



Parul[®]
University

Be Here... Be Vibrant...

ISBN 978-81-935730-0-6

A Compendium of Ideas on Innovative Management Practices for Sustainable Business Models

19th - 20th February, 2020

Editors

Dr. Bijal Zaveri

Dr. Sapna Chauhan

Ms. Aashka Thakkar

Organized By

**Faculty of
Management Studies
Parul University**

<http://www.fmsinc2020.com>

📍 P. O. LIMDA, Ta. Waghodia, Gujarat-391760

Email ID: inc@paruluniversity.ac.in

Publishing Partner



JOURNAL PRESS INDIA
Publishing & Conference Solutions
www.journalpressindia.com

A Compendium of Ideas on Innovative Management Practices for Sustainable Business Models

Second Edition, March 2020

ISBN: 978-81-935730-0-6

Copyright © 2020 Parul University, Vadodara, Gujarat, India

No part of this publication 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 Editors, Conference committee, Reviewers, Publisher and Institute are not responsible for authors' expressed opinions, view, and the contents of the published manuscripts in this book. The originality, proof reading of the manuscript and errors are the sole responsibility of the individual authors.

E-Published by



JOURNAL PRESS INDIA

Publishing & Conference Solutions

www.journalpressindia.com

Regd. Office

4800/24, 1st Floor,
Bharat Ram Road, Ansari Road,
Daryaganj, Delhi - 110 002

Editorial Office

355, 3rd Floor,
Aggarwal Plaza, Prashant Vihar, Sec-14,
Rohini, Delhi - 110 085

Mob.: 8826623730, 8826623732, Tel: +91-11-4759 0293

E-mail: editorial@journalpressindia.com; info@journalpressindia.com

A Compendium of Ideas on Innovative Management Practices for Sustainable Business Models

Editors

**Dr. Bijal Zaveri
Dr. Sapna Chuhan
Ms. Aashka Thakkar**

Organized by



**Faculty of Management Studies
Parul University, Taluka Waghodia
Vadodara, Gujarat, India**

Publishing Partner



JOURNAL PRESS INDIA

Publishing & Conference Solutions

www.journalpressindia.com

CONTENTS

❖ Messages	..... i - ii
❖ Editor's Profile	..... iii - iv
❖ Preface	..... v - vi
❖ Acknowledgements	..... vii - viii
❖ Foreword	..... ix - x
❖ List of reviewers	..... xi
❖ Conference Committee	..... xii
❖ Programme Schedule	..... xiii - xv
❖ Articles	..... 1 - 271

Message from
Dr. Devanshu Patel, President

Stephen Covey, a management guru and author of “Seven Habits of Highly Effective People” has elaborated at length in the story of the woodcutter on the importance of sharpening the axe. As stated in the story, the woodcutter didn’t sharpen his axe which he used for cutting woods and as time passed, his axe lost its sharpness with each blow and lowered the efficiency of the woodcutter. In 21st Century, whether you are a student or a professional or a business magnate, it is imperative that you are constantly in search of knowledge. It is likely that if you don’t update your knowledge, you will not be able to keep pace with the ever changing dynamics of professional world. This compendium of Ideas on Innovative Business Management Practices is a compilation of quality papers presented by the researchers, academicians and management professionals from different walks of life during 3rd National Conference-2020 organized by Faculty of Management Studies, Parul University. By going through this compendium, the reader will be able to acquaint himself/herself with the latest Innovative business practices adopted by today’s industries and organizations in order to achieve growth and prosperity. I am also confident that this exercise will help the reader immensely in imbibing the principles of management in his/her life.



Dr. Devanshu Patel
President

Message from
Dr. M. N. Patel, Hon'ble Provost

Faculty of Management Studies, Parul University has selected quality papers which were presented during National Conference 2020 on the theme “A Compendium of Ideas on Innovative Management Practices for Sustainable Business Models” held by the Faculty on February 19-20, 2020. A total of 56 papers were presented during the said National Conference which highlighted innovative management practices fuelled by the use of technology. I am pleased to learn that Faculty of Management Studies has scrutinized and selected quality papers and has published them in the form of “A Compendium of Ideas on Innovative Management Practices for Sustainable Business Models”.



This compendium will be useful for researchers, management professionals, corporate thinkers, academicians etc....and will apprise them of Innovative Management Practises. I congratulate and applaud the dynamic and enterprising team of Faculty of Management Studies for putting great efforts in publishing this compendium of ideas on innovative business management practices.

Dr. M. N. Patel
Provost

About Editors

- ❖ **Dr. Bijal Zaveri**- Dean & Director, Faculty of Management Studies
- ❖ **Dr. Sapna Chuhan**- Parul Institute of Engineering and Technology - MBA
- ❖ **Ms. Aashka Thakkar**- Parul Institute of Engineering and Technology - MBA

Dr. Bijal Zaveri

Dr. Bijal Zaveri is *Dean and Director* of Faculty of Management Studies at Parul University. She has 14 years of teaching and 1 year of industry experience. She currently teaches Marketing Management programmes at Faculty of Management (MBA Programme). She has done a Ph. D. at M. S. University Baroda in the area of online marketing and completed PG diploma in Cyber Law from Asian School of Cyber Law Mumbai. Her research interest includes marketing, advertisement, communication and e-commerce. She has published her various papers in national journals (viz. IIM Indore, NITIE Bombay, Symbiosis) and in international journals (viz. MICA and IGI Global) and in the form of book proceeding/edited book, viz. Tata Mc Graw Hill, Excel, McMillan Publishers. She has presented numerous papers in 40 international and national conferences and attended 14 workshops and FDPs. She won National level Case writing competition at Shri Ram Group of Colleges at New Delhi, 2nd Rank for paper presentation at IPE Hyderabad and 2nd Rank- Ph.D. thesis competition at Prestige Institute of Management Gwalior. She was awarded for Best Paper presentation at IPE, Hyderabad and B. K. School of Management. She is Ph.D. register guide at Parul University and currently Indian and foreign research scholars are pursuing Ph.D. under her guidance in the area of Marketing Management. She has published a book on E-Marketing in the year 2012. She is one of the members of the Editorial Board of IGI Global International Journal of Marketing. She has worked as review committee member and session chair expert for various conferences. She has published papers in UGC listed journal, Scopus indexed journal & 8 Ph. D. scholars are pursuing Ph.D. under her guidance.



Dr. Sapna Chauhan

Dr. Sapna Chauhan is an *Assistant Professor* at Parul Institute of Engineering and Technology (PIET) for MBA Program, Faculty of Management Studies, Parul University in Vadodara. She has got around 9 years of diverse experience in industry and academics. She had work exposure in cities of Bangalore, Delhi, and Kolkata. She is a certified AMT (Accredited Management Teacher) by AIMA (All India Management Association). She has recently been given recognition for Ph.D. Guideship and is currently guiding scholars from India and Ethiopia. She has conducted 'Cross Cultural Communication' classes for the students from Humber University, Canada. In the past she has worked in capacity of 'Manager HR (Generalist)' in corporate endeavour along with the role of HR executive, HR recruiter, Employee engagement executive, etc. in varied companies. She is a Doctorate in Management and holds degrees of MBA (HR), MCS and PGDCA. Currently she also handles the portfolio in Women Development Cell and in the past for International Relation Cell. She had published research papers in national and international journals and had attended conferences and FDPs across country. Her research interest is in the areas of learning & development, emotional intelligence, psychology, work-life balance.



Ms. Aashka Thakkar

Ms. Aashka Thakkar, *Assistant Professor* at Parul Institute of Engineering and Technology – MBA Department, Faculty of Management Studies, Parul University, and Vadodara has 10 years of teaching experience. She has completed her Masters in Commerce and Masters in Philosophy from the esteemed Sardar Patel University. Her research interest area is Accounting, Corporate Governance, Financial Services, Digital Accounting and Taxation. She is also pursuing her Ph.D. from Parul University. She has published papers in international and national journal and also presented paper in various national and international conferences. She is a recipient of Best Teacher Award from Vice Chancellor of Parul University for excellence in academics. She has attended several workshops and FDPs. She is essaying the role of IQAC Coordinator, MIS Coordinator and also is a member of Indian Accounting Association.



Preface

The capability to rapidly and successfully develop new business models is an important source of sustainable competitive advantage and key leverage to improve the performance of organizations.

After the great success of INC 2018, Faculty of Management Studies, Parul University organizes a National Conference 2020 on “Innovative Management Practices for Sustainable Business Models “. This year, the conference gathered many delegates from different countries, industries and from all over Gujarat who had the opportunity to share their ideas and experiences, present the results of their research, as well as build up new contacts in the field of management. The main goal of the conference was to promote research and developmental activities in the field of Finance, Human Resources, Marketing, and General Management. This book comprises of selected papers from INC 2020.

Sustainable marketing can contribute to sustainable development not only through every day's practice of minimizing the environmental impact but also by implementing new policies and strategies to bolster a wider concept of sustainable growth as a fundamental part of economic entities. The paper entitled “Zomato: a sustainable business model” examined that the importance of Five Forces Model which indicates that online food delivery business has to meet the expectations of restaurants and food consumers to keep the business viable in long term in competitive environment. The paper titled” The use of mobile applications as efficient marketing tools” aims to explain that mobile Applications contribute to recognizing needs, wants and desires, information search process, evaluation of different alternatives, making purchasing decisions, interacting and communicating with their preferred brands.

The role of human resources in sustainable development of the energy sector is to be able to use the available resources in such way that reduces over time both the amount of used resources and the consumed energy and existing losses, in the same time with the training of specialists. The paper titled “ A Cross-sectional study on the impact of training and development on employees’ satisfaction in L&T group of companies” analyses the link between various training and development programs organized in Larsen &Toubro group of companies and their impacts on employee satisfaction and performance. Researcher found that the training and effectiveness programs have a positive impact on the performance of both male and female employees. The overall opinion about the training among the employees is very good and effective, it is very much helpful to improve the individual career and the organization growth too and they are satisfied with the training process and method of teaching. The paper titled “Consumer Behaviour for Purchasing Gold as an Investment Avenue” aims to understand consumer behaviour for purchasing gold as an investment avenue. In their cross-sectional analysis with the sampling technique researcher found that the main priority of the respondents is to invest in the gold is for child educations. The paper titled “Workplace Spirituality and Work-life Balance: An Empirical Introspection in Manufacturing Industry at Vadodara”. In this study,

researchers have found a moderately full-size relationship between religious competences with work-life stability irrespective of demographic profile.

Financial materiality is the critical link at the intersection of sustainability and business performance. A study on “Data Envelopment Analysis: A Non- Parametric Approach to evaluate the Efficiency of selected Equity Mutual Funds” examined that Baroda Hybrid Equity Fund, Sundaram Diversified Equity Fund, and IDFC Core Equity Fund are inefficient when compared with other selected mutual funds by using DEA approach- a non-parametric method. The paper entitled “Emerging Issues and challenges in Indian Banking Sector: With Special Reference to artificial Intelligence” focus on how Artificial Intelligence is utilized in the Indian financial area, what are the advantages and what are the challenges confronting India's Artificial Intelligence. Advancement that Artificial Intelligence offers to FinTech and the various manners by which it can improve the activities of an Indian financial area.

We sincerely hope and believe that this edited book shall be a great source of learning to all the academic fraternity, researchers and business managers etc.in and around the globe.

Acknowledgments

After the great success of INC 2018, Faculty of Management Studies, Parul University organizes the National Conference 2020. Academicians, research scholars, and industry delegates all over Gujarat and India were a part of the two days conference. The purpose of this conference is to make a significant contribution to the field of Innovation and Management. Contributions come from many relevant disciplines, including Finance, Human Resources, Marketing, and General Management. This book comprises of selected papers from INC 2020.

This book is a collection of selected research papers contributed by scholars and practitioners of the National Conference on **Innovative Management Practices for Sustainable Business Models**, INC 2020. We express our deep sense of gratitude to all who have contributed and put in their dedicated efforts to help the book into its present form. This book would not have been possible without the support, cooperation and encouragement of several people and we would like to extend our heartfelt gratitude to one and all.

The Conference coordination committee members of the INC 2020 would like to place on record our heartfelt appreciation and gratitude to all those who helped us in various ways which resulted in making the event a grand success. National conference of this magnitude could not have been held without the whole hearted cooperation and support from a number of people. Their tireless effort and extremely hard work have contributed to the conference's smooth organisation and operation.

We acknowledge with thanks, the excellent support extended by 07 reviewers from various prominent universities such as Amity University, Delhi, Symbiosis Institute of Management, Mumbai, S. P. University - Anand Institute, GLS University, Ahmedabad who helped in selecting papers that are being presented at the conference from a total papers which we had received. We are indeed grateful to them for their significant contribution to making this conference a grand success. We received papers for the four-track categories for Marketing, Finance, HRM and General Management. We are thankful to all researchers from various institutes who contributed their research.

We acknowledge the tremendous support that we received from various departments of Parul University. Specifically, we would like to express our gratitude to Heads and Chairpersons of various divisions of Parul University for participating in and extending their support to the conference.

We are also indebted to Mr. Ajay Ranka, MD & CEO, Zydex Industries; Mr. Sanjay Suthar, Vice President, HR/IR, Cera Sanitaryware; Dr. Amit Jain, Pro Vice-Chancellor, Amity University, Jaipur; Dr. Arnab Kumar Laha, IIM Ahmedabad; Ms. Deeti Dave, Techno Entrepreneur, NX Smart solutions; Max Williams D'costa, Director – UX and Customer Experience Practice; Mr. Kunal Doshi, Vice President, Deutsche Bank, Mumbai, and Mr. Andrew Eugene Shepherd, Clare Skills Corporate Trainer for accepting our invitation to be esteemed speakers of the conference and share their

views and practical expertise in the area of Innovative Business Management Practises.

We are thankful to Dr. M. N. Patel- Provost; Dr. Devanshu Patel – President; Dr. H. S. Vijayakumar - Registrar at Parul University for their continuous secretarial and administrative support.

We want to acknowledge with gratitude the contribution of Prof. Tambe, Director of PGDM Department, Dr. Shantnu Chakaravarthy, Principal of BBA and all faculty members & administrative staff of Faculty of Management Studies, MBA Programme. We want to acknowledge with gratitude the contribution of Niche, the student leaders from the FMS MBA Parul University in planning and organizing the event.

Last but not the least, we wish to formally express our gratitude to all members of those who have contributed directly and indirectly for the success of the event. We look forward to continued support from all our friends and colleagues in the future as well. We also express our appreciation and thanks to all the research scholars, participants, authors, particularly the members of the Publication Committee and Review committee members for their hard work for one full year for making his conference a success.

Finally, we thank our publishing partner *Journal Press India*, for the timely publication of this book.

We at FMS- Parul University hope that this book would be useful to the academic fraternity.

Dr. Bijal Zaveri
Dr. Sapna Chuhan
Ms. Aashka Thakkar

Foreword

Faculty of management studies, Parul University has organized a 3rd National Conference on ***“Innovative Management Practices for Sustainable Business Models”*** on 19th - 20th February, 2020.

About Conference

Today's world faces significant challenges. There are numerous ways that businesses are responding to these challenges. Some organizations are tolerant to deteriorating economic, environmental, and social conditions and are sailing through the decline by adapting to limitations. Other organizations respond to the need to make choices between what is apt for the environment and society or doing what is best for the economy. However, there are more innovative, proactive responses, including ones that champion business as a force for positive societal change.

Sustainable businesses help address society's concerns by providing profit-making opportunities for business owners. It is in large part about changing business practices. Successful sustainable businesses are focused on the creation of new products and practices that address or mitigate environmental, economic and social concerns in new ways. Success in the implementation of sustainable business practices relies largely on entrepreneurship and innovation.

The concepts of sustainable business, energy, and development are three of the most important focal points that our country is attempting to address through post-Millennium Development Goals initiative. In view of these three areas, the important question is how to address our needs for growth, in particular those of the developing countries like ours, and to meet present and future needs, given the limitations imposed by the condition of business, energy, development and social organization on our ability.

Today's dynamic business environment asks for continuous innovation to stay competitive. The objective of the conference is to advance the theories and practices of business sustainability, promotion and implementation of practices in companies towards sustainability across all organisational levels, from strategic management to operational levels, for every company's function and in every type of business, to bridge the gaps between abstract and real worlds, between academia and companies, between theory and practice, and to bring people in the centre, as a critical success factor towards business sustainability.

With the theme of ***“Innovative Management Practices for Sustainable Business Models”***, **INC 2020** raises important questions regarding the future of sustainability of businesses in Economic, Social, and Environmental terms.

In particular, we welcome articles that include current thinking and developments by practitioners and academicians, combining theoretical foundations on markets and/or marketing and corporate responsibility with practical insights that help managers in decision-making processes. Therefore, INC 2020 offers a platform for

scholarly and applied conversations among a wide variety of stakeholders concerned with the continual challenge of advancing the sustainable business, energy and development agenda: people, planet, and growth.

Publication Partner: Journal Press India

Journal Press India is the publishing partner for the ‘Conference Proceedings’ and a ‘Special Issue’. The selected papers from the conference will be published in ‘MANTHAN: Journal of Commerce and Management’, a *peer-reviewed* journal published by *Journal Press India* (www.journalpressindia.com), indexed with Index Copernicus International (ICI), EBSCO, Summon (ProQuest), CrossRef, Research Gate, Google Scholar, Indian Citation Index, J-Gate, Scilit, i-Scholar, etc. databases. The journal follows a double-blind peer-review process. The papers to be published would be selected based on the scope of the journal, review, and screening by the editorial team.

Editors

Dr. Bijal Zaveri
Dr. Sapna Chuhan
Ms. Aashka Thakkar

List of Reviewers

Dr. Harsha Jariwala

Professor, Symbiosis Institute of Management, Mumbai
(harsha.jariwala@ies.edu)

Dr. Jasmin Padiya

Associate Professor-GLS, Ahmedabad
(Jasmin.padiya@glsuniversity.ac.in)

Dr. Mamta Mahapatra

Professor, Amity University
(mmahapatra@amity.edu)

Dr. Kamini Shah

Associate Professor Business Studies Department, S. P. University
(Kaminivvn@gmail.com)

Dr. Rupal Patel

Associate Professor, BJVM College Sardar Patel University Anand
(rupalharshiv@gmail.com)

Dr. S. K. Bhatt

Dean, Business Studies Department Sardar Patel University V. V. Nagar Anand
(Sandipbhatt2077@yahoo.co.in)

Dr. Jayprakash Lamoriya

Faculty of Management Studies, Parul University
(jayprakash.lamoriya@paruluniversity.ac.in)

Conference Committee

Convenor of the Conference

Dr. Bijal Zaveri, Dean – Faculty of Management Studies

Advisory Committee

Dr. Hemant Trivedi- Dean, North Corp University, Noida

Dr. Rajesh Verma- Dean, School of Mittal Business, Lovely Professional University

Dr. Prateek Kanchan- Director, B. K. School of Professional Management, Ahmedabad

Dr. Rohit Trivedi- Lecturer in Strategic Marketing, Faculty of Management and Law, University of Bradford, Germany

Dr. Chandan Vichoray, Head - Department of Management and Technology, College of Engineering and Management, Nagpur University

Dr. Mamta Brhambhatt- Professor, Amity University

Conference Coordinator

Dr. Sapna Chauhan, Asst. Professor, (sapna.chauhan6030@paruluniversity.ac.in)

Conference Co-coordinators

Prof. Amita Garg, Asst. Professor, (amita.garg@paruluniversity.ac.in)

Prof. Aashka Thakkar- Asst. Professor, (aashka.thakkar@paruluniversity.ac.in)

Prof. Bijal Shah- Assistant Professor, Faculty of Management Studies
(bijal.shah@paruluniversity.ac.in)

Dr. Bijal Zaveri, Dean – Faculty of Management Studies

Dr. Shantanu Chakravorty, Principal – PIBBA, Entrepreneurship Development Cell – Core Committee

Prof. Aniruddh Tambe, Director PGDM

Programme Schedule

3rd National Conference INC 2020 Innovative Management Practices for Sustainable Business Models

Organized By Faculty of Management Studies, Parul University
19th -20th February, 2020

Conference Inaugural Program Day 1 (Wednesday, 19.02.2020)

08:30 am onwards	Registration of Participants + High Tea
-------------------------	--

Inauguration Function: Central Auditorium (10:00 am to 1.00 pm)

Sr. No.	Time	Particulars
1	10:00 am to 10:05 am	Welcome
2	10:05 am to 10:10 am	Prayer and Lamp Lighting
3	10.10 am to 10.15 am	Welcoming of guests
4	10:15 am to 10:25 am	Brief about INC 2020 by Dr. Bijal Zaveri, Dean, Faculty of Management Studies and Convener, INC 2020
5	10:25 am to 10:35 am	Speech by Dr. M. N Patel - Provost, Parul University
6	10:35 am to 10:45 am	Speech by Dr. Shantanu Chakraborty on "Innovation Trends"
		Panel Discussion
7	10:45 am to 12:30 pm	Speaker 1: Mr. Ajay Ranka, MD & CEO, Zydex Industries Speaker 2: Mr. Sanjay Suthar, Vice President, HR/IR, Cera Sanitaryware Speaker 3: Dr. Amit Jain, Pro-Vice-Chancellor, Amity University, Jaipur Speaker 4: Dr. Arnab Kumar Laha, IIM Ahmedabad Moderator: Ms. Deeti Dave, Techno Entrepreneur, NXSmartsolutions
8	12:30 pm to 12:40 pm	Presidential Remarks by Dr. Devanshu Patel, President, Parul University
9	12:40 pm to 12:50 pm	Vote of Thanks by Prof. Aniruddha Tambe – Director PGDM
10	12:50 pm to 12:55 pm	Conclusion and National Anthem

1:00 pm to 1.15 pm	Group Photo
1:15 pm to 2:00 pm	Lunch Break (Venue: PGDM Dining Hall, First Floor, Near Management Building)

3rd National Conference INC 2020

Innovative Management Practices: for Sustainable Business Models

Organized By Faculty of Management Studies, Parul University
19th -20th February, 2020

Conference Valedictory Program

Day 2 (Thursday, 20.02.2020)

Valedictory Function: Room No. 211, Central admin building
(1:30 pm to 04:00 pm)

Sr. No.	Time	Particulars
1	01:30 pm to 01:35 pm	Welcome
2	01:35 pm to 01:45 pm	Welcome Address by Prof. Aniruddh Tambe, Director PGDM
3	01:45 pm to 01:55 pm	Highlights of the conference by Dr. Bijal Zaveri, Dean, Faculty of Management Studies and convener, INC 2020
4	01:55 pm to 02:00 pm	Speech by Dr. M. N. Patel, Provost, Parul University
5	02:00 pm to 02:40 pm	Speech by Mr. Max Williams D'costa, Director – UX and Customer Experience Practice, Chief Guest of the Program
6	02:40 pm to 03:20 pm	Speech by Mr. Kunal Doshi, Vice President, Deutsche Bank, Mumbai, Chief Guest of the Program
7	03:20 pm to 03:30 pm	Mr. Andrew Eugene Shepherd, Clare Skills Corporate Trainer, Guest of Honour for Prize Distribution
8	03:30 pm to 03:45 pm	Certificate and Price Distribution
9	03:45 pm to 03:50 pm	Vote of Thanks by Dr. Dipak Gayawala
10	03:50 pm to 04:00 pm	Conclusion of the function

