' N$ and $83^{\circ}33' E$ to $84^{\circ}36' E$ on the eastern

margin of Uttar Pradesh, covers an area of 2906 sq. km, which linked by N.H.28 and Gorakhpur-Kaptanganj railway line. Land resource is the base of economy. 76.3% area of district under agriculturally productive land or cultivated. The district consist of four tehsils, 14 development blocks, 141 Nyay Panchayat, 1560 villages, 957 Gram Panchayat and 7 urban centres, namely Padarauna Nagar Palika, Khadda, Ramkola, Severahi, Kasia, Hata, Kaptanganj are six nagar panchayat according to census 2001. Total population of urban centres are 132523 in 2001 and 170385 in 2011 which is 4.58% and 4.78% of district population. In the study area, there is a lack of proper infrastructure of Kushinagar, where majority of rural population i.e. 95.13% of total population. They are neither eager nor conscious towards the development of these activities. In urban centres, the development of amenities is also slow due to lack of proper attention and poor investment by the town development authorities. Table (1) reveals the development of infrastructure in the small urban centres of Kushinagar btw 1991 to 2011 decade.



Water And Sanitation-

In the rural areas of Kushinagar hand pumps are the main source of drinking water. In each village four to five hand pumps have been installed by government. From earlier seven urban centers are also being served by tube wells and water taps. But these sources only function a few hours a day, however, because of poor maintenance. Water supply is found inadequate especially during summers when the suffering is more due to increasing demand of water by the inhabitants. Despite the impressive coverage of provision of safe drinking water, there is a great deal of concern about both quality and sustainability. At several places supply pipes are cracked and are near some dirty areas. At a few places the sewer pipes are close to the drinking water pipes. Most of the hand pumps in such area are not so safe as they mostly have a depth of 80 feet's only, which contains a lot of pollutants that have reached the underground water. In Kushinagar, there are calcium and sulphate are most common constituent causing hardness of natural water. Due to the imbalances of mineral salts, deficiency diseases like thyroidal problems are common and also causing epidemic problems are common in this area. In this regard, India mark hand pipes have been provided by government within the area. Except Padarauna all the centers suffer from these conditions of water supply. In the Padarauna more than 70% households use the water taps, 10% Hand pumps and 15% household have no proper supply; they depend only on nearby India mark hand pumps. In Saverahi and Khadda only 40% houses have water taps, 30% houses have no proper provision of water supply. (Table: 2)

The situation of sanitation is rather dismal. Survey indicated that with less than 50% of households having functional latrines in Khadda and Saverahi. In Kasia and Padarauna 66% households have their own functional latrines. While in Ramkola, Kaptanganj and Hata have 50 to 60% households with latrines.

The government subsidizes the building of latrines by households that are below the poverty line, governments share the subsidy to households for constructing latrines which is about 80% of the unit cost. Despite these incentives people are slow to adopt sanitation practices.

Power, Telecommunication & Recreation:

Although the power supply available but these centers are always suffering from frequently power cuts and electric faults. Till 1971 all the centers linked with electric power but Kasia and Padarauna have proper power

supply. While in Ramkola, Kaptanganj, Saverahi, Hata and Khadda, there are 10 hours in day or night power supply in alternate weeks and also have no regular supply. They are always suffering from frequent power cuts, low voltage supply and electric faults. There is also a big problem of unauthorized use of the electric current. Nearly 40% of households have Katia system. This system is very harmful and sometimes gives a very strong spark. The available total telephone connections in urban areas were 1113 in 1991, which is 4187 in 2001 and 1488 in 2011. The above figures reflect the trend of development in using mobile phones instead of landline telephones because it is easy to handle and portable. Table I shows the highest figure in Padarauna. In Khadda, there is only 231 connections in 2001 and 56 in 2011 less than other centers. 261 public call offices (2011) in urban areas, in which 64 in Padarauna, 25 in Hata, 52 in Saverahi, 26 in Kasia, 30 in Kaptanganj, 24 in Ramkola and 40 in Khadda. This figure is very low in 1991, only 92 public call offices in entire region. In 1981 there is only one Targhar in each urban centers accepting Kasia but in 2001, Targhar of Kasia, Ramkola, Kaptanganj and Khadda were closed only four Targhar are in urban area of Kushinagar. But these are closed now. All centers are provided postal services. In 1981, there were 10 post offices in urban centers, in which 4 in Padarauna, 2 P.O. in Kasia one in each other urban centers but in Kaptanganj, there was no any Post office. Now one P.O. is open in Kaptanganj. In present, there is 4 post offices in Padarauna, 2 in Kasia and 1 in each other urban centers. In 30 years, there is no development shows these figures because the negligence of these small urban centers. Healthy urban recreations like cinema houses are there, like- there are two cinema house in Kasia out of which only one is running properly, same condition is in Padarauna, here are three cinemahouses but only two are running properly; But In Hata & kaptanganj there are one cinema house each but these are closed now a days; these cinema houses are not working properly due to their local disputes, lack of purchasing power of people, lack of facilities etc; but here is no park or any play grounds. In the whole area only 'Buddha Nirvan Sthal' in Kushinagar is develop as a recreation Centre due to its tourism importance. Not only this, the point of worry is rather stagnation of many of the small towns of India. In these centers the surrounding villagers visit for having a change from their routine life and have a pastime.

Health & Educational Services:

The conditions of medical facilities are not so good. There is one district hospital in Kasia, Hata & Padarauna. Except Sevarahi and khadda, there is one Community Health Centre (CHC) in each other five urban centers. From 1981 there exist four primary health centers in urban centers. In present; there is 3 PHC in Padarauna and one PHC in each six urban centers. But sufficient beds, O.T. and specialist doctors are not available as required and those who are available are in poor condition. There are 5 Aurvedic hospitals, in which 2 are in Padarauna, 1 is in Kasia, Hata and Kaptanganj each. 8 homeopathic hospitals or clinic in entire area where no single doctor is available, in the absence of doctors the hospitals are closed for whole day. The family planning and mother child welfare centers are allotted one to each urban centers with the work load of surrounding areas. Private clinics are in much better position but their fee is very high, In order to avail the advance specialized and emergency medical facilities available in these hospitals (TABLE-3).

As for as the educational facilities are concerned the changes have molted to a considerable extent. In 1981 seventeen junior school, thirteen higher secondary, nine senior secondary school three degree collages were present in Kushinagar urban area. In which Padarauna ranked first in no of institutions and Kasia was second. With increasing population and demand some junior, higher and secondary schools are also open but they are not sufficient for extra opportunity and their services are not satisfactory. In present, 28 junior basic school 24 senior basic school 34 higher secondary school and 28 P. G. colleges in 2011. There are more than 100 Montessori nursery schools are open throughout the urban area which influence the modern education (Table: 4). But above all, it is clear fact that the school and colleges spread in a greater number but more of them are away from quality contents and fulfill the need of present day race. Also the condition of higher education is not satisfactory only four P.G. collages (Financed) are in Padarauna, Kasia, Saverahi & Fazilnagar each from 1981, who have the responsibility to shape the youngsters future with their traditional education which is insufficient without any professional assistance. After 2005, there are 26 self-finance collages are also present in these areas but they don't provide quality education; there are a few private technical/vocational training centers as in table (4), but they are not up to the standard to make students future secure; neither these institution

are able to fulfill the needs of local people as for as neighboring rural people. No doubt, these institutions behave as a factory of degrees.

Other Institution:

These types of institutions are too busy to perform as a base for collection and subsequent distribution of agricultural products of the surrounding region. It is actually this rural based function which link small towns with the country side. These are banks, polish station, control rate shop, cold storage, godowns, agricultural and animal service Centre, clothe shop, gold & silver shops, cycle sell & repair shop, hardware shops, book & stationary shops, Aurvadic, medical drugs, Tractor and agricultural implement sell and repair are Centre place function available generally in small towns. Table (5) reveals that the developments of this type of shops are very slow between two decades (1991-2001). There is only one polish station in each urban Centre in 1991 and same in 2011. Control rate shops are 38 in 1991 and 70 in 2011, in which 27 shops in Padarauna, 8 in Kasia & Saverahi each, 8 in Hata & 5 in Khadda, 6 in Ramkola and 5 in Kaptanganj. Being large rural centers six cold storage are provide here two in Padarauna two in Kasia and Ramkola & Sevarahi have one cold storage each, but it's astonishing that out of six, only laree cold storage Kasia is running rest 5 are closed. There were 22 seeds and pesticides centers in 1981 which is now 67. From 1981 to 1991 there were no single agricultural service centers, but in 1995 agricultural service centers were opened and now it is 84 in 2001 and 70 in 2011. These agro based urban centers got only 10 cooperative societies out of which 6 are in Padarauna & Sevarahi, Kasia; Ramkola & Hata has one each. Table (6) shows the banking position of entire region there were 12 branches of nationalized bank in 1981 which were 23 in 2011, in which 5 are in Padarauna, 5 in Kasia, 3 in Ramkola, Kaptanganj, Hata and 2 in rest two urban centers Sevarahi & Khadda. All seven centers have 1 branch of Gramin Bank, 2 branches of corporate bank in Padarauna while other six centers have one branch each. But now 4 branches are closed. There are three branches of Bhumi Vikash bank in urban area in which 1 in Padarauna, Kasia and Hata each. Different type of shops like pan shops, clothe, gold & silver, book & stationary, cycle sell & repair, medicine, bakery, provision stores, country liquor, utensil, fruit and vegetable shops are present in these centers. But only Padarauna, Kasia and Hata have manyshops which fulfill the needs of rural centers also. Ramkola, Kaptanganj, Khadda and

Saverahi have no sufficient shops that fulfill the needs of rural people beside these centers. The people of these centers are come in other urban centers.

Road and Transport:

Small towns and roads are closely associated and contribute to each other development by virtue of their intrinsic qualities of functions. The study area is well served with a good network of transport arteries. National Highway (N.H. 28) travel from Kasia, Hata and Saverahi which is now known as east-west corridor, beside this all other local metaled and non-metaled roads which are provide a great impetus for the development of urban centers connected with district headquarter. All the centers are connected with each other but around 50% villages of countryside are not connected to road network. The total available roads in these urban centers are 180 Km.long in which only 60 Km. length is metaled, according to statistics of Kushinagar 2013. In Padarauna a state roadways depot is under construction. Many state transport bushes and undertaking bushes are running up and private bushes & taxies are also running between these centers and other centers also. Authorized bus services are available from Padarauna & Sevarahi, Kasia is in center because of that these buses passes through it, as well as Hata is on the way to Gorakhpur so that buses are available from there too. But from Ramkola, Khadda & Kaptanganj there is no such authorized bus facility available, people are bound to use private transport like-Taxi, mini bus etc

Conclusion:

Our study of small urban center's infrastructure for housing, electricity, water, sanitation, telecommunication, road and transport reveals many common themes and common problems across the sectors. First is the fundamental importance of access to basic infrastructure for productivity, improving quality of life and stimulating economic development. And second, unfortunately, is the lack of such access in all sectors, because urban services are ignored by town development authority. The scenario of urban facilities is not properly developed for providing good life style and economic development. They are suffering from highly negligence of development. Although this infrastructure includes a number of capital assets for different provisions but these assets have suffered from poor maintenance and little attention, has been paid to the quality of service actually delivered. On the basis of my study, I can say that the existing infrastructure of

services and community facilities of small urban centers have become outmoded, due to over population density. More than half of the people suffer from bad, unsafe and unhygienic environs. Many of the municipal bodies have undeveloped and / or eroded tax systems and suffer from lack of capital funds for development. The services if provided have deteriorated over the years and there seems no sign of reversal. The financial position of urban bodies is very poor, expenditure exceeds the revenue, and it is common for the deficit to be mint by the state government by giving the grant and assistance of occasions of by waivers of loans, octoroi, which was the main source of revenue, has since been abolished and now local bodies have to depend upon transfers that is grant and share from the state government. Only 10% of government expenditure is spent on maintenance of public facilities. Many steps have been taken by both the central and state government like JNNURM, Kansiram Garib Awas Yojana, Water supply, Sewerage and Solid waste disposal and road construction etc. But not surprisingly, there are conflict and controversies and sometime, it is not possible to fix their responsibilities for lapses in providing civic amenities or in solving other urban problems. Therefore, there is lack of infrastructure in small urban centers.

In the context of development, there is a need of decentralization for the healthiest urbanization. Therefore, small urban centers of country can play important role. And if there is a proper provision of urban facilities along with employment, quality education, urban amenities and social protection, which attracts the rural people, and fulfill the rural needs and also deduct the burden of big urban centers.

References

1. Bose, A. (ed.) (1973) 'Studies in India's urbanization'
2. Breese, G. (1973) 'Urban development problems in India, A.A.A.G.,vol.53
3. Chatterjee, A.B. (1965) 'Hinterland of symbolic city, geographical review of India, vol. 24
4. Puri, V.K. & Mahesh Chand (1983) 'Regional planning in India', allied publishers private limited, New Delhi.
5. Singh, H.H. (1972) 'Kanpur, A study in urban geography', Varanasi Davis printings.
6. Singh, O. (1967) 'The trend of urbanization in Uttar Pradesh', NGJI, Vol.13, Part 3.
7. Singh, R.L. (1964) 'Bangalore, an urban survey', Varanasi, N.G.S.I., Smails, A.E. (1953) 'The geography of Towns' London.
8. U.P. district gazetteer, Deoria 1988
9. U.P. district gazetteer dis. Kushinagar 1998

A Positive Effect of Nanotechnology On Global Warming & Climate Change

**Dr.L.Malleswara Rao*¹, Dr.APV Appa Rao¹, Ch. Sundar Singh³,
P Rama Krishna Rao¹& Ch.Kanaka Rao²**

¹Lecturers in Physics & ²Lecturer in Electronics, Sri.Y.N.College, Narsapur.

*Corresponding Author: mallehlync1966@gmail.com

Introductions to Nano science and Nanotechnology

Nanoscience and nanotechnology have made enormous advances in recent decades, and their impact on every sector has been widely recognized across the globe. As a result, their strategic position has already been established in the twenty first century. The study nanomaterial's and nanostructures is a relatively new discipline with several compliments. Nanomaterial's and nanostructures are crucial in the creation of Nano science and nano technology applications such as information and procedures, energy sources, the environment health, and medicinal treatments. Most countries are investing significantly in the study of nanomaterial's and nanostructures, such as the advancement of Nano science and nanotechnology Nano electronic technologies and devices, nano or micro fabrication techniques, Nano biotechnology, Nano medical Diagnosis techniques and nano environmental monitoring and treatment techniques. The continuance of indepth research on nanomaterial's and nanostructures is vitally crucial. Furthermore, the (indepth) study of nanomaterial and nanostructures is a valuable source for developing new ideas, methodologies, and procedures, possibly leading to breakthroughs in major scientific challenges. At the same time, the nanomaterial market is a native power for nanomaterial development.

Introduction of Nanomaterials

Nanomaterials are essential components of nanoscience and nanotechnology. Nanostructure science and technology is a large and multidisciplinary field of study and development that has grown rapidly in recent years across the globe. It has the potential to change the way materials and products are generated as well as the range and kind of functions that maybe accessible. Current in semiconductors may be carried by the flow of electrons or the movement of positively charged holes in the material's electron structure. Nanomaterials with diameters ranging from 1 to 20 nm have emerged as a prominent multidisciplinary area of research interest in the last decade, with the promise for wide-reaching industrial, biological, and electrical applications. Surfaces and interfaces are critical in nanomaterials, although in bulk materials, only a tiny number of atoms will be at or near a surface or interface. The tiny feature size of nanomaterials assures that many atoms, potential 50% or more in certain situations, will be near the interfaces. Surfaces features such as energy levels, electrical structure, and reactivity, may vary significantly from internal states, resulting in quite distinct material properties. Nanocapsules and nanodevices have the potential to open up new avenues for medication delivery, gene therapy, and medical diagnostics. Carbon nanotubes are utilised as reinforcing particles in nanocomposites, but they also have a

wide range of additional uses. They may serve as the foundation for a new age of electrical devices that are smaller and more powerful than bulk materials. Carbon nanotubes have previously been used to build a nanocomputer. Materials with nanometer-scale dimensions have different characteristics than bulk materials.

When semiconductor materials are shrunk to the nanoscale, their physical and chemical characteristics change dramatically, resulting in unique features owing to their enormous surface area or quantum size effect. The semiconductor's conductivity and optical characteristics (absorption coefficient and refractive index) may be changed. Semiconductor nanomaterials and devices are still in the research stage, but they have the potential to be used in a variety of fields, including solar cells, nanoscale electronic devices, light emitting diodes, laser technology, waveguide, chemical and biosensors, packaging films, super absorbents, amour components, automobile parts, and catalysts. Semiconductor devices include numerous types of transistors, solar cells, various types of diodes such as light emitting diodes, silicon-controlled rectifiers, and digital and analogue integrated circuits. Some semiconductor nanomaterials, such as Si, Ge, GaAs, AlGaAs, InP, InGaAs, GaN, AlGaN, SiC, ZnS, ZnSe, AlIn, GaP, CdSe, CdS, and HgCdTe have extensive applications in computers, palm pilots, laptops, cell phones, pagers, CD players,

TV remotes mobile terminals, satellite dishes, fibre networks.

History of Nanomaterials

Michael Faraday created colloidal gold particles in 1857, which was one of the earliest scientific reports. Nanostructured catalysts have also been studied for more than 70 years by the early 1940s precipitated and fumed silica nanoparticles were being made and commercialized in the United States and Germany as ultrafine carbon black alternatives for rubber re-enforcements. Nanosized

Classification of Nanomaterials

Nanomaterials are exceedingly tiny, with at least one dimension of 100 nm or less. Nanomaterials might be one dimension (for example, surface films), two dimensions (for example, strands or fibres), or three dimensions (eg. particles). They may be solitary, fused, aggregated, or agglomerated, and, can have spherical, tubular, or irregular morphologies. Nanotubes, dendrimers, quantum dots, and fullerenes are examples of common

amorphous silica particles have found widespread use in a wide range of everyday consumer items, including nondairy coffee creamer, automotive tyres, optical fibres, and catalytic supports. Metallic nanopowders for magnetic recording cassettes were created in the 1960s and 1970s. Granqvist and Buhrman reported nanocrystals made using the increasingly standard inert gas evaporation process for the first time in 1976. It was recently discovered that Maya blue paint is a nanostructured hybrid material.



Fig. 1: Nanomaterial (Carbon nanotube)

Nano materials. Nanomaterials have uses in the realm of nanotechnology and exhibit physical and chemical properties that vary from ordinary substances (i.e., silver nano, carbon nanotube, fullerene, photo catalyst, carbon nano, silica). Siegel classifies nanostructured materials as zero-dimensional, one-dimensional, two-dimensional, and three-dimensional nanostructures. Nanomaterials are defined as

materials with ultrafine grain sizes (50 nm or dimensionality confined to 50 nm. According to Richard W. Siegel, nanomaterials may be generated with several modulation dimensionalities: zero (atomic clusters, filaments, and cluster assemblies), one (multilayers), two (ultrafine-grained over layers or buried layers), and three (nanophase materials consisting of equiaxed nanometer sized grains) (Fig 2).

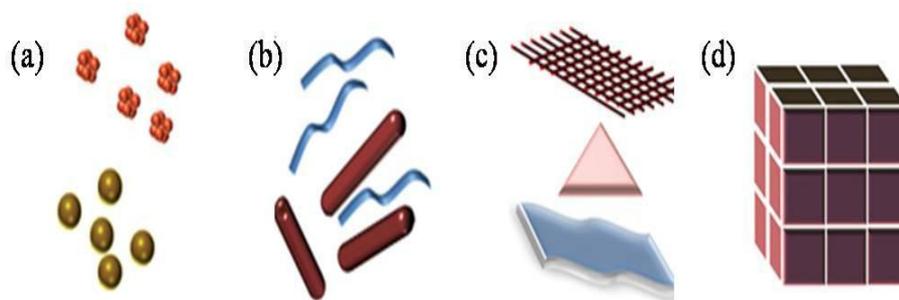


Fig.2: Classification of Nanomaterials (a) 0D spheres and clusters; (b) 1D nanofibers, Nano-wires, and nanorods; (c) 2D, nanofilms, nanoplates, and networks; (d) 3D nanomaterials

Types of Nanomaterials

Current Nanoparticles (NPs) and Nano Semiconductor Materials (NSM) may be classified under four material groups. There are two types of carbon based nanomaterials based nanomaterials:

(i) carbon-based nanomaterials: These NMs often include carbon and have geometries such as hollow tubes, ellipsoids, or spheres. Carbon-based NMs include fullerenes (C60), carbon nanotubes (CNTs), carbon nanofibers, and carbon black, grapheme (Gr), and carbon onions. These carbon-based compounds are manufactured via laser ablation, are discharge,

and chemical vapour deposition (CVD) (except carbon black).

(ii) Metal and metal oxide NPs and NSMs are examples of inorganic-based nanomaterials. These NMs may be used to make metals like Au or Ag NPs, metal oxides like TiO₂ and ZnO Nanoparticles, and semiconductors like silicon and ceramics.

(iii) Organic-based nanomaterials: These are NMs derived primarily from organic matter, as opposed to carbon- or inorganic-based NMs. The Use of Non-covalent (weak) interactions for molecular self- assembly and design aids in the transformation of organic NMs into desirable structures such as dendrimers, micelles, liposomes, and polymer NPs.

(iv) Nanomaterials based on composites: Composite NMs are multiphase NPs and NSMs with one phase on the nanoscale dimension that may combine NPs with other NPs or NPs with bigger or bulk- type materials (e.g., hybrid nanofibers) or more intricate structures (e.g., metal organic frame works). The composites may be made up of any combination of carbon-based, metal-based, or organic- based NMs and metal, ceramic, or polymer bulk components.

Positive Effects of Nanotechnology

Nanotechnology improves the strength of numerous materials and devices while also increasing the efficiency of monitoring devices, using less energy, reducing material waste, preventing toxicity, environmental pollution cleanup, and renewable energy generation.

While these are seen to be favourable effects of nanotechnology. The utilization of nanomaterials and nanoparticles may also result in considerable resource savings and increased efficiency in industrial and energy-related applications. Nanotechnology as the potential to provide Economic, social, and environmental advantages. It has the ability to help lessen the human impact on the environment by addressing issues like as energy usage, pollution, and green gas emissions. Nanotechnology has the possibility of solving the twenty-first century's global concerns, such as supplying alternative energy, defending the human right to clean water, assuring wildlife protection, cleaning up brown fields, and lowering global disease load. It haste potential to provide major environmental advantages, such as:

- cleaner and more efficient industrial processes
- Improved detection and elimination of pollutants through increasing air,water, and soil quality

High precision manufacturing via waste reduction...

Clean ample electricity through highly efficient solar cells

Reduction in the demand for huge industrial units due to the removal of greenhouse gases and other pollutants from the environment

Repairing environmental damage

Nanoscale products that utilize grapheme in commercial or research applications might assist the environment in numerous ways; Graphene-based nanocomposites lower aircraft weight by replacing standard metals and composites, and the weight savings result in a thousand tones of petroleum saved. Metal meshes surrounding the fuselage of an aircraft may be replaced by grapheme thin films or grapheme buck sheets.

To avoid the direct and indirect consequences of lightning strikes The outstanding features of grapheme improve the efficiency of modern renewable energy processes, such as decreasing the weight of wind turbine blades and enhancing energy conversion efficiency.

Energy Consumption: By incorporating grapheme into a coating material, just one layer is required, eliminating the requirement for a multifunctional film coating. A graphene- based coating has two applications: it may be applied to wind turbine blades or the body of an aircraft, It reduces weight while enhancing efficiency.

Material Cost Savings: Novel breakthroughs in nanotechnology will reduce the cost of alternative energy methods such as hybrid autos.

Less Raw Material Waste: Large sample testing will be done on a smaller scale, and raw material consumption will become more efficient. Nanoscale chemical reagents (or catalysts)n speed up chemical processes and improve their overall efficiency.

Environmental Protection and Monitoring: A detector was developed using sophisticated nanotechnology to detect a radioactive leak at the Fukushima Daiichi Nuclear Power Plant quicker and more accurately. This is one of Washington's finest radiation detectors and can detect even the smallest amount of radiation.

Clean and inexpensive energy: When it comes to turning sunshine into power, prototype solar panels using nanotechnology outperform regular designs. Nanotechnology is used in batteries, and nanoparticles may enhance hydrogen storage materials and fuel cell catalysts. Nanotechnology may improve energy production conversion and storage by generating larger surface area and lighter storage units for fuel cells, solar cells,

thermo-to- electric, biomass energy, hydrogen storage, secondary batteries, super- capacitors, and thermal storage fluids.

Protect in the human right to safe drinking water: Because of its speedy and low-cost contaminant identification nanotechnology enables low- cost water filtration. Magnetic interactions with ultra- small rust may aid in the removal of arsenic from drinking water. Nanotechnology may potentially enhance monitoring of air and water quality by inventing more sensitive detection systems capable of measuring a wide variety of pollutants and harmful chemicals at the same time. Rapid detection enables rapid action, limiting damage and lowering repair costs.

Environmental Progress and Pollution Reduction: Lighter automobiles and machines that use less fuel; alternative fuel and energy sources; and materials that detect and remove environmental toxins all seem to be feasible. The University College Dublin (UCD) Center for Bio- Nano Interactions (CBNI) investigates the impact of nanoparticles dispersed in the environment, where decaying plant and animal matter transforms into natural organic matter, typically composed of polysaccharides, and investigates how this interaction affects organic stability, dispersability, environmental fate, and behaviour.

Global Disease Burden Reduction: Personal well-being will grow globally as health care improves via better diagnosis and treatment. Economic Crisis Mitigation Investment in Nanotechnology will encourage economic growth, which will assist the development of auxiliary sectors such as product marketing, waste recycling and disposal, and intellectual property and liability disputes.

Effect of Nanotechnology on Global Warming Global Warming Effect

Global Warming is the world's most recent crisis. All governments and organizations in developed and developing nations are working to minimize it. Global warming refers to the exceptionally fast rise in the Earth's average surface temperature over the last century, which is mostly attributable to green-house gases emitted by humans who use fossil fuels. Over the previous century the global average surface temperature has risen by 0.6 to 1.0 degrees Celsius. This is due to the greenhouse effect. Nearly 30% of incoming sun radiations are reflected back to space from the outer side of the earth's atmosphere, while the 70% enters the earth's atmosphere. A fraction of these radiations (visible light spectrum) is absorbed by the

Earth, and the earth re-radiate this absorbed energy in the form of heat i.e., infrared radiations.

Greenhouse gases including carbon dioxide, nitrogen oxide, methane, fluorinated gases, and water vapour collect heat from infrared radiations and block its departure from the atmosphere, As a result, infrared radiations persist in the earth's atmosphere for an extended period of time, causing the earth's surface temperature to rise. Carbon dioxide emissions are a major contributor to global warming. According to several assessments, the average surface temperature of the Earth might increase by 2°C to 5°C by the end of the twenty-first century.

Climate Change Effect

Climate change induced by greenhouse gases, mostly carbon dioxide (CO₂) created from the combustion of fossil fuels, has caused significant changes in ecosystems and resulted in roughly 150,000 more fatalities per year. This increase is mostly due to the unsustainable use of fossil fuels and changes in land use. Our reliance on fossil fuels is a major contributor to global warming; this is one of the most pressing environmental issues in the near future. Automobiles and industry have recently contributed to a significant rise in greenhouse gases, notably carbon dioxide. Carbon dioxide levels in the atmosphere are 387 parts per million (ppm), over 40% higher since the industrial revolution, according to the United States National Oceanic and Atmospheric Administration (NOAA). The burning of fossil fuels such as oil, gas, and coal is the major source of carbon dioxide emissions in the atmosphere. Greenhouse gases have irreversible effects on the ozone layer, the environment, and human health. Global warming has become a global concern that requires prompt response from all governments. To overcome this problem, many techniques might be used:

1. Reduce energy usage while improving the efficiency of current technology.
2. Reduce the use of fossil fuels in autos and industry and replace them with re-neweable energy sources.
3. Participate in carbon management, which entails separating and transforming carbon into valuable goods.

There are several techniques to reduce energy usage and, as a result, greenhouse gas emissions in many important domains. Nanotechnology has had a significant influence on our lives by offering a feasible alternative to fossil fuels and thereby lowering greenhouse gas emissions.

Transportation and industry are the two largest sources of greenhouse gases in the environment. The current pace of global warming may harm our planet in the future. The latter two decades of the twentieth century were the warmest in 400 years. Climate change has occurred on Earth in the past, but present climate change is faster and damaging. Nanotechnology tackles the problem of global warming by reducing the use of fossil fuels, reducing energy consumption, and improving the efficiency of current renewable energy technologies.

Conclusion

Nanotechnology is a multidisciplinary method that necessitates extensive cross-sector cooperation among university researchers, businesses and government. While nanomaterials may assist clean up certain environmental debris, they can also pollute the environment in other ways. Choosing the correct nanoscale materials is one of the most important aspects for the future of nanotechnology. The Nanotechnology will continue to evolve, help society, and enhance the environment in a variety of ways. Nanomaterials will improve product functionality, weight savings, energy usage, and environmental sustainability. Nanotechnology has the ability to drastically reduce greenhouse gas emissions and thereby mitigate global warming. The current pace of global warming may harm our planet in the future. The latter two decades of the twentieth century were the warmest in 400 years. Climate change has occurred on Earth in the past, but present climate change is more fast and damaging. Nanotechnology tackles the problem of global warming by reducing the use of fossil fuels, reducing energy consumption, and improving the efficiency of current renewable energy technologies.