Track - Technical Session Judge- INC 2020

Overall Track Coordinator – Dr. Divyang Joshi

19 th February 2020				
Track	Room #	Domain	Technical Jury-Session Chair	Track Coordinator
T1	101	Finance	Dr. Sunil Trivedi	Dr. Neelu Tiwari 9711163395
T2	102	Marketing	Dr. Nimesh Joshi	Prof Chintan Prajapati 9016899447
T3	405	Human Resource	Dr. Sunita Jolly	Dr. Jayprakash Lamoria 9979977519
T4	406	General Management	Dr. Kamini Shah	Prof. Dhruvin Chauhan 9879205614
T5	104	Student Track	Mr. Andrew Schephard	Prof. Ankita Parikh 9725487376

20 th February 2020				
Track	Room #	Domain	Technical Jury- Session Chair	Track Coordinator
T1	101	Finance	Dr. Harsha Jariwala	Dr. Neelu Tiwari 9711163395
T2	102	Marketing	Dr. Nilam Panchal	Prof Chintan Prajapati 9016899447
T3	405	Human Resource	Dr. Sunita Jolly	Dr. Jayaprakash Lamoria 9979977519
T4	406	General Management	Dr. Swati Sharma	Prof. Dhruvin Chauhan 9879205614
T5	104	Student Track	Dr. Jignesh Trivedi	Prof. Ankita Parikh 9725487376

Contents

1. Assessment on Factors Influencing Customer Retention: The Case of Selected Private Commercial Banks in Hawassa City Administration <i>Elias Emiru</i>	.....1
2. A Comparative Study of Growth and Sustainability Aspect of Handicraft Industry in Kutch and Ahmedabad Districts <i>Namrata P. Thakkar</i>	.....17
3. A Cross Sectional Study on the Impact of Training and Development on Employees' Satisfaction in L&T Group of Companies <i>Sharad Kumar Mishra and Preeti Nair</i>	.....21
4. A Study on Impact of Time and Cost on India's Trade: Gravity Model Approach <i>Ashish Bhatt and Bijal Zaveri</i>	.....36
5. A Study on the Perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in the Area of Talent Acquisition and Talent Development <i>Sajam A. S. and Preeti Nair</i>	.....43
6. A Study on Trend of Voluntary Delisting of Companies in India with Focus on Financial Performance of Delisted Companies <i>Dipak S. Gaywala</i>	.....59
7. The Role of Women's Leadership Effectiveness towards Organizational Performance: A Case of Ethio Telecom in Addis Ababa <i>Aselefech Hailgiorgis Belete</i>	.....65
8. Big Data for Customer Relationship Management in Banks <i>Amita Garg</i>	.....73
9. Consumer Behaviour for Purchasing Gold as an Investment Avenue <i>Ashutosh Gaur</i>	.....81
10. Consumers' Knowledge and Attitude towards Organic Food Products in Surat City <i>Swati Sharma and Anil Kumar</i>	.....98
11. Data Envelopment Analysis: A Non-Parametric Approach to Evaluate the Efficiency of Selected Equity Mutual Funds <i>Aashka Thakkar</i>	.....108
12. Determinants of Profitability in Hotel Industry: A Case Study in Hawassa City Administration, Ethiopia <i>Ayneshet Agegneu</i>	.....112
13. Emerging Issues & Challenges in Indian Banking Sector: With Special Reference to Artificial Intelligence <i>Asmita Mali</i>	.....120

14. Evaluating the Impact of Changes in Accounting System on Donor Fund Utilizations: The Case of Southern Regional State Bureau of Finance and Economic Development <i>Taddesse Shiferaw Deneke</i>	128
15. HRA: An Impact of Recruitment in HR Performance <i>Kamal D. Patel and Jeegnesh Trivedi</i>	136
16. Impact of Surrogate Advertising: An Empirical Study with Reference to Vadodara <i>Paresh Patel</i>	145
17. Indian States Performance and Contribution on Pradhan Mantri Jan Dhan Yojana <i>Pranali Loliyana</i>	150
18. Practices, Problems and Opportunities of Livestock Marketing in Ethiopia with Special Reference to Borana Zone, Oromia Regional State <i>Feteh Weldesenbet Zebrga and Bijal Zaveri</i>	157
19. Qualitative Investigation of Cognitive Dissonance in E-sports among Generation-Y in India <i>Dhruvin Chauhan</i>	167
20. Reaction of Stock Price to NEWS Related to Renewable Energy Companies in India <i>Divyang Joshi and Tushar Pradhan</i>	175
21. SMS Messaging – A Mobile Marketing Medium <i>Prashant Amin</i>	183
22. The Current Situation regarding the use of Shopping Applications in Kigali-Rwanda <i>Valery Nsabimana and Bijal Zaveri</i>	193
23. The modern Banking Technology in and around India: Benefits and Challenges <i>Tejal Shah</i>	201
24. Using Corporate Social Responsibility for Improving Goodwill and Ensure Smooth Operations: A Case Study of Cambay Asset, ONGC <i>A. Srinivasa Rao</i>	212
25. Value Chain Analysis of Makhana in Madhubani District, Bihar <i>Sugandha Sinha</i>	216
26. Workplace Spirituality and Work-life Balance: An Empirical Introspection in Manufacturing Industry at Vadodara <i>Sapna Chauhan and Param Saraswat</i>	223
27. ZOMATO: A Sustainable Business Model <i>Jayprakash Lamoria</i>	231
28. Block Chain Technology for Revolutionizing Indian Agriculture Value Chain <i>Priyanka Maity and Swati Sharma</i>	241
29. Technology Addiction among Children and Youth: A Study of Related Behavioural Impact <i>Chintan Prajapati and Sonalee Telang</i>	250

30. A Study on Impact of Social Media on the Buying Choice of the Buyers with Reference to Vadodara City

Bijal M. Shah and Ankita U. Parikh258

31. The Influence of Organizational Culture on Employee Performance: A Glance on Private Higher Institutions in SNNPRS

Sapna Chauhan and Sintayehu Zeleke264

Assessment on Factors Influencing Customer Retention: The Case of Selected Private Commercial Banks in Hawassa City Administration

Elias Emiru*

ABSTRACT

Currently customer retention has gained importance among both goods and service providing firms. This study assessed factors influencing customer retention in selected private commercial banks in Hawassa City administration. Five specific objectives were developed related to the independent variables: Customer Satisfaction, Customer Trust, Perceived Switching barriers, Tangibility, and Customer Commitment and the dependent variable: Customer Retention. The study adopted convenience sampling technique to select a sample of 365 banks' customers out of total population of 4,155. Both Primary and Secondary data were used in doing this research. The data was analyzed with the help of the correlation, multiple regression analysis using SPSS Version 20.0 Econometrics software. The significance of all the hypotheses were tested by comparing their standardized beta and p-value and it is found that all variables have significant effect on customer retention. Regarding the findings from the correlation and regression analyses, the highest correlation score of 0.579 existed between Customer Retention and Customer Commitment was seen and found to be significant at 0.01 level ($P < 0.01$).

Keywords: *Customer retention; Customer satisfaction; Customer trust; Perceived switching barrier; Tangibility; Customer commitment.*

1.0 Introduction

According to (Terefe 2013, as cited in Sintayehu 2015), Banks play an important function in the economy of any country. They serve as a bridge between those with excess money (depositors) and those individuals and businesses with viable projects but requiring money for their investment (creditors).

The following are some of the functions of banks: lending money, depositing others' money, transferring money locally or abroad and working as paying agent.

Currently, the banking industry is highly competitive, with banks not only competing among each other but also competing with non-banks and other financial institutions (Kaynak and Kucukemiroglu, 1992; Hull, 2002). According to Ro King (2015), for banks to remain competitive, they should try to retain as many customers as possible (Ro king, 2005).

The ability of a company to attract and retain new customers is not only related to its product or services, but also strongly related to the way it services its existing customers, the value the customers actually generate as a result of utilizing the solutions, and the reputation it creates within and across the marketplace (Ro king, 2005).

1.1 Empirical review of related studies and research gap

Customer retention can be defined as customer's stated continuation of a business relationship with the firm (Timothy *et al.* 2007).

*Research Scholar, Parul University, Vadodara, Gujarat, India (E-mail: tgkalekaleb@gmail.com)

It is an important factor in achieving customer satisfaction (Danesh et al., 2012). Customer retention is an effective tool that banks can use to gain a strategic advantage and survive in today's banking competitive environment (Pal, 2011).

Keeping the customer has become regarded as equally as, if not more important, than creating a new customer. There is a growing recognition that customers can be managed overtime since they have a life-cycle were they are acquired, retained and can be grown in value (Ang and Buttle, 2006).

According to Mulugeta (2015), the financial system as well as financial sector of Ethiopia is dominated by public (government owned) banks. Currently the banking sector includes two public owned commercial banks, and sixteen private commercial banks. From the sixteen private commercial banks, the study of the researcher concentrated on large scale size private commercial banks operating within Hawassa city Administration. The researcher selected four banks, namely Bank of Abyssinia S.C., United Bank S.C., NIB international Bank S.C., Wegagen Bank S.C.

In Ethiopia, even though the sector has seen its profits and expenses as well as its assets and capital growing over the years and banks have been focusing on the expansion of their technological bases by expanding core banking and increasing the number of their Automated Teller Machines(ATM) and start issuing agent and mobile banking services, Ethiopia significantly lags behind the other Sub-Saharan countries in all measures of financial access, including number of ATMs, depositors and creditors: The number of banks per 100,000.00 adults stands at around three while that of the sub Saharan Africa is four, the depositors per 1000 person is 100 in Ethiopia while this number is 150 in Sub Saharan Africa. The number of ATMs in Ethiopia per 100,000 adult is well below two while the number in Sub –Saharan Africa is about five (IMF, 2014).

The research gap that have been addressed in this study is that, even if many of large scale private commercial banks operating in Ethiopia were established in early and mid 1990's, there is a substantial gap observed among the large scale private commercial banks in terms of deposits mobilized using various account types.

This study, therefore, tries to find out whether customer retention related factors contributed for lagged performance of the four banks selected for the study: M/s Bank of Abyssinia S.C., United Bank S.C., NIB International Bank S.C., and Wogagen Bank S.C., as compared with their peer banks i.e., Awassh Bank S.C. and Dashen Bank S.C., in a belief that the findings of the research will have a paramount impact in addressing customer retention problem being faced by banks.

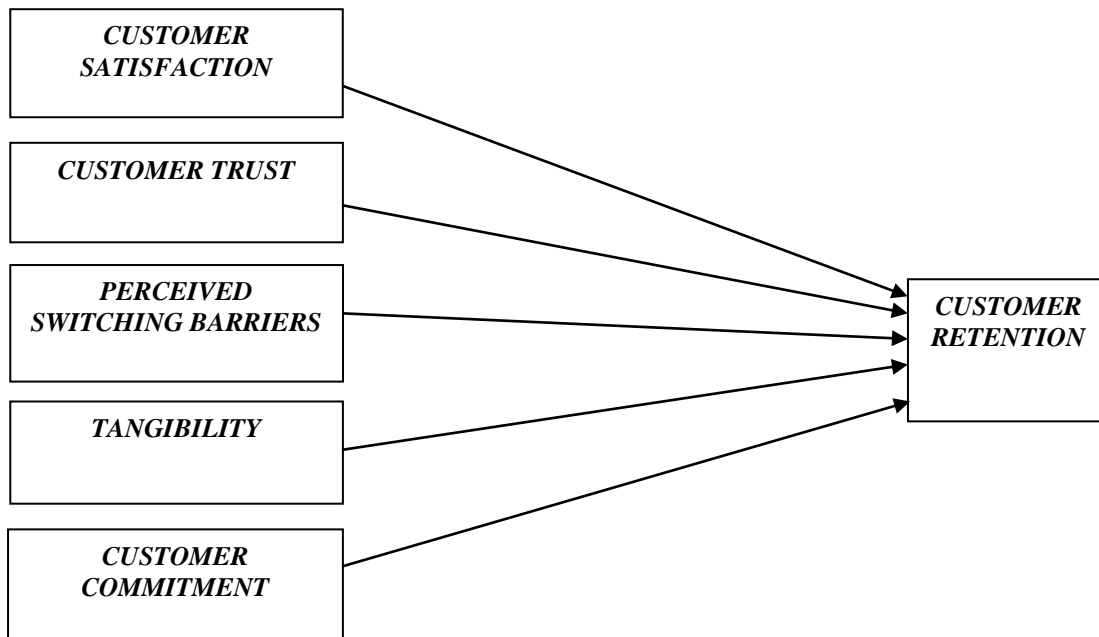
1.2 Conceptual framework of the study

From the empirical evidences and the practical issues observed in the Banks' operation, the researcher will try to propose a model that would explain the impact of explanatory variables on customer retention in selected private commercial Banks.

Moreover, the model which has been taken from works of Richards (1996), and Ranaweera and Prabhu (2003), to explore the concepts of customer retention in the banking industry with slight modification and addition of new dimension/variables so as to check its applicability in the banking sector.

However, the previously developed conceptual models do not incorporate variables like accessibility or branch expansion, and the researcher tries to understand how a bank would apply the customer retention program to gain a competitive advantage over its rivals. The conceptual model is shown in the Figure 1.

Independent Variables Dependent Variable

Figure 1: Conceptual Framework

Source: Adapted from Richards (1996), Ranaweera and Prabhu (2003), and Parasuraman et al., (1988).

1.3 Objective of the study

The main objective of this study is to assess factors that affect customer retention in selected large scale private Commercial Banks in Hawassa City Administration.

1.4 Research hypothesis

A research hypothesis is a predictive statement, capable of being tested by scientific methods, that relates an independent variable to some dependent variable (Kothari, 2004).

Accordingly, the following hypotheses are set for the study under consideration:

- H1:* There is a significant & positive relationship between customer Satisfaction and customer retention.
- H2:* There is a significant & positive relationship between customer trust and customer retention.
- H3:* There is a significant & positive relationship between perceived switching barriers and customer retention.
- H4:* There is a significant & positive relationship between Tangibles and customer retention.
- H5:* There is a significant & positive relationship between Customer Commitment and customer retention.

2.0 Materials and Methods

2.1 Target population

The study was focused mainly on assessing factors influencing customer retention taking the case of selected private commercial banks operating within Hawassa city Administration. Currently, there are 16 private banks operating in Hawassa city administration. Among these banks, the researcher selected only four private banks namely M/s Bank of Abyssinia S.C., United Bank S.C., NIB International Bank S.C., and Wegagen Bank S.C. The target population of the study comprised of 4,155 customers of these banks who use deposit services.

2.2 Research design

From the point of view of application, the research is an applied research, from the view point of objectives it is descriptive type and from the view point of the process adopted to find answer to research question it uses both quantitative and qualitative approaches in order to achieve the main objective of this research. In this research questionnaire was used for collecting primary data.

2.3 Data source and type

A cross sectional survey data in the form of both qualitative and quantitative data was used in this study. Data from both primary and secondary sources were used. Primary data was gathered from customers of M/s Bank of Abyssinia S.C., United Bank S.C., and NIB International Bank S.C., & Wogagen Bank S.C., branches using questionnaires and secondary data was collected from annual reports, journals, internet, books and etc.

2.4 Data collection method

For the purpose of the study primary data will be collected through field survey from customers of selected private commercial banks through self administered a five point Likert-scale questionnaires. To avoid duplication of data the respondents were guided not to respond twice if he/she has done once at one bank branch. Moreover, secondary data will be collected from annual reports, previous publications, books, the internet...etc.

2.5 Sample size

In order to collect data, a self-administered questionnaire was prepared to record the responses. The study adopted convenience sampling technique to select a sample of 365 bank customers. Primary data were collected using questionnaires and 315 (86%) bank customers responded positively and the remaining 50(14%) of customers did not respond.

2.6 Data processing method

The qualitative data were analyzed using content analysis through identification, categorizing and grouping and interpretation. While the quantitative data was analyzed using Statistical Package for Social Science (SPSS) version 20.0., which consists of descriptive statistics tools such as frequency, percentages, mean and standard deviation. Besides, tables and figures were used to summarize and present the result. In addition, the relationship of customer retention variables with Customer retention have been analyzed using Pearson's correlation and the regression analyses were used to show the regression level of variables from the dependent variable (Customer Retention).

2.7 Ethical consideration

Before the research was conducted on the selected banks, the researcher informed the participants of the study about the objectives of the study, and was consciously consider ethical issues in seeking consent, avoiding deception, maintaining confidentiality, respecting the privacy, and protecting the anonymity of all respondents. A researcher must consider these points because the law of ethics on research condemns conducting a research without the consensus of the respondents for the above listed reasons.

3.0 Data Analysis and Presentation

In this chapter, the data collected from customers of M/s United Bank S.C., Bank of Abyssinia S.C., NIB International Bank S.C., and Wogagen Bank S.C. were summarized and analyzed in order to realize the ultimate objective of the study.

3.1 Descriptive analysis of data collected from customer survey

The analysis of the study was done by using a descriptive statistics by computing frequency tables along with percentages, mean and standard deviation. The main purpose of using this statistical parameter is to interpret the average response rate of respondents for each item. Besides, the mean scores are rated as per Poonlar Btawee, the mean score range from 4.51-5.0 excellent/very good, 3.51-4.50 good, 2.51-3.50 average/moderate, 1.51-2.50 fair and 1.00-1.50 poor (Poonlar Btawee:1987).

3.1.1 Customer satisfaction with banking service

This section reports on the perceptions and attitudes of respondents towards Satisfaction indicators.

Table 1: Customer Satisfaction Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
Better prices of banks' services made you to continue using the services from the same bank		27 (8.6)	48 (15.2)	146 (46.3)	94 (29.8)	3.9746	4.08675	.89193
Better service quality offered by the bank have made you to remain with it	3 (1)	28 (8.90)	51 (16.2)	134 (42.5)	99 (31.4)	3.9460		.95784
Kindness of the bank staff makes you continue trusting the bank		27 (8.6)	46 (14.6)	146 (46.3)	96 (30.5)	3.9873		.89220
Performance of frontline employees of the bank have made you to remain with the bank	3 (1)	21 (6.7)	36 (11.4)	126 (40.0)	129 (41.0)	4.1333		.92798
Complaints are handled well and on time thus made you to continue using the same bank	9 (2.9)	5 (1.6)	26 (8.3)	127 (40.3)	148 (47.0)	4.2698		.89596
Adequate and timely information gives you confidence to continue using the services offered by the bank	5 (1.6)	8 (2.5)	28 (8.9)	149 (47.3)	125 (39.7)	4.2095		.82973

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

The customer satisfaction indicator contains six items and the majority of the dimensions have scored above the average mean. Particularly, 'complaint handling mechanism of banks' has scored the highest mean of 4.27 followed by 'providing adequate and timely information' which scored mean value of 4.20. Customer Satisfaction as an indicator has scored 4.09 grand mean which in turn shows Customer Satisfaction plays a good role in retaining customers.

3.1.2 Customer trust on bank services

This section reports on the perceptions and attitudes of respondents towards customer trust indicators.

The Customer Trust indicator also contains six items and the majority of the dimensions have scored above the average mean. Specifically, 'trustworthiness of the policies and practice of banks' have scored the highest mean of 4.41 followed by 'confidentiality of bank records' which has scored mean value of 4.32. Customer Trust on bank services as an indicator has scored 4.23 grand mean implying it is considered to be a good factor of customer retention.

Table 2: Customer Trust Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
The trust between the bank and its customers has an impact on their relationship		24 (7.6)	46 (14.6)	142 (45.1)	103 (32.7)	4.0286	4.2302	.88286
This bank is reliable because it is mainly concerned with the customers' interests.	3 (1)	27 (8.6)	46 (14.6)	132 (41.9)	107 (34.0)	3.9937		.95768
The bank has good reputation	5 (1.6)	8 (2.5)	23 (7.3)	123 (39.0)	156 (49.5)	4.3238		.84267
The policies and practice of the bank are trustworthy	2 (0.6)	13 (4.1)	12 (3.8)	112 (35.6)	176 (55.9)	4.4190		.80343
The services provided by the bank are secure	10 (3.2)	4 (1.3)	19 (6.0)	143 (45.4)	139 (44.1)	4.2603		.87908
I am convinced that the bank handles my records confidentially	3 (1)	3 (1)	26 (8.3)	130 (41.3)	153 (48.6)	4.3556		.75329

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

3.1.3 Perceived switching barriers on banking services

This section reports on the perceptions and attitudes of respondents towards switching barrier indicators.

Table 3: Perceived Switching barrier Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
The bank do have strategies for preventing the customers from switching banks	7 (2.2)	29 (9.2)	73 (23.2)	85 (27.0)	121 (38.4)	3.9016	3.9478	1.08544
I feel there is a bond between me and the bank	15 (4.8)	32 (10.2)	33 (10.5)	117 (37.1)	118 (37.5)	3.9238		1.14571
I would be more comfortable interacting with the people working for my bank than I will be if I switch to another bank.	13 (4.1)	34 (10.8)	46 (14.6)	117 (37.1)	105 (33.3)	3.8476		1.12398
I would miss my bank if I switch to another bank	9 (2.9)	12 (3.8)	33 (10.5)	133 (42.2)	128 (40.6)	4.1397		.95079
I like the public image of my bank	3 (1.0)	9 (2.9)	49 (15.6)	150 (47.6)	104 (33.0)	4.0889		.82460
The bank cares about its customers	3 (1.0)	10 (3.2)	25 (7.9)	133 (42.2)	144 (45.7)	4.2857		.81835
In general switching to a new bank would be a hassle	19 (6.0)	56 (17.8)	62 (19.7)	121 (38.4)	57 (18.1)	3.4476		1.15362

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

A perceived switching barrier indicator contains seven items. Except for the dimensions such as the caring nature of banks (4.29), the public image of banks (4.09) and customer's perception towards shifting to a new bank (4.14), all other dimensions have scored mean values below the grand mean. Perceived switching barriers as an indicator has scored 3.95 grand mean implying it is considered to be a good factor of customer retention.

3.1.4 The effect of tangibles on banking services

This section reports on the perceptions and attitudes of respondents towards tangibility indicators.