References

1. B. Viswanathan, *Nanomaterials* by Narosa Publishing House
2. Jin Zhng Zhang, *Optical properties and spectroscopy of nanomaterials*, published by World Scientific Publishing Co. Pvt. Ltd.
3. R. Sajanlal. T. S, Sreeprasad, A, A. K. Samal and T. Pradeep, *Anisotropic nanomaterials: structure, growth, assembly, and functions*, P NANO REVIEWS, vol, 2, (2011),
4. Juh Tzeng Lue, *Physical Properties of Nanomaterials*, *Encyclopedia of Nanoscience and Nanotechnology*, Volume X; Pages (1–46).
5. Dieter Vollath, *Nanomaterials – An introduction to synthesis, properties and application*, *Environmental Engineering and Management Journal*, 2008, Vol. 7, No.6. 865-870.
6. Parijat Pandey, Mandeep Dahiya, (2016). *Carbon nanotubes: Types, methods of preparation and applications*, *International Journal of Pharmaceutical Science and Research*, Volume4 1;Issue 4;May 2016; Page No. 15-21.
7. Jaison Jeevanandam, *Review on nanoparticles and nanostructured materials; history, sources, toxicity and regulations*, Brillstein J. *Nanotechnol.* 2018, 9, 1050–10744 doi:10.3762/bjnano.9.98
8. Martín-Gago, J.A., Casero, E., Briones, C., Serena, P.A., 2009, *Nanoscience y Nanotechnology. Entre lan ciencia ficción del presente y la tecnología del future* Foundation Espanola para la Ciencia y la Tecnología FECYT, Madrid.
9. Serena, P., 2016, *Guía específica de trabajo sobre nanotechnologies parala revolution urbana. Ciudades inteligentes.*
10. Kumar, N.: *Kumbhat, SS Carbon-Based Nanomaterials. Essentials in Nanoscience and Nanotechnology.* John Wiley & Sons. Inc.: Hoboken, NJ, U.S.A., 2016; pp 189–236.
11. Alagarasi, *An introduction To Nanomaterials*, In *Book: Introduction To Nanomaterials*, Chapter: 1, Pp.76 December 2011.
12. M. Anto Godwin, K. Mahitha Shri, M. Balaji, *Nanoparticles And Their Applications–A Mini Review* *International Journal of Research in Engineering And Bioscience*, Volume 3 Issue 5 Pp11- 29.
13. [Http://Www.Nanowerk.Com/Spotlight/Spotid=16126.Php](http://Www.Nanowerk.Com/Spotlight/Spotid=16126.Php) (Accessed June 2, 2012).
14. Syamala Devi1, A.Alakanandana And V.Vijaya Lakshmi, *Impacts Of Nano Technology On Environment-A Review*, Kvol: I. Issue Lviv, January 2018, Pp: 45-51.
15. W.S. Khan, M. Ceylan, E. Asmatulu, And R. Asmatulu, *Effects of Nanotechnology on Global Warming*, *Proceedings of the 2012 Midwest Section Conference of the American Society for Engineering Education.*

Social Media Used By the Academic Libraries during Covid-19 Pandemic Lockdown to Provide Information to the Library Users

Mr. Amol B. Meshram¹ Dr. Kishorsingh Chungade²

Research Scholar Librarian, SN Arts and UK Commerce College Amravati-444606

Research Supervisor Librarian, KRC, GVISH Amravati-444601

Email: aaambbbm72@gmail.com

Abstract: *All the Academic libraries were closed due to covid-19 pandemic lockdown as per the WHO guidelines. The Academic institutions were running online using online platform and using social medias. This new opportunities gives the librarians to use the ICT tools to provide the library services to the library users. Hope initially many problems might be faced by the librarians due to lack of infrastructure to provide the online services. But soon many LIS professional may find the way from this situation and started providing library services to the users and faculty members.*

Keywords: *Academic Libraries, Covid-19 pandemic, Library Services,*

Definitions:

1) Lockdown : a temporary condition imposed by governmental authorities (as during the outbreak of an epidemic disease) in which people are required to stay in their homes and refrain from or limit activities outside the home involving public contact (such as dining out or attending large gatherings) By, Merriam Webster Online Dictionary.

2) Pandemic: a dangerous disease that infects many people at one time. By, Cambridge Online Dictionary.

3) Epidemic: (especially of medicine) of disease or anything resembling a disease; attacking or affecting many individuals in a community or a population simultaneously. By, vocabulary.com

4) Social Distance: Social distancing is a set of measures aimed at stopping the spread of an infectious disease, based on staying away from other people as much as possible. It includes things like working from home, only going out to buy food and other essentials, and avoiding contact with other people. By, Collin English Online Dictionary

5) Social Medias: communications on the Internet, such as on websites for social networking and micro blogging, through which users share information, ideas, personal messages, and other content, such as videos. By, online Britannica

Introduction:-

Whole world was stranded and locked due to covid-19 out spread. The effect was gone to the life of every persons/ human being in the whole world. The education institutions were closed due to the covid-19 pandemic. All the educational institutions were closed for many months as a precautionary measures and guidelines issued by the WHO and by the local

Health Departments and Health ministry of every country. This was an unprecedented situations faced by the people from all corners of the world from new born baby to the very old person. The idea of used of ICT tools and platform were come forward and these platforms were used by the peoples of all over the world for work from home, online learning, organising meetings and for be in touch with the family and friends. The problem of covid-19 gives us an opportunity to take a innovative path so that the life of every human become easier. The use of internet, computers, and mobiles were grown up exponentially in pandemic lockdown period. As we say "every problem is mother of invention and new ideas". This proverb come 100% true in the time of pandemic lockdown and post pandemic lockdown. Every one's life is now blended with conventional and ICT, telecommunications technology.

Drastic transformation is seen in educational domain and in library services may be it college library or university library or public library. Huge online contents are now available on internet in the form of eBooks, eMagazine, eJournals and audio books.

Use of Social Media in the Libraries:-

1) Facebook:-

This media can be used by the Library to create a community of users and can share all the information of library in the form of audio-visual and photos. This is a very popular media among the students and common citizens. Due to its versatile usability it is very useful for the library.

2) YouTube:-

YouTube is a free-hosting video streaming websites that allows all members to watch, store and share. The librarian can

organised any program of library in real time by sending the link to the users. Live streaming is possible in Youtube. The audience may as many as possible without restriction on viewers. Pre recorded videos can be uploaded on the YouTube and the videos can be saved in the playlist for long time till we delete the video from the playlist.

3) Twitter:-

Twitter is a micro blogging and social networking service on which users post and interact with messages known as 'tweets'. We can tweet text, video, audio or links. This messages or tweets can be share very quickly to the masses and the reactions of the users or the feedback of the users can be seen in the form of retweets. This social media can be used to inform the students about any events or for asking any query to the librarian related to reference service or the book available in the collections.

4) Whatsapp:-

This social media is very popular among the netizens or the common citizens and students for sharing the text messages, videos, audio and photos. It allows users to send text messages and voice messages, make voice and video calls, and share images, documents, user locations, and other content. The librarian can share useful links, pdf files, docx files, ebooks, ejournals need by the users as an when requested by them.

5) Telegram:-

Telegram is a globally free accessible, cross-platform, cloud-based instant messaging service. The service also provides end-to-end encrypted video calling, VoIP, file sharing and several other features. Telegram has its own benefits as there is no limit for the joining of members in the group. The messages can be deleted two sided at any time without any time or period restrictions. In the covid-19 lockdown Telegram get more importance for sharing the information to the students, teachers and faculty members of the colleges and educational institutions. As it is nearly resembles to the Whatsapp but the features wise it is one step ahead of it.

6) Google meet app:-

Google Meet is Google's video conferencing app that is available to everyone who has a Google account. An online meeting is easy to set up whether you are an individual getting together with a couple of friends or a small meeting conducting a workshop online. Google meet do not restrict regarding the time. It is freely available for all the Google account holders. As many members can join the meeting

by opening the shared link of the meeting. The Library can be used this meeting app for short discussion on a topic or a short lecture arranged for the students.

7) Zoom meeting app:-

Zoom is a cloud-based video communications app that allows you to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities. This app has its benefits and shortcomings also. It has many features provided to the organisers for sharing, recording, chatting, messaging. But the free time given to the organiser is very less. If you want more time for the meeting then you have to pay for that to the zoom. Long meeting, conferences, seminars, workshops can be organised by using zoom meeting app by the Library.

8) Instagram:-

Instagram is a free photo and video sharing app. Library professionals can upload photos or videos of their service and share them with their followers or with a select group of Students and faculty members. They can also view, comment and like posts shared by the students, users and faculty members on Instagram.

Conclusion:-

Covid-19 pandemic was an unprecedented situation come across the whole world. After many years such situation stands in front of every citizen of the whole world. The entire world was stand still cut from each other. Social distancing was another factor which keeps away from each other. This situation also affects the educational institutions and teaching faculties all over the world. The use of social medias and online platform took place to reach out the students and teachers. The library was also not untouched to the use of ICT and online opens access platforms. The librarian provides services to the users by using the social medias and other online platforms for organising the library programs and providing information services to the users.

References:-

1. <https://www.merriam-webster.com/dictionary/lockdown> (access on 1/08/2022)
2. <https://dictionary.cambridge.org/dictionary/english/pandemic> (access on 1/08/2022)
3. <https://www.vocabulary.com/dictionary/epidemic> (access on 1/08/2022)

4. <https://www.collinsdictionary.com/dictionary/english/social-distancing> (access on 1/08/2022)
5. <https://www.britannica.com/topic/social-media> (access on 1/08/2022)
6. <https://en.wikipedia.org/wiki/Facebook> (access on 1/08/2022)
7. <https://en.wikipedia.org/wiki/YouTube> (access on 1/08/2022)
8. <https://en.wikipedia.org/wiki/Twitter> (access on 1/08/2022)
9. <https://en.wikipedia.org/wiki/WhatsApp> (access on 1/08/2022)
10. [https://en.wikipedia.org/wiki/Telegram_\(software\)#:~:text=Telegram](https://en.wikipedia.org/wiki/Telegram_(software)#:~:text=Telegram) (access on 1/08/2022)
11. https://en.wikipedia.org/wiki/Zoom_Video_Communications (access on 1/08/2022)
12. https://en.wikipedia.org/wiki/Google_Meet (access on 1/08/2022)
13. <https://en.wikipedia.org/wiki/Instagram> (access on 1/08/2022)
14. <https://digitalcommons.unl.edu/libphilprac/4262/> (access on 1/08/2022)

Yoga and Mental Peace: A Study

Nipan Haloi

Assistant Professor Sankardeva Mahavidyalaya, Patalipahar

Abstract At present, Yoga has become widely known and has been used for treatment of chronic health conditions. Through Yoga individuals get empowered positively to take charge of one's own psychological wellness. It could save a large expenditure for treatment and prevention of mental health problems. Yoga can take the form of a new therapy for curative, preventive, protective and promotive objectives at schools, hospitals, health care centers and even in family too. It offers immense help in sustaining wellness, addressing concerns related with increasing suicidal tendencies due to examination anxiety, deal with frustration and conflicts in society and to opt career choices with full awareness of one's own abilities and potentials. Yoga plays a vital role in balancing equilibrium between our mind, body and soul. Hence, the purpose of this study is to analyze how the practice of yoga helps in achieving peace of mind, in comparison with people who do not practice yoga.

Introduction

Yoga is one of the most ancient metaphysical sciences among others. It investigates the nature of soul and through its discipline, awakens the super conscious mind of the man which unites the moral being with the immortal supreme spirit.¹ Human beings suffer from more and more physical and psychological stress and strains and it becomes common among youth of present society. Yoga helps to find out the ways to face them and solve it.

It is very important to mention that Yoga creates balance and also provides both a philosophy and a religion. The real joy of life appears when we can unify nature and culture, wealth and poverty, movement and stillness, attachment and detachment. In this respect, the yogic activities provide immense help in assisting an individual to seek his all round growth and development in all the personality dimensions including the union of his self with the Greater soul. Many still believe that yoga is a religion, but it's not, instead, it's a way of living who strives to have a healthy mind in a healthy body. A human is a mental, physical and spiritual being and yoga helps promote a balanced development of all the three. Other forms of physical exercises, such as aerobics, guarantee only physical well being. They have very little to do with the development of the spiritual or planetary body.

Yoga is a form of mind-body fitness that involves a combination of muscular activity and an internally directed mindful focus on awareness of the self, the breath, and energy. Four basic

principles underlie the teachings and practices of yoga's healing system.² The first principle is the human body is a holistic entity comprised of various interrelated dimensions inseparable from one another and the health or illness of any one dimension affects the other dimensions. The second principle is individuals and their needs are unique and therefore must be approached in a way that acknowledges this individuality and their practice must be tailored accordingly. The third principle is yoga is self-empowering; the student is his or her own healer. Yoga engages the student in the healing process; by playing an active role in their journey toward health, the healing comes from within, instead of from an outside source and a greater sense of autonomy is achieved. The fourth principle is that the quality and state of an individual's mind is crucial to healing. When the individual has a positive mind-state healing happens more quickly, whereas if the mind-state is negative, healing may be prolonged.

In recent years there is a growing utilization of Yoga as one of the therapeutic measure in the field of mental health where the benefits of yoga practice and therapy are being widely recognized. Now the health professionals are aware of therapeutic values of yoga and many introduce the approach as a psycho-physiologic and spiritual technique in their treatment.³ Research indicate

¹ Shyam Sundar Sarkar (2018) "Yoga And It's Importance In Our Daily Life", *International Journal of Humanities and Social Science Invention (IJHSSI)*, Volume 7 Issue 08 Ver. II, ISSN- 2319 – 7722, P.48.

² Catherine Woodyard, (2011) "Exploring the therapeutic effects of yoga and its ability to increase quality of life", *international journal of Yoga*, Issue No- 4(2): 49–54, retrieved from <https://www.ncbi.nlm.nih.gov/pmc/article/PMC3193654/>

³ Shankar Das (2018) "Global Mental Health, Peace and Sustainability: Does Yoga Show the Way?",

Asanas increase patient's physical flexibility, strength and coordination while the Pranayama and Meditation practices calm and focus the mind to enhance higher self awareness and lessen anxiety, that result in better quality of patients life. Some other beneficial and therapeutic effects reported by Yang such as reduction in level of distress, blood pressure, and improvement in mood, resilience and metabolic regulation. Studies also indicate yoga is effective in the treatment of anxiety disorders (including in caregivers), pain, Alzheimer's disease, stroke prevention and rehabilitation, epilepsy, peripheral nervous system disorders and multiple sclerosis. Hence, this study is an effort to understand how Yoga could bring mental peace in our life.

Objective

1. To understand how Yoga could bring mental peace in our life.
2. To know the importance of Yoga in balancing equilibrium between our mind, body and soul.

Methodology

This study is primarily descriptive and analytical. In this study only secondary source of data have been used. The secondary source of data includes like books, articles, research papers, report published from various sources, internet sources and so on.

History of Yoga

The history of yoga is indeed very old and nothing can be said firmly about the origin of yoga only it can be alluded that yoga was organized in India. The available evidence shows that history of yoga was related to Indus valley civilization. At that time people used to do yoga. On the basis of various sculptures and sculptures we reach at the conclusion that yoga was a part of the civilization. Yoga has its origins in ancient Indian philosophy and can be traced back to the Rigveda itself, the oldest Hindu text which speaks about yoking our mind and insight to the Light of Truth or Reality. Great teachers of early Yoga include the names of many famous Vedic sages like Vāsiṣṭha, Yajñavalkya, and Jaigīśavya. The greatest of the Yogis is always said to be Yogeśvara Kṛṣṇa himself, the propounder of Bhagavadgītā which is called as Yoga Śāstra an authoritative work on Yoga. Lord Śiva is also the greatest of the Yogis or Ādinātha.

The word "Yoga" originates from Sanskrit and it means "to join, to unite". Yoga exercises have a holistic effect and bring body, mind, consciousness and soul into balance. Yoga assists us in coping with everyday demands, problems and worries.⁴ It also helps to develop a greater understanding of our self, the purpose of life and our relationship to God. On the spiritual path, Yoga leads us to supreme knowledge and eternal bliss in the union of the individual Self with the universal Self. Yoga is that supreme, cosmic principle. It is the light of life, the universal creative consciousness that is always awake and never sleeps; that always was, always is, and always will be.

It needs to mention here that Yoga is a 5000 year old tradition. In India monks went into seclusion for years with the goal of creating a disease free strong body. The original intention was to be able to sit in meditation for hours but with a achy body that is impossible to do.

In India, Yoga has been part of man's activities directed towards higher spiritual achievements. The history of Yoga could be divided into five categories: a. Vedic period b. Pre-classical period c. Classical period d. Yoga in Medieval Times e. Yoga in Modern Times. All these five categories of Yoga could be discussed as follows-

Vedic period: The earliest recorded mention of the word 'yoga' is in the ancient Indian text, the Rig Veda - this body of knowledge dates back to around 1500 BC! In the Atharva Veda, again (dating to 1200-1000 BC), there is a mention of the importance of the control of breath. It is difficult to pinpoint exact dates because in the beginning, the Vedas were, only, orally passed on from one generation to another. Written records came much later.⁵

Pre-classical period: In this period, the Upanishads took birth. They explain the meaning hidden in the Vedas, elaborating on the workings of the mind and spirit through personal teachings. They espouse meditation and mantra recitation towards the ultimate goal of attaining enlightenment. Out of the 108 Upanishads, there are 20 yoga Upanishads.

⁴ Sunil Kumar Yadav, Ashwani Kumar, Vikas Kumar, Anil Kumar (2015) "Importance of yoga in daily life", retrieved from <https://www.researchgate.net/publication/278673574>

⁵ See A brief history of yoga: Through the ages available at <https://www.artofliving.org/in-en/yoga/yoga-for-beginners/brief-history-yoga>.

Classical period: In the classical period, Lord Mahavira and Lord Buddha's teachings formed the early basis for Yoga Sadhana. While Lord Mahavira spoke of attaining salvation and freedom through meditation, Lord Buddha spoke of specific postures and meditation to attain enlightenment. The Bhagavad Gita also came into existence in this period. This text is a dialogue between Lord Krishna (universal consciousness) and Prince Arjuna (human consciousness). Here, the Lord explains the concepts of Dharma, Karma yoga (generous actions), Bhakti yoga (dedicated and caring actions) and Jnana yoga (knowledge).

Yoga in Medieval Times: With regard to Yoga in Medieval times, many sages and philosophers such as Adi Shankaracharya contributed to the development and continuation of Raja Yoga and Jnana yoga, adopting and building upon the teachings and techniques of yoga. With his teachings, and yogic rituals, like the Jnana Yoga, one can achieve Nirvana or liberation. Additionally, meditation was also considered vital to help clear the mind.

Yoga in Modern Times: There are numerous person and instances associated with the development of Yoga in Modern times. Swami Vivekananda was largely responsible for the spread of yoga to western societies. Here, there was much focus on physical well-being. Raja yoga was further developed by Ramana Maharshi, Ramakrishna Paramahansa, BKS Iyengar, K Pattabhi Jois, Paramhansa Yogananda, and Vivekananda. Yoga spread to the West in the mid-nineteenth century. Vedanta, Bhakti and Hatha yoga flourished at this time.

These are the five categories through which one can understand about the historical background of Yoga. However, many more things left out from this discussion.

Yoga and Mental Peace

The practice of yoga has grown as a universal science which has innumerable therapeutic facets that helps to achieve holistic health. Though there are numerous types and schools of yoga, each characterizes their own specific styles of mind and body postures (asanas), breathing techniques (pranayama), meditation and deep relaxation practices that fosters awareness and eventually promote intense states of consciousness. According to yoga the nervous system of an individual affects one's health and yoga purifies and brings relaxation to the mind. It symbolizes

unification of mind, body and soul to enable a person to gain higher consciousness.

In the Indian tradition, Yoga was conceived as a pathway towards attainment of joy in life, freedom from sorrows, mental balance and peace. Since antiquity, the seekers of self-realization (often called as Rishis or Yogis) have been using yogic practices for restoring mind-body balance in order to make them capable for attaining spiritual realization.⁶ The ultimate states of human mental health development have been described using different terms. For example, Buddhists use notion of 'Nirvana', Samkhya system uses 'Moksha', Vedantists use 'Atmasakshaatkar' etc. But all these notions converge in their meanings that it involves liberation from suffering. Sage Patanjali, who collated, coordinated and systematized the system of Yoga, declared the main objective of Yoga as regulation of mind in the first aphorism of famous Yoga Sutra (Yogah Chittvritti Nirodhah). Bhagavad Gita, which elaborates comprehensive typologies of Yoga, also states the need of Yoga for removing sorrow and increasing bliss in life. Hath Yoga, a yogic tradition focusing on physical modus-operandi for realizing deeper states of consciousness, emphasises on postures, breathing patterns, energy locks and contemplation to enhance energy and vitality.

Mental health is very important for quality life of an individual. Promoting mental health is crucial to raise performance and enhancing the quality of life and health. By fostering psychological health, several social problems can be addressed effectively. Yoga, which has immense capacity to promote mental health, has not been used to cater to the needs of mental health promotion.⁷ It can empower people to self-regulate their emotions, behaviors and cognitive processes. Regular practice of Yoga may decreases the time taken to fall asleep, increase in the total number of sleep hours, and feeling of being fresh after sleep in the morning. Although the practice of Yoga only cannot be complete cure for many chronic ailments but it can uplift patient's mood and therefore play an important role in the management of wellness in patients suffering with different critical illnesses. Among cancer patients, for instance, it can

⁶ Arun Pratap Singh (2017) "Yoga for mental health: opportunities and challenges", *MOJ Yoga & Physical Therapy*, Volume 2 Issue 1, p.1.

⁷ Ibid

increase acceptance of life in reality, energy, relaxation, quality of sleep and quality of life.

It is very crucial to mention that creating sustainable global peace on the Earth is an ultimate state of contentment and freedom amongst and within all nations and humanity.⁸ At the same time sporadic and acute societal unrest; including religious fanaticism, terrorism, territorial disputes, political and ethnic tensions posing greater challenge of the era around the globe. The interpersonal conflict may escalate to institutional aggression, hostility and war. For every human being world peace is desirable and peace brings both material and spiritual benefit to all societies. When it's most needed the yogic science has the power to inspire grassroots social change in the world. Yoga is not just for self-transformation, but is an instrument for global peace which provides internal, emotional and spiritual reconciliation and healing. It gives one the self-strength and capability to approach conflicts from a space of mindfulness, compassion and love, in such circumstances peace is inevitable.

Conclusion

Currently, Yoga become popular all over the world and now it is being practiced by citizens of all the continents. Indeed Yoga has become widely known and has been used for treatment of chronic health conditions, and management of the symptoms related to acute physical ailments. Yoga empowers individuals' positively to take charge of their own psychological wellness and save a large expenditure for treatment and prevention of mental health problems. Yoga can take the form of a new therapy for curative, preventive, protective and promotive objectives at schools, hospitals, health care centers and in family. It offers immense help in sustaining wellness, addressing concerns related with increasing suicidal tendencies due to examination anxiety, deal with frustration and conflicts in society and to opt career choices with full awareness of one's own abilities and potentials. After going through this discussion it can be said that Yoga is very important not only to maintain good physical health but also mental health too. However, it needs to mention that the common masses of India are yet to understand about the benefit of Yoga. To make it success,

government should take proper policies and needs to introduce some courses in the School, College and also in University level for popularizing it.

References

1. Bhardwaj, Ajay. (2019) "Universal Application of Yoga for Peace and Harmony", *Journal of Yoga and Physiotherapy*, Volume 7 Issue 3, ISSN-2476-1303.
2. Brisbon NM, Lowery GA. (2011) Mindfulness and levels of stress: A comparison of beginner and advanced Hatha yoga practitioners. *J Relig Health* 50 (4): 931-941.
3. Capona Hannah, O Shea Melissa & McIver Shane. (2019) "Yoga and mental health: A synthesis of qualitative findings", *Complementary Therapies in Clinical Practice*, 1744-3881/ available at <https://doi.org/10.1016/j.ctcp.2019.101063>.
4. Chandran, K Madhava & Unniraman, P. (2019) "Influence of yoga in achieving peace of mind", *International Journal of Yoga, Physiotherapy and Physical Education*, Volume 4; Issue 3, ISSN: 2456-5067.
5. G. Kirkwood, H. Rampes, V. Tuffrey, J. Richardson, and K. Pilkington, (2005) "Yoga for anxiety: a systematic review of the research evidence," *British Journal of Sports Medicine*, vol. 39, no. 12, pp. 884–891.
6. Herrman Helen, Saxena Shekhar, Moodie Rob. (2005) *Promoting mental health: concepts, emerging evidence, practice*, report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne, ISBN 92 4 156294 3.
7. Kirkwood G, et al. (2005) —Yoga for Anxiety: A Systematic Review of the Research, *British Journal of Sports Medicine*, Vol. 39, No. 12, pp. 884–91.
8. K. Meister, G. Juckel, (2017) A systematic review of mechanisms of change in body-oriented yoga in major depressive disorders, *Pharmacopsychiatry*, <https://doi.org/10.1055/s-0043-111013>.
9. Mishra, M & Sinha, RK. (2001) Effects of yogic practices on depression and anxiety. *SIS Journal of Projective Psychology and Mental health*, 8:23–27.
10. Pilkington K, et al. (2005)—Yoga for Depression: The Research Evidence, *Journal of Affective Disorders*, Vol. 89, No. 1–3, pp. 13–24.

⁸ Shankar Das (2018) "Global Mental Health, Peace and Sustainability: Does Yoga Show the Way?", *Journal of Depression and Anxiety*, Volume 7, Issue 1, 2167-1044, p.2.

Traditional Uses of Medicinal Plants in Treating Bone fracture, Urine stone, Stomachache and Jaundice in Chandgad Tahsil (District Kolhapur) of Maharashtra, India

Arun Patil¹ Varsha Jadhav¹

Assistant Professor, Department of Botany, Yashawantrao Chavan College, Halkarni, Kolhapur (M.S.), India

Department of Botany, Shivaji University, Kolhapur (M.S.), India

E- mail: arunpatil545@gmail.com

Abstract An ethnomedicinal survey was under taken to collect information from local rural people about the use of medicinal plants in Chandgad Tahsil. The present paper documents the traditional knowledge of medicinal plant species used to cure Bone fracture, Urine stone and Jaundice. Ethnomedicinal information of medicinal plants was taken from different localities of Chandgad Tahsil by interview with local rural practioners (vaidya). The knowledge about the medicinal plant has been transmitted orally from generation to generation. The people in the study area still have a strong belief in the efficacy and success of hearbal medicine. The present investigation revealed that there are about 5 species of plants used to treat Bone fracture, 9 species of plants used to cure Urine stone, 5 species of plants used to cure stomachache and 5 species of plants used to cure Jaundice. The traditional knowledge of medicinal plants has great potential for research and the discovery of new drugs.

Keywords: Traditional, medicinal plant, Bone fracture, Urine stone, Jaundice. Chandgad Tahsil

Introduction

India is considered to be a store house of medicinal plants. It harbors over 2000 medicinal plant species. During last few decades there has been an increase in the study of medicinal plants and their traditional uses in different parts of the world. Herbal remedies are considered the oldest form of health care known to mankind on this earth. Chandgad Tahsil has a valuable heritage of herbal remedies. The climate of the area is healthy and favorable for growth and development of plants. So area shows rich biodiversity. Many villages of Chandgad tahasil of Kolhapur district are located in the forest area and are far away from city. Its rural people living in remote forests are still depending on the local plant resources for medical treatment. The local rural herbalist or medicine man (health practitioner) called Vaidu. Vaidu cure various diseases of rural people using medicinal plants. Traditionally this treasure of knowledge has been transmitted orally from generation to generation without any written document. With an errosion of traditional culture of tribal and rural peoples invaluable knowledge of medicinal plants is threatened. It is an urgent need to collect and conserve all ethnobotanical information from various communities.

Material and Methods

For gathering information regarding plants used medicinally by the rural vaidus several field trips were undertaken in the villages of chandgad tahsil in different seasons. Ethnobotanical data were collected according to

the methodology suggested by Jain. The ethnobotanical data (local name, mode of preparation, medicinal uses) were collected through questionaries, interviews and discussion among the rural practitioners (vaidu) in their local language and recorded in field note book. The collected information was cross checked with the help of available literature. The specimens were collected from the field and identified with the help of local flora. Names of all key informants were noted and are available on request. The study involved an extensive literature search and herbarium examination.

Observations

Folklore medicinal plants are arranged disease wise with their botanical name, family, local name, part used and mode of administration in table 1.

Result and Conclusion

Present investigation revealed that 9 plant species are used for treatment of Urine stone, 6 plant species are used for treatment of Bone fracture, 5 species of plants used to cure stomachache and 5 plant species are used for treatment of Jaundice. This indicates that rural people of this region possess good knowledge of herbal drugs but their continuous and progressive exposure to modernization may result in extinction of the rich heritage of knowledge in course of time. The part of the plant most used for medicinal purposes were leaves followed by stem bark, roots, fruits, and seeds. Ethnomedicinal data may provide a base to start the search for new compounds related to photochemistry, pharmacognosy and

pharmacology. This may provide new source of herbal drugs and help to understand the molecular basis of their activities. Moreover it may further be mentioned that over exploitation of these species in the name of medicine may

lead some species ultimately to the disappearance in future. Therefore attention should also be made on exploitation and proper utilization of these medicinal plants.

Table 1: List of Medicinal Plants with Botanical Name, Family, Local name, Part used and Administration

Sr. No.	Botanical name, Family and Local name	Part used	Administration
Urine Stone			
1	<i>Bridelia squamosa</i> (Lam.) Gehrm. Euphorbiaceae; Ragat Asan	Bark	One cup bark extract given by empty stomach for seven days.
2	<i>Celosia argentea</i> L. Amaranthaceae; Kurdu	Root	One cup root decoction given for seven days.
3	<i>Cipadessa baccifera</i> (Roth) Miq. Meliaceae ; Narang	Leaf	One cup leaf extract and half cup of milk added with half spoon poppy seed powder taken internally by empty stomach for seven days.
4	<i>Cynodon dactylon</i> (L.) Poaceae; Harali, Durva	Leaf	Whole plant extract taken orally for ten days.
5	<i>Dendrophthoe falcate</i> (L.F.) Loranthaceae; Bandgul, Bande	Leaf	One cup leaf extract taken orally for five days.
6	<i>Holarrhena pubescens</i> (Buch.-Ham.) Apocynaceae; Pandhara Kuda	Bark	Two spoon bark powder with water given early morning for seven days.
7	<i>Hygrophila schulli</i> (Buch-Ham.) Acanthaceae; Kolshinda	Leaf	One cup leaf extract given with coconut milk.
8	<i>Kalanchoe pinnata</i> (Lamk.) Crassulaceae; Paanphuti	Leaf and Root	Leaf and root extract taken early morning for five days.
9	<i>Tridax procumbens</i> L. Asteraceae; Dagadipala, Kunticha pala	Leaf	Leaf extract given early morning for five days.
Jaundice			
1	<i>Achyranthus aspera</i> L. Amaranthaceae; Aghada	Leaf	Two tea spoon leaf juice given for seven days.
2	<i>Careya arborea</i> Roxb. Lecythidaceae; Kumbha	Bark	Bark juice applied over all body for five days.
3	<i>Ricinus communis</i> L. Euphorbiaceae; Erand	Leaf	One glass leaf extract given orally by empty stomach for five days.
4	<i>Solanum nigrum</i> L. Solanaceae; Kamuni	Leaf	Leaf juice given for seven days.
5	<i>Tinospora cordifolia</i> (willd.) Menispermaceae; Amrut vel	Leaf	One cup leaf extract with one spoon honey given early morning for one week.
Bone fracture			
1	<i>Allophyllus cobbe</i> (L.) Sapindaceae; Tipani /Hadsandhi	Leaf	Leaf paste plastered over bone fracture.
2	<i>Casearia championii</i> Thw. Flacourtiaceae; Modi, Hadmodi	Leaf	One glass leaf extract taken internally twice a day for one week and leaf paste applied over fractured part.
3	<i>Careya arborea</i> Roxb. Lecythidaceae; Kumbha	Bark	Fractured bones of childrens were tightly bound by elongated bark.
4	<i>Pavetta Crassicaillis</i> Bremek Rubiaceae; Papat	Leaf and bark	Leaf paste bind over fractured part for 15 days and one spoon bark powder eaten with coconut kernel for 15 days.
5	<i>Persea macrantha</i> (Nees) Lauraceae; Pulas	Bark	Crushed bark plastered over fractured bone and bark juice given orally.
6	<i>Wendlandia thyrsoides</i> (R. & S.)	Leaf	Leaf paste applied over fractured bones.

	Rubiaceae; Ranper, Tarangi		
Stomachache			
1	<i>Acacia catechu</i> (L.F.) Mimosaceae; Khair	Bark	Bark decoction taken internally twice a day.
2	<i>Alstonia scholaris</i> (L.) Apocynaceae; Satvin, Saptaprni	Bark	Bark extract given for ten days.
3	<i>Amaranthus spinosus</i> L. Amaranthaceae; Kate-Mat	Leaf	Leaf paste along with lemon juice taken orally.
4	<i>Mallotus philippensis</i> (Lam.) Euphorbiaceae; Shendri	Fruit	Fruit cover powder taken internally with water.
5	<i>Toddalia asiatica</i> (L.) Rutaceae; Jangli mirachi	Leaf	One cup leaf decoction taken internally.