Table 4: Tangibility Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
Proximity of the bank branch made me to continue using the services of the bank	1 (.3)	22 (7.0)	43 (13.7)	146 (46.3)	103 (32.7)	4.0413	4.1309	.87874
Neat and Professional appearance of the bank staff has made me to continue using the services of the bank	2 (.6)	17 (5.4)	21 (6.7)	129 (41.0)	146 (46.3)	4.2698		.85597
The tools and equipments used by the bank can expedite the service delivery	6 (1.9)	6 (1.9)	37 (11.7)	155 (49.2)	111 (35.2)	4.1397		.83676
The ambiance and visual appearance of the bank has impact on customers' satisfaction	4 (1.3)	9 (2.9)	49 (15.6)	151 (47.9)	102 (32.4)	4.0730		.83955

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

Tangibility in this study has four items. Out of these items, 'neat and Professional appearance of the appearance of employees' has scored the highest mean of 4.27 followed by the 'the tools and equipment's used by the bank can expedite the service delivery' which scored mean value of 4.14. Tangibility as an indicator has scored 4.13 grand mean which implies it is a good factor in retaining customers.

3.1.5 Customer commitment on banking services

This section reports on the perceptions and attitudes of respondents towards customer commitment indicators.

Customer commitment in this study has seven items and the majority of the items have scored above grand mean value. Specifically, "Customers' long term focus regarding their relationship with the bank has scored the highest mean value of 4.36 followed by 'being committed for certain duration is the only possible reason why I would not change to another bank' which scored grand mean value of 4.32. Customer commitment as an indicator has scored 4.26 grand mean value representing it is a good factor in customer retention endeavors of banks.

Table 5: Customer Commitment Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
I am proud to say to the people around me that I am a customer of the bank	1 (.3)	17 (5.4)	30 (9.5)	134 (42.5)	133 (42.2)	4.2095	4.2598	.84870
I am particularly attached to the bank		11 (3.5)	32 (10.2)	132 (41.9)	140 (44.4)	4.2730		.78302
At the moment, I am remaining the customer of the bank by choice		9 (2.9)	31 (9.8)	126 (40.0)	149 (47.3)	4.3175		.76603
Being committed for a certain duration is the only possible reason why I would not change to another bank	2 (.6)	12 (3.8)	21 (6.7)	127 (40.3)	153 (48.6)	4.3238		.81188
I will focus on long-term goals regarding my relationship with the bank	1 (.3)	14 (4.4)	19 (6.0)	119 (37.8)	162 (51.4)	4.3556		.81032
I intend to expand my business with this bank in the future	4 (1.3)	5 (1.6)	24 (7.6)	145 (46.0)	137 (43.5)	4.2889		.77933
I defend the bank when outsider criticizes it	5 (1.6)	9 (2.9)	49 (15.6)	154 (48.9)	98 (31.1)	4.0508		.85060

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

3.1.6 Customer retention related questions

This section reports on the perceptions and attitudes of respondents towards customer retention indicators.

In this study the dependent variable ‘Customer Retention’ was analyzed by using four items. Accordingly, both ‘The loyalty of customers’ and ‘customer’s readiness to remain and work with their bank’ scored the highest mean of 4.34. However, the other two indicators ‘I am willing to invest my time, money and other resources into the relationship with this bank’ and ‘My confidence in the bank made me to remain with the bank’ have scored below the average mean value.

Table 6: Customer Retention Indicators

Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Grand Mean	Standard deviation
I am willing to invest my time, money and other resources into the relationship with this bank		10 (3.2)	28 (8.9)	141 (44.8)	136 (43.2)	4.2794	4.3167	
My loyalty to the bank has grown stronger over the past years	1 (.3)	11 (3.5)	21 (6.7)	128 (40.6)	154 (48.9)	4.3429		.77986
My confidence in the bank made me to remain with the bank		11 (3.5)	31 (9.8)	125 (39.7)	148 (47.0)	4.3016		.78673
I am ready to remain and work with the bank	1 (.3)	11 (3.5)	21 (6.7)	128 (40.6)	154 (48.9)	4.3429		.77986

Source: Computation from field survey data, 2017. The value in brackets shows percentage.

4.0 Correlations Analysis

Table 7: Pearson's Correlation Values

		Correlations					
		Customer Retention	Customer Satisfaction	Customer Trust	Switching barrier	Tangibility	Customer Commitment
Customer Retention	Pearson Correlation	1	.560**	.543**	.437**	.270**	.579**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	1260	1260	1260	1260	1260	1260
Customer Satisfaction	Pearson Correlation	.560**	1	.514**	.241**	.202**	.213**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	1260	1890	1890	1890	1260	1890
Customer Trust	Pearson Correlation	.543**	.514**	1	.272**	.202**	.249**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	1260	1890	1890	1890	1260	1890
Switching barrier	Pearson Correlation	.437**	.241**	.272**	1	.090**	.261**
	Sig. (2-tailed)	.000	.000	.000		.001	.000
	N	1260	1890	1890	2205	1260	2205
Tangibility	Pearson Correlation	.270**	.202**	.202**	.090**	1	.095**
	Sig. (2-tailed)	.000	.000	.000	.001		.001
	N	1260	1260	1260	1260	1260	1260
Customer Commitment	Pearson Correlation	.579**	.213**	.249**	.261**	.095**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.001	
	N	1260	1890	1890	2205	1260	2205

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

Source: SPSS Version 20 output 2017.

The level of association measured by Pearson's co-efficient falls between -1.0 and +1.0, which indicates the strength and direction of association between the two variables. The rule of thumb proposed by Field (2005) suggests that "moderate" ends at ± 0.49 , and "strong" starts at ± 0.50 .

Accordingly, as depicted in the above table, three of the variables appear strong and said to be positively and significantly correlated at 0.01 level of significance since the correlation coefficients are greater than the agreed standard ± 0.50 . These variables are Customer Commitment at a coefficient of correlation 0.579, Customer Satisfaction at a coefficient of correlation 0.560 and Customer Trust at a coefficient of correlation 0.543. However the two variables: Perceived Switching barriers which holds a coefficient of correlation 0.437 and Tangibility at a coefficient of 0.270 respectively have a relatively moderate level of correlation with the rest of variables since the moderate ends at ± 0.49 .

4.1 Regression analysis between customer retention and explanatory variables

The overall regression model and its ANOVA are summarized as follows:

Table: 8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770 ^a	.592	.591	.49601
a. Predictors: (Constant), Customer Satisfaction, Customer Trust, , Perceived Switching barriers, Tangibility, Customer Commitment				

R-squared is a statistical measure of the goodness of fit of the explanatory variables (customer satisfaction, customer trust, perceived switching barriers, tangibility and customer commitment). As shown in table 8, adjusted R Square value for the regression model was 0.591. This indicates the

explanatory variables; customer satisfaction, customer trust, perceived switching barriers, tangibility and customer commitment in this study able to predict or explain about 59.1 percent of the variance in customer retention.

It, therefore, means that besides these variables identified, other variables not yet in the model have a chance of contributing or predicting about 40.9% to customer retention level of the banks. Therefore, customer retention dimensions (customer satisfaction, customer trust, perceived switching barriers, tangibility and customer commitment) are good explanatory variables of the retention level of private commercial banks in Hawassa City Administration, Ethiopia.

Table 9: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	448.136	5	89.627	364.302	.000 ^b
	Residual	308.514	1254	.246		
	Total	756.650	1259			
a. Dependent Variable: Customer Retention						
b. Predictors: (Constant), Customer Satisfaction, Customer Trust, , Perceived Switching barriers, Tangibility, Customer Commitment						

The above ANOVA table also shows a strong relationship between the dependent and independent variables of the study with F-statistic or F-ratio of 364.302 for the overall analysis, and is worth-mentioning that the F-value is highly significant (as $p=.000<.01$). Thus, the variables can be considered as factors influencing customer retention level.

Table 10: Regression Coefficient Analysis of the Model

							Coefficients	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.122	.106		1.148	.251		
	Satisfaction	.210	.020	.250	10.452	.000	.570	1.754
	Trust	.158	.021	.182	7.570	.000	.564	1.773
	Switching	.160	.014	.224	11.756	.000	.897	1.115
	Tangibility	.114	.017	.126	6.821	.000	.949	1.054
	Commitment	.370	.019	.383	19.758	.000	.864	1.157

a. Dependent Variable: Retention

Source: SPSS Computation version 2017

From the above finding we can develop the following regression model:

$$CR = .122 + .210X_1 + .158X_2 + .160X_3 + .114X_4 + .370X_5$$

Where, **CR** = Customer Retention

X_1 = Customer Satisfaction

X_2 = Customer Trust

X_3 = Perceived switching barriers

X_4 = Tangibility

X_5 = Customer Commitment

Coefficient analysis shows the relationship between dependent variable and independent variables. Accordingly, the above result confirms that except for the constant (β_0), all the variables are found to be significant. This is to mean that in the absence of customer satisfaction, customer

trust, perceived switching barriers, tangibles and customer commitment, it is less likely for the customers to stay with their banks.

In the model, the five variables were entered as independent variables (customer satisfaction, customer trust, switching barriers, tangibility and customer commitment) and all variables had a statistical significant association with customer retention. As shown in Table 4.10, the variables that predict customer retention in order of importance were customer commitment with (β value =.383, p-value=.000), customer satisfaction (β value =.250, p-value=.000), Switching barrier (β value =.224, p-value=.000), customer trust (β value =.182, p-value=.000) and Tangibility (β value=.126, p-value=.000).

Here, 0.210 of β_1 coefficient indicates that a 100% change in customer satisfaction leads to an increase in customer retention level by a magnitude of 21%. On the other hand, 0.158 of β_2 coefficient indicates that a 100% change in the Trust between the bank and its customers leads to an increase in customer retention rate by 15.8%. Besides, 0.160 of β_3 coefficient interpreted as a 100% change in perceived switching barrier indicators could result in an increased customer retention rate by a magnitude of 16%. Furthermore, 0.114 of β_4 coefficient portrays a 100% change in Tangibility dimensions could result in an increased customer retention rate by a magnitude of 11.4 %. Finally, 0.370 of β_5 shows a 100% change in customer commitment could result in retention level of banks to grow by 37%.

5.0 Hypotheses Testing

The data obtained from the questionnaires were tested using a standardized beta coefficient value to determine the strength of the effect of each individual independent variable to the dependent variable. Multiple regression analysis was used to test the extent and significant levels between variables.

Table 11: Hypotheses Testing

Hypothesis	Beta	P-Value	Result
H1	.250	.000	ACCEPTED
H2	.182	.000	ACCEPTED
H3	.224	.000	ACCEPTED
H4	.126	.000	ACCEPTED
H5	.383	.000	ACCEPTED

5.1 Hypothesis one

The aim of hypothesis one was to test if customer satisfaction had influence on customer retention.

H0: Customer Satisfaction does not have a significant effect on customer retention.

H1: Customer Satisfaction has a positive significant effect on customer retention.

The result showed in Table 10 above indicates that customer satisfaction have a significant contribution to customer retention with $\beta = .210$, $p=0.000$ ($p<0.05$). It means that customer satisfaction has influence on customer retention. *Therefore, the researcher has sufficient statistical evidence to reject the null hypothesis and alternative hypothesis is accepted that 'Customer Satisfaction has a positive significant effect on customer retention.'*

5.2 Hypothesis two

The main objective of this hypothesis was to test if customer trust has an influence on customer retention.

H0: Customer trust does not have a significant influence on customer retention

H1: Customer trust has a significant influence on customer retention

As shown in Table 10, the result indicates that customer trust has a significant influence on customer retention with $\beta = .210$, $p=0.000$ ($p<0.05$). *Therefore, the researcher has sufficient statistical evidence to reject the null hypothesis and alternative hypothesis is accepted that 'Customer trust has a significant influence on customer retention.'*

5.3 Hypothesis three

The main objective of this hypothesis was to test if switching barriers has influence on customer retention.

H0: Perceived switching barriers do not have a significant influence on customer retention.

H1: Perceived switching barriers have a significant influence on customer retention.

As shown in Table 10, the result indicates that perceived switching barrier has a significant influence on customer retention with $\beta = .224$, $p=0.000$ ($p<0.05$). *Therefore, the researcher has sufficient statistical evidence to reject the null hypothesis and alternative hypothesis is accepted that 'Perceived switching barriers have a significant influence on customer retention.'*

5.4 Hypothesis four

The aim of this hypothesis was to test if tangibles have influence on customer retention.

H0: Tangibles do not have significant effect on customer retention

H1: Tangibles have a significant effect on customer retention

As shown in Table 10, the result indicates that Tangibility dimensions have a significant influence on customer retention with $\beta = 0.126$, $p=0.000$ ($p<0.05$). *Therefore, the researcher has sufficient statistical evidence to reject the null hypothesis and alternative hypothesis is accepted that 'Tangibility has a significant effect on customer retention.'*

5.5 Hypothesis five

The aim of this hypothesis was to test if customer commitment has significant effect on customer retention.

H0: Customer commitment does not have a significant effect on customer retention.

H1: Customer commitment has a significant effect on customer retention.

As shown in Table 10, the result indicates that tangibles have a significant influence on customer retention with $\beta = 0.383$, $p=0.000$ ($p<0.05$). *Therefore, the researcher has sufficient statistical evidence to reject the null hypothesis and alternative hypothesis is accepted that 'Customer commitment has a significant effect on customer retention.'*

6.0 Conclusions

The aim of the study was to assess factors influencing customer retention taking the case of selected private commercial banks operating in Hawassa city administration. Based on the objective of this thesis, the following conclusions are drawn from the above findings, discussions and summary of the study.

The first objective of the study was to analyze the influence of customer satisfaction on retention of a customer in a bank. The result showed in Table 10, indicates that customer satisfaction have a significant contribution to customer retention with $\beta = .210$, $p=0.000$ ($p<0.05$). Thus, it can be concluded that customer satisfaction has an influence on banks customer retention. This finding is supported by the works of Afsar and co-workers (2010), who revealed that customers should be satisfied for them to remain with their bank.

Examining the effect of customer trust developed by customers and its significant influence on customer retention was the second objective. As shown in Table 10, the result indicates that customer trust has a significant influence on customer retention with $\beta = .210$, $p=0.000$ ($p<0.05$). The finding in this work also affirms the findings of Gounaris (2003), who argued that the higher the level of trust, the more loyal the customer is to the firm.

The third objective was to examine the influence of perceived switching barriers on customer retention. As shown in Table 10, the result indicates that perceived switching barrier has a significant influence on customer retention with $\beta = .224$, $p=0.000$ ($p<0.05$). The finding in this thesis also affirms to the findings of Lee et al. (2001) who suggested the positive effect of switching barriers on customer retention since customers takes in to consideration the time and effort costs in order to switch to new service provider.

The fourth objective was to analyze the effect of tangibility on customer retention. As shown in Table 10, the result indicates that Tangibility dimensions have a significant influence on customer retention with $\beta = 0.126$, $p=0.000$ ($p<0.05$). The results support the findings of Mulugeta (2015), where he found that physical facilities and tools used for the provision of services have an important impact on customer retention.

The fifth objective was to analyze the effect of customer commitment on customer retention. As shown in Table 10, the result indicates that tangibles have a significant influence on customer retention with $\beta = 0.383$, $p=0.000$ ($p<0.05$). The result of the study confirms that commitment in a business relationship goes beyond satisfaction and commitment in a buyer-seller relationship is a crucial predictor of retention (Wilson, Soni & O’Keeffe, 1995). Fullerton (2005), also cited that commitment is positively related to intentions to repurchase.

In addressing customer retention related questions and their impact on retention itself the indicators of ‘customers’ willingness to invest their resources to remain in the relationship with the bank, ‘customers’ loyalty to the bank’, ‘customers’ growing confidence over the bank’ and ‘customers’ readiness to remain and work with the bank’ were found to be strong in explaining customer retention.

7.0 Suggestions for Future Research

This study assesses the effect of the five independent variables; customer satisfaction, customer trust, perceived switching barrier, tangibility and customer commitment on customer retention endeavors of selected private banks operating in Hawassa city Administration. For further and future research, the following areas are suggested:

This paper has focused on selected private banks operating at Hawassa city Administration. So, it is possible to extend the scope of this research at country level for the whole industry players including the large size banks and the medium banks with similar model.

It could be possible to conduct further researches using comparative analysis among private and public banks in Hawassa city Administration, comparative analysis of private and public Banks across the nation.

References

1. Ang, L., & Buttle, F. (2006). Customer retention management processes: A quantitative study. *European Journal of Marketing*, 40, 83-99.
2. Afsar, B, Rehman, Z. U, Qureshi, J. A and Shahjehan, A (2010), Determinants of Customer Loyalty in the Banking Sector: The Case of Pakistan, Pakistan, Department of Management Sciences, Hazara University

3. Berry, L.L. and Parasuraman, A. (1991), *Marketing Services: Competing through Quality*, Free Press, New York.
4. Colgate, M., K. Stewart, R. Kinsella. Customer Defection: A Study of the Student Market in Ireland // *The International Journal of Bank Marketing*, 1996, Vol. 14, No. 3, pp. 23-29.
5. C. Rootman, M. Tait & G. Shar (2011). Relationship marketing and customer retention lessons for South African banks, *Southern African Business Review*; Vol. 15 No. 3, 2011.
6. Chiu, H.C., Hsieh, Y.C., Li, Y.C., and Lee, M. (2005). Relationship Marketing and Consumer Switching Behavior. *Journal of Business Research*, 58(12), 1681-1689.
7. Cvent (2013), Customer Retention, www.cvent.com retrieved on Friday, 10th May, 2013.
8. Fisher, A. (2001), 'Winning the Battle for Customers', *Journal of Financial Services Marketing*, Volume 6, No. 1, pp. 77-84.
9. Danesh, S. N., Nasab, S. A., & Kwek Choon, L. (2012). The Study of Customer Satisfaction, Customer Trust and Switching Barriers on Customer Retention in Malaysia Hypermarkets. *International Journal of Business & Management*, 7, 141-150.
10. Fullerton, G (2005) The Impact of Brand Commitment on Loyalty to Retail Service Brands, *Canadian Journal of Administrative Sciences*, 22, 2, pp. 97-110.
11. Gounaris, S.P. (2003). Trust and commitment influences on customer retention: insights from business-to-business services. *Journal of business research*, 58(March), pp. 126-140.
12. Harrison, T., & Ansell, J. (2002). Customer retention in the insurance industry: Using survival analysis to predict cross-selling opportunities. *Journal of Financial Services Marketing*, 6, 229-239.
13. Hidalgo, P., Manzur, E., Olavarrieta, S., & Farã-As, P. (2008). Customer retention and price matching: The AFPs case. *Journal of Business Research*, 61, 691-696.
14. Hull, L. (2002), 'Foreign-Owned Banks: Implications for New Zealand's Financial Stability', *Discussion Paper Series, DP2002/05*.
15. International Monetary Fund(2014).Regional Economic Outlook: Sub-Saharan Africa, Retrieved from <http://www.worldbank.org>.
16. James, G. (2012), Best Way to Keep Customers from Leaving, www.inc.com retrieved on Tuesday, 16th April, 2016.
17. Kaynak, E and Kucukemiroglu, O. (1992), 'Bank and Product Selection: Hong Kong', *The International Journal of Bank Marketing*, Volume 10, No. 1, pp. 3-17.
18. Kothari, C., R. (2004). *Research Methodology: Methods and Techniques* (2nd Revised Ed.). India: New Age International Publishers.
19. Kotler, P. (2003). *Marketing management* (11th ed.). New Jersey, USA: Prentice-Hall.
20. Lee-Kelley, L., Davies, S., & Kangis, P. (2002). Service quality for customer retention in the UK steel industry: Old dogs and new tricks? *European Business Review*, 14, 276-276.
21. Lwiza, D and Nwankwo, S. (2002), 'Market-Driven Transformation of the Banking Sector in Tanzania', *International Journal of Bank Marketing*, Volume 20, No. 1, pp. 38-49.
22. Marple, M and Zimmerman, M (1999), 'A Customer Retention Strategy', *Mortgage Banking*, Volume 59, No. 11, pp. 45-50.

23. Msoka Caroline and Msoka Elizabeth,(2014) ‘Determinants of Customer Retention in Commercial Banks in Tanzania’ *Journal of Finance and Bank management*, Volume 2,No.1 pp.9-30.
24. Mulugeta, N. (2015). Determinants of customer retention in small scale private commercial banks in Addis Ababa.MA Thesis, Addis Ababa University, Addis Ababa.
25. National bank of Ethiopia. (2014/2015). Annual Report, p.10, 50.
26. Ouma, B. O., Ndirangu, A. W., Munyaka, F. G., George, G. E., Mandere, E. N., Maringa, A.K., Javan M. Nguthuri, Susan N. Nyokabi, Mercy Njenga, Kagumba, A. M., Bichanga, J. Owusuah, L (2012), ‘A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions’, *Journal of Marketing Research*, Volume 17, No 2.
27. PAL, P. (2011).Customer Retention through Service Recovery. *International Journal of Research in Commerce and Management*, 2, 131-134.
28. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, Vol. 49, p.41-50.
29. Ranaweera, C and Prabhu, J (2003), ‘The Influence of Satisfaction, Trust and Switching Barriers on Customer Retention in a Continuous Purchasing Setting’, *International Journal of Service Industry Management*, Volume 14, No. 4, pp. 374-395.
30. Rosemond Boohene (2013). Factors Influencing the Retention of Customers of Ghana Commercial Bank within the Agona Swedru Municipality, *International Journal of Marketing Studies*; Vol. 5, No. 4, ISSN 1918-719X.
31. Reichheld, F. F and Sasser, W. E (1990), ‘Zero Defections: Quality comes to Services’, *Harvard Business Review*, September-October, pp. 105-111.
32. Ro King, C (2005), ‘Industrial Organization and Consumer Satisfaction/Dissatisfaction’,
33. *Journal of Consumer Research*, Volume 9, No. 2.
34. Sharma, N and Patterson, P. G (2000), ‘Switching Costs, Alternative Attractiveness and Experience as Moderators of Relationship Commitment in Professional, Consumer Services’, *International Journal of Service Industry Management*, Volume 11, No. 5, pp. 470 – 490.
35. Sintayehu, Y.(2015). The impact of e-banking services on customer satisfaction: the case of selected commercial banks in Addis Ababa. MA Thesis, Addis Ababa University, Addis Ababa.
36. Tefere, S.(2013).Prospects & Changes of Private Commercial Banks in Ethiopia.Unity University.
37. Timothy, L., Bruce, K., Larzan, A. T., & Jao, W. (2007). The Value of Different Customer Satisfaction and Legality Matrices in Predicting Customer Retention, Recommendation and Share of Wallet,*Journal of Service Quarterly*, 17(4), 361 – 384.
38. Tsegay, M. (2011). “*The Effect of Customer Relationship Marketing on Customer Retention in the Banking sector (A Case Study on Commercial Bank of Ethiopia)*”, Masters Project, Mekelle University, Mekelle.
39. Weinstein, A. (2002). Customer-specific strategies--Customer retention: A usage segmentation and customer value approach. *Journal of Targeting, Measurement and Analysis for Marketing*, 10, 259-268.

40. Wilson, D. T., Soni, P.K. and O’Keeffe, M. (1995) Modelling Customer Retention as a Relationship Problem, Pennsylvania: Institute for the Study of Business Markets, Research Report 13.
41. Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1993), “The nature and determinants of Customer expectations of service”, *Journal of the Academy of Marketing Science*, Vol. 21 No. 1, pp. 1-12.

A Comparative Study of Growth and Sustainability Aspect of Handicraft Industry in Kachchh and Ahmedabad Districts

*Namrata P. Thakkar**

ABSTRACT

Kutch and Ahmedabad districts are part of the state Gujarat. Kutch, one of the largest districts of the country is known for its diversity in culture. The same diversity is witnessed in its arts and craft. Various communities who shifted from different region to Kutch has contributed their regional arts and craft to the district. This contribution has been recognized nationally and internationally too. Another district Ahmedabad is important economic and industrial hub of the country. It is second largest producer of cotton in India, Paving the way for development of Handicraft industry in the region. Diversity is observed in culture and crafts of the district same way as it is observed in Kutch. Considering the diversity and craft in both the districts, Researcher compares and contrast selected arts and crafts of the districts with respect to their sustainability and Growth aspect. The paper collects and analyses secondary data available from official websites of the districts.

Keywords: *Handicrafts; Art; Culture.*

1.0 Introduction

Kachchh and Ahmedabad districts are part of the state Gujarat. Kachchh, one of the largest districts of the country is known for its diversity in culture. The same diversity is witnessed in its arts and craft. Various communities who shifted from different region to Kachchh has contributed their regional arts and craft to the district. This contribution has been recognized nationally and internationally too. Another district Ahmedabad is important economic and industrial hub of the country. It is second largest producer of cotton in India, Paving the way for development of Handicraft industry in the region. Diversity is observed in culture and crafts of the district same way as it is observed in Kachchh. Considering the diversity and craft in both the districts, Researcher compares and contrast selected arts and crafts of the districts with respect to their sustainability and Growth aspect. The paper collects and analyses secondary data available from official websites of the districts.

2.0 Objectives

- To study the crafts of Kachchh and Ahmedabad District
- To compare the selected craft of Kachchh and Ahmedabad District

3.0 Methodology

The present paper is based on secondary data collected from official websites of government, various research papers, magazines and articles.

4.0 Data Analysis and Interpretation

The following data was collected and analysed.

**Assistant Professor, Chanakya Vidhyapeeth Commerce College, Kachchh, Gujarat, India (Email namu.thakkar83@gmail.com)*

4.1 Ajrakh

The word Ajrakh as per the local artisans means “Keep it today” which is also connected to azrakh- Arabic name for indigo which is found in the arid ecology of Kachchh. The history of this craft is related to local communities of Kachchh like Rabaris, Maldharis and Ahirs who wear printed cloth as turbans, lungis or stoles. Complex geometry patterns are created on cloth using red and blue colour. The feature which makes this craft different is its dying process majorly done with natural colours which are truly fast. The cloth is made in a sixteen step process which includes washing, dyeing, printing and drying which requires higher level of skill with concentration in order to keep the colours fast and even. Pomegranate seeds, gum, Harde powder, wood, kachika flour, Dhavadi flower, alizarine and indigo are some of the natural resources used by the artisans.

Because of being eco-friendly this craft is gradually gaining momentum, but with the introduction of synthetic fiber the demand of Ajrakh is challenged.

4.2 Mata ni Pachedi

The word Mata ni Pachedi mean “behind the mother goddess” which comprises a temple of the goddess. The history of this craft is believed to be initiated by the nomadic Devipujak community who were restricted from entering the temple made their own shrines with the figure of mother goddess on the cloth. The major painting highlights the mother goddess in her mighty form in the centre of the cloth surrounded by deities and commoners worshipping her, depicting the stories of god and goddess majorly painted with red colour and a little of white and black colour. The cloth passes through several steps consisting soaking, sketching and painting, dyeing, washing and finally drying. Jaggery, scrap iron metal, kachuka atta, Dhavadi flower, alizarine are few natural resources used to prepare the colours for the cloth.

The craft is getting refined to suit changing times creating pachedis that are relevant in present situation.

Points	Ajrakh	Mata ni Pachedi
Similarities	The making process and use of natural colours	
Difference	Used by men and women for wearing	Used for aesthetic purpose
Place of Origin	Sindh	Ahmedabad
Practicing Communities	Khatri	Devipujak
Products	Turbans, lungis or stoles	Pachedi

4.3 Wood carving of Kachchh

Wood Carving of Kachchh reflects the culture of Thar Desert including Sindh of Pakistan, Barmer and Jaisalmer of Rajasthan and the Rann of Kachchh of Gujarat. Harijan community of Ludiya and Dumaro are practising this craft. These villages are renowned for their artistic work. By using only two tools namely hammer and chisel floral and geometrical patterns are carved on the wood. The wood so used in this craft is teak wood, Malaysian wood or the local available wood. The carving on wood is done in such a manner that the raised portion reflects the geometrical and floral designs. Architectural elements like doors, jharukha, overhanging balconies, and furniture like stools, cradles, bed-posts, cot-legs and kitchenware are produced by a unique technique.

This craft need revival and up gradations of motifs as well as products to face the current market requirements.

4.4 Wood carving of Ahmedabad

This craft which exists from 12th century is continued not by the locals but the migrated craftsmen from Delhi approximately two decades ago in Ahmedabad. Planks of teak wood are cut into required sized pieces with help of electrical jig-saw machine.

Points	Wood Carving of Kachchh	Wood Carving of Ahmedabad
Similarities	Art itself is same,	
Difference	Labour intensive, Teak wood named Malaysian wood is used	Machine and Labour intensive, Sagwan Teak wood is used
Place of Origin	Sindh, Rajasthan & Kachchh	Uttar Pradesh
Practicing Communities	Harijan	Craftsmen from Delhi
Products	Doors, Jharukha, Overhanging balconies, Stools, Cradles, Bed-posts, Cot-legs and Kitchenware	Temple shrines, Swings and Furniture

Curves and different shapes are also cut with careful manoeuvring through machines. From Mughal style flowers and vines to Gujarati parrots, peacocks and elephants a combination of these patterns are engraved on the wood, and the excess of wood is chipped off with chisels, which are of different size and shapes. Steel rulers, L-scales and dividers are the measuring tools. Finally a spray of varnish is sprayed to give a smooth shine. Many crafts and arts are combination of culture and religion. This craft is one such example of harmony and beautiful co-existence of same. Temple shrines, swings and furniture are the products majorly made by the craftsmen.

4.5 Emdroidery

From about 16 different embroidery work practised in Kachchh, the most well-known one is Rabari embroidery with its chain stitches and generous use of mirrors. The art gets its name from the Rabari community who migrated to Kachchh from Sindh about 400 years ago. Along with cattle rearing they have engaged their selves in this art. Men work with leather and women on fabric and accessories. The unique feature of this art is that the sub-community of Rabari's can be identified through the particular embroidery work done by them. With the help of needle and thread stitching is done without any sketch or pattern drawn on the fabric. Wall hangings, toran, bed covers, bags, camel decorations and garments with designs like things seen in daily lives; flowers and bushes, peacocks and camels, women doing household chores and men tending to cattle are prepared.

4.6 Aari work

The history of this art goes deep as the time of Rig-Veda. It flourished during regime of Mughal Emperor, Akbar. Aari embroidery is a much adorned craft of Gujarat which requires a lot of precision and method best known to the artisans. The art of aari embroidery, zari and zardosi has the Persian essence since the royal days. This craft not only requires understanding but also an innate technique. Firstly, a pattern is drawn in butter paper, getting it embossed on the fabric with the help of chalk. The oval like needle named aari is pierced through the cloth and tread is brought to the upper side and used to secure the previous stitch. The process is followed repeatedly until the desired pattern is created on the fabric which is silk or satin named 'Gajji. Embroidered sarees, suits, dupattas and traditional Gujarati ghagra-cholis with bootis of various shapes and sizes, motifs and designs of peacocks, flowers are made thereof. In spite of facing a whirlwind of change this craft has got its importance all over the globe.

Points	Emdroidery	Aari Work
Similarities	Both the craft have the technique of stitching and creating artistics designs on cloth.	
Difference	Mirrors are used	Gold/ silver thread is used
Place of Origin	Sindh	Lucknow
Practicing Communities	Rabari, Ahir and Muslims	Mocha
Products	Wall hangings, toran, bed covers, bags, camel decorations and garments	Sarees, suits, dupattas, ghagra-cholis

5.0 Conclusion

The art and craft of both districts has its own identity and distinguishing characteristics. Kachchh on one hand has a variety of skill based craft whereas Ahmedabad being a textile hub has started combining the traditional and contemporary arts and designs to meet the global demand. There is no substitute for craft of Kachchh but still this sector needs a push-up to be highlighted at the global level. If the needful is done this sector has the potential to outperform globally as well. On another hand Ahmedabad has changed its craft on timely manner on the basis of contemporary demands.

References

1. www.wikipidea.com
2. www.khamir.org
3. www.gaatha.com
4. www.handicrafts.nic.in
5. www.kachchh.nic.in
6. www.kachchhexpeditions.com
7. www.wikipedia.org

A Cross Sectional Study on the Impact of Training and Development on Employees' Satisfaction in L & T Group of Companies

Sharad Kumar Mishra* and Preeti Nair**

ABSTRACT

Training and development enables to develop skills and competencies necessary to enhance bottom-line results for their organization. It is a key ingredient for organizational performance improvement. It ensures that randomness is reduced and learning or behavioural change takes place in structured format. Training and Development helps in increasing the job knowledge and skills of employees at each level and helps to expand the horizons of human intellect and an overall personality of the employees. This paper analyses the link between various Training and Development programs organized in Larsen & Toubro Group of Companies and their impacts on employee satisfaction and performance. Data for the paper have been collected through primary source that are from questionnaire, surveys. There were two variables: Training and Development (independent) and Employees satisfaction and performance (dependent). The goal was to see whether Training and development has an impact on employee's satisfaction and performance.

Keywords: Employees; L & T; Descriptive study.

1.0 Introduction

Around the Globe, for any organization to survive the cut-throat competition, it must build upon in terms of employee competencies as well as their retention with the organization. For achieving the same, organizations are inclined towards ensuring employee development and employee satisfaction.

In the present scenario of fast changing technologies and business scenario, it is imperative for organizations to build upon new skills. New Skills can be infused into an organization through fresh recruits with the desired skill sets and shunning employees with obsolete skillsets or developing new skill sets in the exiting employees through training. Though in both ways huge cost implication is involved, but in the later case employee satisfaction is increased thereby leading to increased productivity.

Training and Development is one such tool which is beneficial both for organizational as well as personal development thereby positively affecting both Employee development and Employee satisfaction. Satisfied employees tend to be associated with the organization for a longer duration of time in a gainful manner.

2.0 Literature Review

To develop an understanding and insight into concepts procedures and variables related to training and development an extensive review of relevant literature was undertaken. This review revealed the following:

*Corresponding author; Research Scholar, Parul University, Vadodara, Gujarat, India

**Associate Professor, Faculty of Management, Parul University, Vadodara, Gujarat, India

3.0 Concepts of Training and Development

Gordon (1992); defined training as the planned and systematic modification of behaviour through learning events, activities and programs which results in the participants achieving the levels of knowledge, skills, competencies and abilities to carry out their work effectively.

Krietner (1995); in his book *The Good Manager's Guide* said “no matter how carefully job applicants are screened, typically a gap remains between what the employee does know and what they should know. An organization which desires to gain the competitive edge in its respective industry, needs among other things, extensive and effective training of its human resources.”

Baldwin and Johnson (1995); in his study mentioned that training refers to an activity which deliberately attempts to improve a person's skill at a task. He stated that companies conduct training for three purposes which are to carry the company strategy, bringing innovation and advancement in technology. That is done to improve the quality of the product and for the provision of quality services.

Obisi (1996); said that the concepts, of training and development are used interchangeably. However, it can be differentiated from the other. Training is for specific job purpose while development covers not only those activities which improve job performance, but also those which bring about growth of personality.

3.1 Training and development policies and procedures

Kenney et al (1992); makes a point that companies should have different policies for training depending on the class or level of employment or level of employees to be trained. They pointed out that training policies are necessary for the following reasons:

- To provide guidelines for those responsible for planning and implementing training;
- To ensure that a company's training resources are allocated to pre-determined requirements;
- To provide for equality of opportunity for training throughout the company; and To inform employees of training and development opportunities.

Michael Armstrong (1996); in his book *A Handbook for Personnel Management Practice* said that as much as these policies seem to be accurate, they are silent on the elements of budgetary provision and top management support for training. Training policies are expressions of the training philosophy of the organization. He further stated that training policy shows the proportion of turnover that should be allocated to training.

3.2 Importance of training and development

Neo et al. (2000); organizations are beginning to realize the important role that training and development play in enhancing performance and increasing productivity, and ultimately stay in competition. They reiterated that as a result of this realization, General Electric, Texas Instruments and Federal Express have all made substantial investments in training. They now invest between 3% and 5% of their payroll in training.

Kalemci (2005); mentioned training and developing human capital is tremendously important in the effective management and maintenance of a skilled workforce. Training is one of the ways of improving organization's effectiveness.

3.3 Employee performance

Bartel A.P. 1994); Training also has a significant effect on employee performance. Firms can develop and enhance the quality of the current employees by providing comprehensive training and development. Indeed, research indicates that investments in training employees in problem-solving, teamwork and interpersonal relations result in beneficial firm level outcomes.

Grund (2001); agreed that training has improved employees performance in term of increase in productivity, particularly in areas such as sales, customer services and IT, improvement in retention rate, and higher levels of personal job satisfaction. Higher productivity and improved employee performance will rely on employees having the right skills.

3.4 Organisational productivity and performance

Evans and Lindsay (1999); The quality of employees and their development through training are major factors in determining long-term profitability and optimum performance of organizations. To hire and keep quality employees, it is good policy to invest in the development of their skills, knowledge and abilities so that individual and ultimately organizational productivity can increase. Traditionally, training is given to new employees only. This is a mistake as ongoing training for existing employees helps them adjust rapidly to changing job requirements. Organizations that are committed to quality invest in training and development of its employees.

3.5 Employee satisfaction

Nancy C. Morse (1997); Satisfaction refers to the level of fulfillment of one's needs, wants and desire. Satisfaction depends basically upon what an individual wants from the world, and what he gets. Employee satisfaction is a measure of how happy workers are with their job and working environment.

Spector (1997); defined job satisfaction as all the feelings that a given individual has about his/her job and its various aspects. Employee satisfaction is a comprehensive term that comprises job satisfaction of employees and their satisfaction with overall company's policies, company environment etc.

3.6 Training and development and employee satisfaction

Watkins and Marsick (1993); It has been shown that training has an influence on job satisfaction, and with the increasing importance being placed on continuous learning and education throughout one's career, its importance will increase. The need for lifelong learning is clearly evident in most people's jobs. The information that people need to perform effectively changes almost as quickly as it is produced. The intelligent technology on which many jobs are based requires a greater grasp of elementary and advanced mathematical and scientific principles. Enhanced needs for communication in today's flattened, participatory organization call for new interpersonal skills as well as high levels of ability in reading, writing, and speaking.

Shields & Ward (2001); A study of nurses in the United Kingdom found that dissatisfaction with promotion and training opportunities had a stronger impact on job satisfaction than dissatisfaction with workload or pay. The researchers concluded that UK policies which focus heavily on improving the pay of nurses will have only limited success unless they are accompanied by improved promotion and training opportunities.

3.7 Employee satisfaction with organisation's commitment to employee's training and development

Eisenberger, Huntington, Hutchison, & Sowa, (1986); mentioned in his study that perceived organizational support concerns the extent to which an employee perceives that an organization values their contributions and cares about their well-being. It is influenced by the organization's treatment of its employees; thus, providing a means for interpreting the organization's motives.

Tansky and Cohen (2001); argued that employee development can be viewed as a type of social exchange because it offers opportunities and benefits to an employee, who may feel obligated to reciprocate by exhibiting attitudes and behaviors indicative of their commitment to the organization.

4.0 Significance of the Study

Training and development is about managing and empowering people, the vital assets of any business or firm. Human resource professionals act as a strategic partner with senior managers and leaders by aligning training and development strategies and practices among others with overall organizational strategies that contribute to an organizations smooth operation. Therefore, understanding human resource practices and particularly Training and development enable managers to help employee perform better in the work and keep them motivated. This in turn not only strengthen individuals and organizational performance but it helps organizations ability to meet its goals. The study become necessary, because many companies in this world are striving to gain competitive edge and the only way to stand out is to increase employee's competencies, capabilities, skill etc. through adequate training and development design. However, the study results will help the management to identify the challenges effects of employees' training and development on employees satisfaction, hence determine the area where improvements through training and development can be done. It will also help the management in planning for the development and implementation of effective training needs that will lead to increased satisfaction.

5.0 Scope and Statement of the Problem

The proposed study is being carried out keeping in view the huge money & time invested by the companies for organizing the training & development programs for the employees. It is necessary to justify the above investment in terms of money and time. This justification could be based on the following parameters:

- Productivity
- Profitability
- Employee Morale
- Retention of employee
- Employee satisfaction
- Analysis of cost of New Skill hiring v/s Cost of Skill upgradation of employee

To study the various Training and Development process and interventions and their implementation processes for making it successful. To make the Training and Development function a key value addition.

To Study the effectiveness of the training & development programs in affecting employee satisfaction. This research study provides an opportunity to explore the linkage between Training and development and employee satisfaction. it is expected that the study will fill up the gap to some extent.

6.0 Objective of the Study

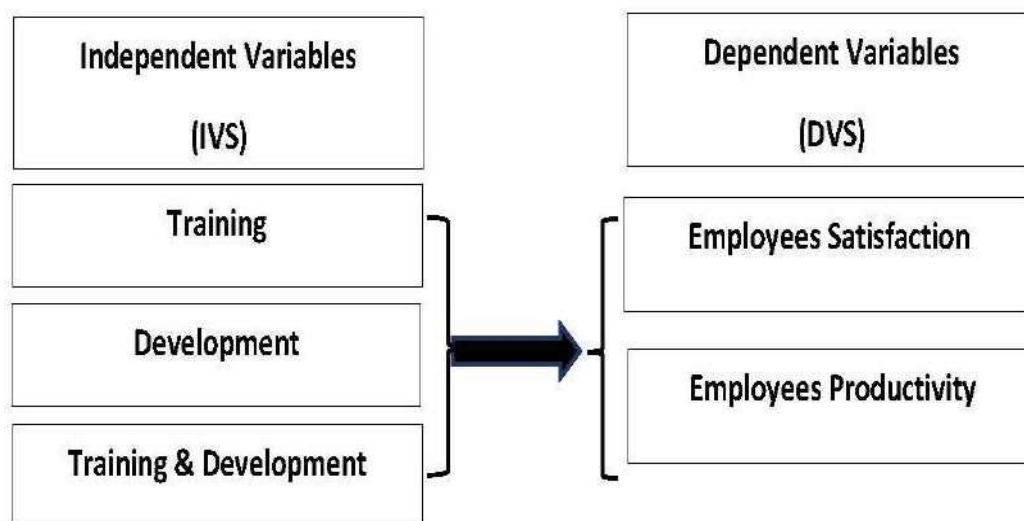
1. To understand the awareness level of employees towards Training and Development Training
 - a. Calendar/Training Plan
 - b. Training need identification
 - c. Nomination process
2. To understand the perception of employees regarding implementation of various Training and Development Programs
 - a. Alignment with Training Needs

- b. Alignment with Business Goals
 - c. Course content
 - d. Trainer/Faculty
- 3. To understand the perception of employees regarding effectiveness of various Training and Development programs
 - a. Knowledge
 - b. Career Development
 - c. Satisfaction
 - d. Retention

7.0 Research Theoretical Framework

General human capital theories support the tendency towards investment in training and development because such investment is considered very beneficial for the satisfaction of employees, and performance of the organization. Here it is theorized that the independent variables, training and development, had a positive effect on the dependent variables performance and productivity of employees, and on performance of the organization as a whole. Figure 1 below shows the research framework of this study.

Figure 1: Research Theoretical Framework



7.1 Hypothesis

Hypotheses development is very important because acceptance and the rejection of hypothesis show the significance of the study. On the basis of literature review and the above theoretical framework the hypotheses of this study are as follows:

Ho: "There is not a significance relationship between employees training and employee's satisfaction".

H1: "There is a significance relationship between employees training and employee's satisfaction".

H2: "There is not a significance relationship between employees development and employees satisfaction".

H3: “There is a significance relationship between employees development and employees satisfaction”.

H4: “There is not a significance relationship between employees training & development and employee’s satisfaction”.

H5: “There is a significance relationship between employees training & development and employee’s satisfaction”.

H6: “There is not a significance relationship between employees training and satisfaction”.

H7: “There is a significance relationship between employees training and satisfaction”.

8.0 Research Methodology & Design

The study will utilize the survey design method and quantitative approach. For this purpose, structured questionnaire will be used as the survey instrument. The quantitative research is that which tries to find answer to a question through analysis of quantitative data. Generally speaking, quantitative research gives the research the opportunities to interact and gather data directly from their research participants to understand a phenomenon from their perspectives. In this case the logic of using this approach is to maintain real life references and phenomena regarding the impact of employees training and development on employee’s satisfaction and productivity.

8.1 Research instrument

In this study two instruments are used for the collection of the relevant data.

Primary data – Primary data is collected using well-structured questionnaire that contained relevant questions regarding training, development, and employee’s satisfaction in the company.

Respondents were required to provide their rating on their perception using a Five- point Likert scale (5-Strongly Agree, 4-Agree, 3-Neutral, 2- Disagree, 1- Strongly Disagree). This scale best describes the extent to which the respondents agree with each items in the questionnaire.

Section 1 – background characteristics of the respondents such gender, age, education and experience

Section 2 – had 13 statements which collected information on employee’s awareness regarding implementation of training programs.