References

1. **Agarwal, V. S. and Ghosh, Barin.** 1985. *Drug plants of India: Root drugs*. Kalyani Publishers, New Delhi.
2. **Jain, S. K.** 1965. Medicinal plant lore of the Tribal of Bastar. *Economic Botany*. **19**: 236-250.
3. **Jain, S. K.** 1991. *Dictionary of Indian folk medicine and ethnobotany*. Deep Publications.
4. **Jain, S. K.** New Delhi. 1987. *A Manual of Ethnobotany*. Scientific Publishers, Jodhpur, India.
5. **Yadav, S. R. and Sardesai, M. M.** 2002. *Flora of Kolhapur district*. Shivaji University Kolhapur.

Population Characteristics of Malegaon & Nandgaon Tahsils of Nashik District

Dr. Sunil Ashok Deore
MSG College Malegaon, Nashik
E-mail-sunildeore555@gmail.com

Abstract: In this research paper the researcher has studied the characteristics of population of Malegaon and Nandgaon tahsils of Nashik district. The geographical data analysis technique has been used for calculating the results of this paper. Total population of the district having analyzed compared with reference to the census 2001& 2011. The tahsil wise decadal growth of the Nashik district in 2001 and 2011 compared and. The R growth rate formula has been used to calculate the population growth rate. The data has been tabulated maps have been incorporated at the place. Rural population growth rate as well as urban population growth rate in the Nashik district has been calculated in the decade 2001 and 2011

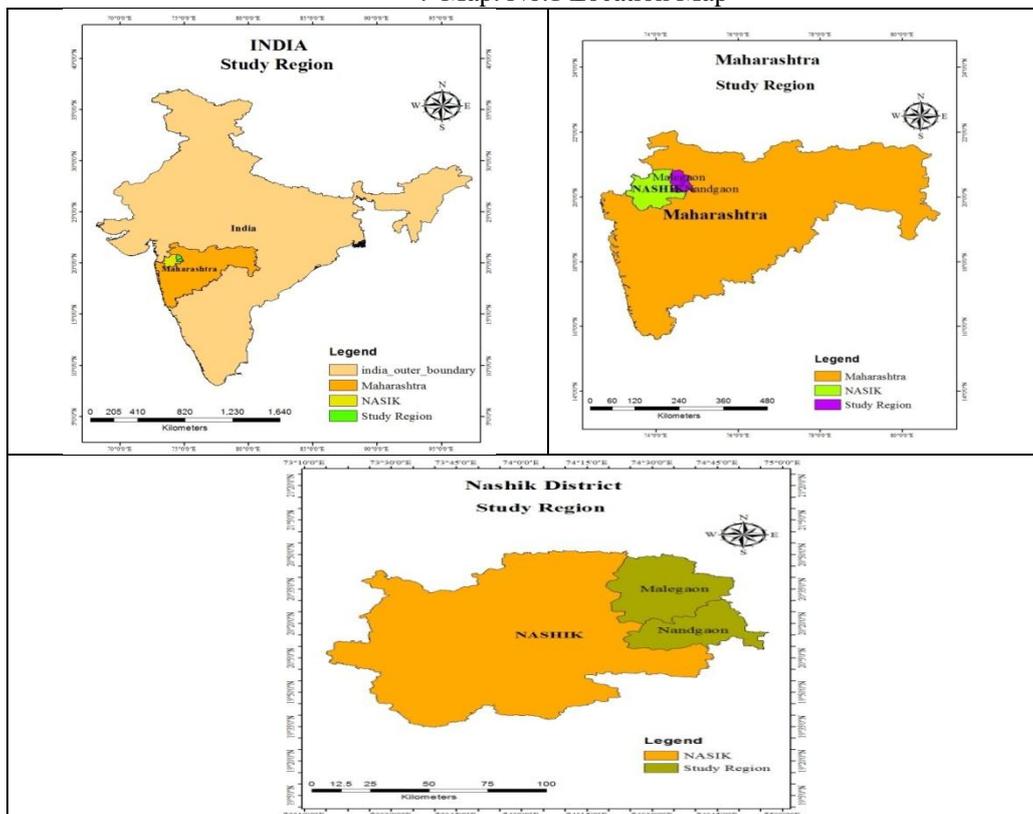
Introduction

India is a second largest populated country of the world; there were 1210726932 as per 2011 census. Maharashtra state is a second largest populated state of the country, Maharashtra state total population was 112374333 as per 2011 census. The Nashik district is fourth largest populated district of the state; there were 6107187 total populations as per the 2011 census. And Malegaon tahsil is second largest tahsil of the district i.e. 955594. And Nandgaon tahsil is fifth largest populated tahsil of the district. The total population of the tahsil was 288848 as per 2011 census.

Study Area

Study area are situated in the east part of the district, lies between 20° 00' N To 20° 53' North latitudinal and from 74° 21' E to 74° 56' East longitudinal extension, with the total geographical area of 2919.62 sq. km. According to census 2011, 1244442 total population of the study area, to the east of study area is Jalgaon & Dhule district, on the western side are Satana, Deola and Chandwad tahsils (Nashik District) Aurangabad is at the south east, Yeola tahsil is south. Malegaon and Nandgaon both tahsils are situated in the east part of the district

. Map. No.1 Location Map



Methodology-

Methodology is one of the significant part of analysis result of analysis highly depend on the

methodology will be used for the data analysis purpose. The present study is based on the secondary source of data.

Objectives

- 1) To study the population characteristics in the study area
- 2) To study the tahsil wise population of the district
- 3) To study the rural urban population of the study area.

Table No. 1: Tahsil wise total population of the district as per census 2001 & 2011

Sr. No.	Tahsils	Total population	
		2001	2011
1	Surgana	145135	175816
2	Kalwan	168403	208362
3	Deola	127194	144522
4	Baglan	311395	374435
5	Malegaon	789230	955594
6	Nandgaon	236319	288848
7	Chandvad	205189	235849
8	Dindori	264727	315709
9	Peth	96774	119838
10	Trimbakeshwar	136417	168423
11	Nashik	1317367	1755491
12	Igatpuri	228208	253513
13	Sinnar	292075	346390
14	Niphad	439842	493251
15	Yeola	235521	271146
	Nashik Total:	4993796	6107187

(Source – Census 2001, 2011)

As per censuses of 2001 the total population of Nashik district was 4993796. Then a decadal later in 2011 it was increased with 1113391 and was 6107187. The rate of growth in this decade was a 22.29%. Out of 2001 the population of Malegaon tahsil was 789230. And

then a decade later in 2011 it was increased with 166364 and was 789230. The rate of growth in this decade was a 21.07%. And the total population of the Nandgaon tahsil was 236319. Then the 2011 it was increase 52529. And was 288848. It means decadal growth of 22.23 %.

Figure No. 1 as per census 2001 & 2011 Tahsil wise Population of the Nashik district.

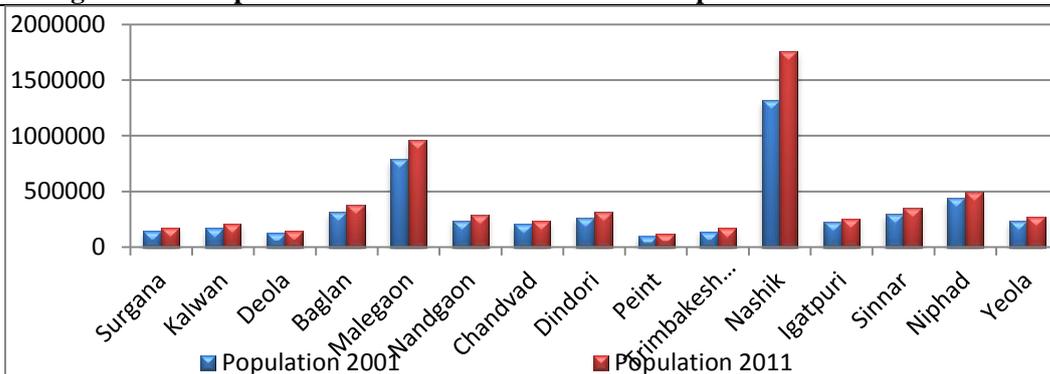
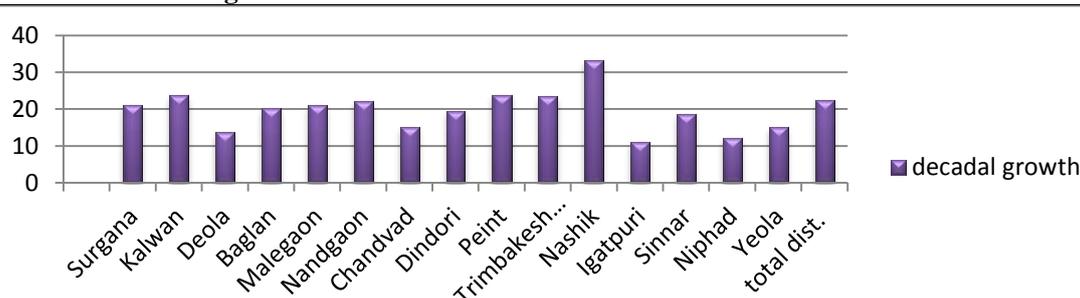
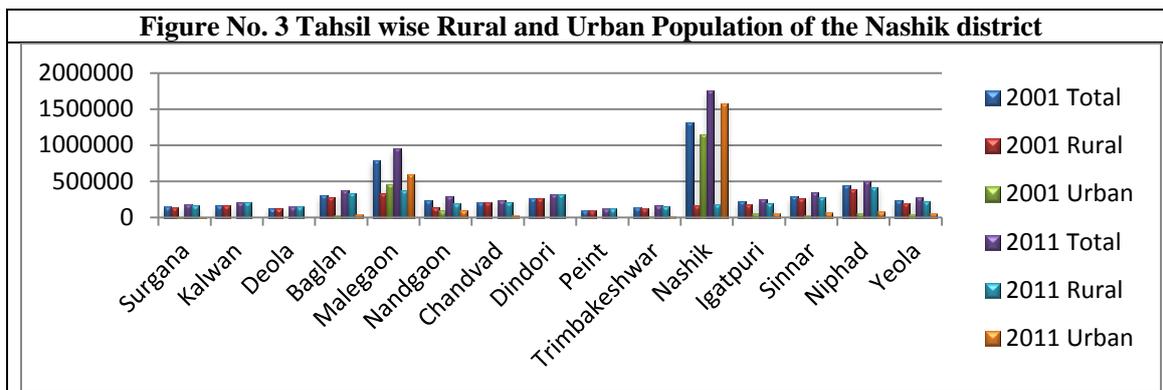


Figure No. 2 Tahsil wise Decadal Growth in Nashik district





Above the figure No. 1 we can see that the different between 2001 to 2011 total population of district with tahsil wise. After the Nashik tahsil, Malegaon tahsil is highly populated tahsil of the district and Nandgaon tahsil is fifth largest populated tahsil of the district.

Tahsil wise decadal growth of the Nashik district

As per census of 2001 the total population of Nashik district was 4993796 and 6107187 as per

the 2011 census. Which means the increase in population in this decade was 22.29 %. And the total population of the Malegaon tahsil was 789230. And then a decade later in 2011 it was increased with 166364 and was 789230.the rate of growth in this decade was a 21.07%. And the total population of the Nandgaon tahsil was 236319. Then the 2011 it was increase 52529. And was 288848. It means decadal growth of 22.23 %.

Table No. 2: Tahsil wise population decadal growth in Nashik district

Sr. No.	Tahsils	Total population		Decadal growth 2001 to 2011
		2001	2011	
1	Surgana	145135	175816	21.13
2	Kalwan	168403	208362	23.72
3	Deola	127194	144522	13.62
4	Baglan	311395	374435	20.24
5	Malegaon	789230	955594	21.07
6	Nandgaon	236319	288848	22.23
7	Chandvad	205189	235849	14.94
8	Dindori	264727	315709	19.25
9	Peint	96774	119838	23.83
10	Trimbakeshwar	136417	168423	23.46
11	Nashik	1317367	1755491	33.25
12	Igatpuri	228208	253513	11.08
13	Sinnar	292075	346390	18.59
14	Niphad	439842	493251	12.14
15	Yeola	235521	271146	15.12
Nashik Total:		4993796	6107187	22.29

(Source – Census 2001, 2011 computed by researcher)

The following formula applied to calculate the growth rate of population

$$R = \frac{P_n - P_0}{P_0} \times 100$$

Where;

R = growth rate of population.

P_n = current years population

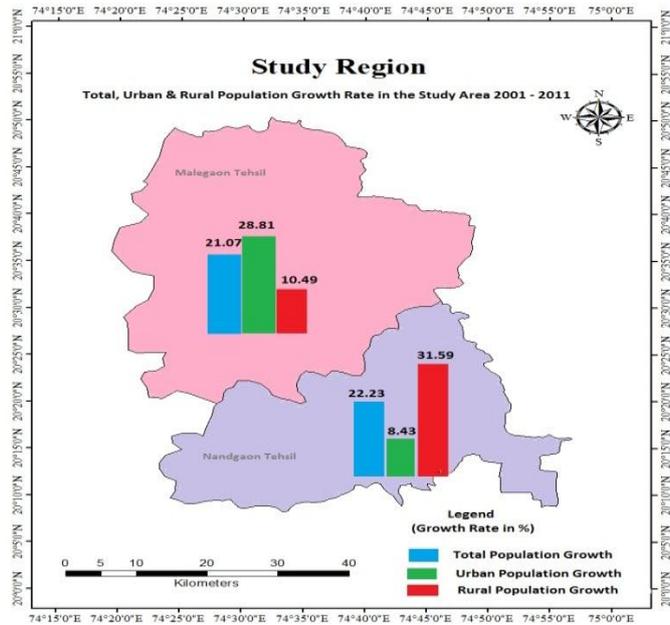
P₁ = Base year population

Table presents the tahsil wise population growth in Nashik district from 2001 to 2011. According to decadal growth of more than 20 are Surgana, Kalwan, Baglan, Malegaon, Nandgaon, Peint, Trimbakeshwar, and Nashik tahsil and whole district also. Deola, Chandwad, Dindori,

Igatpuri, sinner, Niphad, and Yeola tahsils population growth is lower than average of Nashik districting. That is less than 20. Specially Malegaon and Nandgaon both tahsil as well as total district average population growth rate is between 21 to 23% , Malegaon tahsil are

populated as compare to Nandgaon tahsil, Malegaon tahsil population 166364 it has increased so much in between 2001 to 2011.

As shown Figure No. 2 in the above table, there is a decade increase from 2001 to 2011, according to the tahsils wise of the district. As shown above, the highest increase in Nashik tahsil is seen, 33.25% increase. After this, there is an increase of 23% in the Kalwan, Peint and Trimbakeshwar tahsils, followed by Surgana, Baglan, Malegaon, Nandgaon those tehsils with 20 to 22% increase. And tahsil of Deola, Chandwad, Dindori Igatpuri, Sinnar, Niphad and Yeola has increased by 10 to 20%. The average increase in the district is 22.29%. From the above mentioned detailed the study area we can say the increase in population was Nashik district increase in population from 2011 to 2011 was 22.29 % , and Malegaon tahsil increasing population from 21.07 % and Nandgaon tahsil increase of 22.23 % ,



Map No. 1 Population Growth rate Map 2001-2011

Table No. 3: Tahsil wise Rural and Urban population in Nashik district 2001 to 2011

Sr. No.	Tahsils	Population					
		2001			2011		
		Total	Rural	Urban	Total	Rural	Urban
1	Surgana	145135	138988	6147	175816	169553	6263
2	Kalwan	168403	168403	0	208362	208362	0
3	Deola	127194	127194	0	144522	144522	0
4	Baglan	311395	278834	32561	374435	336734	37701
5	Malegaon	789230	333176	456054	955594	368137	587457
6	Nandgaon	236319	140723	95596	288848	185186	103662
7	Chandvad	205189	205189	0	235849	210508	25341
8	Dindori	264727	264727	0	315709	315709	0
9	Peint	96774	96774	0	119838	119838	0
10	Trimbakeshwar	136417	126613	9804	168423	156367	12056
11	Nashik	1317367	165041	1152326	1755491	175948	1579543
12	Igatpuri	228208	176463	51745	253513	197686	55827
13	Sinnar	292075	260445	31630	346390	281091	65299
14	Niphad	439842	381356	58486	493251	418853	74398
15	Yeola	235521	192314	43207	271146	221320	49826
	Total dist.	4993796	3056240	1937556	6107187	3509814	2597373

(Source – Population Survey Report in 2001 and 2011)

As per census 2001 and 2011 above the table showing total population of the district with tahsil wise, and describe the rural and urban population of the tahsil wise of the district. Population of district is very highly growth of all tahsils of the district. According to 2011 total population of the district was 6107187. And census 2001 the total population of the district

was 4993796, it means in between those ten years (decadal) 1113391 increase the population of the tahsil. About Malegaon tahsil there was 166364 people's population increases, it means 21.07 % population was growth. And Nandgaon tahsil 52529 numbers of peoples was increase it means 22.23 % growth of the tahsil.

Table No. 4: Tahsil wise rural population growth in Nashik district 2001 to 2011

Sr.No.	Tahsils	Population (Rural)		Growth Rate (%) 2001 to 2011
		2001	2011	
1	Surgana	138988	169553	21.99

2	Kalwan	168403	208362	23.72
3	Deola	127194	144522	13.62
4	Baglan	278834	336734	20.76
5	Malegaon	333176	368137	10.49
6	Nandgaon	140723	185186	31.59
7	Chandvad	205189	210508	2.59
8	Dindori	264727	315709	19.25
9	Peint	96774	119838	23.83
10	Trimbakeshwar	126613	156367	23.49
11	Nashik	165041	175948	6.60
12	Igatpuri	176463	197686	12.02
13	Sinner	260445	281091	7.93
14	Niphad	381356	418853	9.83
15	Yeola	192314	221320	15.08
	Total	3056240	3509814	14.84

(Source – Census 2001, 2011 computed by researcher)

As shown in the above table, rural population growth has been shown in the tahsil wise of Nashik district, 14.84 has been average population growth of Nashik district. In which the highest population growth of Nandgaon tahsil has increased in the whole district, it is 31.59 percent. And lowest in the district is 2.59 percent of Chandwad tahsil has increased, There has been an increase in tahsils of Chandwad,

Nashik, Sinner and Niphad by 5 to 10 percent, after this, between 10 to 15 percent there has been an increase in Deola, Malegaon and Igatpuri tahsils, then, there has an increase of Yeola, Dindori tahsils between 15 to 20 percent, after this, there has been an increase in between 20 to 25 percent in Surgana, Kalwan, Baglan, Peth and Trimbakeshwar tahsils, and more than 25 percent has increase only in Nandgaon tahsil.

Table No. 5: Tahsil wise urban population growth in Nashik district 2001 to 2011

Sr.No.	Tahsils	Population (Urban)		Growth Rate (%) 2001 to 2011
		2001	2011	
1	Surgana	6,147	6,263	1.88
2	Kalwan	0	0	0
3	Deola	0	0	0
4	Baglan	32,561	37,701	15.78
5	Malegaon	456,054	587,457	28.81
6	Nandgaon	95,596	103,662	8.43
7	Chandvad	0	25,341	-
8	Dindori	0	0	0
9	Peint	0	0	0
10	Trimbakeshwar	9,804	12,056	22.97
11	Nashik	1,152,326	1,579,543	37.07
12	Igatpuri	51,745	55,827	7.89
13	Sinner	31,630	65,299	106.44
14	Niphad	58,486	74,398	27.20
15	Yeola	43,207	49,826	15.31
	Total	1,937,556	2,597,373	34.05

(Source – Census 2001, 2011 computed by researcher)

As shown in the table above, tahsil wise urban population growth rate of Nashik district, in between 2001 to 2011 census, in the whole Nashik district 34.05 percent average urban population increased. In the district sinner tahsil is highest urban population growth rate, and lowest in Surgana tahsil observed, i.e. only 1.88

percent. According to census 2001, Chandwad tahsil there was no urban population, but according to 2011 census this tahsil has been given the status of urban city, that's why it is seen as increase the number of population, the urban population is zero in Kalwan, Deola, Dindory and Peth of those four tahsils, there has

been an increase of Surgana tahsil by 1 to 5 percent, after that, there has been an increase of Nandgaon and Igatpuri tahsils 5 to 10 percent, Yeola and Baglan tahsil 15 to 20 percent, Trimbakeshwar 20 to 25 percent, Niphad, Sinner, Nashik, and Malegaon tahsils has been an increase in more than 25 percent.

References

1. A. B. Sawadi (2002) the mega state – Maharashtra – NiraliPrakashan, Pune.
2. A. B. Sawadi (2008) physical geography, (Khand A, B,) NiraliPrakashan, Pune.
3. Borole Leena (2008): “Spatio-Temporal analysis of population characteristics in Shirpur tehsil of Dhule district”. M.phil dissertation submitted to North Maharashtra University, Jalgoan.
4. Chandan R.C. (2002), Geography of population: concept, Determinants and patterns, fifth Edition, Kalyani Publishers, New Delhi.
5. Chaudhari R. C. (2009): “Geography of population” Kalyani Publication, New Delhi. Pp 39-377.
6. Chaudhari R. C. (1994): “Patterns of Death rate in Maharashtra”. Maharashtra Bhugol shastra Sanshodhan Patrica, Vol- VIII, No.-1 Pp. 13-23.
7. Chavan Savita smita V. & Bidve B.S. (2012): “appraisal of government policies on tribal development a study of tribal population of chamtoli group grampanchayat in Badlapur town of Thane District,” Latur Geographer, Vol. I, Issue. I May 2012, Pp. 12-19.
8. Deore R. S. & Vyalij P. Y. (2011): “Population growth and changing land use profile in Nandgaon tahsil, Nashik district (Maharashtra)”. Journal of Research and Development, Vol.1, Issue 8 Aug.-Sept.2011, Pp 75-81
9. D. R. Khullar (2002) INDIA A Comprehensive Geography, Kalyani Publication, Jawahar Nagar, Jaipur.
10. H. M. Izhar (2015) “Population Geography” Rawat publication, Jawahar Nagar, Jaipur.
11. Kadam Avinash & Saptari P. G. (1999): “Population distribution of Baramati tahsil, Dist. – Pune, Maharashtra”. Maharashtra sanshodhan patrika, Vol- XIII, No.2, Pp.105-120.
12. Kayastha S. L. (2014), “Geography of Population” Rawat publication, Jawahar Nagar, Jaipur.
13. Khadke V.V. & Kadam N. B. (2012): “Disparity in literacy rate in Maharashtra”. Latur Geographer, Vol.I, Issue. I May 2012, Pp. 76-78.
14. Kharate V. B. (2011): “Geographical study of changing land use pattern due to population growth of Washim district”. Maharashtra Bhogol shastra sanshodhan patrika, Vol- XXVIII, No.2 July- Dec.2011, Pp. 19-23.
15. Majid Husain (2015) Geography of India, Tata Mc Grow Hill Education, New Delhi.
16. Nikam S. R. (2011): “Changing Nature of Population in India” Journal of Research and Development,” Vol.1, Issue 8 Aug.-Sept.2011, Pp. 149-154.
17. Patil S. B. (2008): “Decadal population growth: A case study of Dhule district”, Journal of research and development, Vol-03 Sep-Oct. 2013 Pp. 10-14.
18. Patil J. G., Badgujar A.A. & Patil A. T. (2012): “Comparative study of the trends of sex ratio in different district of Khandesh Region, 29th National level conference on Sustainable rural development with inclusive approach, Dec. 2012 Pp. 82-85.
19. Srivastava S. C. (2004) studies in Demography, Anmol Publication, Delhi.
20. Sawant S. B. & Aliwale A. S. (1994): Mehta Publishing House, Pune. Pp.18-145.
21. Sharma R.K. (2004): “Demography and population problems” Atlantic Publishers and Distributors, Nice Printing Press, Delhi. Pp. 1-6.
22. Sunil A. Deore (2019) A comparative study of health facilities in Malegaon and Nandgaon tahsils of Nashik district. PhD thesis. P. 2 to 5, 24 to 34, 46, 47, 51 to 58, 187 to 191.
23. Rathod H. B. (2012): “A study of growth and density of population in Udgir tahsil”. Latur Geographer, Vol. I, Issue. I May 2012, Pp. 58-60.
24. Thomas Malthus (2011): “A Essay on the principal of population” Atlantic Publication & Distribution (P) Ltd. New Delhi. Vol.-I.

Government Publications & Reports

1. District census handbook, Nashik district 2001 & 2011.
2. Directorate of socio economic review 2005-06 to 2015-16.
3. Gazetteer of Maharashtra, Nashik District.
4. Government of India, the gazetteer of India, history & culture.
5. Government of India (2006), Annual Report 2005-06, Ministry of Health and Family Welfare, New Delhi, 2006.
6. Malegaon Municipal Corporation, Draft report. 2012.

7. Ministry of Health and Family Welfare (2015). Rural Health Statistics 2014-15. [online] Government of India. Available at: http://wcd.nic.in/sites/default/files/RHS_1.pdf [Accessed 31 Oct. 2017].
8. Taluka Krushi Adhikari tahsil report, Malegaon & Nandgaon.
9. Survey of India, Toposheet No. s: L/10, L/13,

Women in the Teaching Profession: Problems and Challenges: A Special Reference To Female Lecturers

Dr.Prathima.PS¹ Sheril Tellis² kusuma PS³ Hajira Khanum⁴

¹Hod, Department of Economics, the National College, Basavanagudi

^{2,3,4}Students, Economics, The National College, Basavanagudi

Email:Ncbeconomicshod@Gmail.Com

Abstract : A teacher is a student's mentor, advisor, philosopher, and friend. A teacher not only influences the lives of students but also works for the betterment of society. The teacher is a role model. Many people believe that women can be better teachers than males since few attributes are necessary for this career, such as patience, care, and affection, and women have these qualities in greater abundance than men. Higher education has changed dramatically in recent decades, with new policies governing teacher workload. They must also fulfill additional research, extension, and corporate life obligations. Female teachers confront the issue of balancing work and family life in this situation. Thus the present study aims to know about the stress level and challenges faced by the female lectures of higher education. Furthermore, the study aims to clarify the real situation of Indian working women in the teaching profession as well as to identify the major issues confronting female lectures, and give suggestions to improve female lectures performance in their field. The current research uses the descriptive survey method. The convenience sampling method will be used to select 50 female lecturers working in colleges in Bangalore. A self-structured questionnaire will be used to collect data.

Key words: Higher education, working women, female lecturers, challenges, problems

Introduction

Teaching, a noble profession is a daunting and challenging task. It is rather evident that women are significantly over-represented in the profession of educators. As per the data from the education department, more than 80% of all teachers are women. A greater reason for this trend is that school, college timings make it easier for women to manage work and family. So, women who are ambitious and career-oriented as well as want to look after their household responsibilities find teaching to be the most convenient and valuable profession. For many years teaching was seen as a comfortable, stable job with predictable tasks to perform. However, now with pedagogy being as disruptive as it is, teachers who are reluctant to change and relearn are unable to keep up. In the present era, with the advent of new methodologies in teaching and the way digital and smart learning has made inroads into the field of education, the role of teachers has also greatly evolved over a period of time. Today, a teacher is faced with the arduous task of keeping him/herself abreast with the latest inventions and strides in the field of medicine, education, science, art and etc. Upgrading their skills and knowledge from time to time is thus necessary and is an utmost priority today. They are facing multifaceted problems and stresses due to increasing demand and expectations from the society. Social status, salaries and general service condition of women teachers are far from satisfactory. There are various kinds of problems which women teachers are frequently facing.

Classroom challenges are part of the life of a teacher, and a good teacher always overcomes them. Some of the common challenges teachers' faces include lack of teamwork, minimal personal time, working towards long-term goals, arguments and student excuses, work family balance etc. Addressing these challenges can help improve teachers' emotional well-being and enhance students' success rate, thereby improving the ultimate quality of education.

Objectives

1. It focuses status of women in teaching profession in colleges.
2. Analyze the constraints that lecturers face when managing their professional and family responsibilities.
3. To suggest the efforts needed to improve the performance of teaching staff in their profession.

Research methodology

The population of the study consisted of female lecturers in colleges in bangalore during the period of 18th may to 28th may 2022

Sample of the study: a questionnaire was developed on google form to get data

Information about the challenges faced by women lecturers in teaching profession.

Sample size of the study: total forty five female lecturers in colleges in bangalore were covered in the study.

Sample design: convenience sampling

Sources of data

The study involves critical evaluation and analysis of primary data. A questionnaire was designed and formulated to find out the problems

faced women lecturers in teaching profession. Secondary data is also used for the study. Data were extracted from various sources such as research articles, publications and authenticated websites.

Research instrument:

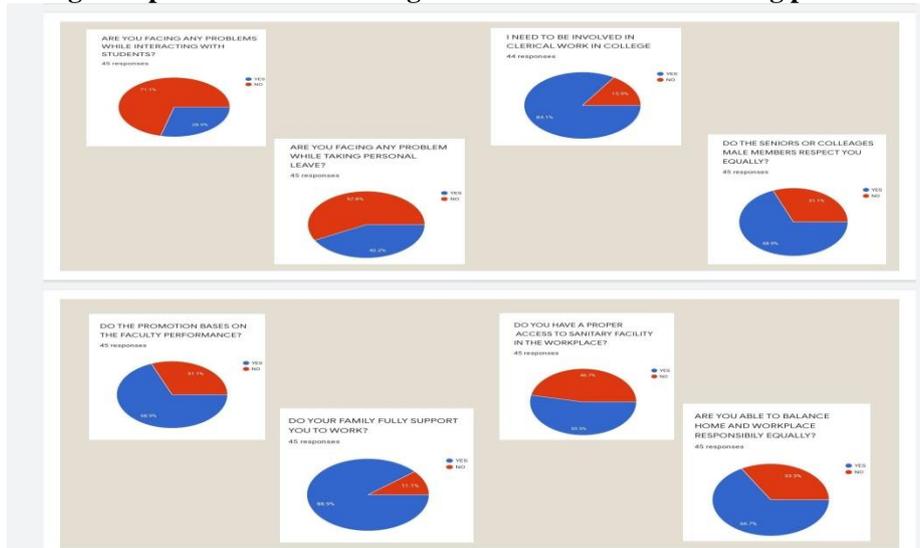
The tool used is questionnaire and personal interview. Following facts were kept in mind while preparing the questionnaire: We tried to construct the questionnaire in such a way that it would work as a logical component of a well-thought-out tabulation plan, as well as to write it in plain english. Multiple-choice questions make up the majority of the questions. We started by making a draught copy of the questionnaire to make sure the questions were in the right sequence We also paid special attention to the fact that the questionnaire should include simple

but clear instructions for the respondents so that they have no trouble answering the questions.

Data analysis

Women instructors play an important part in the entire development of the family; yet, they confront difficulty in balancing family and professional obligations. Working women, in general, serve as both money generators and primary carers for their families' children. Working women may find it difficult to fulfill both familial and professional obligations as a result of their multiple roles. In light of this context, this section looks at the difficulties women lecturers experience in balancing work and home responsibilities. Eight variables were established and evaluated independently in order to analyse the constraints experienced by female teachers. Data was collected from 45 female lecturers via an e-questionnaire.

Diagram: problems and challenges female lecturers in teaching profession



Challenges	Yes	No
Family support	88.9%	11.1%
Balance between home and working place	66.7%	33.3%
Respect from male members	68.9%	31.1%
Personal leave	42.2%	57.8%
Clerical work	84.1%	15.9%
Student interaction	28.9%	71.1%
Sanitary facility	53.3%	46.7%
Promotion in working place	68.9%	31.1%

Table: problems and challenges female lecturers in teaching profession

The results show that there were 28.9 percent of respondents aged 31 to 45, 26.7 percent of those aged 46 to 60, and 44.45 percent of those aged less than 30. Permanent lecturers

account for 35.6 percent, temporary lecturers account for 35.6 percent, and part-time lecturers account for 28.9%. The majority of women's faculties work because they want to and because

they need to. A total of 71 percent of female lecturers have difficulties as a result of working longer hours than required. However, 84 percent of female lecturers must engage in clerical work in the college, which is one of the problems they confront in balancing their family and their job. Furthermore, 52% of female professors felt that managing their family and profession is difficult when they are frequently asked to attend meetings after hours and this has gone on for a long time. The majority of them believe that official authorities do not respond quickly to complaints. 53.3 percent of faculty members do not have access to sanitary facilities in the workplace. Few faculties are experiencing difficulties as a result of a lack of family support, lack of respect from male faculty, difficulties taking personal leave, and difficulty with work promotion and student interaction. However, 88.9% of female lecturers believe that women will be required to work in the teaching profession in the future.

Findings

In our study, we found that temporary and part-time lecturers face difficulties communicating with students, difficulty taking leave, officials who do not act on their complaints and male professors who do not respect them. They can, however, strike a balance between career and family life. Permanent full-time lecturers, on the other hand, have no problems interacting with students or taking personal leave, and the official authority responds quickly to their complaints. Male faculty members respect them, but they need to work more than just teaching; they need to be involved in clerical work, and they face challenges managing their family and their profession. Working women are stressed, according to the survey, due to an imbalance of job, family, and social life. According to the above conversations, most female lecturers have issues connected to their incapacity to spend quality time with their families as a result of severe workloads that cause stress and work-family conflict. Many female lecturers suffer from psychological stress as a result of an unbalanced professional, family, and social lives. However female lecturers believe that women will be required to work in the teaching profession in the future.

Suggestions

There are many problems that female lecturers have to face .it is necessary to concentrate on a few aspects in order to make the employment of female professors more comfortable. The study reveals that a family-friendly policy and practice that encourages the involvement of lecturers as

well as the overall development of the community has implications. Social support issues and work-family balancing issues are not new. Social assistance must also improve in order to improve work-family balance. The findings also point to the importance of a family-friendly policy and its implementation in order to support women lecturers who make major contributions to their families, communities, and country. A working woman's ability to improve her social status is in her own hands. At home and in the office, women need to be more proactive and aware of their rights. Women's empowerment will not be achieved unless women decide to speak out against their exploitation, whether on an economic, social, or sexual basis. The policy's implementation must be closely monitored, and data on women's engagement in the organization must be evaluated on a regular basis. This will ensure that top management is aware of any gender discrepancies within the organization, and that appropriate efforts can be made to close those gaps. The woman who works outside the home needs the support of her husband and other family members. To allow them to employ her abilities outside of the home, they must share domestic tasks. Because india is a traditionally patriarchal and male-dominated nation, a significant elevation of working women's status in society will remain a distant dream without the positive and liberal mindset of the average indian male to encourage them. Seminars and workshops should be organized, and the value of education should be institutionalized through all socialization agents, such as religion, law, media, politics, and family. Aside from socioeconomic improvements, policies must be developed at the political level. Parents and family members should work together to encourage and motivate to progress. According to the poll, the firm exhibits a lack of respect for its employees. Special preparations for the care of female lecturers should be made. The first thing that society should take is to help working women feel more at ease. Inequality in the workplace affects a small number of female academics. Their grievances should be adequately heard. Salary increases should be made from time to time to incentivize and encourage them to continue with the company. . In the survey, it is noticed that temporary and part-time female lecturers are facing more problems as compared to the permanent full-time lecturers. Special provisions should be framed for temporary and part-time female lecturers so that they can adjust properly between personal life as well as

professional life and to motivate to stay in the organization. Efforts should be done to provide a familiar environment in the organization so that the stress level of women can be decreased.

Conclusion

Women's workplaces are being enhanced and promoted these days. Teaching must shed its status as the profession of last resort for females in society. Females should be encouraged to pursue other careers so that they are not obligated to teach if they wish to work. Also, the importance and responsibilities of a teacher's profession should be explained so that it is not misunderstood as an unappealing but available position. The goal of this study was to learn about the obstacles that female lecturers encounter in reconciling their roles as a mother and a professional. The study discovered that employing female lecturers in economic activity has a number of positive effects on the family's financial situation. Despite the importance of female lecturers in the overall development of the family, the majority of female lecturers face substantial challenges in reconciling their roles as mothers and teachers, particularly when they are required to work longer hours than usual. As a result, the majority of female lecturers experience psychological stress when they are unable to accomplish a work within a set time frame. While they spend significant amounts of time away from their young children and family, this might be a contributing factor to family conflict. Women's nature is a promotion to gain high quality in every field, but if the conditions are not ready, then the reduction of promotion and optimization in work will occur, and so on... Trade unions should try to improve the conditions for women's workers in many areas, for example, maternity leave is easily given to women and can help them achieve higher posts. Women's nature is a promotion to gain high quality in every field, but if the conditions are not ready, then the reduction of promotion and optimization in work will because women workers are frequently subjected to sexual harassment, the government should impose strong penalties for such crimes. Additionally, public transportation can be risky for women, and the government should conduct more inspections. Given the value and requirements of female participation in the teaching profession. Therefore a fundamental change is required in the attitudes of employees, family members, and public.

Reference

1. Barati, a., arab, r. O., & masoumi, s. S. (2016). Challenges and problems faced by

- women workers in india. Chronicle of the neville wadia institute of management studies & research, 76-82.
2. Kumari, v. (2014). Problems and challenges faced by urban working women in india (doctoral dissertation).
 3. Panchal, p., belani, s., & darji, m. (2016). The challenges faced by indian working women to balance professional and social life in 21st century. international conference women in science and technology. Creating sustainable career, 60-65.
 4. S.p. Naik, "education for the twenty first century" .new delhi: anmol publications, 2008
 5. S. Drudy, "gender balance/gender bias: the teaching profession and the impact of feminization".
 6. Gender and education. Vol 20, no 4, pp. 309– 323, 2008.
 7. S. Acker, "teachers, gender and careers". The falmer press, new york. 1989
 8. A.m, sultana. "constraints faced by working and non-working women in their families". Australian journal of basic and applied sciences, vol7, no 6, pp. 719-722. 2013.
 9. L booth. "working mothers at risk from too much guilt". I village limited. 2000
 10. Karat, b. (1997). The multiple struggles of women. Frontline, 14(19). [2] andal, n. (2002). Women and indian society: options and constraints. New delhi: rawat publications. [3] chandra, s. K. (1993). Women's development: problems and prospects.
 11. Majumdar, m. (2004). Social status of women in india. New delhi: dominant publishers and distributors. [5] varsa, kumari.(2014), m.a thesis on problems and challenges faced by urban working women in india
 12. Antoniadis, r. (1975). Working women: problems and prospects. Manuals and user guides ilr collection.26:271-296 (volume publication date august 2000) <https://doi.org/10.1146/annurev.soc.26>
 13. www.ilo.org
 14. www.workingwomensforum.org
 15. <http://ignited.in/i/a/304569>

A Study of Internet Awareness among Higher Secondary School Students

Dr. (Mrs.) P. Kanmani

Assistant Professor Government College of Education for Women Coimbatore – 641 001.

Abstract: Education is the information that you are taught by others and what you learn on your own. It is a life's long journey for every person. A person experiences most of their education through school from grade school all the way to high school and even college. Teachers in educational institutions direct the education of students and might draw on many subjects, including reading, writing, mathematics, science, and history. The Internet supplements the traditional tools you use to gather information, Data Graphics, News and correspond with other people. Used skilfully, the Internet shrinks the world and brings information, expertise, and knowledge on nearly every subject imaginable straight to your computer.

Introduction

The country, information, including access to the Internet, will be the basis or personal, economic, and political advancement. The popular name for the Internet is the information superhighway. Whether you want to find the latest financial news, browse through library catalogues, exchange information with colleagues, or join in a lively political debate, the Internet is the tool that will take you beyond telephones, faxes, and isolated computers to a burgeoning networked information frontier. The Internet supplements the traditional tools you use to gather information, Data Graphics, News and correspond with other people. Used skilfully, the Internet shrinks the world and brings information, expertise, and knowledge on nearly every subject imaginable straight to the computer.

Need For the Study

Today, with the increasing global competition, changes in production techniques transformation of workplace, our school education needs to enable students with employment-orientated skills. All these developments have made the knowledge of computers necessary to everyone. Hence it has become necessary to introduce computer education at school level. The widespread use of computers has led to another revolution called internet revolution. The internet is often termed as the network of networks; it is the world's largest computer network and is scattered all over the globe. Nowadays it is possible to access any information through the internet. The students used to spend their time in library searching for information in books and journals. Nowadays they use web search engines and figure out the web sites containing the required information. The information sharing has become very easy due to access. Chatting and downloading anything from internet are regarded as higher-level applications of internet. The internet is a powerful means of communications,

dissemination and retrieval of information and it has made tremendous impact on the academic activities of the faculty, researchers, and the students.

Statement of the Problem

A Study of Internet Awareness among Higher Secondary School Students.

Operational Definiition

Internet

Galbreath (1997) has defined the internet simplistically as 'a network of network with universal addressing scheme allowing real time computer to computer, local independent communication and information exchange'.

Awareness

Webster's new dictionary (1990) defines awareness as "Cautions of something" (p-50). It means having knowledge or realization of something that affects the surrounding.

Functional Definition

Awareness

Awareness is the state or ability to perceive, to feel, or to be conscious of events, objects or sensory patterns. In this level of consciousness, sense data can be confirmed by an observer without necessarily implying understanding. More broadly, it is the state or quality of being aware of something.

Objectives of the Study

The main objective of the present study is as follows

1. To find out the significant difference between Boys and Girls higher secondary school students in their awareness of internet.
2. To find out the significant difference between Rural and Urban higher secondary school students in their awareness of internet.
3. To find out the significant difference between Tamil and English medium higher secondary school students in their awareness of internet.

4. To find out significant difference between Arts group and Science group higher secondary school students in their awareness of internet.
5. To find out whether there is significant difference in Internet awareness of higher secondary school students in respect of their religion, community and type of schools.

Null Hypothesis

1. There is no significant difference between Boys and Girls higher secondary school students in their Internet awareness scores.
2. There is no significant difference between Rural and Urban higher secondary school students in their Internet awareness scores.
3. There is no significant difference between Arts and Science higher secondary school students in their Internet Awareness scores.

Table -1, Awareness of Internet Score: Sex

Gender	Number	Mean	S.D	t-value
Boys	62	150.73	26.55	-3.3464**
Girls	118	135.79	31.78	

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores of boys and girls students. The mean score of boys' students is higher than the girls' students. The calculated t-value (3.35) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of boys and girls' students. Hence the null hypothesis is

Table-2, Awareness of Internet Score: Location of the School

Location	Number	Mean	S.D	t-value
Rural	90	146.3	28.544	2.365
Urban	90	135.57	32.243	

From the above table , it is inferred that, there is difference in the mean value of awareness of internet scores among rural land urban school students. The mean score of rural school students is higher than the urban school students. The calculated t value (2.37) is less than the table value (2.60) at 1% level of significance. Therefore, there is no significance in the awareness of internet of rural and urban school

Table-3, Awareness of Internet Score: Medium of the school

Medium	Number	Mean	S.D	t-value
Tamil	90	138.87	31.439	0.899
English	90	143	30.259	

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores among Tamil and English medium school students. The mean score of English medium school students is higher than the Tamil medium school students. The

4. There is no significant difference in the Internet awareness score among higher secondary school students who are studying in government, government aided and private school.

Scope of the Study

The present investigation is an attempt to study the school students' internet awareness, studying in government, government Aided, and Private schools located in Coimbatore District. The findings of the study help to understand the level of internet awareness of students.

Analysis and Interpretation of the Data Gender

The following table gives the mean and standard deviation of awareness of internet score and t-value with reference to Gender.

**significant at p=0.01 level

'there is significance difference in the awareness of internet of boys and girls students' is not accepted. Thus, Gender of the students contributes for the awareness of internet.

Location of the School

The following table gives the mean and standard deviation of awareness of internet score and t-value reference to location of the school.

students. Hence the null hypothesis **'there is no significant difference in the awareness of internet of rural and urban school students'** is accepted. Thus, location of the students does not influence internet awareness.

Medium of the School

The following table gives the mean and standard deviation of awareness of internet score and t-value reference to medium of the school.

calculated t value (0.899) is less than the table value (1.97) at 5% level of significance. Therefore, there is no significance in the awareness of internet of English medium and Tamil medium school students. Hence the null hypothesis **'there is no significant difference in**

the awareness of internet of Tamil and English medium school students' is accepted.

Thus, Medium of the school students does not influence internet awareness.

Table-4

Awareness of Internet Score: Course of the Study

Course	Number	Mean	S.D	t-value
Science	110	147.49	28.13	3.59**
Arts	70	130.63	32.26	

**significant at p=0.01 level

From the above table it is inferred that, there is difference in the mean value of awareness of internet scores of Science and Arts students. The mean score of science students is higher than the Arts students. The calculated t-value (3.59) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of Science and Arts students. Hence the null hypothesis is **'there is significance difference in the awareness of internet of Science and Arts students'** is not accepted.

Thus, Course of the Science and Arts students contributes for the awareness of internet.

Findings

The data was analysed by using descriptive statistics, t-test. The findings of this study are as follows

The calculated t-value (3.35) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of boys and girls students. It shows that sex of the students contributes for the internet Awareness.

The calculated t value (2.37) is less than the table value (2.60) at 1% level of significance. Therefore, there is no significance in the awareness of internet of rural and urban school students. This indicates that location of the students does not influence for internet awareness. The calculated t value (0.899) is less than the table value (1.97) at 5% level of significance. Therefore there is no significance in the awareness of internet of English medium and Tamil medium school students. This shows that Tamil and English medium of the school students does not influence internet awareness.

The calculated t-value (3.59) is greater than the table value (2.60) at 1% level of significance. Therefore, there is significant difference in the awareness of internet of Science and Arts students. It indicates that Course of the Science

Course of the Study

The following table gives the mean and standard deviation of awareness of internet score and t-value with reference to course of the study.

and Arts students contributes for the internet awareness.

Conclusion

The internet is often termed as the network of network, it is the world's largest computer network and is scattered all over the globe. Internet has evoked the interests of school students. The ambitious projects of providing computer education to some selected government, government aided, and private school can create a positive impact among students. The project is successful in enhancing their internet awareness. The findings of present study indicate internet awareness among higher secondary school students in Coimbatore district is high. The overall results of the study suggest the need effective learning. Students who are highly motivated in using internet will learn more effectively than students who don't have internet awareness.

Reference

1. Kevin Thomas, Marco A. Muñoz(2016), *Hold_the Phone!_High_School_Students'_Perceptions_of Mobile_Phone_Integration_in_the_Classroom, American Secondary Education*, Vol. 44, No. 3
2. Wilfried_Admiraal(2015), *A Role-Play Game to Facilitate the Development of Students' Reflective Internet Skills.*
3. Suzan Lemma Gencer and Mustafa Koc (2012), *Internet Abuse among Teenagers and Its Relations to Internet Usage Patterns and Demographics*, Vol. 15, No. 2
4. Denise B. Accordino, Michael P. Accordino(2011) , *An Exploratory Study of Face-To-Face and Cyberbullying in Sixth Grade Students*, *American Secondary Education*, Vol. 40, No. 1
5. Jacqueline____Leonard, Carolina____Napp, Shade Adeleke_(2009), *The High School Journal*, Vol. 93, No. 1.

Economic Development and Human Development

Mrs. Kamble Shiladevi P.

Assistant Professor, Late B.P.E.G.College ,Hanegaon Tq.Degloor, Dist Nanded

Abstract: If we observed, the basic purpose of development is to enlarge people's choices. It concern with the sustainable improvement in the quality of life for all people. The raising per capita income and consumption is part of the purpose of development but reducing poverty, expanding access to health services and increasing educational levels are also important, meeting these goals requires a comprehensive approach of development. So the human development approach is rediscovery in the area of economic development. The present paper is trying to find the concept of human development which has relates with the country's economic development. The concept of economic development has undergone with many conceptual framework, one of the most important and desirable concept of human development which gained currency after the year nineteen ninety. Thus the present paper illustrates the indicator of Human development. The present paper also explains the report of human development composite by the UN. Present paper is trying to explain main factors included in the composition of human development report. Now every nation's economic development has measured by their human development. Now the HDI (Human Development Index) is an alternative measure that takes into account social and cultural growth alone. So the present paper explains the how economic development and human development interrelated with each other.

Keywords: Human development, Economic development, Index, Longevity, Gross enrollment ratio etc.

Introduction:

The study of development is not a new. Aristotle (384- 322 BC) argued that "Wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else." Another thinker Immanuel Kant (1724 - 1804) also explained, human beings as the real end of all activities, he observed so act as to treat humanity, whether in their own person or in that of any other, in every case as an end with all, never as means only. And Adam Smith (1723-1796), explained that economic development should enable a person to mix freely with other without being "ashamed to appear in public. A similar thought has introduced by the modern economics through, including Robert Mathus, Karl Mark and John Stuart Mill. There has remarkable shift in development economic after the 1960. Development economists try to explain why standards of living grow faster in some places than in others. There has an investigation what promotes economic development and what hindered it. The thinking of economist has started about what does and does not help countries to develop in the past several decades.

A clear trend that has emerged in the past few decades is the movement away from narrow measures of standards of living as indicators of development and towards broader more comprehensive indicators of quality of life. Most of the economists are agree that economic development should mean an improvement in people's quality of life. Income per person is a

good indicator of quality of life. Higher incomes allow people to do more of the activities that matter to them but there have some aspects of quality of life that are not clearly linked to incomes because of the some limitation of income as an indicator of quality of life ,overtime economist have expanded the range of measurements used to access economic development. The most successful attempt at broadening the definition of economic development and recognizing the subjectively of quality of life has come from the idea of "Human development" Mahbub- Ul- Haq a leading Pakistani economist, helped pioneer the concept while working at the United Nation Development Programme (UNDP) and was responsible for starting the human development report, which is now published annually by the U.N.

Objectives of the Study:

- i) To understand the concept of Economic Development.
- ii) To explain the concept of Human Development.
- iii) To illustrate the indicator of Human Development.
- iv) To find out the interrelation between Economic Development and Human Development.

Hypotheses:

- i) The concept of economic development depends on human welfare.

- ii) The human development is the main concept which included to measure economic development.

Research Methodology:

The present paper has developed by using the secondary sources. The published books journals, newspapers, articles, government reports, online databases and views of writers are used for this study.

Subject Analysis:

Economists have debate on the many different approaches to measuring economic development and human development. The well known Indian Nobel Prize winner economist Amartya Sen written that development is the expansion of the capabilities of people to lead the kind of life they have reason to Cherish. It means people wants more fulfilling life .The principal goal of development policy to create sustainable improvements in the quality of life for all people. It means raising per capita incomes and consumption is part of the goal, there has other objectives such as reducing poverty, expand access to health services, and increasing educational level are also important. Meeting these goals requires a comprehensive approach to development. The Idea of development has multiple goals.

The traditional development thinking has fail to meeting the comprehensives and lesions included in the new thinking of development. It emphasizes the need to reach beyond economic s to address societal issues in a holistic manner .The new perspectives come across with new visions such as equality, Education, Health, the environment, culture and social well being. The human development concept analyzes the new approach of economic development which included societal issue.

i) The concept of human development:

The UNDP Human Development Report was established in 1990which has developed by the influential work of Amartya Sen ,Mehboob –Ul_ haq, Richard Jolly, francs Steward and Meghanand Desai at the UNDP (United Nation Development Programme) They provided new frame work known as ‘human Development ‘embraces the enlargement of all human choices, many human choices extend far beyond economic well being ,knowledge ,health a clean physical environment ,political freedom and simple pleasures of life are not exclusively or largely dependent on income ,national wealth can expand peoples choices in

these areas but it might not The use that people make of their wealth, not the wealth itself , is decisive and unless societies recognize that their real wealth is their people ,an excessive obsession with material wealth can obscure the goal of enriching human lives.Thus the conceptually human development is the combination of people’s entitlements and actual attainments in the crucial aspects of their lives such as education, health and livelihood, taken together, these three elements, the sum of outcomes relating to schooling, health services and quality of life chances such as life expectancy and nutrition and importantly income. Human development has been defined as the “Process of enlarging people’s choices.” The Human development explain that one has to lead a long and healthy life and in the process to be educated and to enjoy life and in the process to be educated and to enjoy a decent standard of living. Also there have additional choices include political freedom, guaranteed human rights and self respect. To achieve such type of choices public policy play a vital role. Thus Human development report has a composite of the measurement of indicators which has followed by the government by the public policy .Public policy must be developed by the government agency which has depended on greater link between economic growth and human choice.

The government should design the policy in which the land reform, progressive tax services to reach all of the deprived population the removal of barriers to the entry of people in economic and political spheres and the equalization of their access to opportunities and the establishment of temporary social safety nets for those who may be bypassed by the markets or public policy actions. Such policy packages are fairly fundamental and will vary from one country to another but some features are common to all of them.

i) Development is analyzed and understood in terms of people participate in it or benefit from it the touchstone of the success of development policies becomes the betterment of people’s lives ,not just the expansion of production process.

ii) Human development is assumed to have two sides one is the formation of human capabilities such as improved health, knowledge and skills, the other is the use people make of their acquired capabilities for employment, productive activities, political affairs or leisure’s society needs to built up human capabilities as well as ensure equitable access to human opportunities considerable human

frustration results if the scales of human development do not finally balance the two sides.

iii) There is need to make a careful distinction is maintained between ends and means people are regarded as the ends but means are not forgotten. The expansion of GNP becomes an essential means for expanding many human options but the character and distribution of economic growth are measured against the yardstick of enriching the lives of people production processes are not treated in an abstract vacuum They acquire a human context.

iv) The human development analysis political cultural and social factors given as much attention as the economic factors. The study of the link between the economic and non economic environment is one of the most fascinating and rewarding aspect of this analysis.

v) This human development aspect explains that people are both the means and the ends of developments but people are not regarded as mere instruments for producing commodities through an augmentation of "human capital" The aspect needs to gives attention that it is always remembered that human beings are the ultimate end of development not convenient fodder for the materialistic machine.

Thus the human development has concerned not only with using these human capabilities (through investment in people) but also with using these human capabilities fully (through an enabling framework for growth and employment). Human development has four essential pillars equality, sustainability, productivity and empowerment.

ii) Measuring the human development:-

When one has measure the national development it is easier because it measures by the national income but when we measure the human development, there is a need for different indicator which would cover both social and economical aspects of people. Human development index is based on social and economic aspects. The GDP or income is a most predominant one in obtaining valued outcome in the course of development on the other hand the human development indicators are most appropriate in capturing desirable 'outcomes' for which the means are ultimately engaged in the process of development.

iii) Human Development index:-

Human Development index (HDI) focuses on three measurable dimensions of human development living a long and healthy life being educated and having a decent standard of life.

Thus it combines measures of longevity as measured by life expectancy at birth, education attainment as measured by a combination of adult literacy (2/3 weight age) and combined primary, secondary and Tertiary enrollment ratios (1/3 weight ages) and standard of living as measured by real GDP per capita (PPP\$) it allows a better and broader view of a countries development than does income alone.

For the construction of the index fixed minimum and maximum values have been established for each indicator of human development index.

1. Life expectancy at birth: 25 years and 85 years.
2. Adult literacy: 0% and 100%
3. Combined gross enrolment ratio: 0% and 100%
4. Real GDP per capita (PPP\$): \$100 and \$40000

The performance of each dimension is expressed as a value between 0 and 1 by applying a general formula.

Dimension index: Actual value –Minimum value /Maximum value - minimum value.

The HDI is a simple average of the life expectancy index, educational attainment index and adjusted real GDP per capita (PPP\$) Index and so it is derived by dividing the sum of the three indices by 3.

HDI=1/3 (Life expectancy index) +1/3 (Education index) +1/3 (GDP index)

The countries are ranked according to their HDI value. The performance is expressed between the value of 0 and 1. Thus the countries with 0.800 and above HDI value are considered as high HDI countries. Countries having HDI value between 0.500 – 0.799 are considered as medium HDI countries and countries having below 0.500 HDI value are considered as low HDI countries.

After the Second World War, development economics emerged as a distinct field of study. The HDRs (Human development Reports) have stimulated discussion world –wide leading, what now is called human development. Which include international and national government, policy makers, planners, opinion of leaders, parliamentarians, media, NGOs and various discussions of members of the civil society?

Relationship between economic development and human development:

The concept of development human development is an evolving one to previous development concept which considered that investing in improving human capabilities to contribute to economic development. Human development is the knowledge, skills, capabilities, attributes and

varies characteristics they possess. It is a set of skills, capabilities and experiences that the individual acquires and enables him to participate in economic life and gain income, which can improved through investment in education, health care, training and other forms of human capital.

The relationship between human development and economic development is a two way relationship, as each of them is reflected negatively and positively on the other that economic growth takes through improving human capabilities and achieving desired growth reflected in human development as it expands options in front of human resources in particular for individuals in general.

The human development is a social, economic and political process by its nature and human beings are its object and tools, and at the same time, its objective. The human development is the main objective of every development policy. To obtain economic development the human development is the most and prior condition of all process of development. The human development and economic development is interrelated with each other for country's overall development.

Conclusion:

The process of enlarging people's choices is known as human development. It has explain with people must be at the center of development process. It has argued that the development has to be woven around the people not people around the development. Now development concept has been shifted to quantitative factors to qualitative factors .The economic development is depend on well-being of people which reflects in human development. The ultimate aim of every country's development strategy is to improve the quality of life of country's people. There has clear trend emerged in the past few decades away from narrow measures of standard of living as indicator of development towards broader and more comprehensive indicator of quality of life. Most of the economists and readers are agree that economic development should mean an improvement in people's quality of life. Human development emerges as an important approach to development. Economic development now a day's widely explained that higher GNP growth, the expansion of output and wealth are only a means to development, the end of development is expansion of human capabilities. Human beings are the in the heart of any pace of development of society. The economic development and human

development is strongly interrelating with each other, without human development any country cannot fulfill economic development.

References:

- i) Villard Henry H, "Economic development", Holl Rinehart and Nlinston New York Aug, 1961.
- ii) P.Subbarama Raju & C.Sudhakar, "Development programmes and social transformation", The Associated Publisher, Delhi-2006.
- iii) Michael P. Todaro.Stephen C. Economic development, Smith Pearson education, 2007.
- iv) Desai B.Sonalde,Dubey A,Joshi B.Sen M.Sharif A.Vanneman R, "Human development in India, challenges for society in transition,"Oxford University Press-2010
- v) Several Internet online sources.

Insurance Literacy – Tool to Save Our Life

Mrs. A. Maria Bharathi¹ Dr. (Smt) R. Muthu Lakshmi²

¹Research Scholar (Part Time) Assistant Professor Sri Sankara Bhagavathi Arts and Science College,
Kommadikottai, Reg.No: 19121261012008,

²Research Guide, Associate Professor, Head – Commerce, Research Centre, Sri Sarada College for
Women, Tirunelveli.

Abstract: *All parents want their children to be taken care of even when they are not around. Life insurance makes sure your loved ones won't suffer financially in your absence. There is no way to replace a loved one, but planning with life insurance does help in taking care of the financial needs of the family's. Life insurance help you achieve those goals by helping you build a financial corpus with the protection of a life cover. Life insurance plans inculcate a habit of disciplined saving. Paying a little amount as an insurance premium each month will help you accumulate funds. An insurance policy is one of the most valuable instruments that allow us to enjoy such benefits. It is crucial to realize the importance of insurance and understand how they can positively impact our lives. The chapter attempts to measure the Insurance literacy leads to development of awareness among scheduled community people in Tuticorin District. Primary data collected through structured interview scheduled has been used for analysis and presented in the study. The result of the study that Insurance literacy is low among the scheduled community people in Tuticorin district.*

Introduction

Insurance awareness plays a key role in ensuring policyholders' protection and also in development of insurance sector. Lack of insurance awareness has proved to be one of the hurdles in penetration of insurance across the country. Insurance occupies an important place in the complex modern world since risk, which can be insured, has increased enormously in every walk of life. Insurance being complex and a subject matter of solicitation is relatively not easy for a common person to understand. The Consumer education is an important prerequisite for promotion on insurance inclusion and enhancing public awareness on key local risks and insurance policy available that suits their needs. Managing finances through different stages in life can be challenging in various ways. It is necessary to chart a plan that evaluates how income needs to be distributed to have a beneficial financial portfolio. Through the different short and long-term life goals, the need for financial protection remains constant. Financial literacy advocates making financially responsible decisions to avoid being economically vulnerable or to face any financial adversity. Trusted Since 1906 Page 3 of 6 In India the need for financial literacy is getting greater because of the low level of literacy and large section of population which remains out of the formal financial set up. India still has large sections of people who are resource poor and who operate on the margin. These groups are really vulnerable towards persistent downward financial pressures. Moreover with no established banking relationships, the poor

sections are pushed towards expensive alternatives without adequate financial literacy.

Statement of the Problem

While the importance of insurance is widely recognised, for individuals as well as for society as a whole, the number of individuals actually buying insurance is dramatically low. After stressing this concept in this paper we focus on the critical comparison between three strands of research: financial literacy, insurance literacy, and behavioural insurance literacy and decision-making. Financial literacy has assumed greater significance in recent years. It is popularly believed that people need to become more self-dependent in the upcoming years. Growing competition has forced financial service providers to offer hybrid products with composite features. Many users have left these ill- equipped products to cope with the complicated choices which they need to make due to insufficient awareness and improper awareness level.

With the changes in working life globally, the income stream of individuals has all become more incoherent. The income level of an individual fluctuates at different timelines such as the periods of high income followed by low level of income or no income at all. This pattern may be reversed. With the increase in mortality age; people need to make greater provisions for their retirement, health care and insurances to cover uncertain eventualities. Social security schemes offered by the government are also shrinking gradually. Thus with the changing socio-economic environment of personal finance one must have necessary financial skills to make

appropriate investment decisions. Finance Education can play a vital role in equipping individuals with the necessary skills for appropriate investment decisions. This will increase one's ability to choose suitable products that will facilitate in achieving their financial goals. Financial literacy mission can prevent Economic Weaker Sections (EWS) of society from being trapped in complex financial markets which are offering complex integrated products.

Objectives of the Study

The study "Financial Literacy among Scheduled Communities in Tuticorin District" aims to assess the financial literacy level among scheduled community people in general and in particular. The following objectives were made:

1. To know the demographic profile of the scheduled community people in the study area.
2. To analyse the literacy level of scheduled community people in insurance in the study area. viz, Tuticorin district.
3. To offer suitable suggestions to improve the financial literacy of scheduled community people that leads to financial inclusion.