Section 3- it had 8 statements on awareness about the implementation of development program

8.2 Target population& sampling procedure

A representative sample of 50 employees was randomly selected from Larsen & Toubro. The sample included full time of L&T working in different capacities. Based on the research finding it has been seen that, gender, age, education and years of experience have a positive impact on the performance of the employees i.e to say the performance of the employees are dependent on the way companies groom them through training and development programs. Therefore, for the present study, respondents were selected based on the following parameters -

- Gender – Male/Female. The male female ratio in L&T is 90-10% and the sample was drawn accordingly.
- Age – 18-30 years; 31-40 years, 41-50 years & 51-60 years
- Years of experience - was categories into four categories as - upto 10 years, 11-20; 21-30 years and 31-40 years
- Educational qualification – Diploma, Degree (Graduate, Post-graduate or Ph.D)

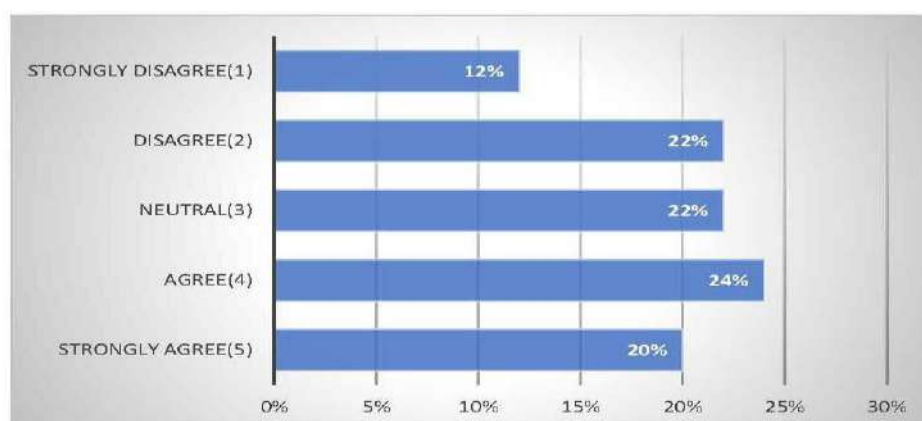
Based on the above criteria the sample selected is presented in the table below:

Table 1: Sample Size

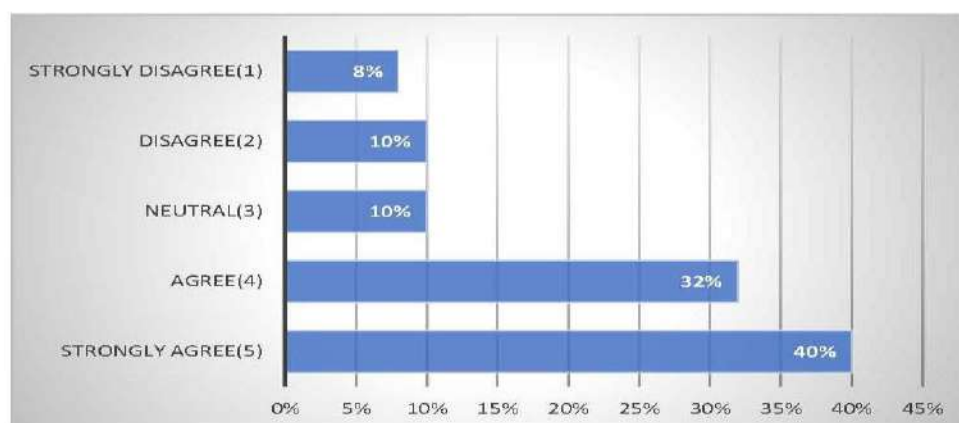
Parameters	Gender	
	Male	Female
Gender	38	12
Age (in years)		
18-30	10	3
31-40	10	3
41-50	9	3
51-60	9	3
Education		
Diploma	10	5
Graduate	23	7
Post-Graduate	2	-
Others	3	-
Years of Service		
Upto 10 years	7	6
11-20 years	7	6
21-30 years	12	-
31-40 years +	12	-
Total Respondents	50	

Implementation of Training Programs (Section 2)

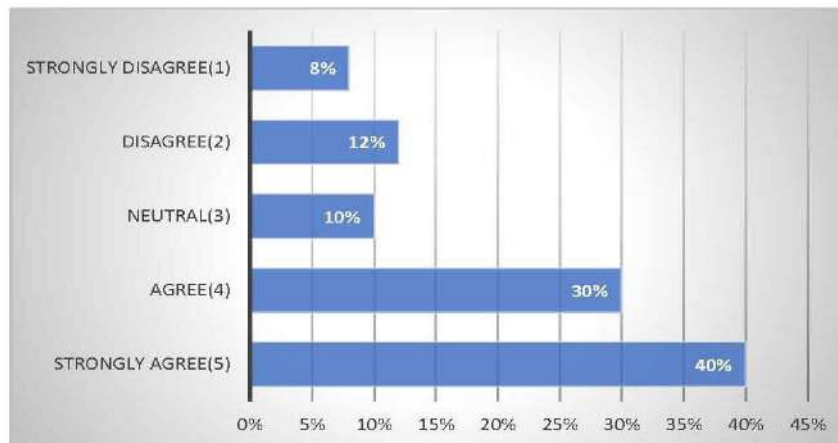
- Training need analysis of your organisation is satisfactory



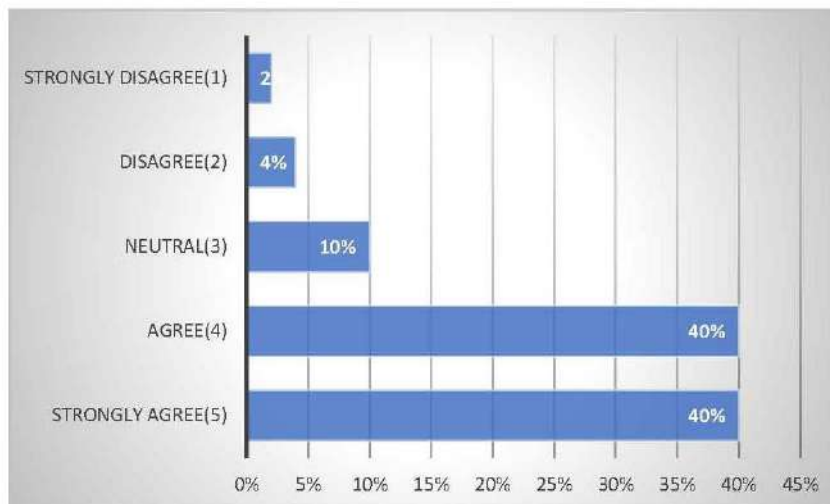
- You have attended atleast one training program in last two years



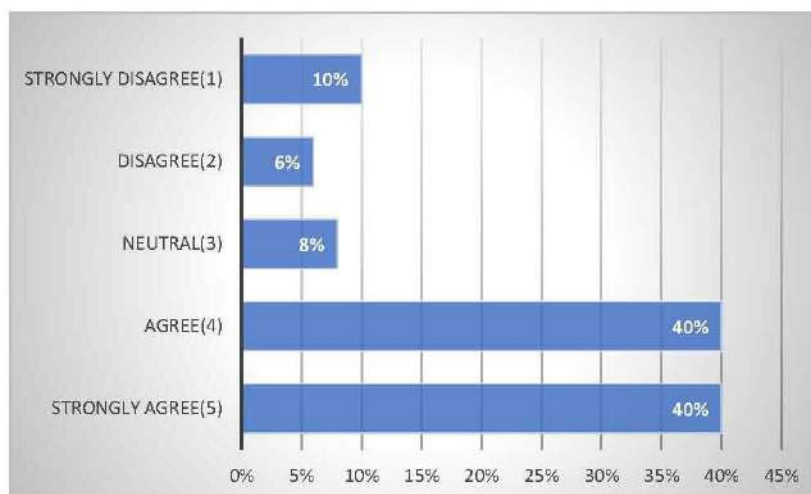
- Infrastructure Facilities provided during the training programs are satisfactory



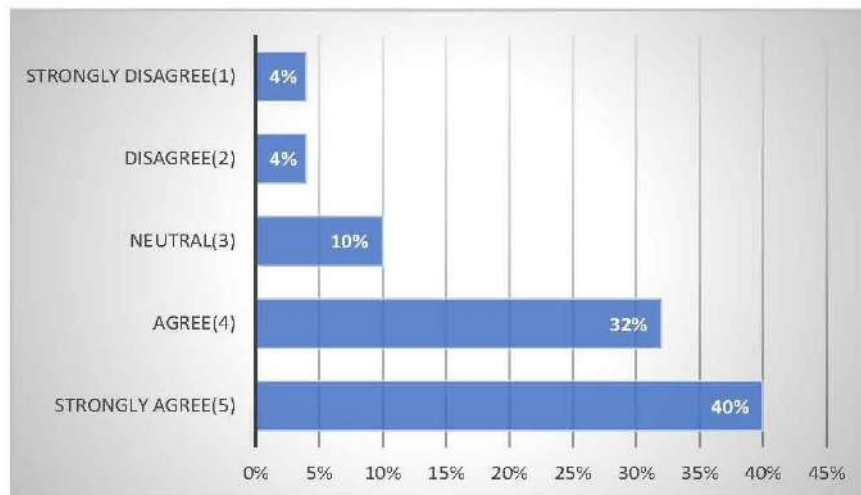
- Competence and Professionalism of Faculty for Training programs conducted by the organization are satisfactory



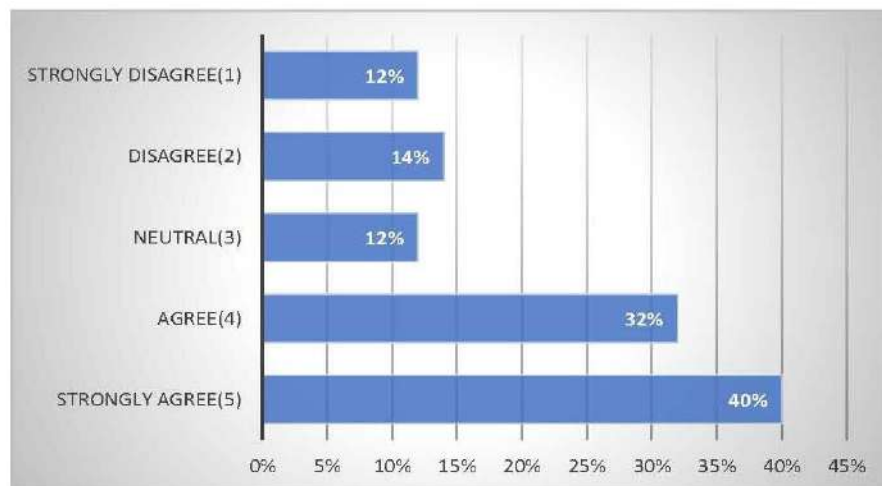
- Duration of training programs conducted by your organization is satisfactory



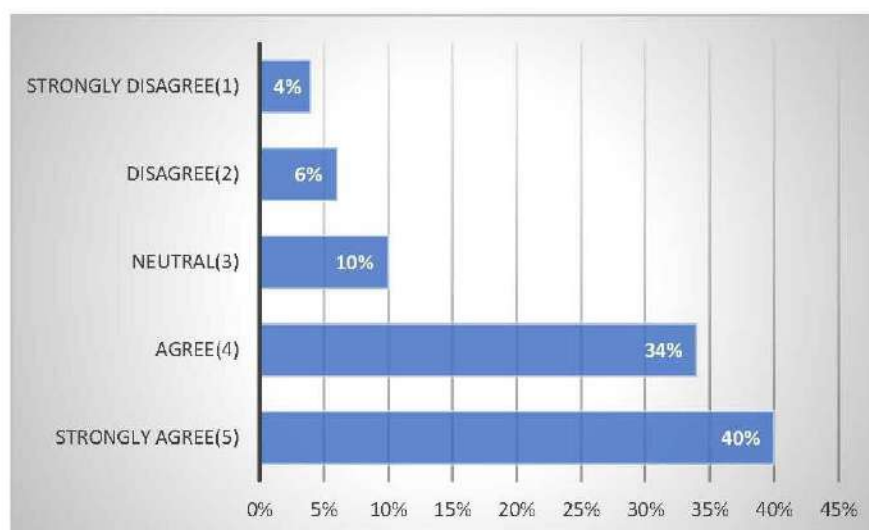
- The Training contents are satisfactory



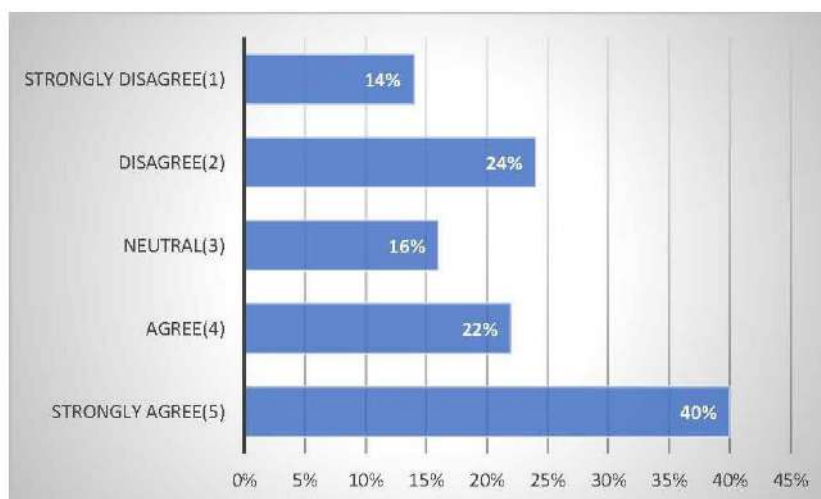
- Training programs are designed considering your future job requirements



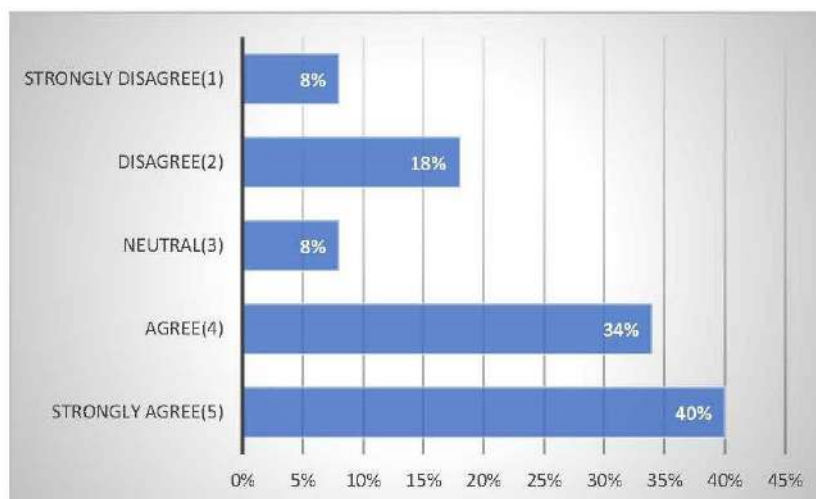
- Training programs are well planned and carefully designed



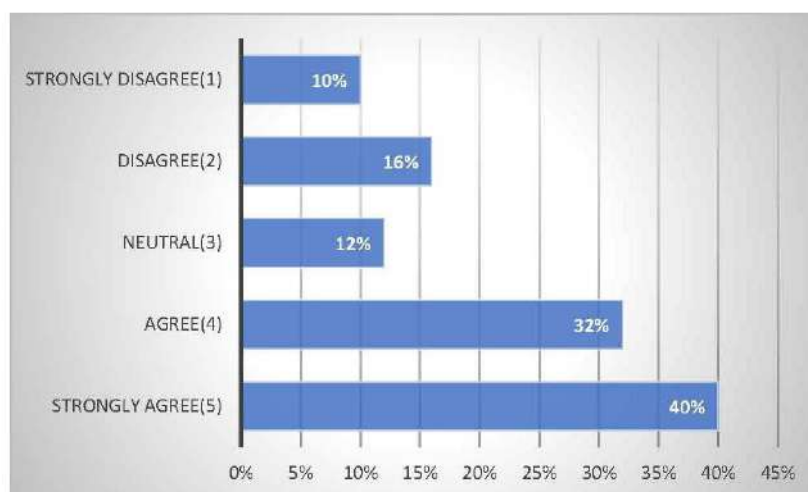
- Training Need Analysis is based on real job requirements and Job demands



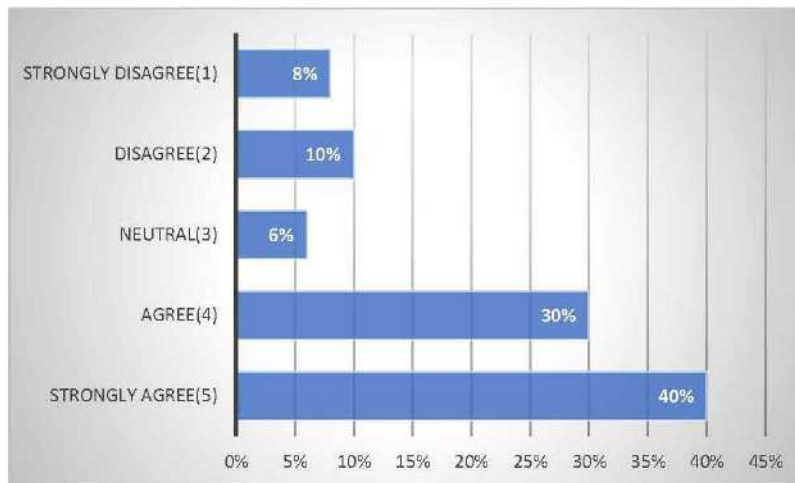
- Internal Faculties are more effective as compare to External Faculties



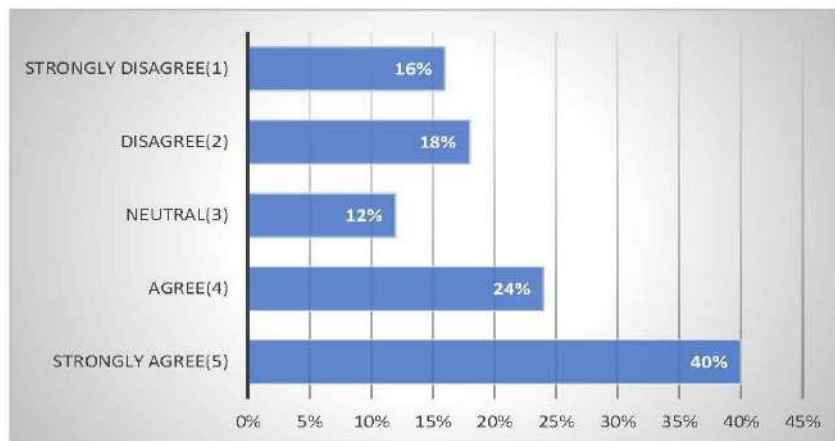
- External Faculties are more effective as compare to Internal Faculties



- Classroom training programs are more effective than online training programs

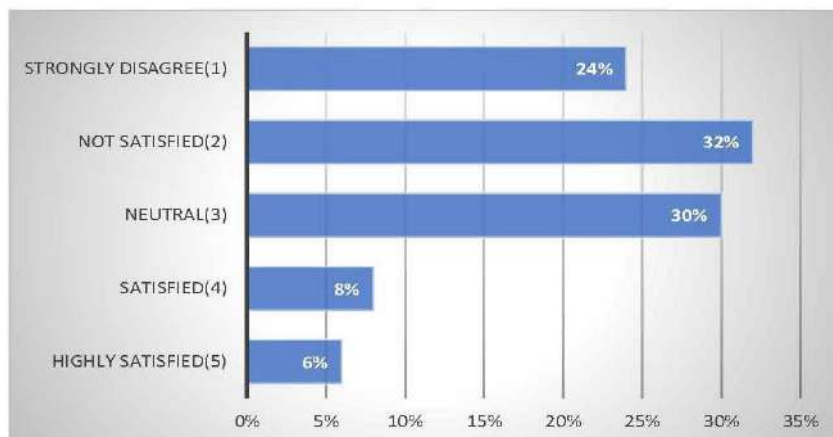


- Training activities helps the organization to maintain employee retention rate

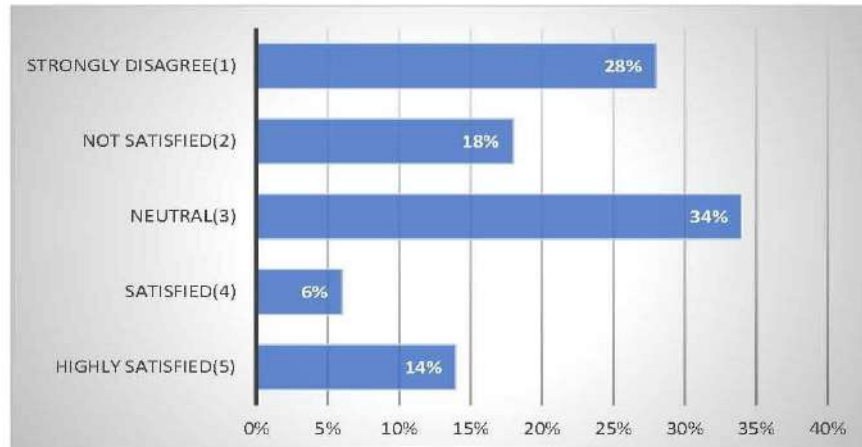


Implementation of Development Programs (Section 3)

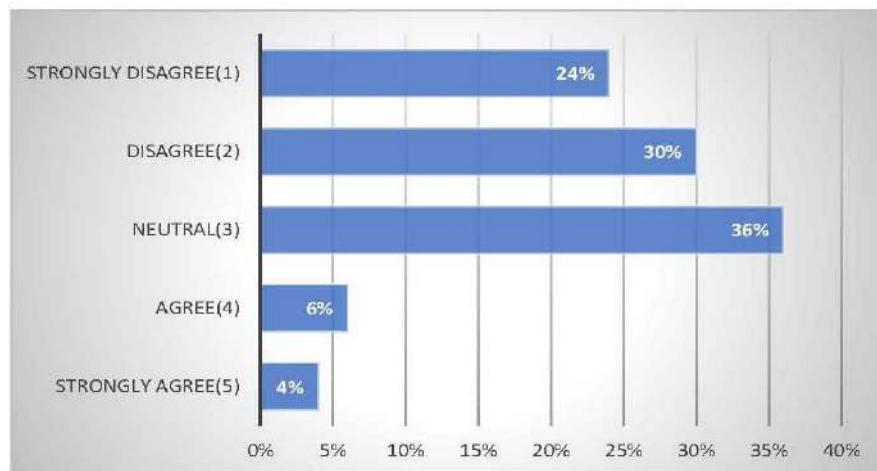
- Present method of selection of employees for Development program is satisfactory



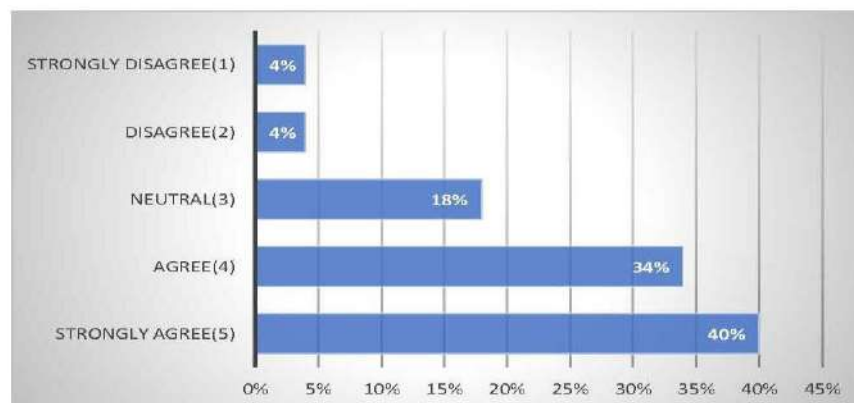
- Development need analysis of the employees by your organisation is satisfactory