Review of Literature

Rusliza Yahaya, Zuraidah Zainol, Juliana Haji Osman @ Zainal Abidin, Rosmini Ismail (2019)¹ in their study on "The Effect of Financial Knowledge and Financial Attitudes on Financial Behavior among University Students" examine financial literacy among university students in Malaysia. Specifically, this study attempts to examine the relationship between financial knowledge and financial attitudes and also the effects of these variables on financial behavior among university students. The findings reveal that the respondents have moderate level of financial knowledge financial knowledge significantly influenced financial attitudes significantly influenced financial behavior. On the other have, financial knowledge does not any significant influence on financial behavior. This study enriched the literature by identifying factors that influenced financial behavior and provided suggestions to be practiced by universities in developing good financial attitude and financial behavior of students.

¹ RuslizaYahaya, Zuraidah Zainol, Juliana Haji Osman @ Zainal Abidin, Rosmini Ismail (2019). The Effect of Financial Knowledge and Financial Attitudes on Financial Behavior among University Students. *International Journal of Academic Research in Business*, Vol.8, No.8

Poppy Alvianolita Sanistasya, Kusdi Raharjo and Mohammad Iqbal (2019)² in their study on "The Effect of Financial Literacy and Financial Inclusion on Small Enterprises Performance in East Kalimantan" aims to find out the effect of financial literacy on Small Enterprises (SEs) performance and the effect of financial inclusion on small enterprises performance. The result of the study showed that positive and significant effect of financial literacy on enterprises performance and financial inclusion positively affects the performance of small enterprises.

Neha Garg and Shveta Singh (2018)³ in their study on "Financial literacy among youth" the study particularly focus at how socio – economic and demographic factors such as age, gender, marital status and income influence financial literacy level of youth and whether there is and interrelationship between financial knowledge, financial behavior. The study reveals that the financial literacy level among youth is low across the most part of the world that has become a cause of concern. also it has been observed that various socio –economic and demographic factors such as age, gender, income, marital status and educational attainment influence the financial literacy level of youth and there exists an interrelationship between financial knowledge, financial attitude and financial behavior. This paper aims to understand the influence of various factors influencing the financial literacy as understanding the factors that contribute to or detract from the acquisition of financial literacy among youth can help in making policy interventions targeted youth to enhance their financial well – being. Strong endeavour of the world economics to improve the financial well-being of their citizens has contributed to the rising importance of financial literacy as it equips the individuals to take quality financial decisions to enhance their financial well-being

Hypotheses of the Study

To give a specific focus to the objectives, hypotheses have been formulated to test the objectives in clear terms using appropriate statistical tools. For testing purposes, some of the

² Poppy Alvianolita Sanistasya, Kusdi Raharjo, Mohammad Iqbal (2019). The Effect of Financial Literacy and Financial Inclusion on Small Enterprises Performance in East Kalimantan. *Journal Economica*, Vol.15, No.1

³ Neha Garg, Shveta Singh (2018). Financial literacy among youth. *International Journal of Social Economics*, Vol.45, Issue.1

research questions of the study were converted into hypotheses. The study involved the hypotheses which are listed down, proved and explained in detail in the fourth and fifth chapters. Following null hypotheses were formulated for the study.

H₀₂: There is no significant difference in insurance literacy level among the different demographic variables of scheduled community people in Tuticorin district.

Methodology

Primary and secondary data have been collected from different sources and used for analysis. Secondary data required for the study have been collected from various publications of the Reserve Bank of India and various reports of the government of India. Primary data has been collected through a well-structured interview schedule structured by the researcher in consultation with the experts in the field. A Likert five-point scale ranging from strongly agree to strongly disagree has been used to collect a quick response from the respondents.

Significance of the Study

Scheduled community people are economically belonging to the weaker section. They are more vulnerable naturally. They don't have land on their own. They are less educated and poorer in health. Without financial literacy, we cannot expect to make major headway in either financial inclusion or consumer protection. Financial literacy has been assumed a greater importance in recent years, as financial markets have become increasingly complex and there is information asymmetry between markets and the common person which is leading to the latter i.e. common person finding it increasingly difficult to make informed choices.

Scope of the Study

The present study attempts to examine the demographic variables of scheduled community

people and demographic variables influencing the financial literacy among scheduled community people in Tuticorin district. It examines the financial literacy level among scheduled community people in the study area viz. Tuticorin District based on their selected demographic variables. Further, it examines the literacy level of scheduled community people in the banking, insurance, and postal financial services in the study area. viz, Tuticorin district. It aims to offer suitable suggestions to improve the financial literacy of scheduled community people that leads to financial inclusion. The study was done taking the scheduled community people in Tuticorin district into consideration. The survey was restricted to the scheduled community people only in Tuticorin district.

Analysis of the Study

Insurance Literacy Level among Different Gender Group of Scheduled Community People

This part deals with the gender group of scheduled community people and Insurance literacy level. The relationship between independent variable (Gender group) and dependent variable (Insurance literacy level) is established through 't' test. An attempt has been made to find the significant relationship between the gender group of scheduled community people and insurance literacy level, 't' test is used. The hypothesis is framed as follows,

The null hypothesis (H₀₁) - **“There is no significant difference in insurance literacy level among the different gender group of scheduled community people in Tuticorin district”**.

The result of the 't' test for the insurance literacy level among different gender group of scheduled community people is presented in Table 1.

Table 1, Insurance Literacy Level among Different Gender Group of Scheduled Community People

Insurance Literacy Level	Gender Group (Mean Score)		t Statistics
	Male	Female	
Insurance is the best way to save and secure money	4.0599	4.0375	1.235
Insurance will give protection to life and property	3.9683	3.8344	3.098*
Insurance gives confident about returns	3.6901	3.4713	4.648*
Insurance gives timely help for sudden loss to life property	3.2535	3.2261	0.732
Other than life protection, LIC provides loan to its customers	3.1549	3.1083	1.232
There are varieties of policies in insurance to save the money	3.5106	3.3949	2.584*
Insurance schemes are suitable for all kinds of people	3.2923	3.1242	3.269*
There are many number of policies available which suits to fulfil the needs of the people	4.0986	4.0892	0.329
Scheduled communities are well aware about latest policies introduced in the market	4.1303	4.0287	3.177*
Children's plans always give the returns after a long time	3.8803	3.8471	0.761

Source: Computed Data

*-Significant at five per cent level

As the above Table 1 shows scheduled community people are well aware about latest policies introduced in the market and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who are male as their mean scores are 4.0986 and 4.1303 respectively. The Table 4.10 shows there are many number of policies available which suits to fulfil the needs of the people and Insurance is the best way to save and secure money are the high insurance literacy among the sample scheduled community people who are female as their mean scores are 4.0892 and 4.0375 respectively. Regarding the insurance literacy among the different gender group of sample scheduled community people, Insurance will give protection to life and property, Insurance gives confident about returns, there are varieties of policies in insurance to save the money, Insurance schemes are suitable for all kinds of people and scheduled community people are well aware about latest policies introduced in the market are statistically significant at 5 per cent level.

From the table 5.10 it is found that Insurance will give protection to life and property (t=3.098), Insurance gives confident about returns (t=4.648), There are varieties of policies in insurance to save the money (t=2.584), Insurance schemes are suitable for all kinds of people (t=3.269), scheduled community people are well aware about latest policies introduced in

the market (t=3.177) differs significantly with respect to gender group of the scheduled community people. This leads to mean wise comparison of each segment of gender group.

It can be concluded that the scheduled community people who are male have high insurance literacy level regarding Insurance will give protection to life and property (Mean=3.9683), Insurance gives confident about returns (Mean=3.6901), There are varieties of policies in insurance to save the money (Mean=3.5106), Insurance schemes are suitable for all kinds of people (Mean=3.2923), scheduled community people are well aware about latest policies introduced in the market (Mean=4.1303).

Insurance Literacy Level among Different Age Group of Scheduled Community People

An attempt has been made to find the significant relationship between the age group of scheduled community people and insurance literacy level, 'ANOVA' test is used. The hypothesis is framed as follows,

The null hypothesis (H_{01}) - **“There is no significant difference in insurance literacy level among the different age group of scheduled community people in Tuticorin district”.**

The result of the 'ANOVA' test for the insurance literacy level among different age groups of scheduled community people is presented in Table 2.

Table 2, Insurance Literacy Level among Different Age Group of Scheduled Community People

Insurance Literacy Level	Age Group (Mean Score)				F Statistics
	Below 20 Years	20 – 40 Years	41 – 60 Years	Above 60 Years	
Insurance is the best way to save and secure money	4.0000	4.0395	4.0417	4.0820	0.435
Insurance will give protection to life and property	3.9333	3.9435	3.8631	3.7213	3.414*
Insurance gives confident about returns	3.5333	3.6130	3.5714	3.3770	2.883*
Insurance gives timely help for sudden loss to life property	3.0000	3.2599	3.2679	3.0984	3.812*
Other than life protection, LIC provides loan to its customers	3.0000	3.1949	3.0714	2.9508	6.859*
There are varieties of policies in insurance to save the money	3.4667	3.5056	3.4107	3.2295	4.875*
Insurance schemes are suitable for all kinds of people	2.9333	3.2429	3.1607	3.1639	1.711
There are many number of policies available which suits to fulfil the needs of the people	4.1333	4.1017	4.0952	4.0328	0.746
Scheduled communities are well aware about latest policies introduced in the market	4.2000	4.0989	4.0536	3.9836	2.210
Children's plans always give the returns after a long time	3.9333	3.8729	3.8690	3.7705	0.750

Source: Computed Data

*-Significant at five per cent level

As the Table 2 shows scheduled community people are well aware about latest policies introduced in the market and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who are in the age group of below 20 years as their mean scores are 4.2000 and 4.1333 respectively. The table shows that there are many number of policies available which suits to fulfil the needs of the people and scheduled community people are well aware about latest policies introduced in the market are the high insurance literacy among the sample scheduled community people who belong to the age group between 20-40 years as their mean scores are 4.1017 and 4.0989 respectively. The table indicates that there are many number of policies available which suits to fulfil the needs of the people and scheduled community people are well aware about latest policies introduced in the market are the high insurance literacy among the

sample scheduled community people who are in the age group between 41-60 years as their mean scores are 4.0952 and 4.0536 respectively. As shown in the above table that Insurance is the best way to save and secure money and there are many number of policies available which suits to fulfil the needs of the people are the high insurance literacy among the sample scheduled community people who belong to the age group of above 60 years as their mean scores are 4.0820 and 4.0328 respectively. Regarding the insurance literacy among the different age group of sample scheduled community people, Insurance will give protection to life and property, Insurance gives confident about returns, Insurance gives timely help for sudden loss to life property, other than life protection, LIC provides loan to its customers and there are varieties of policies in insurance to save the money are statistically significant at 5 per cent level.

Table - 3
Demographic Variables of Scheduled Community People and Insurance Literacy

Demographic Variable	Insurance Literacy			d.f	F Value	Sig at 5% Level	Ho
	Mean	S.D	No. of Respondents				
Age Group							
Below 20 Years	36.13	1.80	15	3	5.687	0.001	Rejected
20-40 Years	36.87	2.77	354				
41-60 Years	36.40	2.52	170				
Above 60 Years	35.40	2.62	61				
Education							
Illiterate	37.02	2.30	37	6	18.560	0.000	Rejected
Primary school Level	35.55	2.28	190				
High school Level	36.31	2.43	188				
Hr.Sec. Level	37.32	2.86	64				
Graduate Level	37.50	2.58	104				
Post Graduate Level	41.06	3.47	15				
Professional	41.50	4.94	2				
Occupation							
Agriculture	35.90	2.17	20	5	16.872	0.000	Rejected
Coolie	35.88	2.51	238				
Self Employed	38.06	2.99	44				
Government Employee	38.42	3.44	26				
Private Employee	37.87	2.39	113				
Others	36.03	2.40	159				
Number of Members in the Family							
Below 4	36.08	2.57	139	2	3.161	0.043	Rejected
4-8	36.70	2.76	436				
Above 8	37.04	1.94	25				
Monthly Income							
Below Rs.5000	35.26	2.12	26	3	16.357	0.000	Rejected

Rs.5000-10000	36.02	2.54	148				
Rs.10001-15000	36.17	2.28	225				
Above Rs.15000	37.59	3.01	201				
Source of Income							
Income from Spouse/Parents	35.79	2.16	195	4	5.698	0.000	Rejected
Salary Income	37.79	2.76	137				
Agriculture	35.86	2.85	15				
Own Business Income	38.35	2.61	42				
Wages	36.19	2.71	211				

Source: Computed data

It could be understood from Table 3 that the computed 'F' value for insurance literacy among different age group of sample scheduled community people is 5.687 and the 'p' value at 5% level of significance is 0.001. As computed value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between age group of the sample scheduled community people and insurance literacy. Table 5.29 shows that the computed 'F' value for insurance literacy among different education of sample scheduled community people is 18.560 and the 'p' value at 5% level of significance is 0.000. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between education of the sample scheduled community people and insurance literacy. Table further shows that the computed 'F' value for insurance literacy among different occupation of sample scheduled community people is 16.872 and the 'p' value at 5% level of significance is 0.000. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between occupation of the sample scheduled community people and insurance literacy. Table further elucidates that computed 'F' value for insurance literacy among different number of members in the family of sample scheduled community people is 3.161 and the 'p' value at 5% level of significance is 0.043. As computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between number of members in the family of sample scheduled community people and insurance literacy. Table further highlights that the computed 'F' value for insurance literacy among different monthly income of sample scheduled community people is 16.357 and the 'p' value at 5% level of significance is 0.000. As the computed 'F' value is higher than table value, the null hypothesis is rejected. It is inferred that there is a significant difference

between monthly income of sample scheduled community people and insurance literacy. Table further highlights that the computed 'F' value for insurance literacy among different source of income of sample scheduled community people is 5.698 and the 'p' value at 5% level of significance is 0.000. As the computed 'F' value is greater than table value, the null hypothesis is rejected. It is inferred that there is a significant difference between sources of income of sample scheduled community people and insurance literacy.

Conclusion

Today's financial world is highly complex when compared with that of a generation ago. Financial education is important to both the security of individuals and the security of nations. To the scheduled community people the financial literacy is very important to make efficient decision on their finance. As compared to urban scheduled community people, the rural Scheduled community people have low level of awareness on finance related matters. Scheduled community people in India have reasonable knowledge on the various savings and investment medium available in the market. But it is very ironical to assess that their knowledge is very much limited to the traditionally know savings and investment avenues like bank saving, holding insurance policy, investment in equities gold or inland/building. To conclude, the government should literate the scheduled community people financially through the camp, seminars, and conference. Then only the scheduled community people can make their investment in an efficient manner.

References

1. Olivia S. Mitchell and Annamaria Lusardi (2015). Financial Literacy and Economic
2. Outcomes: Evidence and Policy Implications. The Journal of Retirement
3. Summer, Vol.3, No.1
4. Oscar A. Stopler and Andreas Walter (2017). Financial literacy, financial advice, and

5. financial behavior. Journal of Business Economics, Vol.87
6. Pallavi Seth (2010). Financial Literacy & Investment Decisions of Indian Investors -
7. A Case of Delhi & NCR. article published in International Conference.
8. Patryk Babiarz and Cliff A. Robb (2014). Financial Literacy and Emergency Saving.
9. Journal of Family and Economic Issues, Vol.35, No.1
10. Peter J. Morgan, Trinh Quang Long (2020). Financial literacy, financial inclusion and
11. savings behavior in laos. Journal of Asian Economics, Vol.68, Issue.5
12. Pipit Rosita Andarsari, Mega Noerman Ningtyas (2019). The Role of Financial
13. Literacy on Financial Behavior. Journal of Accounting and Business
14. Education, Vol.4, No.1
15. Pontus Engstrom and Alexander Mckelvie (2017). Financial literacy, role models and
16. micro- enterprise performance in the informal economy. International Small
17. Business Journal: Researching Entrepreneurship, Vol.35, Issue.7

Role of Behavioural Finance on Investment Decisions: A Comparative Study

Femy Moni¹ Nanet Joy²

¹Assistant Professor Department of Commerce St. Aloysius College, Elthuruth

²Assistant Professor Department of Commerce St. Aloysius College, Elthuruth

E-Mail ID: femymoni009@gmail.com

E-Mail ID: nanetjoy@gmail.com

Abstract: Behavioural finance is an emerging concept that has a greater future scope. Behavioral finance can be defined as "the study of influence of psychology on the behaviour of investors and analysts". The behavioural finance says the impact of emotions, cognitive biases, and various psychological factors that drive the investment decision rather than traditional theories like human beings are rational. So this research intended to study the role of behavioural finance on investment decisions. This is a comparative study based on various demographic features. According to this study, each demographic feature may or may not be significantly different from the factors that influence the respondent's investment decision. We all know females are emotionally weaker than men. The attitude of women towards risk, return and Decision making criteria in investment selection are entirely different from men. The perception, attitude and psychology of women and men are too different. Age, education qualification, income level also have a greater impact on investment decisions. That makes more scope for this study. This study was conducted in Thrissur district. The research gave more focus on the factors which have an impact on investment decisions and also searches for how the investment decisions change due to various demographic features.

Introduction

Behavioural finance can be defined as "the study of influence of psychology on the behaviour of investors and analysts". It means the emotions, cognitive biases and various psychological factors that drive the investment decision rather than rational thinking. This research mainly focused on the impact or role of behavioural finance on investment decisions. The researcher intended to make a comparative study which helps to know how the demographic profile of people affects the investment decision. The behavioural finance theories expanded by numerous researchers, who spoke on gender and investment decisions. The gender predicament in investment decisions intently associated with behavioural finance. Moreover each demographic feature has an impact on investment decisions as well as the selection of investment avenues. The attitude, perception, learning level between gender groups or between age groups or between persons with different qualifications are distinct. So the main point that strikes on the mind of the researcher is that he is not rational about investments but he is judgemental because the emotions are most commonly influenced by his activities. The people may be orthodox or antagonistic, voluntary or involuntary, logical or illogical. Thus the researcher exhilarated to study the impact of various demographic features on investment decisions and to know the awareness level of respondents.

Statement of the Problem

The surging concept "behavioural finance" has a major role in investment decisions taken by each and every person. This study concerned "The

role of behavioural finance on investment decisions". The psychology, emotions, perceptions of different gender groups or in different age levels are distinct. Thus the researcher has made a comparative study. The use of income earned by each person uniquely. The fear about the future leads a person to set aside a certain part of income earned to meet unexpected events. So the researcher tries to study the various notions in behavioural finance and also its effect on investment decisions. The following are the research questions under consideration:

Q1: What are the factors influencing while making investment decisions?

Q2: Whether the respondents are aware about investment avenues?

Q3: How do demographic features impact investment decisions?

Objectives of the Study

The following are the objectives of the study.

To identify the factors which have an impact on investment decisions.

To know the awareness level of respondents regarding various investment avenues.

To discuss the impact of various demographic features on investment decisions.

Significance of the Study

Behavioural finance is an advancing contribution from the field of psychology which says emotions drive the action. This study is confined to consider the emotions, perceptions and attitude of investors from various demographic features and also contemplate the biases that are included in investment decisions. The attitudes of people are different by their gender, by their age or by education qualification. There is a lot

of research conducted by various researchers related to behavioural finance and it sticks to the gender differences in decisions. Thus the study focused on the impact of various demographic features on investment decisions. The role of behavioural finance in investment decisions has more scope in near future because the negative impact of Covid-19 on our economy and monetary transactions may last for a decade or more. Hence it is inevitable to conduct a study on the impact of behavioural finance on investment decisions.

Research Methodology

The research design is descriptive and analytical in nature. The data were collected from primary as well as secondary sources. The primary data were collected by administering questionnaires. Secondary data were collected from websites, Journals and magazines etc. The sample of the study was selected from Thrissur district. The researcher opted for 150 samples via convenience sampling.

Literature Review

Kannadas Sendivelu & Maniya Deepak Shah (2021) tries to find out the impact of behavioural finance on investment decisions of a single parent and Also assess the biases included in it.

Results & Discussion

The study concluded that every individual subjects to some biases.

Dhruv Sharma, Vandana Misra, J P Pathak (2021) tries to study the emergence of behavioural finance and the biases involved in it. The authors give focus on how behavioural finance supplemented the traditional finance theories by introducing behavioural aspects.

Rekha D M (2020) explored the behavioural determinants influencing investor's decisions and the level of influence of these factors on them. The study revealed that the prospect factors represent the most important factor having the highest significant impact on investment decisions.

Dr. Vinay Kandpal & Rajat Mehrotra(2018) attempts to study the behaviour of investors towards investment avenues and factors influencing while taking financial decisions. The study concludes that the behaviour have an huge impact while making wise decisions

Egidijus Bika, et al. (2013) explained the emergence and development of trends in behavioural finance. This research revealed the aims of recognition and emotional factors focusing on a limited number of rational investors.

Table No: 1, Demographic Profile

	Frequency	Percent
Gender		
Male	78	52
Female	72	48
Total	150	100
Age		
20-30	17	11.33
30-40	72	48
40-50	40	26.67
50-60	13	8.67
Above 60	8	5.33
Total	150	100
Monthly Income		
Below 20000	76	50.67
20000-40000	38	25.33

40000-60000	24	16
Above 60000	12	8
Total	150	100
Education		
Below SSLC	18	12
SSLC	30	20
Plus two	34	22.67
Graduate	22	14.67
Post Graduate	18	12
Others	28	18.66
Total	150	100

(Source: Primary Survey)

Interpretation: The demographic table depicts that 52 percent of respondents are male. 48 percent of respondents are coming under the age group of 30-40. Most of the respondents nearly

50.67 percent earned an income up to 20000. Most of the respondents have a minimum plus two qualifications.

Table No: 2, Awareness about behavioural finance

Variable	Frequency	Percent
Aware	134	89.33
Not aware	16	10.67
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that around 90 percent of respondents have heard about the emerging concept behavioural finance.

Table No: 3, Influence of behavioural finance on investment decision

Variable	Frequency	Percent
Always	49	32.67
Often	32	21.33
Sometimes	26	17.33
Rarely	27	18
Never	16	10.67
Total	150	100

(Source: Primary Survey)

Interpretation: The tables depicts the influence of behavioural finance on investment decisions. 32.67 percent are always influenced by

behavioural factors and 10.67 percent of them are not influenced and not aware about that.

Hypothesis 1

H0: There is no significant difference between male and female regarding the influence of behavioral finance on investment decisions.

H1: There is a significant difference between male and female regarding the influence of behavioral finance on investment decisions.

Table No. : 4, Gender wise - Mann - Whitney - Wilcoxon U - Test

	Gender	N	Test statistic	Table value@ 5%	P value	Accept/ Reject
Influence of behavioural finance	Male	78	10.5	2	-0.31334	Reject
	Female	72				
Test distribution is not normal Mann - Whitney - Wilcoxon U - Test Grouping Variable: Gender						

(Source: Primary Survey)

Interpretation: The table depicts the calculated value greater than table value at 5% level of significance. Thus the null hypothesis is rejected

and it means there is a significant difference between the influences of behavioural finance on gender groups.

Table No: 5, Awareness about investment avenues

Variable	Frequency	Percent
Extremely aware	52	34.67
Moderately aware	56	37.33
Somewhat aware	26	17.33
Slightly aware	16	10.66
Not at all aware	0	0
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that all the respondents are aware about the investment avenues in distinct ways. 37.33 percent of respondents are moderately aware about all kinds of investment avenues.

H0: There is no significant difference between male and female regarding awareness about investment avenues.

H1: There is a significant difference between male and female regarding awareness about investment avenues.

Hypothesis 2

Table No. : 6, Gender wise T test

	Gender	N	Test statistic	Table value@ 5%	Accept/ Reject
Awareness regarding investment avenues	Male	78	2.63	1.96	Reject
	Female	72			
Test distribution is normal T test Grouping Variable: Gender					

(Source: Primary Survey)

Interpretation: From the table it is clear that the test statistic is greater than the critical value at 5% level of significance. Thus the null hypothesis is rejected that the male and female get awareness in different ways.

Hypothesis 3

H0: There is no significant difference between age and awareness about investment avenues

H1: There is significant difference between age and awareness about investment avenues

Table No.: 7, Age wise – kruskal- wallis H test

	Age	N	Test statistic	Table value@ 5%	Accept/ Reject
Awareness level	20-30	17	6.524	9.488	Accept
	30-40	72			
	40-50	40			
	50-60	13			
	Above 60	8			
	Total	150			

Test distribution is not normal
Kruskal Wallis H Test
Grouping Variable: Age

(Source: Primary Survey)

Interpretation: From the table it is clear that the calculated value is less than table value. Hence we accept the null hypothesis. That means there is no significant difference between age groups and the awareness of investment avenues.

H0: There is no significant difference between male and female regarding awareness level of individual investment avenues.

H1: There is a significant difference between male and female regarding the awareness level of individual investment avenues.

Hypothesis 4

Table No.: 8, Awareness on individual investment avenues

Investment Avenue	Gender	No.	Mean	Standard Deviation	Calculated Value	Table Value	Accept/Reject
Bank Deposit	Male	39	4.025	.973	.671	1.96	Accept
	Female	36	3.88	.9038			
Post Office Savings	Male	39	3.71	.987	-3.58	1.96	Reject
	Female	36	7.416	6.135			
Insurance	Male	39	4.076	1.04	2.51	1.96	Reject
	Female	36	3.416	1.21			
Share	Male	39	2.79	1.38	2.30	1.96	Reject
	Female	36	2.11	1.17			
Bonds/ Debentures	Male	39	2.74	1.34	2.43	1.96	Reject
	Female	36	2.05	1.10			
Chit Fund	Male	39	4.23	.894	2.63	1.96	Reject
	Female	36	3.66	.97			
Real Estate	Male	39	3.66	1.43	4.18	1.96	Reject
	Female	36	2.5	.92			
Provident Fund	Male	39	3.897	1.23	2.6	1.96	Reject
	Female	36	3.11	1.35			

(Source: Primary Survey)

Interpretation: While considering post office savings, insurance, shares, bonds, chit funds, real estate, and provident fund, according to t-test calculated values are more than the table value, so reject the null hypothesis and accept the

alternative hypothesis that is awareness level of respondents towards various investment avenues are significantly differ in between male and female.

Table No: 9
Sources of awareness

Source	Frequency	Percent
News paper	40	26.67
Television	34	22.67
Friends or colleagues	24	16
Brokers or consultants	18	12
Journals or magazines	12	8
E- sources	22	14.66
Total	150	100

(Source: Primary Survey)

Interpretation: The table shows that 26.67 percent of respondents get awareness about investment avenues through newspapers or

dailies. Least of the respondents get the information from journals or magazines.

Table No: 10
Decision taken on investment

Variable	Frequency	Percent
Independently	27	18
Friends	41	27.33
Family members	38	25.33
Neighbors	15	10
Brokers and consultants	17	11.34
Others	12	8
Total	150	100

(Source: Primary Survey)

Interpretation: The above table depicts that most of the respondents are taking decisions

regarding investment by considering the words of friends, family members or by individually.

Table No: 11, Income set aside for investment

Category	Frequency	Percent
0-25%	79	52.67
25-50%	60	40
50-75%	11	7.33
More than 75%	0	0
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that 53 percent of respondents are keeping less than 25% of income for investment and none of them keep more than 75% of income for investments.

Table No: 12
Variables control the investment decision

Variables	Frequency	Percent
Confidence to invest	28	18.67
Regular review and comparison	7	4.67
Consistent investment strategy	13	8.67
Knowledge about avenues	36	24
Satisfaction with current investment avenues	10	6.66
Risk bearing capacity	32	21.33
Possible returns	24	16
Total	150	100

(Source: Primary Survey)

Interpretation: From the table it is clear that 24 percent of respondents are considering knowledge about avenues as a control variable. Least controlling variable is regular review and comparison about 5 percent.

Table No: 13
Investment avenues preferred

Investment Avenues	Frequency	Percentage
Bank Deposit	42	28
Post Office Savings	30	20
Insurance	20	13.3
Shares	6	4
Bonds/Debentures	10	6.7
Chit Funds	26	17.33
Real Estate	0	0
Provident Fund	16	10.7
Total	150	100

(Source: Primary Survey)

Interpretation: The above table mentions that most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues have the least level of risk and most of the respondents have risk averse character.

Table No: 14
Factors considering while making investment decisions

Attributes	Frequency	Percentage
Assured return	130	86.7
Tax benefits	142	94.7
Child education	86	57.3
Daughters marriage	52	34.7
Speculation	33	22.0
Capital gain	21	14.0
Retirement benefit	79	52.7
Secured future	111	74.
Safety of investment	148	98.7
Quantum of investment	127	84.7
Potential risk	150	100
Potential gain	56	37.3
Liquidity	67	44.7
Customer service	31	20.7
Past experience	133	88.7
Time horizon	47	31.3

(Source: Primary Survey)

Interpretation: The table shows that the most concerning factors while making investment decisions are potential risk, safety of investment and assured return. The least affected factor is the capital gain earned from the investments.

Hypothesis 5

H0: There is no significant difference between male and female regarding the factors considered for making investment decisions.

H1: There is a significant difference between male and female regarding the factors considered for making investment decisions.

Table No: 15
Genderwise - Mann - Whitney - Wilcoxon U - Test

Factors	Male (N ₁)	Female (N ₂)	Test statistic	Table value@ 5%	Accept/ Reject
Assured return	58	72	96.5	75	Reject
Tax benefits	70	72			
Child education	20	66			

Daughters marriage	8	44			
Speculation	29	4			
Capital gain	18	3			
Retirement benefit	7	72			
Secured future	41	70			
Safety of investment	76	72			
Quantum of investment	57	70			
Potential risk	78	72			
Potential gain	50	6			
Liquidity	13	54			
Customer service	4	27			
Past experience	61	72			
Time horizon	13	34			
Total	603	810			
a) The distribution is not normal b) Mann – Whitney – Wilcoxon U test c) Grouping Variable : Gender					

(Source: Primary Survey)

Interpretation: From the above calculations it is clear that the test statistic is greater than the critical value. Hence we reject the null hypothesis which means there is a significant difference between male and female regarding the factors considering for investment decisions

Findings

The following are the major findings of the study.

52 percent of respondents are male. 48 percent of respondents are coming under the age group of 30-40. Most of the respondents nearly 50.67 percent earned an income up to 20000. Most of the respondents have a minimum plus two qualifications.

90 percent of respondents have heard about the emerging concept of behavioural finance.

32.67 percent are always influenced by behavioural factors and 10.67 percent of them are not influenced and not aware about that.

There is a significant difference between the influences of behavioural finance on gender groups.

All the respondents are aware about the investment avenues in distinct ways. 37.33 percent of respondents are moderately aware.

There is a significant difference between male and female on the awareness regarding investment avenues.

There is no significant difference between age groups and the awareness of investment avenues. While considering post office savings, insurance, shares, bonds, chit funds, real estate, and provident fund, according to t-test calculated values are more than the table value, so reject the null hypothesis and accept the alternative hypothesis that is awareness level of respondents towards various investment avenues are significantly differ in between male and female.

26.67 percent of respondents get awareness about investment avenues through newspapers or dailies.

Most of the respondents are taking decisions regarding investment by considering the words of friends, family members or individually.

53 percent of respondents are keeping less than 25% of income for investment and none of them keep more than 75% of income for investments.

24 percent of respondents are considering knowledge about avenues as a control variable.

Most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues

have the least level of risk and most of the respondents have risk averse character.

Most concerning factors while making investment decisions are potential risk, safety of investment and assured return.

There is a significant difference between male and female regarding the factors considered for investment decisions.

Suggestions

Following are the suggestions derived from the study.

The female investors should be encouraged to invest since they are very cautious about the avenues, risk and return.

The Government Should take initiatives to give adequate training programs to people with less literacy level.

Government should arrange awareness programs to the entire public to encourage them to create investment behaviour.

Respondents should take due care while making investment decisions.

Most of the respondents are ready to save their income rather than investing in risky avenues. So the concerned authorities should take initiatives to encourage the public for investment.

Conclusion

The researcher tried to compare the role of behavioural finance on investment decisions based on some demographic features like gender and age. From the study it is clear that almost all respondents opted for savings rather than investment. Because they regret taking the risk. The female respondents are not interested in investing in risky avenues and also they do not expect more earnings. The female respondents used the investment or savings for the future rather than male invest for making immediate return. They are not cautious about the future unlike females. All the respondents are aware about the investment avenues but distinctly. Most of the respondents opt bank deposits, post office savings and chit funds as preferred investment avenues. Because these three avenues have the least level of risk and most of the respondents have risk averse character. The study was entirely conducted in the rural area of Thrissur district. So the respondents have not much idea regarding investment in shares, debentures as such investments. Thus the authorities should take initiatives for educating the rural people about investment avenues. There is a significant difference between male and females regarding the factors influenced while making investment decisions. The investment behaviour of

respondents are changed according to the variations in demographic features.

References

1. Kannadhasan, M. (2006). Role of behavioural finance in investment decisions. *Retrieved December, 29, 2014.*
2. Peteros, R., & Maleyeff, J. (2013). Application of behavioural finance concepts to investment decision-making: Suggestions for improving investment education courses. *International Journal of Management, 30*(1), 249.
3. Kumar, S., & Goyal, N. (2015). Behavioural biases in investment decision making—a systematic literature review. *Qualitative Research in financial markets.*
4. Jahanzeb, A. (2012). Implication of behavioral finance in the investment decision-making process. *Information management and business review, 4*(10), 532-536.
5. Antony, A., & Joseph, A. I. (2017). Influence of behavioural factors affecting investment decision— An AHP analysis. *Metamorphosis, 16*(2), 107-114.
6. Muradoglu, G., & Harvey, N. (2012). Behavioural finance: the role of psychological factors in financial decisions. *Review of Behavioural Finance.*
7. Forbes, W. (2009). *Behavioural finance.* John Wiley & Sons.
8. Hens, T., & Bachmann, K. (2011). *Behavioural finance for private banking* (Vol. 534). John Wiley & Sons.
9. Waweru, N. M., Munyoki, E., & Uliana, E. (2008). The effects of behavioural factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange. *International Journal of Business and Emerging Markets, 1*(1), 24-41.
10. Boda, J. R., & Sunitha, G. (2018). Investor's psychology in investment decision making: A behavioral finance approach. *International Journal of Pure and Applied Mathematics, 119*(7), 1253-1261.
11. Decourt, R., Accorsi, A., & Madeira Neto, J. (2007). Behavioral finance and the investment decision-making process in the Brazilian financial market. *Available at SSRN 960350.*
12. Bhatt, B. K., & Chauhan, A. (2014). Behavioral finance: A new Paradigm of finance. *International Journal of Application or Innovation in Engineering & Management (IJAIEEM), 3*(2).
13. Pompian, M. M. (2011). *Behavioral finance and wealth management: how to build investment strategies that account for investor biases* (Vol. 667). John Wiley & Sons.
14. Shefrin, H. (2001). *Behavioral finance.* Edward Elgar Publishing.

New Education Policy 2020 and Children with Disability

UMA¹ Dr.Ajay Kumar Mishra²

Research Scholar-Teacher Education) RSKD PG College(VBSP Uni) Jaunpur
Supervisor, RSKD PG College Jaunpur (UP) VBSP University, Jaunpur (UP)

E-mail: umag32713@gmail.com

Abstract: A large part of the youth population in India is suffering from single or multiple disabilities. It is often difficult for them to take their place in society. Education, health, and employment are a few challenges they face in daily life. The government brings policies, programs, and provisions from time to time for their well-being. Moving forward in this direction, the government announced the new education policy on 29 July 2020, which includes actions for the holistic development of the disabled. New Education Policy 2020 opens a new era in educational reform. This policy includes guidelines for “Equal opportunity” and “Barrier-free Education” for the well-being of the disabled. This article has been presented in the context of NEP 2020 and children with disabilities. Researchers have presented some suggestions in this paper, which can prove beneficial in future for disabled children.

Key Words - New Education Policy, Disability, Children with disability, Importance.

The Indian national education policy was first introduced in 1986, which was later amended in 1992. Since then, there were many changes in society and education, which constantly demanded amendments in the education policy. Therefore, the new education policy 2020 was introduced on 29th July 2020. This policy replaced 34 years old Indian national education policy. The education policy provides measures for foundational pillars of equality, quality, access, affordability, and accountability. The new policy provides instructions for equal opportunity and education to children with disabilities. The barrier-free education and access to education for children with disabilities were important provisions in the new educational policy 2020. According to Merriam-Webster “Disability is a physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person’s ability to engage in certain tasks or actions or participate in typical daily activities and interactions.”

Objective of the Study-

- 1- To individual development of disabled child.
- 2- To Providing opportunities for "Barrier Free Education" to all children with disabilities.
- 2- To achievement of national goal.
- 3- To bringing out the hidden talent in the child.
- 4- To achieving the goal of the national Education Policy.
- 5- To Bringing positivity in the relationship between the society, the disabled family and stakeholder.

Key Points of the New Education Policy 2020-

There are the main key points-

- NEP 2020, adopted on 29th July 2020.

- NEP 2020 which will replace the existing 10+2 school system with a new 5+3+3+4 school system.
- Ensuring Universal Access at all levels of school education.
- Early Childhood Care & Education with new Curricular and Pedagogical Structure.
- This policy for “Equal opportunity” and “Barrier-free Education” for the well-being of the disabled.
- Attaining Foundational Literacy and Numeracy.
- Reforms in school curricula and pedagogy.
- Multilingualism and the power of language.
- The aim of the new policy 2020 is the universalize of education from pre-school to secondary level with 100% Gross Enrolment Ratio ((GER) in school education policy 2030.
- Now the age group for the Right to Education (RTE) is now 3 to 8 years (earlier 14 years.)
- This education policy describes the much-awaited new reforms that the country and society have needed for a long time. This adaptation can be visible or beneficial for children with disabilities and other disabled stakeholders. Therefore, disabled children's methods of learning, teaching pedagogy, and teachers' ability are important concerns in this policy.
- PWD act 2016 has been kept in mind to provide barrier-free education to disabled children. Generally, children with

disabilities face barriers to access to education in preschool and primary school. Because studies find that some schools have less than 40% stairs and 17% have almost accessible toilets. Apart from this many other facilities related to disability are also not available in those schools.

Importance of NEP 2020 for Disabled Child-

Here some importance points-

- It speculates an India-centric education system and the provision of quality education and equitable access to all students in a sustainable manner.
- It allows the students to enjoy the education and gain confidence due to individual learning or the personal growth and development of the special children.
- According NEP 2020 will bring 2 crores out of school children back into the mainstream, through the open schooling system.
- The disability cases could include different variety like-emotional, mental, physical developmental.
- Under NEP recognizes the importance of creating enabling mechanisms for providing Children with Special Needs (CWSN) or Disabled.
- This policy promotes inclusive education and provides equal education to both. Normal children and children with disabilities.
- New Education Policy 2020 is an important attempt to provide "barrier-free education" to the disabled and also a concrete step toward bringing them into the "mainstream" education.
- New Education Policy 2020 aims to ensure that no child from birth misses an opportunity to read, write and excel that's why this new policy will lay special emphasis on disabled children.
- Under NEP 2020, it will be possible to provide resources for the inclusion of children with disabilities in the school and school premises, as well as assist in the appointment of trained special teachers to teach such students.
- This policy promotes inclusive education and provides equal education to both normal and children with disabilities.
- It will enable children with disabilities to fully participate in the regular schooling process from basic to the higher levels of education. It also includes providing cross-disability training with appropriate technology-based equipment and support mechanisms. The support of teachers will also be included according to the need of these children.
- The knowledge about teaching children with specific disabilities will be an integral part of all teacher education programs.
- There will be no discrimination in schools.
- Accessible school infrastructure, reasonable accommodation, personal support, and teaching with Braille and Indian sign language.
- School infrastructure can be used as free social consciousness centers.
- Recruitment of special teachers with cross-disability training.
- Disability awareness has been included in teacher education.
- Resources will be provided to school campuses for the integration of children with disabilities, along with the assistive devices, and teaching and learning materials.
- The home-based education will continue to be an option for children who are unable to attend school. They will be treated like other children based on the normal system.
- Special attention will be given to the safety and security of children with disabilities.
- Schools will be provided with assistive devices, suitable technology-based tools, and language-appropriate teaching-learning materials to facilitate the changes among children with disabilities.
- While preparing the National Curriculum Framework (NCF) for children with disabilities, NCERT will ensure that it consults expert and experienced persons with the national institute of DEPWDs.
- In addition, a high-quality module will also be developed for NIOS (National Indian Open School) to teach Indian sign language and other basic subjects using Indian sign language.
- Each state will be encouraged to set up "BAL-BHAWAN" in the district. To build the future of these disabled children, their

career-related, sports-related, and other interest-related activities will be addressed.

- Based on this policy, it has also been taken care of that child with benchmark disabilities have the option of regular or special school education as per RPWD Act 2016, (As per Section 2(r) of the Rights of Persons with Disabilities Act 2016. A person with a benchmark disability means a person having a specified disability of not less than forty percent (40%) as certified by the Certifying Authority). The resource centers with special teachers and trainers will be set up for different types of children with disabilities and will be made available to meet the rehabilitation and educational requirements of these children.
- Attention has also been given to women and transgender disabled students. An additional and necessary fund will be given to the states to build toilets for them, keep them clean, and provide bicycles and cash transfers.
- Evaluation and certification agency will continue to function for transparency. The new National Assessment Center PARAKH will prepare guidelines for assessment from the basic level to the higher education level to ensure equitable access and opportunities for all learning students.
- Barrier-free education will be main objective of the government, provided to all disabled children.

Conclusion-

New Education Policy 2020 developed according to the demands of the 21st century; it is very important step for all round development of Indian country and society. In which special attention has been given to children with disabilities along with normal children. Therefore, to fulfill this need, a comprehensive national education policy has been formulated by the nation. This will lead to the welfare and well being of the country along with the education system. It is step towards bringing them into the "mainstream" education.

In the end, it can be said that these reforms/changes will help in providing quality education and ensures well-being of the children with disabilities. All these features are under the pre-planned program of the government of India. It is a great move and hopes it goes well. The

researcher tried to highlight some important points on India's New Education Policy 2020 and Disabled students in this research paper.

Suggestions/Recommendations-

On the basis of many studies, the researcher has presented some suggestions for making children with disabilities prosperous and well-being, which can definitely prove useful in making their future bright.

1-The policy and provisions for the Welfare of children with disabilities should be properly implemented on the basis of NEP 2020 proposed by the government.

2-To facilitate the education of children with disabilities, schools should be provided with assistive devices, suitable Technology based equipment, and language-appropriate learning materials.

3-With regards to the modules developed to improve language quality, the government should ensure that it reaches every child with disabilities.

4-In relation to many policies and provisions proposed by the government, it is the duty of the central and state government as well as the local government and NGOs to make observations and help from time to time for the Welfare of these children.

5-The teacher must be 100% trained to teach handicapped children or only trained teachers should be hired in special or inclusive schools.

6- Any general School, inclusive school, or special school must admit the child on the basis of his/her uniqueness.

7- According to the policy, there is no separation in the stream of Science, Arts, and Commerce so the child who wants to stream admission in any stream must give admission on the basis of his merit or ability.

8-Schools should have the freedom to modify the structure of the school curriculum based on the interest and needs of the children.

9- It is the duty of the school and the teacher to try that the dropout of the child is minimized.

10- For the development of children, schools should ensure that they have sports material playgrounds and sports teachers.

11- Schools should ensure a healthy and fun-filled environment is available for the all-around development of the children.

12- It is the ultimate duty of every teacher to understand the attitude of the child and motivate him to do any work on the basis of that.

13- It is the duty of the teacher and the school that if the child is interested in any extracurricular activities more than the standard studies then they should be supported.

14- Society should support any handicapped/disabled child and their parents and not look at them with an inferiority complex.

15- Family society and school all together should always motivate the disabled child that he is the best as he is.

16- Based on the demand of the present circumstances, Science and Technology should be developed for handicapped children. So that they can contribute to building themselves and the nation.

17- Through policies and programs for the welfare of children, government and non-government organizations should help.

18- The NEP 2020 is a huge stride in the right direction — it focuses on the holistic development of students by ensuring access, relevance, equity, quality, and strong foundational learning. The new policy has numerous takeaways for education sector stakeholders.

19- The NEP 2020 seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030. This is NEP 2020 goal with India's learning outcomes. It has drawn much attention to the theme of inclusive and equitable education. 20- The government should strictly implement “Barrier Free Education” for the well being and development of children with disabilities.

I hope that the suggestions given by researchers regarding the new education policy and disabled children will definitely be beneficial for the students, teachers and family. Best wishes to all for the future. Thanks....

References-

1. Kumar, Deep, & Sing, Madhu, (2022, February), India's New Education Policy (NEP) 2020 Creating Children with Disability., St. Xavier's College of Education. DOI: [10.48175/IJARST-2505](https://doi.org/10.48175/IJARST-2505)
2. Das, Rajshree, (2021 December 23), Education for children with disabilities and NEP-2020, Gauhati University, Sentinelassam_files\logo.png, Sentinel Digital Desk. ruchadas98@gmail.com
3. Wecapable, (2021 Dec 23), Disability and India's New Education Policy (NEP) 2020 <https://wecapable.com/>

4. Wecapable, (2022 June 15), "Disability and India's New Education Policy (NEP) 2020, <<https://wecapable.com/disability-new-education-policy-nep-2020/>>
5. Ahmad, M, (2021 Feb 4), Education for Children with Disabilities and (NEP) 2020), Principal (I/C), Abhedanana Home, <https://kashmirobserver.net/>, abh78@gmail.com
6. Equitable and Inclusive Education <https://vikaspedia.in/>
7. Nagari, Akhilesh, (2020 Jul 30), New Education Policy 2020, New Delhi, <https://www.hindustantimes.com/>
8. Sarkar, Tanushree, (2020 Aug 19), Examining Disability Inclusion in India's New National Education Policy Education and Disabilities, Policymaking, (2020 Aug 12), Cambridge Network for Disability and Education Research (CaNDER) <https://www.ukfiet.org/>
9. By - Bhatia Ruchi (Human Centered Designer . Researcher. Artist . Philosopher. Traveller)
10. Education for Students with Disabilities in India Feb 17, 2018
11. <https://medium.com/@ruchibhatia515>
12. Singal, Nidhi, (2009), (2010/ED/EFA/MRT/PI/21), Education of children with disabilities in India, program and meeting document, <https://unesdoc.unesco.org/home>, WWW.UNESCO.ORG
13. Importance of Special Education for Special Children, (2022 April 7), <https://educationtoday.org.in/>
14. m.jagranjosh.com, (2021 July 29,) <https://www.jagranjosh.com/>
15. Anurag, (2020 August 4), **National Education Policy : Recommendations and the current scenario** - <https://prsindia.org/>
16. <http://vikaspedia.in/InDG>.
17. <http://samajkalyan.up.gov.in/hi>
18. The Rehabilitation Council of India (RCI) (22 June 26). <http://www.rehabcouncil.nic.in/>
19. https://www.education.gov.in/shikshakparv/docs/Inclusive_Education.pdf

Chief Editor

Dr. R. V. Bhole

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102

Email- rbhole1965@gmail.com

Visit-www.jrdrvb.com

Address

'Ravichandram' Survey No-101/1, Plot, No-23,
Mundada Nagar, Jalgaon (M.S.) 425102



SRI Y N COLLEGE (A), NARSAPUR

PATENTS



2022-2023

DEPARTMENT OF PHYSICS

SRI Y.N.COLLEGE (A)

NARSAPUR



Office of the Controller General of Patents, Designs & Trade Marks
 Department of Industrial Policy & Promotion,
 Ministry of Commerce & Industry,
 Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

Application Details

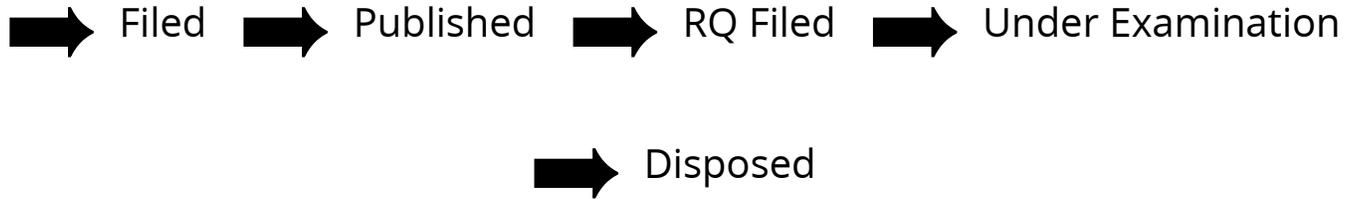
APPLICATION NUMBER	202241033431
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	10/06/2022
APPLICANT NAME	1 . Dr M Parthasarathy 2 . Dr. Anand Kumar Gummadi 3 . Mr. Ganeshkumar P 4 . Dr L Malleswara Rao 5 . Mr.Thiru. B.Deepan Kumar 6 . Dr. A. Akila 7 . Dr.A.Ramu 8 . Dr. Harikumar Pallathadka 9 . Ms.P.S.Chandel 10 . Dr. Sachin Hemraj Dhawankar
TITLE OF INVENTION	Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew
FIELD OF INVENTION	PHYSICS
E-MAIL (As Per Record)	senanipindia@gmail.com
ADDITIONAL-EMAIL (As Per Record)	admin@senanip.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	17/06/2022

Application Status

APPLICATION STATUS

Awaiting Request for Examination

[View Documents](#)



In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

FORM 5
THE PATENTS ACT 1970
(39 of 1970)
&
The Patents rules, 2003
DECLARATION AS TO INVENTORSHIP
[See section 10(6) and rule 13(6)]

1. NAME: OF APPICANT (S)

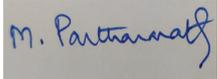
1. Dr M Parthasarathy
2. Dr. Anand Kumar Gummadi
3. Mr. Ganeshkumar P
4. Dr L Malleswara Rao
5. Mr.Thiru. B.Deepan Kumar
6. Dr. A. Akila
7. Dr.A.Ramu
8. Dr. Harikumar Pallathadka
9. Ms.P.S.Chandel
10. Dr. Sachin Hemraj Dhawankar

Hereby declare that the truth and first inventor (s) of the invention disclosed in the provisional specification filed in pursuance of my application numbered **2022**_____ dated _____ are.

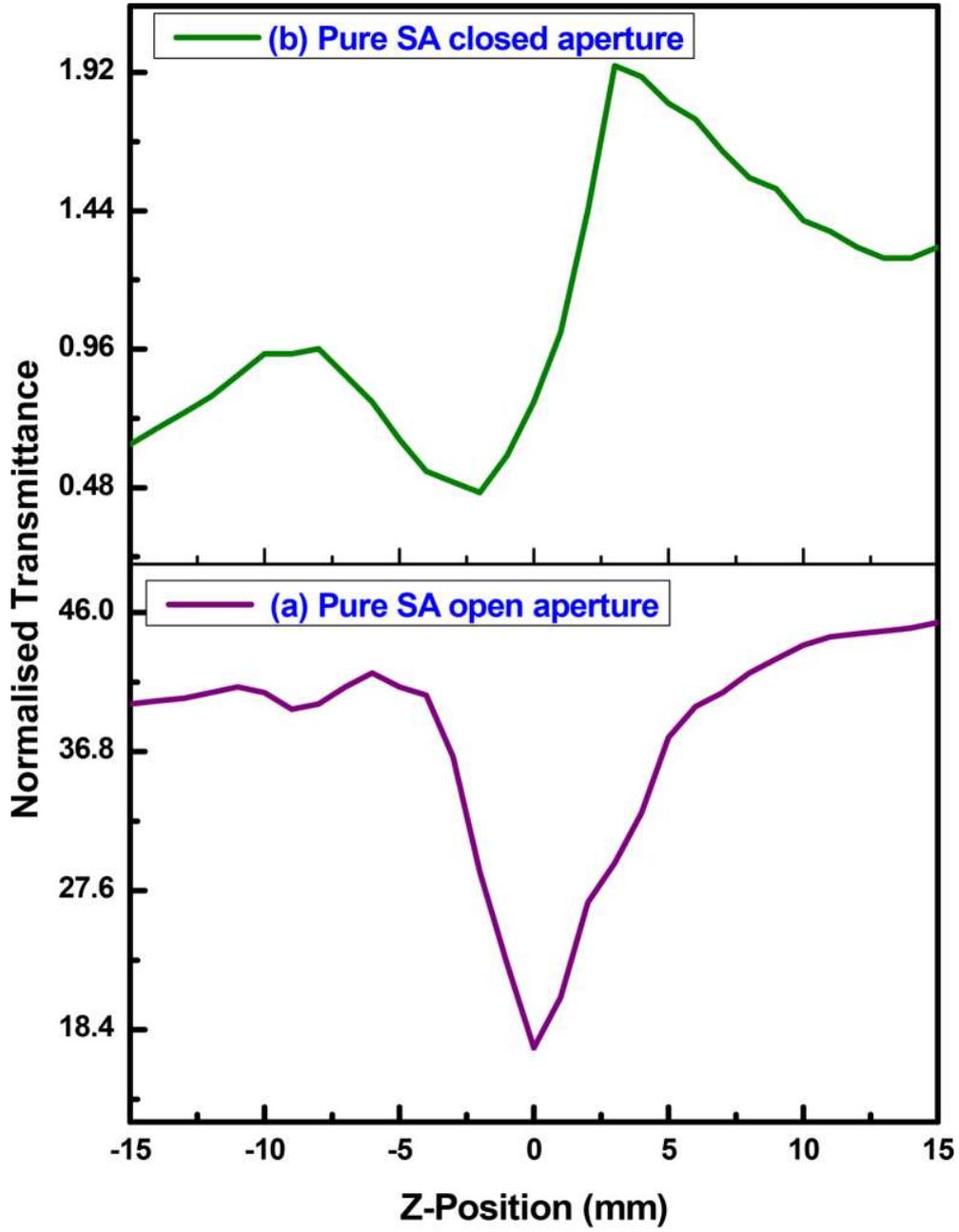
2. INVENTOR (S)

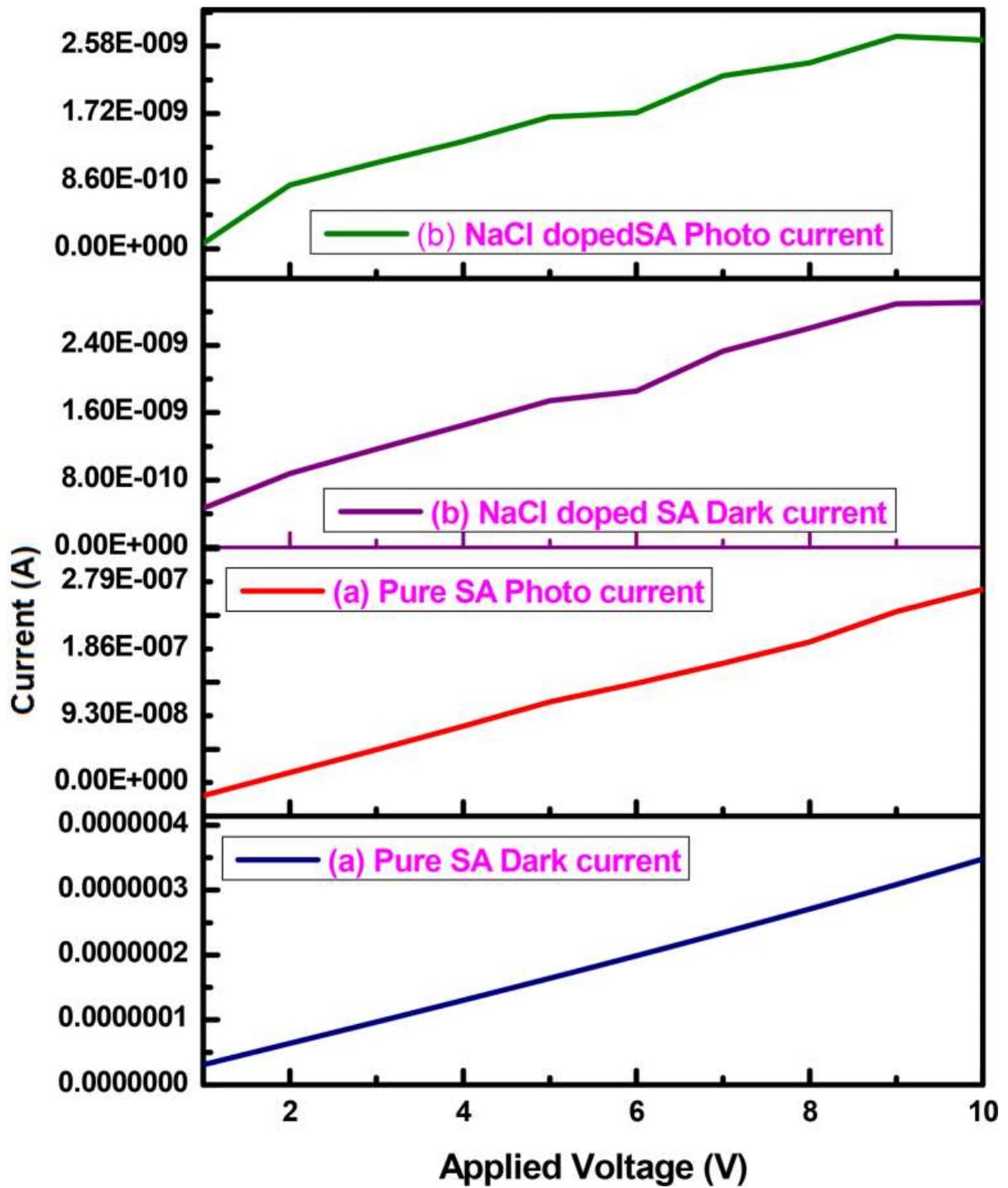
NAME	NATION-ALITY	ADDRESS
Dr M Parthasarathy	Indian	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India
Dr. Anand Kumar Gummadi	Indian	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India
Mr. Ganeshkumar P	Indian	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu

		Country: India
Dr L Malleswara Rao	Indian	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India
Mr.Thiru. B.Deepan Kumar	Indian	Regional officer Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India
Dr.A.Ramu	Indian	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India
Dr. Sachin Hemraj Dhawankar	Indian	Assistant Professor Shri JSPM Arts Comm and Science

		College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India
<p>Date 10/06/2022</p> <p style="text-align: right;"> Dr M Parthasarathy (Applicant's Signature)</p>		
<p>3. DECLARATION TO BE GIVEN WHEN THE APPLICATION IN INDIA IS FILED BY THE APPLICANT (S) IN THE CONVENTION COUNTRY:-</p> <p>-NA-</p> <p>We the applicant(s) in the convention country hereby declare that our right to apply for a patent in India is by way of assignment from the true and first inventor(s).</p> <p>Dated this ___ day of ___, 2022.</p> <p style="text-align: right;">Signature:-NA Name: of signatory:- NA</p>		
<p>To, The controller of patent The patent office, at Delhi/Mumbai/Chennai/Kolkata.</p>		

DRAWINGS:





FORM 1 THE PATENTS ACT 1970 (39 of 1970) & The Patents rules, 2003 APPLICATION FOR GRANT OF PATENT [See section 7, 54 & 135 and rule 20 (1)]				(FOR OFFICE USE ONLY) Application No: Filing Date: Amount of Fee Paid: CBR No: Signature:	
1. APPLICANT'S REFERENCE / IDENTIFICATION					
NO. (AS ALLOTTED BY OFFICE)					
2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]					
Ordinary (✓)		Convention ()		PCT-NP ()	
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()
3. (3A) APPLICANT					
Name		Nationality	Country of Residence	Address	
Dr M Parthasarathy		Indian	India	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India	
Dr. Anand Kumar Gummadi		Indian	India	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India	
Mr. Ganeshkumar P		Indian	India	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu Country: India	
Dr L Malleswara Rao		Indian	India	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India	

Mr.Thiru. B.Deepan Kumar	Indian	India	Regional officer Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	India	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India
Dr.A.Ramu	Indian	India	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	India	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	India	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India
Dr. Sachin Hemraj Dhawankar	Indian	India	Assistant Professor Shri JSPM Arts Comm and Science College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India

3B. CATEGORY OF APPLICANT [Please tick (√) at the appropriate category]

Natural Person (√)	Other than Natural Person		
	Small Entity ()	Start up ()	Others ()

4. INVENTOR (S) [Please tick (√) at the appropriate category]

Are all the inventor(s) same as the applicant(s) named above?	Yes (√)	NO ()
---	---------	--------

If "No", furnish the details of the inventor(s)

Name	Nationality	Country of Residence	Address

5. TITLE OF THE INVENTION

Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew

6. AUTHORISED REGISTERED PATENT AGENT(S)

IN/PA No.

Name

Mobile No.

7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA

Scientific International Publishing House (SIPH),
Mannargudi, Tamilnadu, India.

Telephone No. NA**Mobile No.** +91- 8778088182**E-mail:** editorsippublisher@gmail.com**8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION**

Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
-NA-	-NA-	-NA-	-NA-	-NA-	-NA-

9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)

International application number

International filing date

-NA-

-NA-

10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION

Original (first) application No	Date of filing of original (first) application
-NA-	-NA-

11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT

Main application/patent No.	Date of filing of main application
-NA-	-NA-

12. DECLARATIONS:

(i) Declaration by inventor (s)

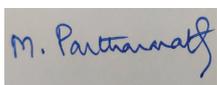
(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above-named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

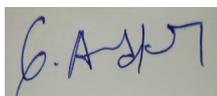
(a) Date: 10/06/2022

(b) Signature:

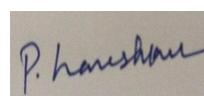
(c) Name:



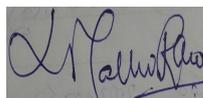
Dr M Parthasarathy



Dr. Anand Kumar Gummadi



Mr. Ganeshkumar P



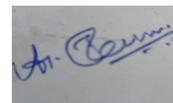
Dr L Malleswara Rao



Mr.Thiru. B.Deepan Kumar



Dr. A. Akila



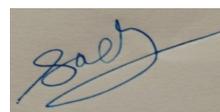
Dr.A.Ramu



Dr. Harikumar Pallathadka



Ms.P.S.Chandel



Dr. Sachin Hemraj Dhawankar

(ii) Declaration by the applicant(s) in the convention country

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date

(b) Signature(s) -----NA-----

(c) Name(s) of the signatory

(ii) Declaration by the applicant:

I/We, the applicant hereby declares that:-

- I am /we are in possession of the above-mentioned invention
- The ~~provisional~~/complete specification relating to the invention is filed with this application.
- ~~The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.~~
- There is no lawful ground of objection to the grant of the patent to me/us.
- I am/we are the true & first inventor(s).
- I am/we are the assignee or legal representative of true & first inventor(s).
- ~~The application or each of the applications, particulars of which are given in Paragraph 8, was the first application in convention country/countries in respect of my/our invention(s).~~
- ~~I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.~~
- ~~My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph 9.~~
- ~~The application is divided out of my /our application particulars of which is given in Paragraph 10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~
- The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph 11.