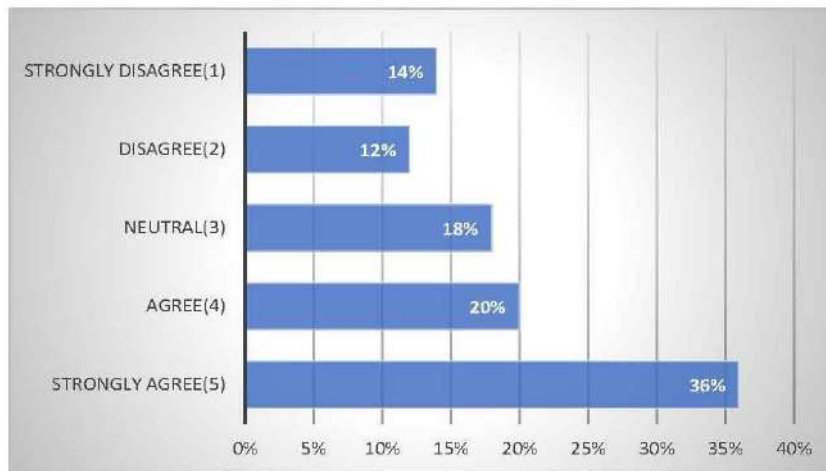
- You have attended at least one Development program organized by your organization in last two years



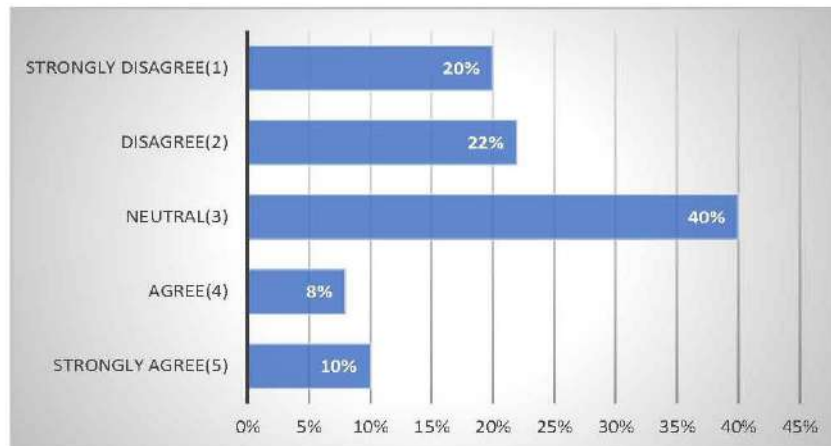
- Infrastructure Facilities provided during the Development programs is satisfactory



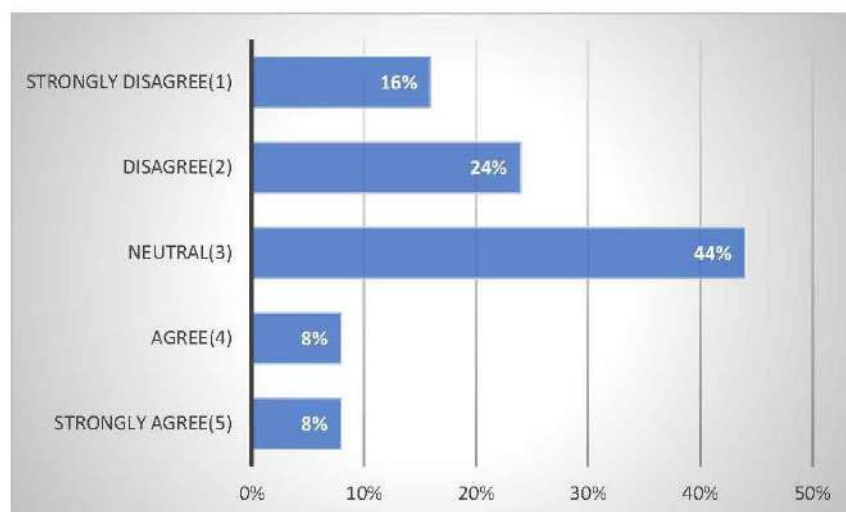
- Development methods used is satisfactory



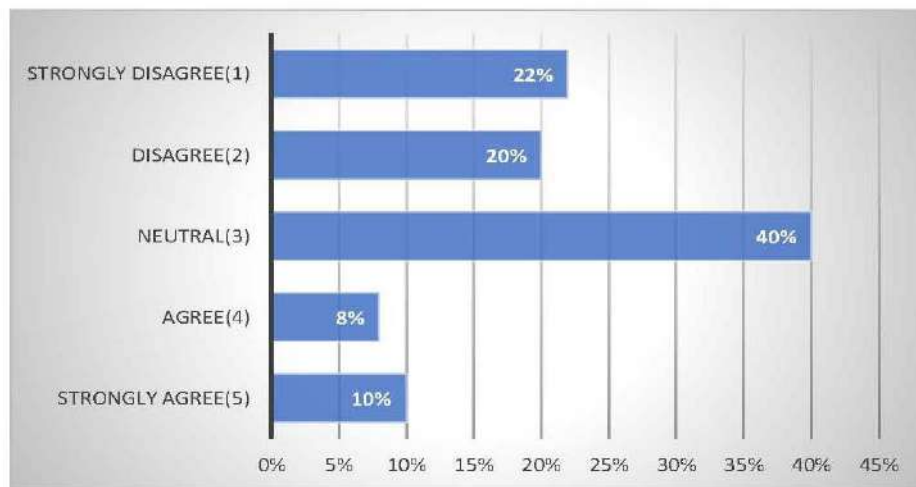
- The frequency with which organisation conduct Development programmes is satisfactory



- Development programs are organized keeping in mind the Development needs of the employees



- Development Need Analysis is based on real job requirements and Job demands



- Development programs are organized keeping in mind the Development needs of the employees
- Development Need Analysis is based on real job requirements and Job demands

9.0 Key Observations

- Training programs are well perceived by the employees. Majority (70-80%) of the employees were aware about the yearly planned training program much in advance. They also knew that such programs are part of organizational strategy. Most of them also reported that such programs are organized based on the organizational need and goals of the company.
- Developmental programs are not very well perceived by the employees. Very small percentage (30%) knew that the developmental programs are part of the strategy. As a result of this majority of them either responded neutrally or disagreed to the fact that the such programs affect –
 - Engagement of employees
 - Their knowledge and skill
 - Performance
 - Potential
 - Faster decision
 - Builds leadership quality
 - It is developed in interest of organization
 - The takeaway are easily implementable
- The data further shows that due unawareness of the development program, the attendance was very low. Only 10 percent of the employees attended such program during the reference period of 2 years. Interestingly, majority of those who attended such program were satisfied with
 - Infrastructural facility
 - Method used
 - Interval at which such programs are organized
 - The procedure adopted i.e. organizing doing need analysis
- Effectiveness of the Training Program – Majority of those who had attended the training program were satisfied with all the arrangements like
 - Material provided

- b. Method used
- c. The program also helped in increasing the productivity
- d. The program also helped in increasing the performance level
- e. Engagement level
- f. Content of the training program were relevant to current position
- g. But, most of them were of the opinion that external training are much better than internal
- Effectiveness of the Developmental Program –Unlike training program, small percent of the employees who were part of the developmental program were quite satisfied by the material provided, helped in increasing performance level, leadership quality and the program is aligned in succession of the organization.

10. Conclusion

Training is necessity in the changing environment, planned and systematic training should be made compulsory. It brings changes in behaviour, attitude at any age and helps in increasing the organizational performance. By providing training, employers support the skill development of their employees. If the training is good then the employees will contribute their maximum for the achievement of the organizational objectives. Researcher found that the training and effectiveness programs have a positive impact on the performance of both male and female employees. The overall opinion about the training among the employees is very good and effective, it is very much helpful to improve the individual career and the organization growth too and they are satisfied with the training process and method of teaching. It is also found that the development programs are not having very positive impact and there is a need to review the entire process right from identification of employees/implementation and designing of development programs.

A Study on Impact of Time and Cost on India's Trade: Gravity Model Approach

Ashish Bhatt* and Bijal Zaveri**

ABSTRACT

International trade transactions required multiple documentation and inspection which takes time, as time increase, the cost increased. Purpose of this research paper is to discuss the impact of time and cost incurred in India's export, Import and total trade independently. In so doing, we use a unique dataset that consists of India's trade transactions over the period 2015–2018 and includes information on the time it took for documentation and cost of each of these transactions. Augmented gravity model used new dummy variable, trading across the border, with traditional variables. India's trade responds high in distance and partner's size. RTAs are important factor in India's trade. Results suggested India's export is time sensitive and import is cost sensitive.

Keywords: Trading; Gravity equation; International trade.

JEL classifications: F14, F18.

1.0 Introduction

Global trade witnessed tremendous variation in the trade pattern during the last century. Various economic shocks were easily absorbed by most of the nations but still shocks made impact on nations economy which reflected in its trade policy specially in developing nations. This proves that no country in the globalisation can keep itself away from regular trade reforms. All international trade transactions are processed by various government agencies such processing takes time and time is a key trade barrier.(Hummels& sachur, 2001). They estimated that each day in transit is equivalent to an ad-valorem tariff of 0.6 to 2.3 per cent. Reduced inspections reduced mean and median time in customs and reduced uncertainty about time spent in customs. Reduced inspections produced significant increases in the level, and changes in the composition, of Albanian imports. They estimate that the impact of the reforms was roughly equivalent to an Albanian tariff cut of 1.3 percentage points.(Fernandes, 2017) Delays have a significant negative impact on firm's exports along several dimensions. Effects are more pronounced on sales to newer buyers. Customs-driven, transaction-specific delays can be substantial and highly variable, thus naturally affecting delivery dates. Accordingly, they could have significant effects on buying and selling decisions and thereby on firms' export outcomes.(Christian Volpe Martincus, 2015)Delays associated with customs inspections can be seen as trade costs accruing to each transaction. Exporters can respond to these costs by adjusting the number and size of their shipments to given destinations, which could potentially result in changes in their foreign sales, and the intensity of this adjustment can vary across products depending on their characteristics.(C Hornok, 2015)¹ These transit times are influenced by many factors, such as "Trading across Borders", which is a constituent part of

*Corresponding author; Research Scholar, Department of International Business, Parul University, Vadodara, Gujarat, India (E-mail: ashishkumar.bhatt@paruluniversity.ac.in)

**Dean, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India, (E-mail: bijal.zaveri@paruluniversity.ac.in)

Doing Business, is a survey focused on economies' performance with respect to border regulatory services; a number of administrations and other border agencies are greatly concerned about how accurately their efforts with respect to trade facilitation are affecting the trade.

(Okazaki, 2018) Vietnam, an economy which Doing Business 2016 ranked 108th on the trading across Borders index, jumped to 93rd in the 2017 edition, as a result of its effort to simplify Customs procedures and reduce clearance times affected businesses such as Ford Vietnam.(USAID, 2017). Delays have a relatively greater impact on exports of time-sensitive goods, such as perishable agricultural products.(Simeon Djankov, 2010)Time delays hinder exports, particularly in more time-sensitive sectors. With a ten-percent export-delay reduction, sectoral exports would increase by 2.3–6.2 percent, and total manufacturing exports would increase by 4.3 percent. The magnitude of the export effect depends on sectoral time sensitivity, with more time-sensitive sectors having a larger effect.(Li, 2018)Time is found not only to reduce trade volumes, but more importantly lengthy procedures for exports and imports reduce the probability that firms will enter export markets for time sensitive products at all.(Hildegunn Kyvik Nordås, 2006).Infrastructure is an important determinant of transport costs, especially for landlocked countries. Analysis of bilateral trade data confirms the importance of infrastructure and gives an estimate of the elasticity of trade flows with respect to the trade cost factor of around -3. A deterioration of infrastructure from the median to the 75th percentile raises transport costs by 12 percentage points and reduces trade volumes by 28 percent. Analysis of African trade flows indicates that their relatively low level is largely due to poor infrastructure.(Venables, 2001)Transport time increases with distance travelled, and time is valuable. In their research paper, timely delivery is important because it allows retailers to respond to final demand fluctuations without holding costly inventories, and timely delivery is possible only from nearby locations.(HARRIGAN, 2005)Reducing waiting times at the border, which is one of the key indicators of improved TTF is hardly possible, if the Customs administrations and other border agencies are not up to modern standards, if they prefer control over fighting illegal trade, and if their organizational, operational structure or their technical facilities are not well equipped for smooth and fast processing of legal trade while detecting illegal trade.(Eva Molnar, 2003).

2.0 Statistical Model and Variables

We tried to understand the impact of time and cost on India's trade transaction with world. In this line, we used gravity model with time and cost with other dummy variables. Study carried out for the India with few dummy variables such as common language, contingency, colony, agreement and foreign exchange etc. We estimated the equation as

$$T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln Dist + \beta_4 Time + \beta_5 Cost + \beta_6 DummyVariable + \delta$$

1

i represents India and j represents partner country

$\ln GDP_i$ = Logarithm of GDP of country i and j

$\ln Dist$ = Logarithm of bilateral distance between countries i and j

Time = Time involved in Documentation and Border compliance

Cost = Cost involved in Documentation and Border compliance

2.1 Dummy variables

Comlang = Binary variable that takes the value 1 if countries have common official language, and 0 otherwise

Comborder = Binary variable that takes the value 1 if both countries share border, otherwise 0

Colony = Binary variable that takes the value 1 if countries were under the same colonizer, otherwise 0

Landlocked = Binary variable that takes the value 1 if both the country is landlocked, otherwise 0

Agreement = Binary variable that takes the value 1 if countries have trade agreement, otherwise 0

3.0 Data and Estimation

India's export and import data with all its trading partners has been taken from the Direction of Trade Statistics, IMF². The trade data is in US \$. To bring it to real terms, divided it with the consumer price index (CPI) of the US. The US CPI (for all urban consumers) data is taken from the US Department of Labour (Bureau of labour statistics). Data for GDP is taken from the PENN world table³. Study multiplied CGDP (real per capita GDP in current US \$ i.e. current GDP divided by current price) from PENN by population (taken from the same source) to arrive at the aggregate GDP of each country. The data for distance is taken from Centre D'etudesProspectivesEtD'informationsInternationales.⁴

There are total 216 countries with which India had trade relation from 2015 to 2018. As far as is data is concerned, the countries had minor contribution in India's trade we considered that also because our objective was to know the impact is positive or negative on trade whether it is small or big trade amount. We decided to take 0.00001 values for missing value sin model where we considered log values of trade but this is not required for time which we took. (R Bhattacharya & T Benerjee, 2006).

A panel data of 216 trade partners of India for the year 2015 to 2018 was prepared for analysis. Heteroscedasticity and multicollinearity are the two major problems occur in the panel data. Study did some diagnostic test to check the expected assumptions of Multicollinearity and Heteroscedasticity. The basic equation is having multicollinearity problem with model due to high correlation between its two main independent variables such as time and cost (Appendices). To avoid multicollinearity, we used two separate models for avoiding multicollinearity. This is common statistical nature of the gravity model of estimation. So study used following two models

$$T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln Dist + \beta_4 Time + \beta_5 DummyVariable + \delta$$

&

$$T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln Dist + \beta_4 Cost + \beta_5 DummyVariable + \delta$$

We transform the data in to logarithm to control the heteroscedasticity problem (Appendices). There are three main models can be used to estimate in panel data: pooled model, random effects model (REM) and fixed effects model (FEM). If individual effects do not exist, the pooled model will be the best choice. But if it exists than it must be reflected in the model estimated values and preferred to use the FEM and REM. FEM will be selected if there is a correlation between individual effects and explanatory variables. Meanwhile, the regression model will be able to control over and separate the impact of individual effects from explanatory variables so that we can estimate the net effects of explanatory variables on dependent variable. But if individual effects of the entities are random and not correlated with explanatory variables, REM will be more effective. REM considers the residual of each entity (which is not correlated with explanatory variables) as a new explanatory variable and can estimate the invariant factors such as distance. (Gujarati, 2003)

The main problem of FEM is that the variables which do not change over time cannot be estimated directly in this model. So variables such as distance, time and cost of trade, in few cases, in equation will not be supported in FEM. Best fitted method to use for gravity model in case of India is FGLS with random effect regression (Ashish, 2019).

4.0 Interpretation of Results

India's trade is depending on its total cost and total time rather than partner country's time and cost⁵. Indian government is reducing the time and cost involved in trading across the border⁶ and made the significant impact on trade. Such initiatives make the procedure easy and reduce the trade cost which makes Indian trade more competitive in the global market place. India's trade is not affected by change in partner country's time and Cost. The individual effect of time and cost also proves that the India's trade is depending on its change in time and cost. Table 1 represents the results of Panel EGCL – cross-section random effect as total trade effect, Total cost effect and total time effect which proves the same that India's trade is significant to reduction in time and cost. Total trade is summation of export and import so it is not appropriate to tell that reduction in time and cost will help in boosting export or import so we have decided to understand the impact of change in the time and cost on export and import individually. To check impact of time and cost on India's export and import, we found that India's time involved in documentary and border compliance have significant impact on India's export and Import. (Table 2). India's export is significant with cost involved in documentary and border compliance as well partner country's border compliance while India's import is significant with cost involved in border and documentary compliance of both, India as well as partner countries (Table 3). India's export and import is fully dependent on cost and time. Specifically India's import is more cost sensitive than time. Cost involved in such transaction plays important role in India's trade. Cost involved in documentation is playing important role in India's export.

5.0 Conclusion

Reduction in cost and time involved in export and import transactions have significant impact. Costs involved in import transactions are higher than the export. India's export is more time sensitive and import is more cost sensitive. India is one of the leading importers of the world so if we reduce the cost involved and motivate importers, India can perform better in re-export.

6.0 Scope of Further Study

Current research work considered the limited time interval of 4 years/ Also We considered those countries who had trading across the border index. Also India is trading majorly with neighbouring Asian countries which we considered but weightage was given equal. India's trade with advanced economies are not considered separately and advanced economies may have minimum time involved in such transactions may change India's bilateral trade equation.

Endnotes

1. Develop a simple model of shipping frequency which highlights the trade-off faced by exporters in the presence of such per-shipment costs.
2. The Direction of Trade Statistics (DOTS) presents the value of merchandise exports and imports disaggregated according to a country's primary trading partners. Source : <https://data.imf.org/?sk=9D6028D4-F14A-464C-A2F2-59B2CD424B85>
3. <https://www.rug.nl/ggdc/productivity/pwt>
4. <http://www.cepii.fr/anglaisgraph/bdd/distances.htm>, under file name dist_cepii.xls
5. We calculate the total time spent in documentary and border compliance as total time and follow same procedure in calculating total cost.
6. <https://www.doingbusiness.org/en/data/exploretopics/trading-across-borders>

References

1. Ashish, B. (2019). Predictive Capacity of Gravity Model for India's International Trade. *International Journal of 360 Management Review* .
2. C Hornok, M. K. (2015). Administrative barriers to trade. *Journal of International Economics* .
3. Christian Volpe Martincus, J. C. (2015). Customs. *Journal of International Economics* , 119-137.
4. Eva Molnar, W. L. (2003). TRANSPORT AND TRADE FACILITATION ISSUES IN THE CIS 7, KAZAKHSTAN AND TURKMENISTAN. *Lucerne Conference of the CIS-7 Initiative* .
5. EXIM. (n.d.). Global Trade Scenario and Realignment of India's Exports. *Global Trade Scenario and Realignment of India's Exports* . DELHI, DELHI, INDIA.
6. Fernandes, H. &. (2017). Trade Effects of Customs Reform: Evidence from Albania*. *World Bank Working Paper 7210* .
7. Gujarati, D. N. (2003). *Basic Econometrics*. New York, NY: The McGraw-Hill.
8. HARRIGAN, C. L. (2005). Distance, Time, and Specialization:Lean Retailing in General Equilibrium. *THE AMERICAN ECONOMIC REVIEW* .
9. Hildegunn Kyvik Nordås, E. P. (2006). Logistics and Time as a Trade Barrier. *OECD Trade Policy Papers No. 35* .
10. Hummels& sachur, D. L. (2001). Time as a Trade Barrier. *The American Economic Review* , 2935-2959.
11. Li, W. (2018). Time Barrier to Export for OECD Countries. *Economics Letters - OECD* .
12. Okazaki, Y. (2018). Doing Business and its Customs-related issues:A study on the Trading across Borders indicators . *WCO Research Paper No. 44* .
13. R Bhattacharya & T Benerjee. (2006). Does the gravity model explain INdia's direction of trade ? *IIMA* , 1-18.
14. Simeon Djankov, C. F. (2010). Trading on Time. *The Review of Economics and Statistics* , 166-173.
15. USAID. (2017). *Vietnam Eases Customs Regulations to Enhance Trade*'. Retrieved from <https://www.usaid.gov/results-data/success-stories/levelling-playing-field-commerce-vietnam>
16. Venables, N. L. (2001). Infrastructure, Geographical Disadvantage, Transport Costs, and Trade. *THE WORLD BANK ECONOMIC REVIE* , 451-479.
17. WTO. (2011). *Preferential trade agreements* . WTO.

Table 1: OLS OUTPUT Panel EGLS (Cross – Section random Effects)

Variables	Total Trade Effect		Total Cost Effect		Total Time Effect	
	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value
INTERCEPT	17.37593	0.0050	14.507889	0.2006	7.146667	0.0689
GDP IND	-0.837198	0.0935	0.303617	0.1599	0.071682	0.7842
GDP PARTNER	0.402466	0.0001	0.412007	0.0000	0.409864	0.0000
DIST	-0.872602	0.0024	-0.872914	0.0030	-0.869346	0.0024
TOTAL TIME IND	-0.037055	0.0111	-	-	-0.006180	0.0016
TOTAL TIME PAR.	5.61E-05	0.8903	-	-	9.51E-05	0.8001
TC INDIA	0.009795	0.0326	-0.001750	0.0045	-	-
TC PARTNER	9.00E-06	0.9627	1.41E-05	0.9377	-	-
COM LANG	-0.844809	0.0443	-0.853500	0.0470	-0.851697	0.0425
CONTINGENCY	0.144241	0.8787	0.155073	0.8730	0.150315	0.8741

COLONY	0.229139	0.3259	0.235662	0.3174	0.239172	0.3056
LANDLOCKED	-1.093072	0.0000	-1.100212	0.0000	-1.098977	0.0000
AGREEMENT	1.578231	0.0000	1.581891	0.0000	1.578098	0.0000

Table 2: Impact of Time on Export and Import

Time Effect						
Variables	Effect on Export				Effect on Import	
	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value
INTERCEPT	14.48779	0.0000	17.86080	0.0000	13.86948	0.0040
GDP IND	-0.547625	0.0003	-0.547625	0.0003	-0.322565	0.3048
GDP PARTNER	0.569909	0.0000	0.569909	0.0000	0.689762	0.0000
DIST	-0.412795	0.0518	-0.412795	0.0518	-0.329796	0.1975
INDIA_TIME_BORDER	-	-	-0.050752	0.0000	-0.0003434	0.0073
INDIA_TIME_DOC	-0.052389	0.0000	-	-	-0.067648	0.0205
PARTNER_TIME_BORDER	0.000311	0.6552	0.000311	0.6552	-0.000508	0.3248
PARTNER_TIME_DOC	0.000707	0.3417	0.000707	0.3417	0.000409	0.3714
COM LANG	-0.637795	0.0298	-0.637795	0.0298	-1.257136	0.0006
CONTINGENCY	-0.180529	0.7984	-0.180529	0.7984	-0.376138	0.6597
COLONY	-0.141930	0.0790	-0.141930	0.0790	-0.000261	0.9987
LANDLOCKED	-0.039924	0.6782	-0.039924	0.6782	-0.346680	0.0553
AGREEMENT	0.784630	0.0030	0.784630	0.0030	1.171172	0.0002

Table 3: Impact of cost on Export and Import

Cost Effect				
Variables	Effect on Export		Effect on Import	
	Coefficients	P-value	Coefficients	P-value
INTERCEPT	-17.59443	0.0000	10.50938	0.0097
GDP IND	-0.771472	0.0000	-0.296747	0.3437
GDP PARTNER	0.474242	0.0000	0.717979	0.0000
DIST	-0.378522	0.0791	-0.217374	0.3955
INDIA_COST_BORDER	-0.002778	0.0000	-0.014398	0.0142
INDIA_COST_DOC	-0.016883	0.0000	-0.002035	0.0091
PARTNER_COST_BORDER	-0.000496	0.0496	-0.000607	0.0130
PARTNER_COST_DOC	-0.000293	0.5792	0.000907	0.0458
COM LANG	-0.608116	0.0381	-1.232847	0.0007
CONTINGENCY	-0.282081	0.6895	-0.193844	0.8188
COLONY	-0.092532	0.2254	0.003638	0.9816
LANDLOCKED	-0.034206	0.7070	-0.320435	0.0757
AGREEMENT	0.855127	0.0013	1.198151	0.0001

Appendices: Correlation between independent variables

	GDP_IND	GDP_PART...	DIST	TIME_IND	TIME_PART...	COST_INDIA	COST_PAR...	COLONY	COM_LANG	CONTINGE...
GDP_IND	1.000000	0.026665	1.56E-06	-0.846749	-0.024692	-0.761536	0.003241	-0.006937	2.13E-17	-1.38E-17
GDP_PART...	0.026665	1.000000	0.040591	-0.030115	-0.569576	-0.029126	-0.367735	0.039077	0.046603	-0.148976
DIST	1.56E-06	0.040591	1.000000	-1.23E-06	-0.058331	-1.09E-06	0.156771	0.020832	0.283865	-0.448736
TIME_IND	-0.846749	-0.030115	-1.23E-06	1.000000	0.024241	0.986612	-0.001496	0.010654	-2.11E-17	-3.26E-17
TIME_PART...	-0.024692	-0.569576	-0.058331	0.024241	1.000000	0.023232	0.748452	0.092845	0.006204	0.085582
COST_INDIA	-0.761536	-0.029126	-1.09E-06	0.986612	0.023232	1.000000	-0.001073	0.011262	1.49E-16	4.21E-17
COST_PAR...	0.003241	-0.367735	0.156771	-0.001496	0.748452	-0.001073	1.000000	0.208427	0.179484	-0.006647
COLONY	-0.006937	0.039077	0.020832	0.010654	0.092845	0.011262	0.208427	1.000000	0.629487	0.082784
COM_LANG	2.13E-17	0.046603	0.283865	-2.11E-17	0.006204	1.49E-16	0.179484	0.629487	1.000000	-0.110432
CONTINGE...	-1.38E-17	-0.148976	-0.448736	-3.26E-17	0.085582	4.21E-17	-0.006647	0.082784	-0.110432	1.000000

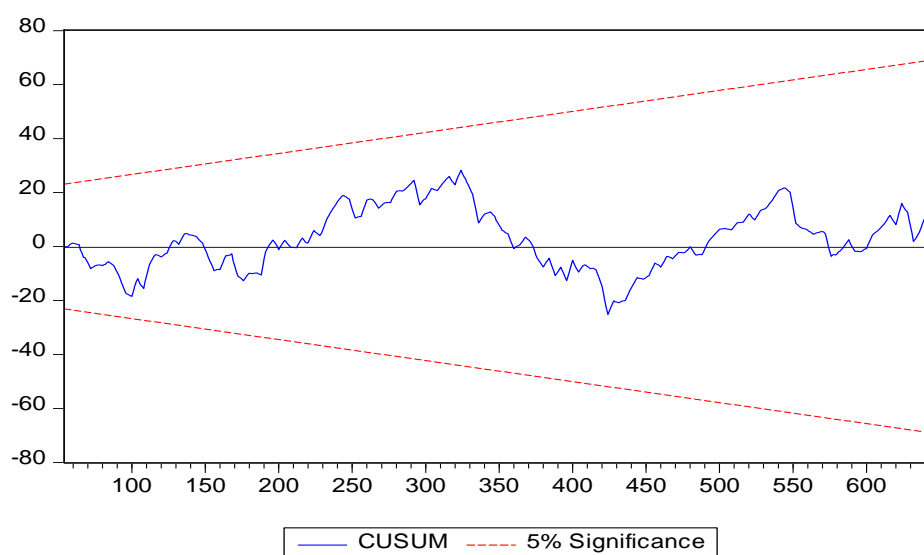
Correlation between India's time involved in documentary and border compliance

	INDIA_EXP...	INDIA_EXP...
INDIA_EXP...	1.000000	1.000000
INDIA_EXP...	1.000000	1.000000

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	8.556644	Prob. F(8,639)	0.0000
Obs*R-squared	62.70047	Prob. Chi-Square(8)	0.0000
Scaled explained SS	68.82081	Prob. Chi-Square(8)	0.0000



A Study on the Perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in the Area of Talent Acquisition and Talent Development

Sajam A. S. and Preeti Nair***

ABSTRACT

Information Technology is playing a vital role in business world. Today, competitive edge in business is achieved through innovative information technology applications. It is imperative for organisations to embrace relevant technology and put to their advantage, to stay ahead of the pack. Organisational success is largely defined by how well technology is deployed and adopted by the organisation. This is very true for industries like the Pharmaceutical Industry where knowledge is the main source of competitive advantage. The aim of this paper is to identify the research gap that can be considered for further research and to understand how other research studies have defined and approached the concept of Human Resources Analytics in organisations.

Keywords: *Information technology; Pharmaceutical industries.*

1.0 Introduction

Information technology and its applications to various business functions have changed the way businesses are run today. Today, competitive edge in business is achieved through innovative information technology applications. It is imperative for organisations to embrace relevant technology and put to their advantage, to stay ahead of the pack. Organisational success is largely defined by how well technology is deployed and adopted by the organisation. This is very true for industries like the Pharmaceutical Industry where knowledge is the main source of competitive advantage. The industry is highly technology intensive and companies learn and build their knowledge stocks which have a direct impact on innovation and company performance. They use advanced data analytics, like machine learning and artificial intelligence in corporate decision making across the entire value chain, from R&D to manufacturing and marketing. Big data and artificial intelligence initiatives have changed the competitive landscape: pharmaceutical companies now face competition from the likes of Apple and Google, whose analytics capabilities are way ahead. (Zeynep Erden, 2018)

It is equally important for Human Resources Departments of these organisations to adopt appropriate information technology applications. With the organizational size, there is a growth found in the human resources management which shows that there is a necessity for generation of human resource reports and employee data should be maintained in organizations to adopt Human Resources Information Systems (Tripathi, 2011).

Human Resources Analytics could help an organization achieve competitive edge in the market place. Organisations need to be efficient in its operations and one of the ways to improve efficiency is by reducing human resource costs and Human Resources Analytics can play an large role in achieving this objective. There have been great strides in the field of human resources for the last two decades in Talent Acquisition, Talent Development and Talent Retention.

**Corresponding author; Department of Human Resources, Parul University, Vadodara, Gujarat, India (E-mail: sajamas@rediffmail.com)*

***Associate Professor, Parul University, Vadodara, Gujarat, India*

The role of Human Resources Analytics would be to collect, retrieve, disseminate the required information from the data available to the human resources department to achieve the overall objective of an organization.

In the overall organisation context, departments like Finance, Supply Chain and Marketing have used analytics in various ways. However, Human Resources Departments has lagged behind in the use of analytics. This is largely due to the lack of awareness and differing viewpoints on the benefits of implementing Human Resources Analytics.

The usage of HRIS systems over last few decades has helped organisations to streamline operations and achieve efficiencies. Embracing the right technology coupled with right level of automation can help organisations to become efficient. Analytics is data driven output to predict the future. However, it is important to understand the nature of data to be taken and the user should be competent to analyse the data for effectively predicting the future.

1.1 Need and relevance of the proposed research work

It is always believed that effective management of human resources depends on refining Human Resource Practices to changing conditions (Rao, 2000). HRM practices help to arrange activities and to deal with the pool of human resources towards the fulfilment of organization objectives (Schuler & Jackson, 1987; Wright & Snell, 1991). HR Analytics is another tool to help achieve organisational objectives. This creates an opportunity for researchers to find the impact and effectiveness of Human Resources Analytics for organizational performance.

The availability of huge data through HRIS makes it possible for analysis to support the human resources related decisions. Some organisations lack in examining previous data and some organisations fail in the forecast of the future. This is because of the lack of appropriate perception Human Resources professionals towards Human Resources Analytics and leads to wastage of cost and time. Therefore there is a need to study and understand the perception of Human Resources Departments towards Human Resources Analytics. The present study makes an attempt to understand the perception of Human Resources Departments towards Human Resources Analytics. This study will also explore the challenges faced by the Human Resources professionals towards the implementation of Human Resources Analytics.

2.0 Review of Literature

The increased competition and the need to constantly evolve have left no room for laxity on the part of organisations. Competition internally and externally, global competitive landscape, changing economy, process and product innovations, efficient and lean operations, etc. are transforming the way industries operate. It is important for the Human Resources Departments of these organisations to respond adequately and appropriately to the organisations needs.

The review of literature lends clarity to the research done on the subject area, the viewpoints of various researchers, research ideas, observations and findings by them. To comprehend and solve the research problem, it is essential to get an understanding about the various methodologies, techniques and tools used by other researchers.

2.1 Objectives of the review of literature

1. To understand how other research studies have defined and approached the concept of Human Resources Analytics in organisations
2. To identify the research gap that can be considered for further research
3. To understand how this project is linked to related works by other researchers

It is important to understand the perception towards Human Resources Analytics in the area of Talent Management with a focused view of Pharmaceutical Sector. Literature were collected on

- Studies related to Human Resources tools and practices
- Studies related to impact of technology on Human Resources practices
- Studies related to emerging trends in Human Resources Management
- Studies related to Human Resources Analytics in Organisations

2.2 Studies related to human resources tools and practices

A study on Human Resources tools and practices (Rakhunde, 2008) underlines that Human Resources tools and practices have become essential in any industry for creating a proper work culture in the organisation to attract and retain talent. The study finds that there would be challenges in implementing these, however for the organisation to succeed these changes should be embraced. Competent and motivated workforces enable the organisations to succeed and how the Human Resources Departments must respond to the needs of the organisation. The study also emphasises the role of Human Resources department and the managers in deploying appropriate tools and practice's within the organisation.

Lam and White (1998) study shows that an organisation's human resource orientation (effective recruitment, market linked compensation and effective development) were related to return on assets, growth in sales and growth in market capitalisation. M. Sareen and Sarika Tomar (2000), in their article "Sustainable competitive advantage gaining through strategic HRM" opine that till about twenty years back, the contribution of human resource management was considered peripheral to the organization's growth and development.

2.3 Studies related to impact of technology on human resources practices

A study by (Dewan, 2017) reports that a significant positive impact of modern technology has been found on time saving in recruitment & selection practices which clearly indicate that modern technology leads to time saving in recruitment & selection practices. The findings also reveal modern technology leads to time saving in training & development practices. The positive relationship between different components of modern technology and transparency factor of training & development practices reveals that the use of modern technology is enhancing transparency in training & development practices. A significant positive relationship has been found in modern technology and time saving in performance appraisal practice and significant positive impact on transparency enhancement in performance appraisal practices.

Tansley and Watson (2000) opines that the organizations have become more complex over a period of time and the organisations must leverage Information Technology to support the capability building within the organisation. Ghosh (2002), opines that the e-HRM can move from basic workforce records to complex systems of sub-systems with distinct purposes. The workforce information system can give important information in a shape which can be coordinated with some other business information. Technology based database system has the capacity to pull out any of the information and present them in the required shape which spares a considerable measure of time and exertion.

2.4 Studies related to emerging trends in human resources management

A study by Shameem (2009) reports that the two factors that have inhibited HR's ability to function as a business partner are its logic and its language. In order to ensure that HR strategies facilitate the achievement of business strategies, a strategic integration between the two is necessary. A key factor that influences the linkage between business strategy and HR strategy is the organisation's quest to attain competitive advantage.

Literature suggests that human resource management can be a source of sustained competitive advantage (Pfeffer 1994; Wright et al. 1994). Huselid (1995) suggested that a proper configuration of human resources practices can help an organisation sustain its competitive advantage and performance. The challenge that HRM has to face relates to the outcomes. What is important, says Ulrich (1998), is not so much what HR does, but its "deliverables", or its contribution to the overall organisational outcomes.

2.5 Studies related to human resources analytics in organisations

A study on Adoption of Human Resources Analytics by Indian Organisations (Malini, 2018) shows that there is adoption of data analytics in Indian organizations. However there is difference in organizations across sectors in usage of basic analytics. The result indicates that the extent of implementation of Human Resources Analytics depends on suitable environmental factors provided by organizations. It can be confirmed that adoption of Human Resources Analytics leads to improved efficiency and improves productivity in organizations. It can help develop a data driven organization, develop existing talent for future leadership or scarce skill roles. There is a moderate positive relationship between challenges for adoption and adoption of Human Resources Analytics. Challenges faced are due to the factors like lack of awareness, lack of transparency as to how most of the key decisions are made in organizations, limited knowledge and complications in procedure. It implies that there organizations do have challenges to be faced on adoption of Human Resource Analytics. The need of dedication towards education has to be seen from top level to lower level employees which are to be addressed by the organizations.

3.0 Scope and Statement of the Problem

There is increased use of Analytics across many organisations. Though Human Resources Departments have also started using analytics, analytics based decision making has still not taken off well. HRIS systems do have voluminous data, but the precise use of this data for decision making purposes is poorly understood. Review of literature concluded that Human Resources Analytics play an important role in an organisation's success.

Several studies pertaining to the adoption of Analytics in organisations have been done; however there has been no study on the perception of Human Resources Departments towards Human Resources Analytics in the Area of Talent Management

In the pharmaceutical industry, on an average, it takes more than 10 years and over \$1 billion to discover, develop and bring to market a new drug. Over the last few years the industry invested more than \$50 billion in R&D per year and since 2000 it has invested more than half-a-trillion dollars in R&D; more than any other industry. The industry is at an interesting crossroads given the longevity of life and the pace of scientific innovation. This requires deep scientific know how and the right talent with these companies. There is a need for improved R&D productivity and efficiency, increasing the success of related clinical programs and reducing time to market for new medicines. This necessitates a responsive human resources department.

This study attempts to find the perception of Human Resources Departments at Sun Pharmaceutical Industries towards Human Resources Analytics.

4.0 Objectives of the Study

- To understand the perception of Human Resources Department at Sun Pharmaceutical Industries towards HR Analytics in Talent Acquisition.

- To understand the perception of Human Resources Department at Sun Pharmaceutical Industries in Talent Development.

5.0 Hypothesis

5.1 Based on objective 1

Hypothesis No 1a

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on age of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on age of the employee.

Hypothesis No 1b

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the gender of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the gender of the employee.

Hypothesis No 1c

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the educational qualification of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent depending on the educational qualification of the employee.

Hypothesis No 1d

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the Level of the employee in management.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent depending on the Level of the employee in management.

5.2 Based on objective 2

Hypothesis No 2a

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on age of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on age of the employee.

Hypothesis No 2b

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the gender of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the gender of the employee.

Hypothesis No 2c

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the educational qualification of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the educational qualification of the employee.

Hypothesis No 2d

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the Level of the employee in management.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the Level of the employee in management.

6.0 Methodology, Tools and Techniques

Research methodology mentions the research approach and research design for this study. This justifies the mode of research design being adopted towards the problem of research and clearly indicates the data collection procedure along with the various techniques of analysis of data collected for interpretation. The main purpose of methodology is to give a connectivity between research problem and the process by which this problem can be solved.

Descriptive Research is adopted to study the perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics. The data collected from the population shall be tested through quantitative techniques and are interpreted through various numbers and graphs and other statistical tools, while others are qualitative.

6.1 Data collection

Sampling methods: Convenience sampling method among Human Resources Department employees at Sun Pharmaceutical Industries has been used for this study. Questionnaires have been administered through google form and 30 responses were received.

7.0 Analysis and Interpretation**7.1 Introduction**

Basis the information collected using the survey, various analysis and interpretation has been made. The analysis was carried out in two stages:

The first stage deals with the analysis of the respondents profile from Sun Pharmaceutical Industries with frequency tables and charts. The second stage deals with the mean scores and total

mean scores on the perception of HR analytics in the area of Talent Acquisition and Talent Development depending on age, gender, qualification and level of the employees within the organization and the hypotheses testing made on perception HR Analytics among HR employees at Sun Pharmaceutical Industries.

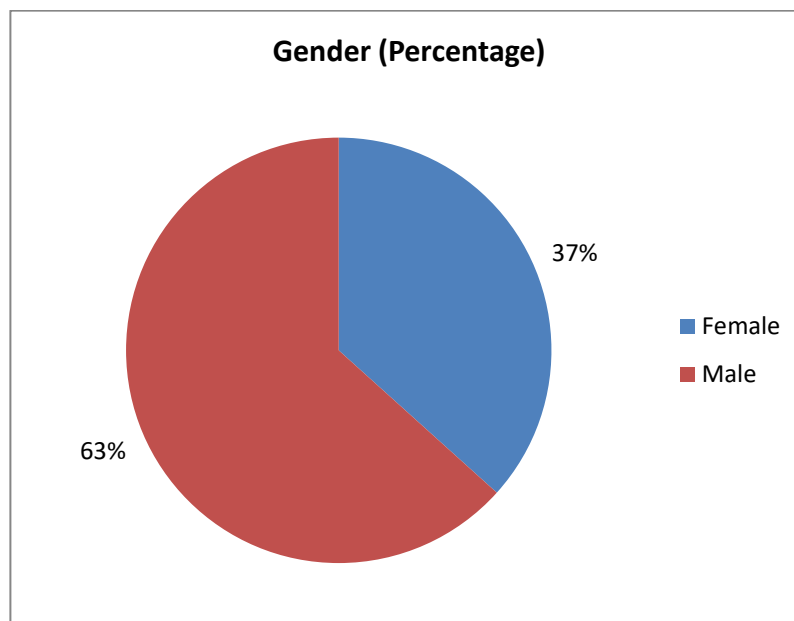
7.2 Part A: Respondents profile

7.2.1 Introduction part A

Based on the data collected from the organization various analysis and interpretations have been made with the support of various statistical tools. Part A of analysis & interpretation gives the complete information on the percentage of participants depending on age, gender, qualification and level in the organisation. The data is furnished in the following table and chart.

Table 7.3.1: Employees Basis their Gender

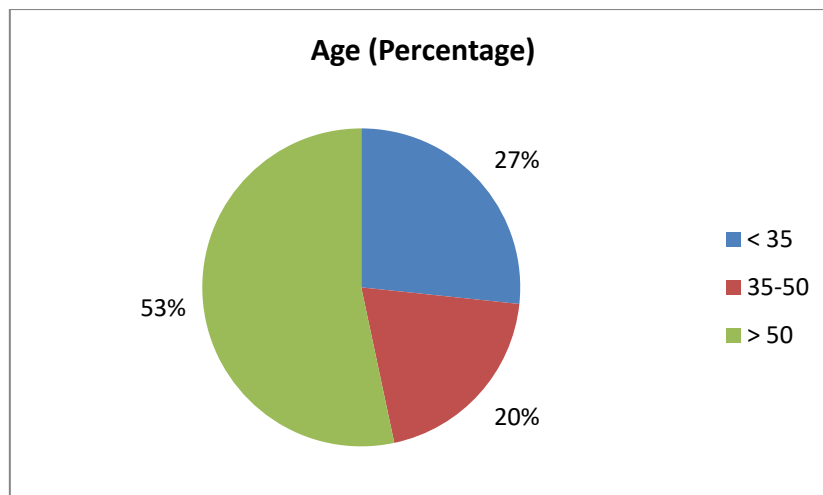
Gender	Number	Gender (Percentage)
Female	11	37%
Male	19	63%
Total	30	100%



The data above shows that of the 30 respondents, 63% were male and 37% were female.

Table 7.3.2: Employees Depending on their Age

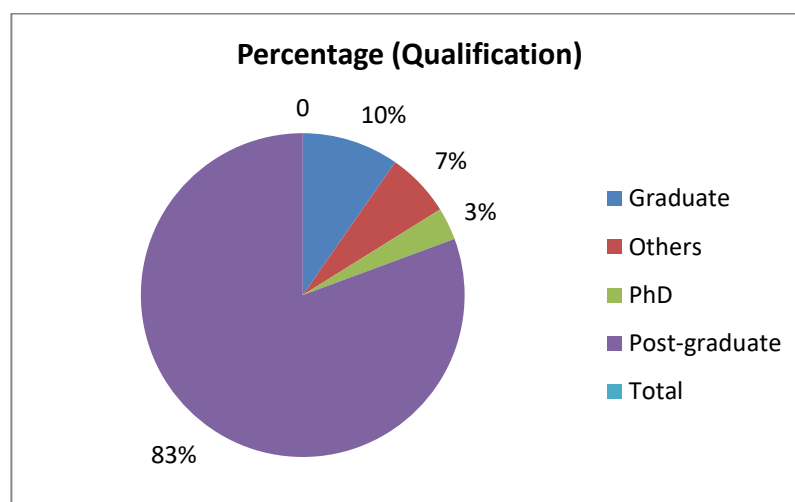
Age	Nos	Age (Percentage)
< 35	8	27%
35-50	6	20%
> 50	16	53%
Total	30	100%



The data above shows that of the 30 respondents, 27% were less than 35 years of age, 20% were between 35 to 50 years of age and 53% were above 50 years of age.