(d) Following are the attachments with the application:

(a) Form 2

Item	Detail	Fee	Remark
Complete specification	No. of pages: 09	1, 600	
No. of Claim(s)	No. of claims: 09 No. of pages: 02		
Abstract	No. of pages: 01		

Drawings	No. of drawings: 02 No. of Pages: 02		
Priority	No. of Priorities:		

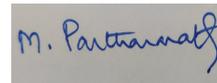
~~# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.~~

- ~~(a) Provisional specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).~~
- ~~(b) Sequence listing in electronic form~~
- ~~(c) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).~~
- ~~(d) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.~~
- ~~(e) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.~~
- (f) Statement and Undertaking on Form 3
- (g) Declaration of Inventorship on Form 5

Total fee Rs. in Cash/ Banker's Cheque /Bank Draft bearing No.....
date.....on Bank

We hereby declare that to the best of my/our knowledge, information and belief the fact and matters slated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this 10th day of June, 2022



Dr M Parthasarathy
(Applicant's Signature)

To,
The Controller of Patents
The Patent Office, At Delhi/Mumbai/Chennai/Kolkata, India.

FORM 9
THE PATENTS ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003
REQUEST FOR PUBLICATION
(See section 11A (2); rule 24A)

We (state name, address and nationality of Applicant)

APPLICANTS (S)		
NAME	NATIONALITY	ADDRESS
Dr M Parthasarathy	Indian	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India
Dr. Anand Kumar Gummadi	Indian	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India
Mr. Ganeshkumar P	Indian	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu Country: India
Dr L Malleswara Rao	Indian	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India
Mr.Thiru. B.Deepan Kumar	Indian	Regional officer

		Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India
Dr.A.Ramu	Indian	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India
Dr. Sachin Hemraj Dhawankar	Indian	Assistant Professor Shri JSPM Arts Comm and Science College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India

Hereby request for early publication of my application numbered 2022_____ dated _____,
under section 11A (2) of the act.

Date 10/06/2022

A rectangular box containing a handwritten signature in blue ink that reads "M. Parthasarathy".

Dr M Parthasarathy
(Applicant's Signature)

To
The Controller of patents,
The Patent office at Delhi/Mumbai/Chennai/Kolkata

FORM 9
THE PATENTS ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003
REQUEST FOR PUBLICATION
(See section 11A (2); rule 24A)

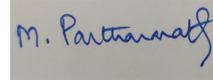
We (state name, address and nationality of Applicant)

APPLICANTS (S)		
NAME	NATIONALITY	ADDRESS
Dr M Parthasarathy	Indian	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India
Dr. Anand Kumar Gummadi	Indian	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India
Mr. Ganeshkumar P	Indian	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu Country: India
Dr L Malleswara Rao	Indian	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India
Mr.Thiru. B.Deepan Kumar	Indian	Regional officer

		Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India
Dr.A.Ramu	Indian	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India
Dr. Sachin Hemraj Dhawankar	Indian	Assistant Professor Shri JSPM Arts Comm and Science College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India

Hereby request for early publication of my application numbered 2022_____ dated _____,
under section 11A (2) of the act.

Date 10/06/2022

A rectangular box containing a handwritten signature in blue ink that reads "M. Parthasarathy".

Dr M Parthasarathy
(Applicant's Signature)

To
The Controller of patents,
The Patent office at Delhi/Mumbai/Chennai/Kolkata

FORM 3
THE PATENTS ACT 1970
(39 of 1970)
&
The Patents rules, 2003
STATEMENT AND UNDERTAKING UNDER SECTION 8
(See section 8, Rule 12)

We,

APPLICANTS (S)		
NAME	NATIONALITY	ADDRESS
Dr M Parthasarathy	Indian	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India
Dr. Anand Kumar Gummadi	Indian	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India
Mr. Ganeshkumar P	Indian	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu Country: India
Dr L Malleswara Rao	Indian	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India
Mr.Thiru. B.Deepan Kumar	Indian	Regional officer Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India

Dr.A.Ramu	Indian	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India
Dr. Sachin Hemraj Dhawankar	Indian	Assistant Professor Shri JSPM Arts Comm and Science College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India

hereby declare:

- (i) That I/we have not made any application for the same/substantially the same invention outside the India.

Or

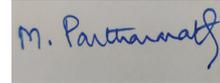
We who have made this application No. ----- Dated ___ alone/jointly with-----, made for the same/substantially same invention, application(s) for patent in the other countries, the particulars of which are given below :

Name of the country	Date of application	Application No.	Status of the application	Date of publication	Date of grant
NA	NA	NA	NA	NA	NA

- (ii) That the rights and application has been assigned to none.

(iii) That I undertake that upto the date of grant of the patent, by the controller, I would keep him informed in writing the details regarding corresponding applications for patents filed outside India within six months from the date of filing of such application.

Date 10/06/2022

A rectangular box containing a handwritten signature in blue ink that reads "M. Parthasarathy".

Dr M Parthasarathy
(Applicant's Signature)

To,
The controller of Patents,
The Patent Office, At Delhi/Mumbai/Chennai/Kolkata, India.

<p>FORM 2</p> <p>THE PATENTS ACT 1970</p> <p>39 OF 1970</p> <p>&</p> <p>THE PATENT RULES 2003</p> <p>COMPLETE SPECIFICATION</p> <p>(SEE SECTIONS 10 & RULE 13)</p>		
<p>1. TITLE OF THE INVENTION</p> <p>Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew</p>		
<p>2. APPLICANTS (S)</p>		
NAME	NATIONALITY	ADDRESS
Dr M Parthasarathy	Indian	Associate Professor and Head of the Department of Physics Vels Institute of Science, Technology and Advanced Studies (Vels University), Velan Nagar, Pallavaram, Chennai Pin: 600117 State: Tamilnadu Country: India
Dr. Anand Kumar Gummadi	Indian	Senior Research Associate National Metallurgical Laboratory- CSIR Pin: 831011 State: Jharkhand Country: India
Mr. Ganeshkumar P	Indian	Assistant Professor in Chemistry SNS College of Engineering, SNS Kalvi Nagar, Sathy Main Road, Kurumbapalayam, PO, Coimbatore, Pin: 641107 State: Tamilnadu Country: India

Dr L Malleswara Rao	Indian	Associate Professor SRI Y N College (A), Narsapur Pin: 534 275 State: Andhra Pradesh Country: India
Mr.Thiru. B.Deepan Kumar	Indian	Regional officer Directorate of Technical Education, Guindy, Chennai Pin : 600025 State: Tamilnadu Country: India
Dr. A. Akila	Indian	Assistant Professor Sri Eshwar College of Engineering, kondampatti, Kinathukadavu, Coimbatore Pin:641202 State: Tamil Nadu Country: India
Dr.A.Ramu	Indian	Asst Professor of in Physics Ganesar college of arts and science Melaisivapuri Ponnamaravathy(tk) Pudukkottai(dt) Pin: 622 403 State: Tamilnadu Country: India
Dr. Harikumar Pallathadka	Indian	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India
Ms.P.S.Chandel	Indian	Assistant Professor Chintamani College Of Arts & Science, Gondpipri, Distribution:Chandrapur, Pin: 442702 State: Maharashtra Country: India

Dr. Sachin Hemraj Dhawankar	Indian	Assistant Professor Shri JSPM Arts Comm and Science College, near HP petrol pump, Dhanora, Gadchiroli Pin:442606, State: Maharashtra Country: India
2. PREAMBLE TO THE DESCRIPTION		
<p style="text-align: center;">COMPLETE SPECIFICATION</p> <p>The following specification particularly describes the invention and the manner in which it is to be performed</p>		

Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew

Abstract:

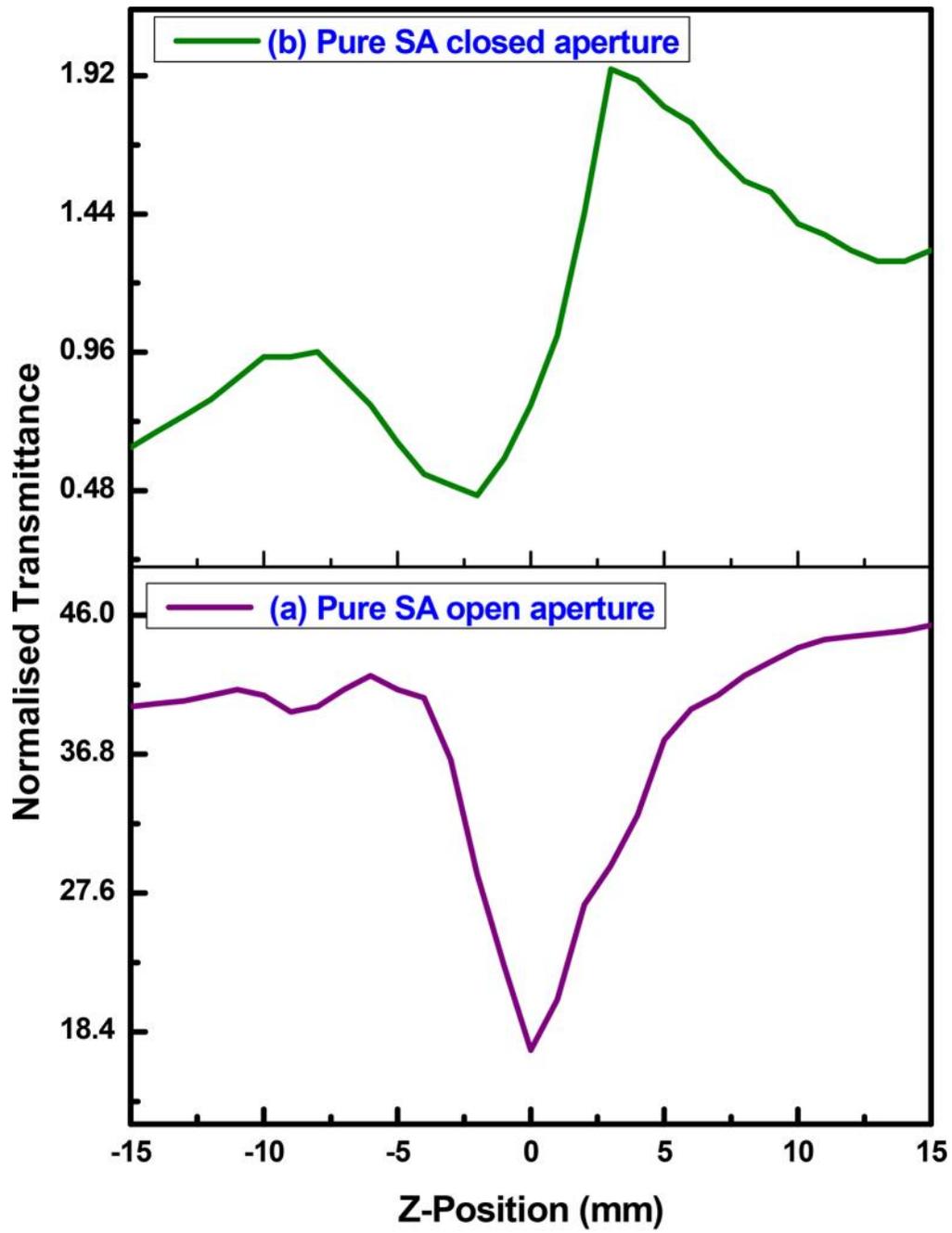
Slow evaporation at room temperature generated single crystals of pure and NaCl-mixed sulphamic acid (SA). Using studies with single crystals and powders, the structure and properties of the lattice were determined. Dopant was detected by EDAX in the SA lattice. The visible band in the UV-Vis spectrum receives the most light. The band gap energy of pure SA crystals was 6.06 eV, while NaCl-doped SA crystals had band gap energy of 5.70 eV. Pure SA crystal emits light at 335 and 424 nm, according to the PL spectrograms, while doped SA crystal emits light at 340 and 428 nm. Using thermogravimetric and differential thermal analysis (TGA/DTA), it was discovered that pure SA crystals and crystals containing NaCl are stable up to 331 °C and 334 °C, respectively. Using Vickers microhardness analysis, it is possible to determine that the crystals' hardness rises with increasing load. A photoconductivity analysis found that the crystals produced by this method have negative photoconductivity. This approach yields crystals with a higher Laser Damage Threshold (LDT) than a standard potassium dihydrogen phosphate (KDP) crystal. The Z-scan method was used to determine the nonlinear refractive index, nonlinear optical absorption, and third order nonlinear optical susceptibility (TONLO) of crystals generated with a He-Ne laser.

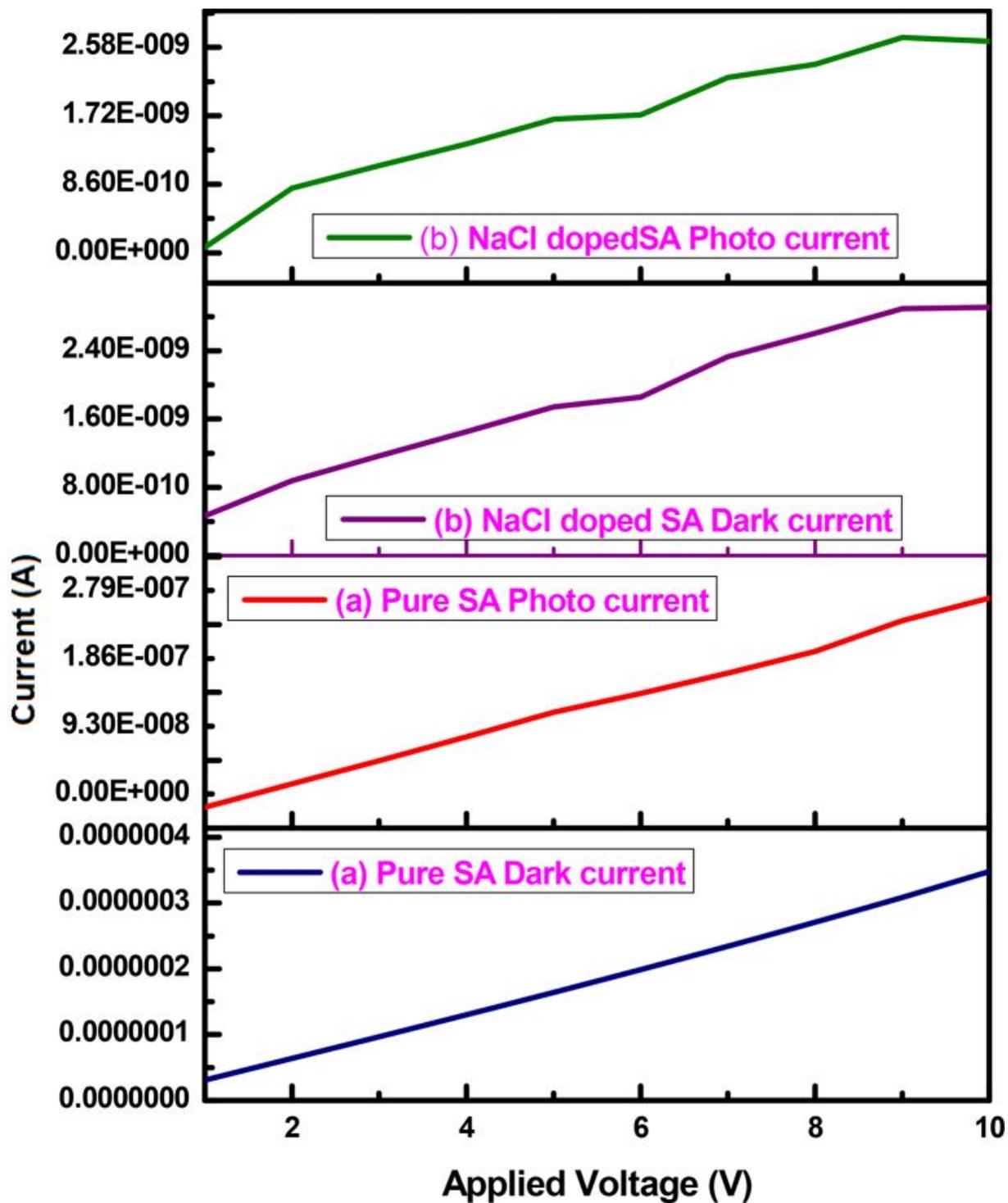
Descriptions:

Nonlinear optical susceptibility of the third order In recent years, three materials have been utilised in numerous technologies, such as 3D optical memory, optical switching, optical modulation, laser technology, and optical storing and limiting technologies. In recent decades, scientists have produced organic and inorganic materials that can be used in a variety of UV, NIR, and IR applications. In two-photon laser scanning microscopy and other applications involving low-intensity lasers, phase conjugation, and microfabrication, it is essential to have materials with high nonlinear absorption, quick response time, and strong third-order optical nonlinearity. Inorganic crystals are less prone to shatter than organic crystals when struck by a laser. The lack of broad π -electron delocalization limits the optical nonlinearity of inorganic NLO materials, despite their excellent mechanical and thermal properties. Metal ions and rare earth ions are capable of enhancing the optical properties of inorganic single crystals. It strengthens crystals due to its ionic zwitter nature. Sulphamic acid, represented by the formula $\text{H}_2\text{NSO}_3\text{H}$, is a powerful inorganic acid whose properties change when coupled with water. The key lattice parameters of sulfamic acid's orthorhombic lattice are $a = 8.078$ (\AA), $b = 8.116$ (\AA), and $c = 9.268$ (\AA). The derivatives of sulphamic acid are among the amino acids with the highest industrial potential. When dopants are put to single crystals, they considerably improve them. Few studies have investigated the effect of dopants on the development and properties of a single crystal of inorganic SA. Adding metal to crystals increases their optical, ferroelectric, and dielectric properties, according to a survey of the scientific literature. When K^+ and Na^+ are introduced as dopants, crystals grow more quickly, have superior physical and chemical properties, and respond more effectively. Thaila et al. studied the effects of adding 0.1 mol percent NaCl and KCl to SA. This paper discusses the effects of NaCl (1 percent ion) on sulfamic acid. This study examines the production and characterization of sulphamic acid crystals with and without NaCl doping. We also discuss the effect of the dopant on the sulfamic acid. The structure and optical properties of these SA crystals, as well as their microhardness, dielectricity, thermal stability, laser damage threshold, and light-conducting capacity, were characterised. Regarding the third-order nonlinear optical property (TONLOP) of SA and NaCl -doped SA, we know

nothing. Using the Z-scan approach, researchers explored the third-order nonlinear optical property (TONLOP) of NaCl-doped SA crystals. Slow evaporation was utilised to produce sulphamic acid single crystals that were 1 mol percent pure and NaCl-doped. The exteriors of the crystals are transparent. An analysis of a single crystal and a powder by X-ray diffraction demonstrates that the orthorhombic crystal structure exists in both pure and 1 mol percent NaCl-doped samples of sulphamic acid. According to the EDAX spectra, SA crystal contains Na⁺ ions. Crystals of pure and doped sulphamic acid absorb little visible light, and doping has little effect on their transparency. Experiments on photoluminescence found two significant violet emission peaks at 335 and 340 nm. TGA/DTA experiments demonstrate that contaminants increase the thermal stability of SA crystals. The Vickers microhardness value increases with increasing force, and cracks appear when more than 200 grammes of force are applied. Crystals of pure SA showed a hardening coefficient of 2.018, whereas crystals containing 2.233 mol percent NaCl had a hardening coefficient of 2.233. As the voltage was increased, the photocurrent and dark current of both pure and NaCl-doped (1 mol percent) SA crystals grew in a straight line. The thresholds for damage for pure SA, SA with added NaCl, and KDP crystals are 27.42, 42.83, and 17.72 GW/cm² respectively. Pure SA crystals have a third-order nonlinear optical susceptibility of 1.735×10^7 esu, while crystals doped with 1 percent NaCl have a susceptibility of 2.143×10^7 esu.

DRAWINGS:





CLAIMS

1. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew a cutting edge technology.
2. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that it is a smart communication system.

3. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that in this paper, we analyzed and discussed various aspects.
4. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that this research looks at all of the important and recent work that has been done so far, as well as its limitations and challenges
5. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that in recent years, Dye molecules has become a hot topic in India.
6. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that gives a broad overview of various Challenges faced.
7. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that proposed system is more accurate and fast.
8. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that this paper has many applications.
9. Dye molecules changed the shape, color, texture, and electrical charge of sulphamic acid crystals as they grew of claim 1, wherein said that this paper attempts to explain the concept, and assess its impact.

1 Novel Battery Management System for Green Energy Storage

3 Abstract

4 Day by day the energy demand is increasing all over the world, so in the coming future more
5 devices will be invented which will consume more energy, so we need to look out for renewable
6 sources of energy such as solar, wind, and hydro. But the major part comes from solar energy
7 as sun rays are available for 365 days, so we need to use solar energy to fulfilling our energy
8 demand. In this paper, we have primarily focused on the battery management system for green
9 energy i.e., solar as a supply source for charging the battery. We also have to look out for proper
10 utilization of solar energy as during night conditions we have to store the solar energy during
11 day time into batteries and utilize them in the night time. So, we have focused on battery
12 management which is required so that we can use the energy efficiency and the life of the
13 battery can be improved. So, in the battery management system, we have focused on real-time
14 monitoring of various parameters of the battery such as Voltage, Temperature, and Current and
15 provide protection for the battery from overheating, overloading, overcharging, and
16 discharging. All these parameters are monitored on the thingspeak server where we obtain the
17 results.

19 Description

20 The proposed methodology for the battery management system is divided into two sections:

21 ***Real-time monitoring data of battery:*** The proposed system is for the management of batteries
22 using IoT. A solar panel helps to store the energy in the battery. The battery has an energy that
23 is useful for electrical appliances. To charge a battery during nighttime or cold weather time,
24 the system has an AC supply connection as a source. Switching between solar panel connection
25 and AC line connection is done with the help of a relay. Observe the charging and discharging
26 parameters of the battery using the charge controller and with the help of the Thingspeak server.
27 Observe the temperature of the battery with the help of the temperature sensor DHT11 on the
28 Thingspeak server. Voltage and Current sensors help to monitor real-time data like voltage and
29 current of the battery. All these sensors and relays are connected with the NodeMCU ESP32.
30 NodeMCU is equipped with a Wi-Fi module that will help to send all real-time monitored data
31 to the ThingSpeak server.

32 ***Provide protection for the battery:*** Ambient temperature range of the battery is set at 420
33 Celsius, if it crosses that range that means in the case of overheating of the battery, it will get
34 isolated from the load with help of a relay and the battery get protected during the overheating
35 condition. In case of overloading conditions, the overcurrent range is set at 2A. When load
36 crosses that range in heavy load conditions, the higher current will draw through a battery, then
37 the battery and load get disconnected with help of a relay. When load comes to its normal
38 operating range then again with help of the relay it will get reconnected. In this overloading
39 and overheating condition, with the help of the current sensor, the temperature sensor, and relay
40 battery get protected from damage.

42 **Modeling & Analysis**

43 **Lithium-ion Battery:** Lithium-ion batteries are rechargeable battery types in which lithium
44 ions move from the negative to the positive electrode when discharged and then return again
45 when charged. Chemical properties, performance, cost, and safety characteristics depend on
46 the type of lithium-ion battery. Unlike lithium primary batteries (disposable), lithium-ion
47 batteries use an inserted lithium compound as an electrode material instead of metallic lithium.
48 This is one of the most popular rechargeable batteries for portable electronic devices, with one
49 of the best energy-to-weight ratios, high open-circuit voltage, low self-discharge rate, no
50 efficiency memory responsiveness, and slow charging loss when not in use.

51 **Circuit Diagram:** The circuit diagram is constructed with the help of Proteus software. From
52 the circuit diagram, we can observe that the whole battery management system consists of
53 various components like NodeMCU [ESP8266] module, voltage sensor, current sensor,
54 temperature sensor, relay, battery, and solar panel to provide efficient monitoring of battery as
55 well as protection for the battery. the workflow of the system starts from charging the battery
56 with the help of green energy such as solar or AC power. Voltage and Current sensors help to
57 monitor real-time data of the battery i.e., Voltage and Current respectively. And the
58 temperature of the battery is monitored with the help of a temperature sensor. All these sensors
59 are connected to the NodeMCU microcontroller used to send data to the server. The voltage
60 sensor is connected parallel between the battery and motor load and the current sensor is
61 connected in series with the battery and motor load.

62 Now let's understand the circuit diagram pin configuration. NodeMCU has only one ADC
63 input pin to read the analog input from sensors, and our circuit has 3 sensors out of which 2
64 sensors send analog input data to the micro-controller NodeMCU. To read the analog input
65 data from the sensors, an external ADC converter is used with a microcontroller in the circuit.
66 The Vout pin of the voltage sensor is directly connected with an analog channel of NodeMCU
67 at A0, and the Vout pin of the current sensor is connected with the ADC converter and ADC is
68 connected with NodeMCU. The temperature sensor is connected with the GPIO D4 channel of
69 NodeMCU, and the relay is connected with the GPIO D3 channel of NodeMCU. Vcc and GND
70 of sensors are connected with Vin and Gnd of NodeMCU. so here ends the explanation of the
71 circuit diagram.

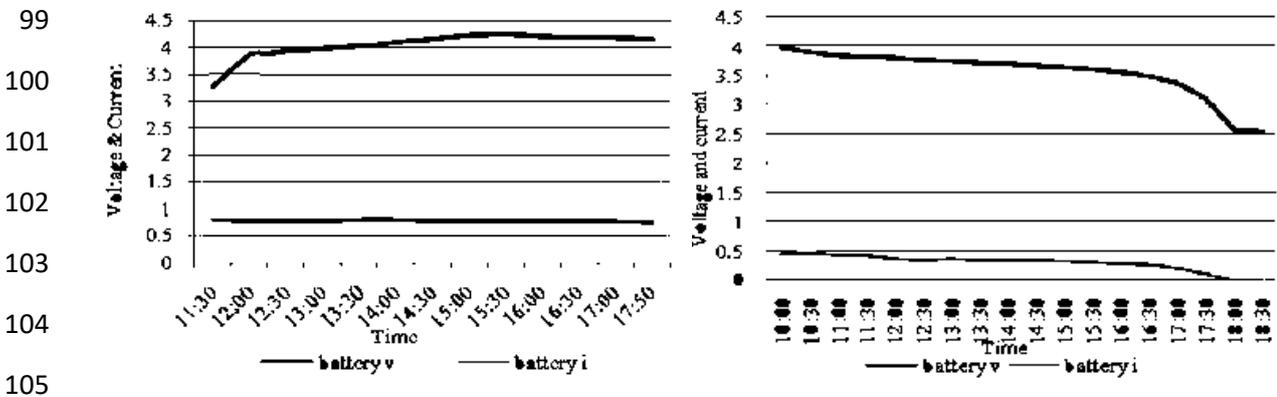
72 **Results And Discussion**

73 In our system 12V lithium-ion battery used is going to be charged with the help of solar.
74 Various Sensors are connected to the battery such as voltage sensor, current sensor, and
75 temperature sensor. All the sensors are connected to the NodeMCU, it sends all real-time
76 monitored data to the thingspeak server for observation. We have included three channels on
77 the thingspeak server to observe the voltage, current, and temperature of the battery.

78 In the below first channel of the thingspeak server, we can observe the voltage of the battery
79 varying with respect to time. The overvoltage range of the battery is set at 12V, if it crosses
80 that range then the battery will not charge further and in the case of Undervoltage condition
81 battery range is set at 7V, if the battery voltage comes under 7V then the battery get charging
82 automatically. when the battery starts charging it will show an increasing graph and when the
83 battery is connected to the load, the voltage graph decreases with respect to time as shown in
84 fig 5. In the second channel of the thingspeak server, we can observe the real-time monitored

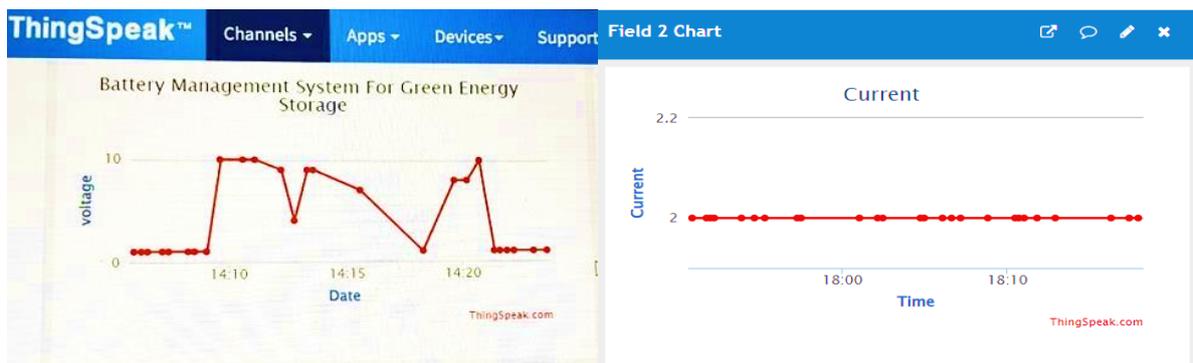
85 current of the battery drawn when the battery is connected to the load. The overcurrent range
 86 of load is set at 2A, if it crosses that range then the battery and load will get disconnected with
 87 the help of a relay, which helps to protect the battery. In the third channel of the thingspeak
 88 server, we can observe the real-time monitored temperature of the battery. The ambient
 89 temperature range of the battery is set at 420 Celsius. If the battery gets overheated due to
 90 weather conditions or overload conditions, then with help of a relay it will get disconnected
 91 with load, and the battery gets protected from overheating conditions.

92 From the above fig, we can observe the downloaded real-time monitored data of the battery. In
 93 the first column we can observe the date and time at which data was collected, in the second
 94 column we can observe the number of entries, and in the third, fourth, and fifth columns we
 95 can observe the voltage, current, and temperature data collected at a particular time interval.
 96 The battery gets starts charging at morning 9 am and stops charging at 6 pm so from the above
 97 record we can observe that battery is charged from 7V to 11V till 6 pm. The temperature of the
 98 battery gets increases from 9 am to 4 pm due to atmospheric conditions and again get decreases.



Voltage	12 V
Capacity	1.8 Ah
Efficiency	85-90%

106



Real time voltage monitoring of battery

Real time current monitoring of battery

Real time temperature monitoring of battery

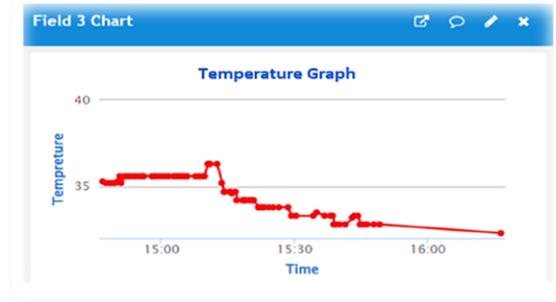


Table: Record of real time monitored data of battery in the tabular format

Created At	Entry Id	Field 1 Voltage	Field 2 Current	Field 3 Temperature
2022-04-21 09:00:37 UTC	3048	7	2	35.1
2022-04-21 09:30:37 UTC	3099			35.6
2022-04-21 10:00:37 UTC	3149		2	36.3
2022-04-21 10:30:37 UTC	3199			37.2
2022-04-21 11:00:37 UTC	3232			37.4
2022-04-21 11:30:37 UTC	3283	8	2	37.9
2022-04-21 12:00:37 UTC	3337			38.5
2022-04-21 12:30:37 UTC	3387		2	38.86
2022-04-21 13:00:37 UTC	3413			38.95
2022-04-21 13:30:37 UTC	3439			39.13
2022-04-21 14:00:37 UTC	3492	9	2	40.02
2022-04-21 14:30:37	3548			40.73

UTC				
2022-04-21 15:00:37 UTC	3600		2	41.12
2022-04-21 15:30:37 UTC	3651			41.03
2022-04-21 16:00:37 UTC	3703	1 0	2	41.76
2022-04-21 16:30:37 UTC	3752			42.08
2022-04-21 17:00:37 UTC	3799		2	41.06
2022-04-21 17:30:37 UTC	3856			40.35
2022-04-21 18:00:37 UTC	3908	1 1	2	39.12

1 Novel Battery Management System for Green Energy Storage

3 Abstract

4 Day by day the energy demand is increasing all over the world, so in the coming future more
5 devices will be invented which will consume more energy, so we need to look out for renewable
6 sources of energy such as solar, wind, and hydro. But the major part comes from solar energy
7 as sun rays are available for 365 days, so we need to use solar energy to fulfilling our energy
8 demand. In this paper, we have primarily focused on the battery management system for green
9 energy i.e., solar as a supply source for charging the battery. We also have to look out for proper
10 utilization of solar energy as during night conditions we have to store the solar energy during
11 day time into batteries and utilize them in the night time. So, we have focused on battery
12 management which is required so that we can use the energy efficiency and the life of the
13 battery can be improved. So, in the battery management system, we have focused on real-time
14 monitoring of various parameters of the battery such as Voltage, Temperature, and Current and
15 provide protection for the battery from overheating, overloading, overcharging, and
16 discharging. All these parameters are monitored on the thingspeak server where we obtain the
17 results.

19 Description

20 The proposed methodology for the battery management system is divided into two sections:

21 **Real-time monitoring data of battery:** The proposed system is for the management of batteries
22 using IoT. A solar panel helps to store the energy in the battery. The battery has an energy that
23 is useful for electrical appliances. To charge a battery during nighttime or cold weather time,
24 the system has an AC supply connection as a source. Switching between solar panel connection
25 and AC line connection is done with the help of a relay. Observe the charging and discharging
26 parameters of the battery using the charge controller and with the help of the Thingspeak server.
27 Observe the temperature of the battery with the help of the temperature sensor DHT11 on the
28 Thingspeak server. Voltage and Current sensors help to monitor real-time data like voltage and
29 current of the battery. All these sensors and relays are connected with the NodeMCU ESP32.
30 NodeMCU is equipped with a Wi-Fi module that will help to send all real-time monitored data
31 to the ThingSpeak server.

32 **Provide protection for the battery:** Ambient temperature range of the battery is set at 420
33 Celsius, if it crosses that range that means in the case of overheating of the battery, it will get
34 isolated from the load with help of a relay and the battery get protected during the overheating
35 condition. In case of overloading conditions, the overcurrent range is set at 2A. When load
36 crosses that range in heavy load conditions, the higher current will draw through a battery, then
37 the battery and load get disconnected with help of a relay. When load comes to its normal
38 operating range then again with help of the relay it will get reconnected. In this overloading
39 and overheating condition, with the help of the current sensor, the temperature sensor, and relay
40 battery get protected from damage.

42 **Modeling & Analysis**

43 **Lithium-ion Battery:** Lithium-ion batteries are rechargeable battery types in which lithium
44 ions move from the negative to the positive electrode when discharged and then return again
45 when charged. Chemical properties, performance, cost, and safety characteristics depend on
46 the type of lithium-ion battery. Unlike lithium primary batteries (disposable), lithium-ion
47 batteries use an inserted lithium compound as an electrode material instead of metallic lithium.
48 This is one of the most popular rechargeable batteries for portable electronic devices, with one
49 of the best energy-to-weight ratios, high open-circuit voltage, low self-discharge rate, no
50 efficiency memory responsiveness, and slow charging loss when not in use.

51 **Circuit Diagram:** The circuit diagram is constructed with the help of Proteus software. From
52 the circuit diagram, we can observe that the whole battery management system consists of
53 various components like NodeMCU [ESP8266] module, voltage sensor, current sensor,
54 temperature sensor, relay, battery, and solar panel to provide efficient monitoring of battery as
55 well as protection for the battery. the workflow of the system starts from charging the battery
56 with the help of green energy such as solar or AC power. Voltage and Current sensors help to
57 monitor real-time data of the battery i.e., Voltage and Current respectively. And the
58 temperature of the battery is monitored with the help of a temperature sensor. All these sensors
59 are connected to the NodeMCU microcontroller used to send data to the server. The voltage
60 sensor is connected parallel between the battery and motor load and the current sensor is
61 connected in series with the battery and motor load.

62 Now let's understand the circuit diagram pin configuration. NodeMCU has only one ADC
63 input pin to read the analog input from sensors, and our circuit has 3 sensors out of which 2
64 sensors send analog input data to the micro-controller NodeMCU. To read the analog input
65 data from the sensors, an external ADC converter is used with a microcontroller in the circuit.
66 The Vout pin of the voltage sensor is directly connected with an analog channel of NodeMCU
67 at A0, and the Vout pin of the current sensor is connected with the ADC converter and ADC is
68 connected with NodeMCU. The temperature sensor is connected with the GPIO D4 channel of
69 NodeMCU, and the relay is connected with the GPIO D3 channel of NodeMCU. Vcc and GND
70 of sensors are connected with Vin and Gnd of NodeMCU. so here ends the explanation of the
71 circuit diagram.

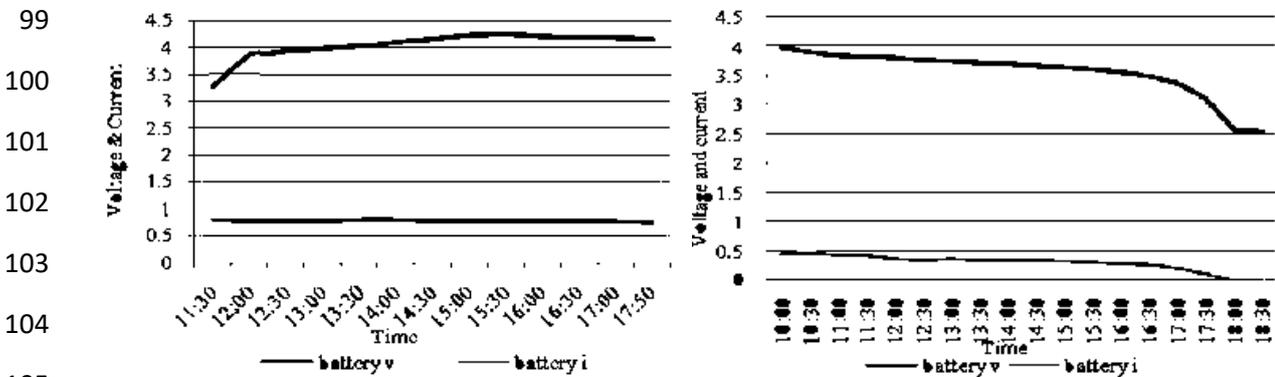
72 **Results And Discussion**

73 In our system 12V lithium-ion battery used is going to be charged with the help of solar.
74 Various Sensors are connected to the battery such as voltage sensor, current sensor, and
75 temperature sensor. All the sensors are connected to the NodeMCU, it sends all real-time
76 monitored data to the thingspeak server for observation. We have included three channels on
77 the thingspeak server to observe the voltage, current, and temperature of the battery.

78 In the below first channel of the thingspeak server, we can observe the voltage of the battery
79 varying with respect to time. The overvoltage range of the battery is set at 12V, if it crosses
80 that range then the battery will not charge further and in the case of Undervoltage condition
81 battery range is set at 7V, if the battery voltage comes under 7V then the battery get charging
82 automatically. when the battery starts charging it will show an increasing graph and when the
83 battery is connected to the load, the voltage graph decreases with respect to time as shown in
84 fig 5. In the second channel of the thingspeak server, we can observe the real-time monitored

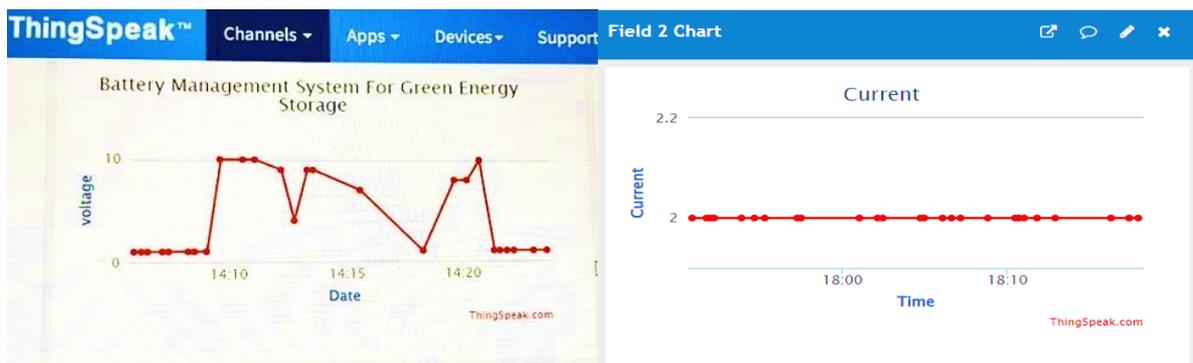
85 current of the battery drawn when the battery is connected to the load. The overcurrent range
 86 of load is set at 2A, if it crosses that range then the battery and load will get disconnected with
 87 the help of a relay, which helps to protect the battery. In the third channel of the thingspeak
 88 server, we can observe the real-time monitored temperature of the battery. The ambient
 89 temperature range of the battery is set at 420 Celsius. If the battery gets overheated due to
 90 weather conditions or overload conditions, then with help of a relay it will get disconnected
 91 with load, and the battery gets protected from overheating conditions.

92 From the above fig, we can observe the downloaded real-time monitored data of the battery. In
 93 the first column we can observe the date and time at which data was collected, in the second
 94 column we can observe the number of entries, and in the third, fourth, and fifth columns we
 95 can observe the voltage, current, and temperature data collected at a particular time interval.
 96 The battery gets starts charging at morning 9 am and stops charging at 6 pm so from the above
 97 record we can observe that battery is charged from 7V to 11V till 6 pm. The temperature of the
 98 battery gets increases from 9 am to 4 pm due to atmospheric conditions and again get decreases.



Voltage	12 V
Capacity	1.8 Ah
Efficiency	85-90%

106



Real time voltage monitoring of battery

Real time current monitoring of battery

Real time temperature monitoring of battery

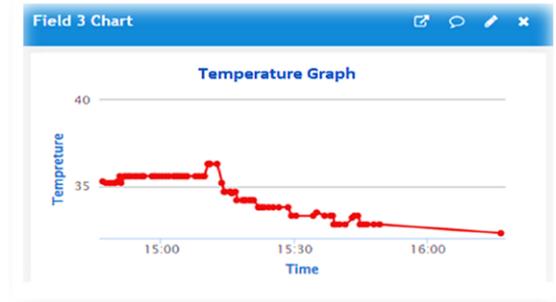


Table: Record of real time monitored data of battery in the tabular format

Created At	Entry Id	Field 1 Voltage	Field 2 Current	Field 3 Temperature
2022-04-21 09:00:37 UTC	3048	7	2	35.1
2022-04-21 09:30:37 UTC	3099			35.6
2022-04-21 10:00:37 UTC	3149		2	36.3
2022-04-21 10:30:37 UTC	3199			37.2
2022-04-21 11:00:37 UTC	3232			37.4
2022-04-21 11:30:37 UTC	3283	8	2	37.9
2022-04-21 12:00:37 UTC	3337			38.5
2022-04-21 12:30:37 UTC	3387		2	38.86
2022-04-21 13:00:37 UTC	3413			38.95
2022-04-21 13:30:37 UTC	3439			39.13
2022-04-21 14:00:37 UTC	3492	9	2	40.02
2022-04-21 14:30:37	3548			40.73

UTC				
2022-04-21 15:00:37 UTC	3600		2	41.12
2022-04-21 15:30:37 UTC	3651			41.03
2022-04-21 16:00:37 UTC	3703	1 0	2	41.76
2022-04-21 16:30:37 UTC	3752			42.08
2022-04-21 17:00:37 UTC	3799		2	41.06
2022-04-21 17:30:37 UTC	3856			40.35
2022-04-21 18:00:37 UTC	3908	1 1	2	39.12

Novel Battery Management System for Green Energy Storage

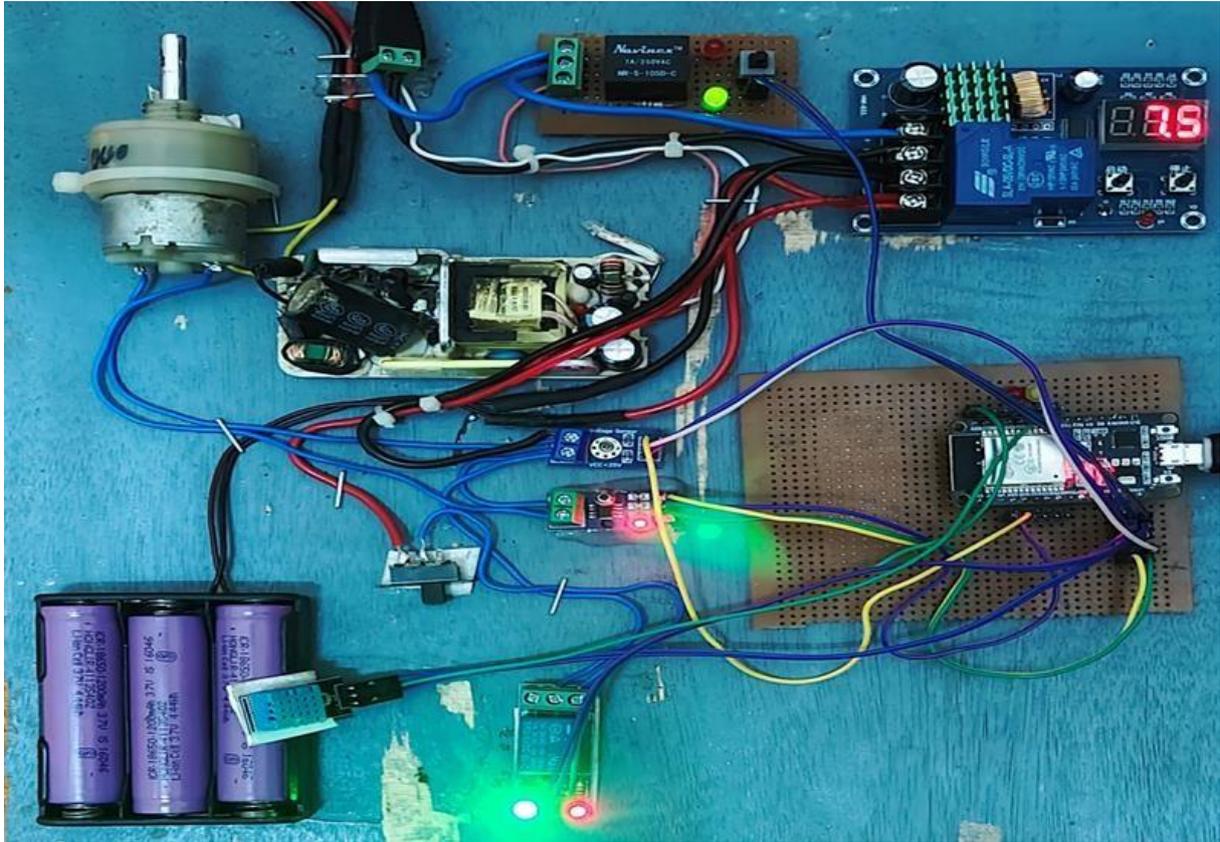


Fig 1: Hardware of Battery Management System

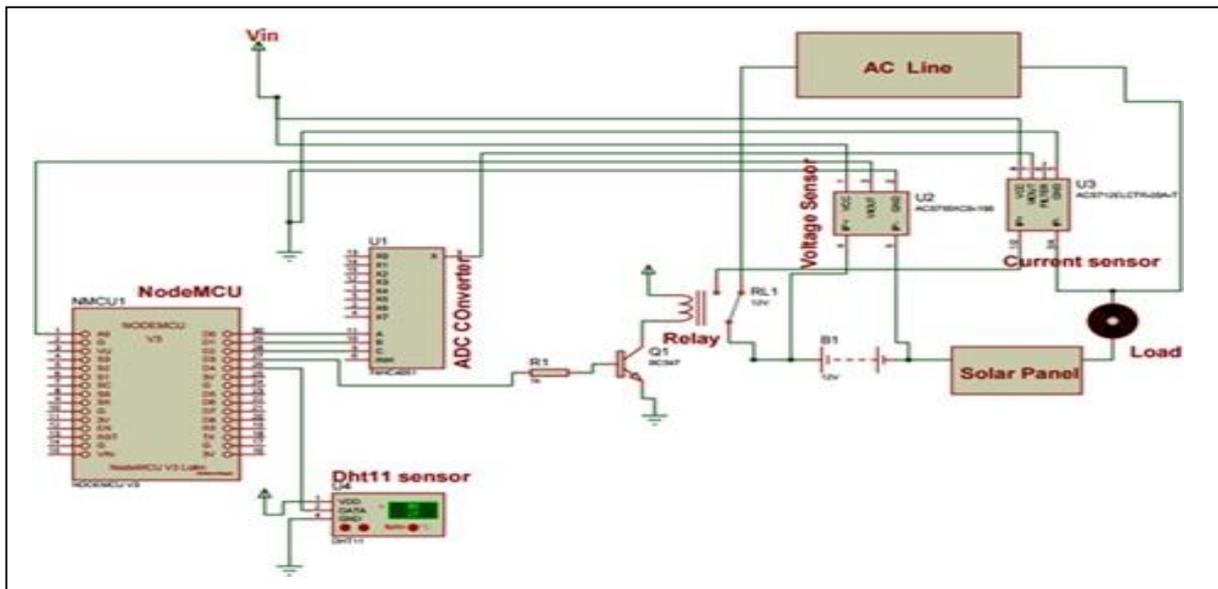


Fig 2: Circuit Diagram

Novel Battery Management System for Green Energy Storage

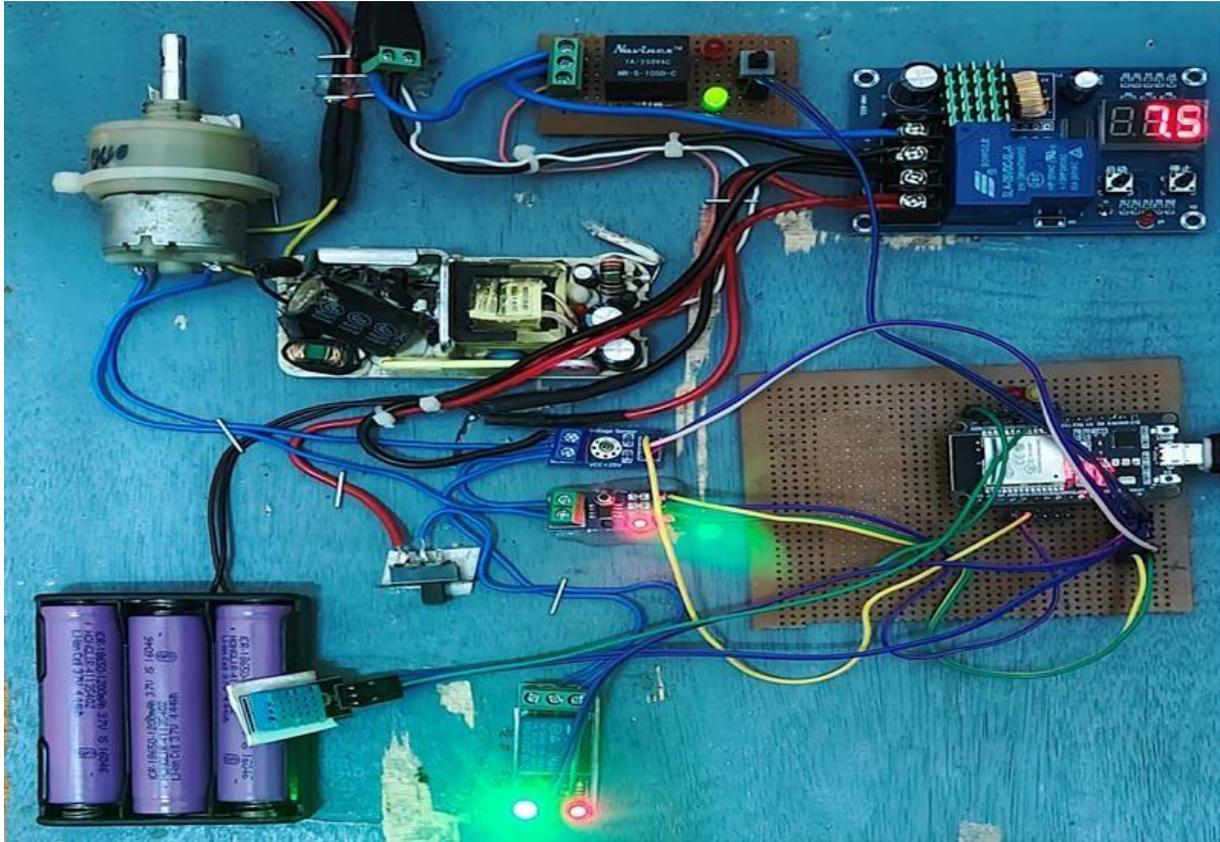


Fig 1: Hardware of Battery Management System

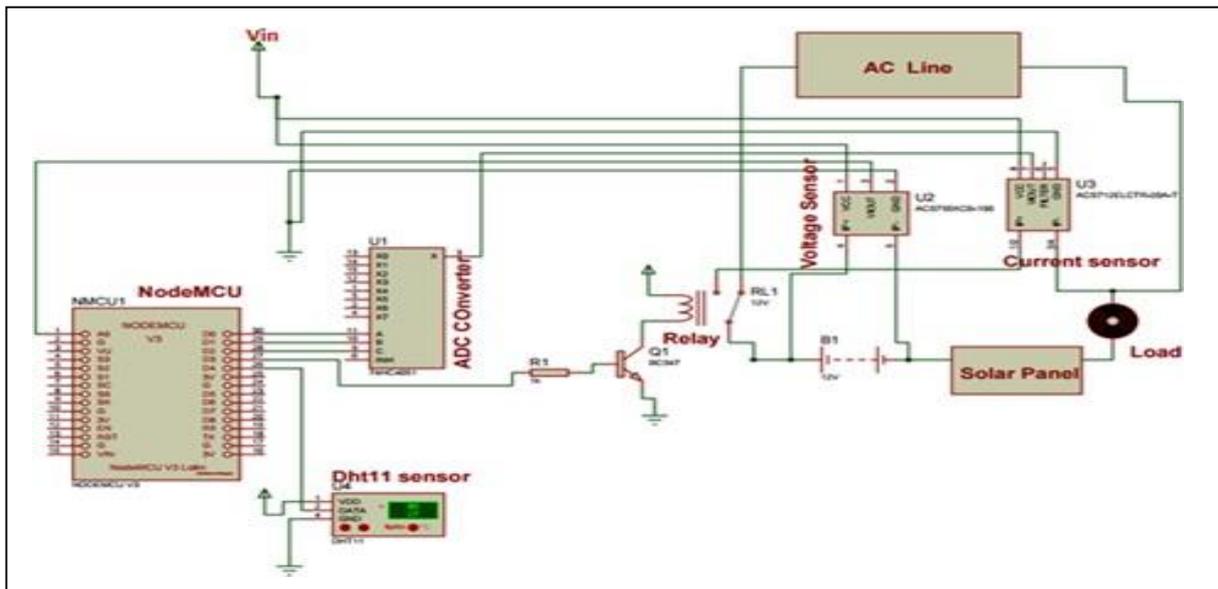


Fig 2: Circuit Diagram

FORM 1
THE PATENTS ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003
APPLICATION FOR GRANT OF PATENT
[See sections 7,54 & 135 and rule 20(1)]

(FOR OFFICE USE ONLY)

Application No.:
Filing Date:
Amount of Fee Paid:
CBR No.:
Signature:

1. APPLICANT(S):

Sr.No.	Name	Nationality	Address	Country	State	Distict	City
1	Ayan Banik	India	16/c Maheshmati Government Rental Housing Estate	India	West Bengal		
2	Dr G. Ramanathan	India	Professor Department of Physics Sri Sairam Engineering College Sai Leo Nagar, West Tambaram	India	Tamil Nadu	Chengalpattu	Chennai
3	Dr. L. Malleswara Rao	India	Lecturer Department of Physics Sri Y N College	India	Andhra Pradesh	West Godavari	
4	Dr Sumanta Bhattacharya	India	Research scholar and Public- Foreign- Defense policy Analyst Maulana Abul Kalam Azad University of Technology, BF Block, Sector 1, Bidhannagar	India	West Bengal	Kolkata	
5	Prof. Hemakesavulu Oruganti	India	Professor Electrical & Electronics Engineering Annamacharya Institute of Technology & Sciences, Rajampet	India	Andhra Pradesh	Anantapur	
6	Mrs. Nivedita	India	Asst. Professor	India	Chattisgarh	Raipur	

Signature Not Verified

Digitally Signed.
Name: Ayan Banik
Date: 16-Sep-2022 22:30:38
Reason: Patent Filing
Location: DELHI

	Singh		Department of Electrical Engineering Shri Rawatpura Sarkar University, Raipur				
--	-------	--	--	--	--	--	--

2. INVENTOR(S):

Sr.No.	Name	Nationality	Address	Country	State	Distict	City
1	Dr G. Ramanathan	India	Professor Department of Physics Sri Sairam Engineering College Sai Leo Nagar, West Tambaram	India	Tamil Nadu	Chengalpattu	Chennai
2	Dr. L. Malleswara Rao	India	Lecturer Department of Physics Sri Y N College	India	Andhra Pradesh	West Godavari	
3	Dr Sumanta Bhattacharya	India	Research scholar and Public- Foreign- Defense policy Analyst Maulana Abul Kalam Azad University of Technology, BF Block, Sector 1, Bidhannagar	India	West Bengal	Kolkata	
4	Prof. Hemakesavulu Oruganti	India	Professor Electrical & Electronics Engineering Annamacharya Institute of Technology & Sciences, Rajampet	India	Andhra Pradesh	Anantapur	
5	Mrs. Nivedita Singh	India	Asst. Professor Department of Electrical Engineering Shri Rawatpura Sarkar University, Raipur	India	Chattisgarh	Raipur	

3. TITLE OF THE INVENTION: Novel Battery Management System for Green Energy Storage

4. ADDRESS FOR CORRESPONDENCE OF APPLICANT / Telephone No.:

AUTHORISED PATENT AGENT IN INDIA:

Maheshmati Government Rental Housing Estate, Rathbari more

Fax No.:

Mobile No: 9851671135

E-mail: ayanbanik97@gmail.com

5. PRIORITY PARTICULARS OF THE APPLICATION(S) FILED IN CONVENTION COUNTRY:

Sr.No.	Country	Application Number	Filing Date	Name of the Applicant	Title of the Invention
--------	---------	--------------------	-------------	-----------------------	------------------------

6. PARTICULARS FOR FILING PATENT COOPERATION TREATY (PCT) NATIONAL PHASE APPLICATION:

International Application Number	International Filing Date as Allotted by the Receiving Office
PCT// /	

7. PARTICULARS FOR FILING DIVISIONAL APPLICATION

Original (first) Application Number	Date of Filing of Original (first) Application
-------------------------------------	--

8. PARTICULARS FOR FILING PATENT OF ADDITION:

Main Application / Patent Number:	Date of Filing of Main Application
-----------------------------------	------------------------------------

9. DECLARATIONS:

(i) Declaration by the inventor(s)

I/We ,Dr G. Ramanathan,Dr. L. Malleswara Rao,Dr Sumanta Bhattacharya,Prof. Hemakesavulu Oruganti,Mrs. Nivedita Singh, is/are the true & first inventor(s) for this invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) of the inventor(s):

(c) Name(s): Dr G. Ramanathan,Dr. L. Malleswara Rao,Dr Sumanta Bhattacharya,Prof. Hemakesavulu Oruganti,Mrs. Nivedita Singh

(ii) Declaration by the applicant(s) in the convention country

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) :

(c) Name(s) of the singnatory: Ayan Banik,Dr G. Ramanathan,Dr. L. Malleswara Rao,Dr Sumanta Bhattacharya,Prof. Hemakesavulu Oruganti,Mrs. Nivedita Singh,Ayan Banik,Dr G. Ramanathan,Dr. L. Malleswara Rao,Dr Sumanta Bhattacharya,Prof. Hemakesavulu Oruganti,Mrs. Nivedita Singh,Ayan Banik,Dr G. Ramanathan,Dr. L. Malleswara Rao,Dr Sumanta Bhattacharya,Prof. Hemakesavulu Oruganti,Mrs. Nivedita Singh

(iii) Declaration by the applicant(s)

- **I am/We are, in the possession of the above mentioned invention.**
- **There is no lawful ground of objection to the grant of the Patent to me/us.**

10. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION:

Sr.	Document Description	FileName
1	COMPLETE SPECIFICATION	Complete Specifications.pdf
2	DRAWINGS	Drawings.pdf
3	FIGURE OF ABSTRACT	Figure of Abstract.pdf

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated hering are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this(Final Payment Date): -----

Signature:

Name: Ayan Banik

To The Controller of Patents

The Patent office at KOLKATA

This form is electronically generated.

Welcome Ayan Banik

[Sign out](#)Controller General of Patents, Designs & Trade
Marks

सत्यमेव जयते

G.A.R.6
[See Rule 22(1)]
RECEIPT

Docket No 29702

Date/Time 2022/09/16 22:31:59

To
Ayan Banik

UserId: ayanbanik0

16/c Maheshmati Government Rental
Housing Estate

CBR Detail:

Sr. No.	Ref. No./Application No.	App. Number	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202231053181	TEMP/E-1/61034/2022-KOL	1600	11538	FORM 1	Novel Battery Management System for Green Energy Storage

TransactionID	Payment Mode	Challan Identification Number	Amount Paid	Head of A/C No
N-0001024090	Online Bank Transfer	1609220029928	1600.00	1475001020000001

Total Amount : ₹ 1600.00

Amount in Words: Rupees One Thousand Six Hundred Only

Received from Ayan Banik the sum of ₹ 1600.00 on account of Payment of fee for above mentioned Application/Forms.

* This is a computer generated receipt, hence no signature required.

[Print](#)[Home](#)[About Us](#)[Contact Us](#)