Table 7.3.3: Employees Depending on their Qualification

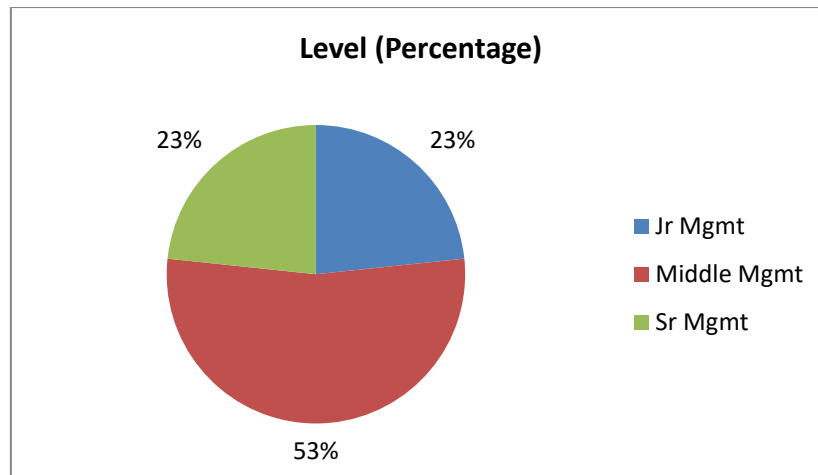
Qualification	Nos	Percentage (Qualification)
Graduate	2	10%
Others	2	7%
PhD	1	3%
Post-graduate	25	83%
Total	30	100%



The data above shows that of the 30 respondents, 86% were post graduate and above, 10% were graduates.

Table 7.3.4: Employees Depending on their Level Management

Level in Organization	Nos	Level (Percentage)
Jr Mgmt	7	23%
Middle Mgmt	16	53%
Sr Mgmt	7	23%
Total	30	100%



The data above shows that of the 30 respondents, 53% belonged to the Senior Management and 23% each belonged to the Middle and Junior Management.

7.3 Part B

Research hypothesis analysis

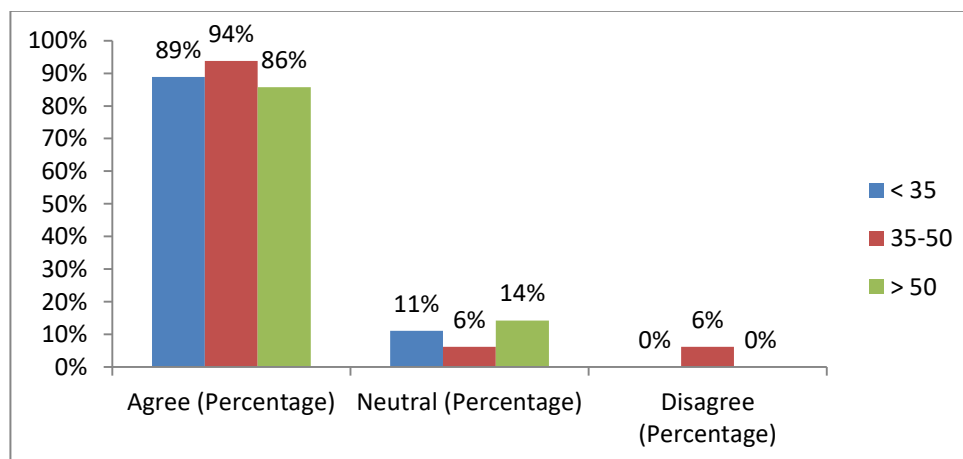
Hypothesis No 1a

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on age of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on age of the employee.

Table 7.3.5: Employees Perception on HR Analytics in Talent Acquisition Depending on their Age

Age	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
< 35	8	89%	1	11%	0	0%
35-50	15	94%	1	6%	1	6%
> 50	6	86%	1	14%	0	0%



Inference

From the above Table it is clear that our **null hypothesis is accepted**. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on age of the employee.

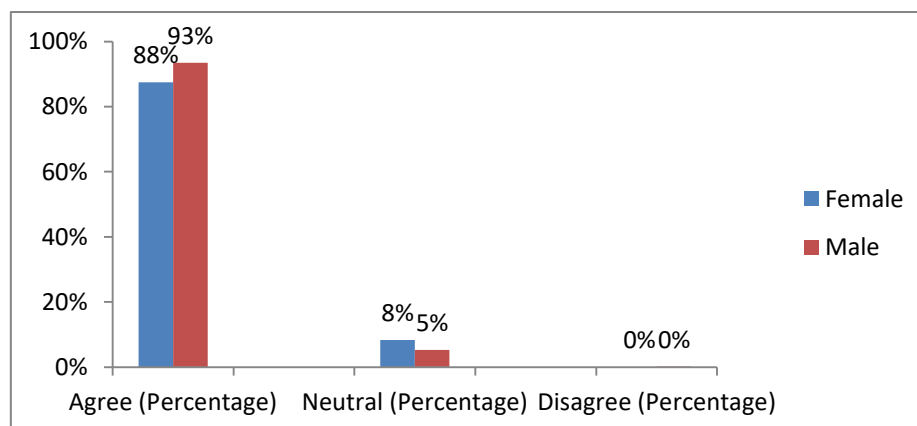
Hypothesis No 1b

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the gender of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the gender of the employee.

Table 7.3.6: Employees Perception on HR Analytics in Talent Acquisition Depending on their Gender

Gender	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree (Percentage)
Female	11	88%	1	8%	0%
Male	18	93%	1	5%	3%



Inference

From the above Table it is clear that our **null hypothesis is accepted**. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the gender of the employee.

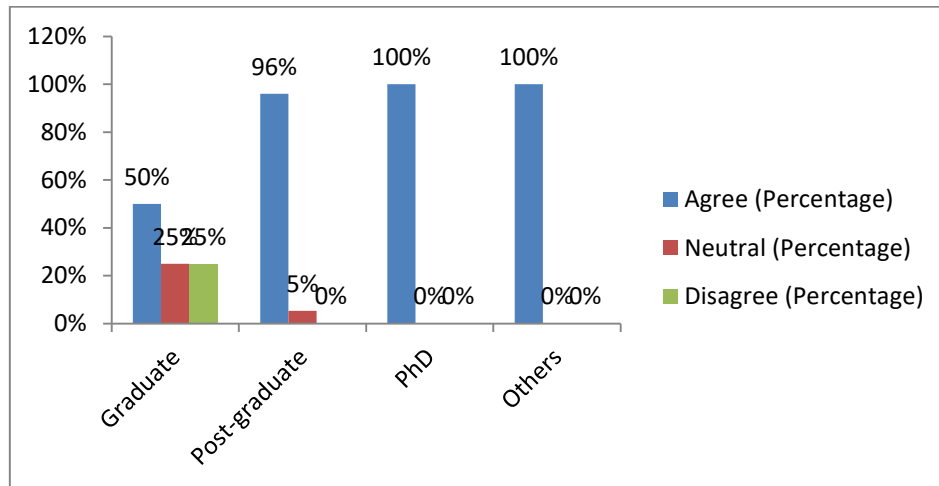
Hypothesis No 1c

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the educational qualification of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent depending on the educational qualification of the employee.

Table 7.3.7: Employees Perception on HR Analytics in Talent Acquisition Depending on their Qualification

Qualification	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
Graduate	2	50%	1	25%	1	25%
Post-graduate	24	96%	1	5%	0	0%
PhD	1	100%	0	0%	0	0%
Others	3	100%	0	0%	0	0%



Inference

From the above Table it is clear that our null hypothesis is accepted. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the educational qualification of the employee.

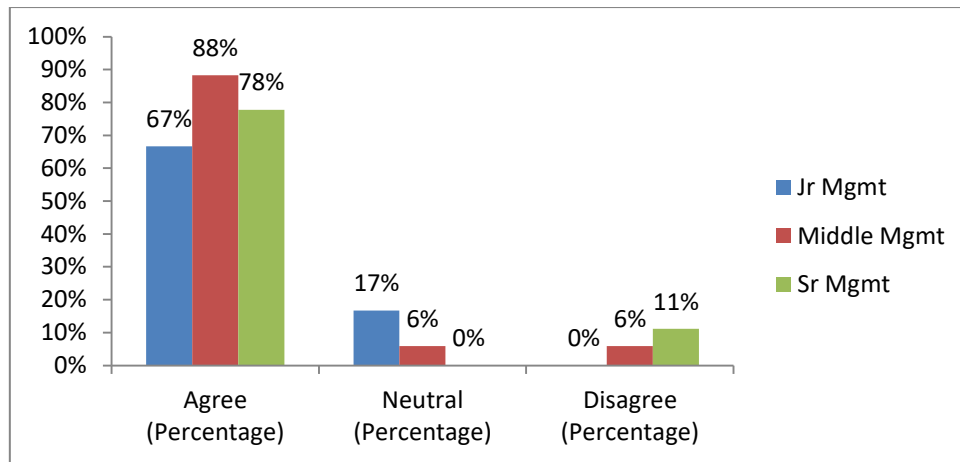
Hypothesis No 1d

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the Level of the employee in management.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent depending on the Level of the employee in management.

Table 7.3.8: Employees Perception on HR Analytics in Talent Acquisition Depending on their Qualification

Level in organization	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
Jr Mgmt	6	67%	2	17%	0	0%
Middle Mgmt	15	88%	1	6%	1	6%
Sr Mgmt	7	78%	0	0%	1	11%



Inference

From the above Table it is clear that our **null hypothesis is accepted**. We hence accept the hypothesis that **there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the Level of the employee in management**.

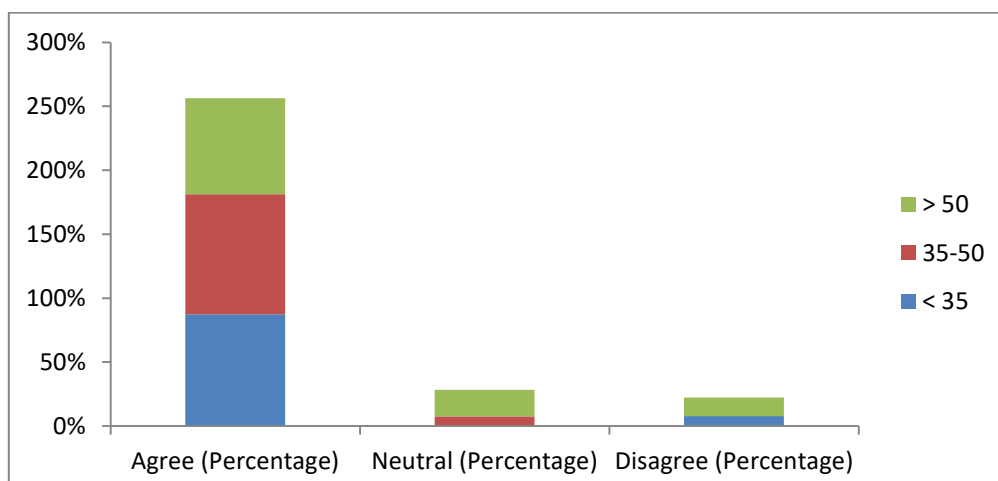
Hypothesis No 2a

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on age of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on age of the employee.

Table 7.3.9: Employees Perception on HR Analytics in Talent Development Depending on their Age

Age	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
< 35	7	88%		0%	1	8%
35-50	15	94%	1	8%	0	0%
> 50	5	75%	1	21%	1	15%



Inference

From the above Table it is clear that our null hypothesis is accepted. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on age of the employee.

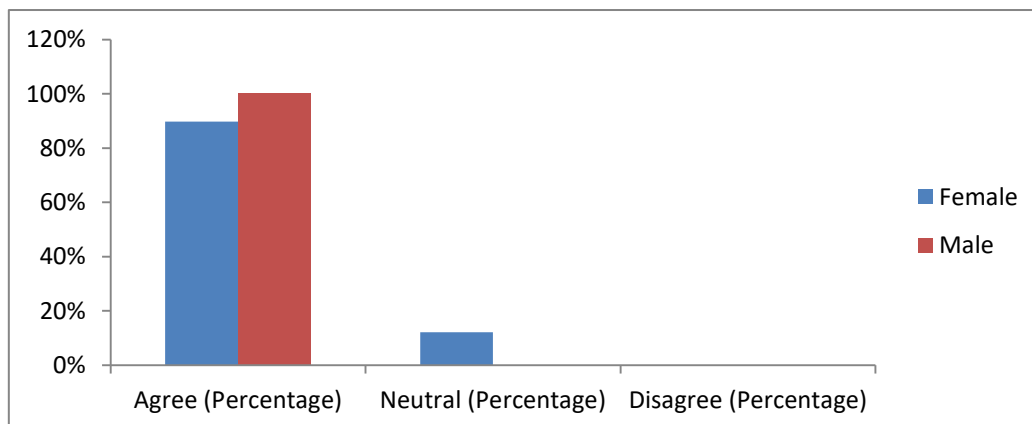
Hypothesis No 2b

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the gender of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the gender of the employee.

Table 7.3.10: Employees Perception on HR Analytics in Talent Development Depending on their Gender

Gender	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
Female	10	90%	1	12%	0	0%
Male	19	100%		0%	0	0%



Inference

From the above Table it is clear that our null hypothesis is accepted. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the gender of the employee.

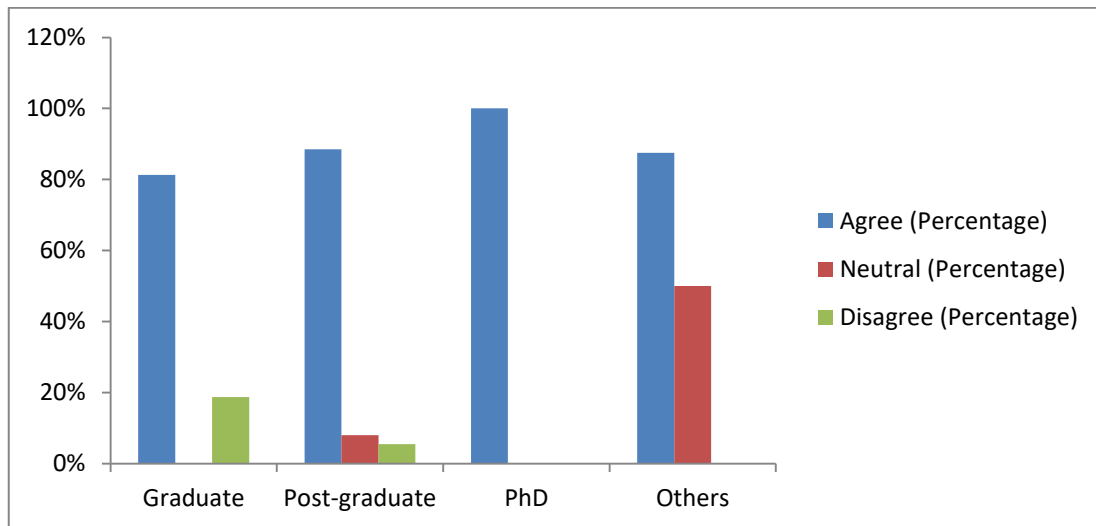
Hypothesis No 2c

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the educational qualification of the employee.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the educational qualification of the employee.

Table 7.3.11: Employees Perception on HR Analytics in Talent Development Depending on their Qualification

Qualification	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
Graduate	2	81%	0	0%	0	19%
Post-graduate	22	89%	2	8%	1	6%
PhD	1	100%	0	0%	0	0%
Others	2	88%	1	50%	0	0%



Inference

From the above Table it is clear that our null hypothesis is accepted. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the educational qualification of the employee.

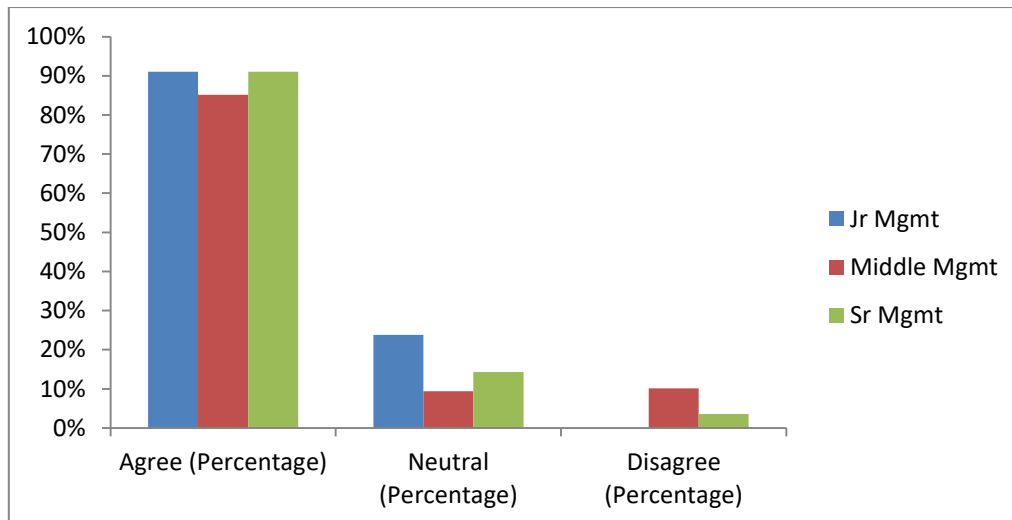
Hypothesis No 2d

Ho: There is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the Level of the employee in management.

H1: There is difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the Level of the employee in management.

Table 7.3.12: Employees Perception on HR Analytics in Talent Development Depending on their Level of the Employee in Management

Level in organization	Agree	Agree (Percentage)	Neutral	Neutral (Percentage)	Disagree	Disagree (Percentage)
Jr Mgmt	6	91%	2	24%	0	0%
Middle Mgmt	14	85%	2	9%	2	10%
Sr Mgmt	6	91%	1	14%	0	4%



Inference

From the above Table it is clear that our null hypothesis is accepted. We hence accept the hypothesis that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the Level of the employee in management.

8.0 Findings and Conclusions

8.1 Findings from the study based on objectives

Objective 1: To understand the perception of Human Resources Department at Sun Pharmaceutical Industries towards HR Analytics in Talent Acquisition

A research hypothesis was framed to understand the difference in perception of HR Analytics towards Talent Acquisition among HR professionals at Sun Pharmaceutical Industries on the basis of age, gender, qualification and level in management. The data analysis indicates that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Acquisition depending on the age, gender, qualification and level of the employee in management.

To understand the perception of Human Resources Department at Sun Pharmaceutical Industries in Talent Development

A research hypothesis was framed to understand the difference in perception of HR Analytics towards Talent Development among HR professionals at Sun Pharmaceutical Industries on the basis of age, gender, qualification and level in management. The data analysis indicates that there is no difference in perception of Human Resources Department at Sun Pharmaceutical Industries towards Human Resources Analytics in Talent Development depending on the age, gender, qualification and level of the employee in management.

Reference

1. <https://www.vlerick.com/en/about-vlerick/news/technology-is-set-to-transform-the-pharmaceutical-industry>
2. Shameem A (2009) A comparative study of emerging trends in strategic human resource management in the different sub sectors of it industry

3. Mahadik Ramchandra (A study of human resource information systems processes and performance to identify effectiveness of it in large scale organizations in Western India
4. Malini (2018) Adoption of HR Analytics in Indian Corporations
5. Rakhunde (2008) An evaluatory study of human resource tools and practices in industry
6. Bashir (2011) Impact of human resource management on customer services in banking sector
7. Dewan (2017) Impact of modern technology on selected human resource practices A study of public sector banks
8. Joseph (2011) Innovative Human Resource practices and selected HR outcomes in software firms in Kerala
9. Vasagam (2012) Recruitment and retention of Human Resources

A Study on Trend of Voluntary Delisting of Companies in India with focus on financial performance of Delisted companies

*Dipak S. Gaywala**

ABSTRACT

Delisting of companies in India happens when listed companies delist their shares from all stock exchanges in India. As a measure of corporate restructuring, it is different from delisting of shares where shares are delisted from trading in one or more stock exchanges but continue their listing in at least one of the stock exchanges. Delisting of Company can be either involuntary or voluntary depending upon circumstances underlying such occurrence. The reasons for involuntary delisting are forced withdrawal from trading on account of non-payment of listing fees, non-adherence to stock exchange regulations. The reasons for voluntary delisting are cost of compliance of listing with stock exchanges, low trade volume for the shares and low market price as compared to true value of shares. Literature Review has brought out that delisting is less studied topic in corporate finance and offers promising field for researchers. The trend of voluntary delisting in India for the period of five years from 2010 through 2014 is taken up for study in relation to set objectives. The selected five listed companies which voluntarily delist shares from the stock exchanges have been identified for this purpose. Secondary data for the five years 2010 through 2014 from BSE are drawn for the descriptive analysis of the study. Legal compliances for voluntary delisting of shares by companies are also covered in the study. The findings and conclusions of the study will help research in this area for the other companies opting for this mode of corporate restructuring in India.

Keywords: *Corporate restructuring; Delisting; National stock exchange; Bombay stock exchange; Security exchange board of India; Earnings per share.*

1.0 Introduction

Delisting of a Company as a tool of corporate restructuring is less explored field of study in corporate finance. Delisting of a Company is different from Delisting of shares. When a company delist shares from one stock exchange but continues trading in one or more other stock exchanges, then, it is termed as Delisting of shares. Delisting of a Company means Company gets delisted from all stock exchanges and shareholders forego their precious right of trading in secondary market.

Delisting of a Company can be either voluntary or involuntary. Involuntary delisting of a Company happens on account of non-payment of delisting fees and non-compliance with stock exchange regulations. This is also called as forced exit from trading of shares of a company from stock exchanges. Voluntary delisting happens on account of reasons such as onerous cost of compliances for listing, low trade volume of shares, market value of shares not reflecting its true value.

SEBI (2009) issued regulations for voluntary delisting of shares. Under these regulations, a Company may delist its equity shares from all the stock exchanges where they are listed or from only recognized stock exchange where they are listed provided all public shareholders holding equity shares of the companies which are sought to be delisted are given an exit opportunity.

**Associate professor, Faculty of management studies, Parul University, Vadodara, Gujarat, India (E-mail: dipak.gaywala@paruluniversity.ac.in)*

SEBI (2009) also made detailed provisions when exit opportunity to public shareholders becomes obligatory for companies choosing option of voluntary delisting of shares.

The study focuses on voluntary delisting of shares of a Company for the years 2010 through 2014. The tables provide inputs for the study.

Table 1: Number of Companies that have Delisted over the Years due to Various Reasons

Reason	2010	2011	2012	2013	2014
Amalgamation	22	10	10	15	2
SEBI Delisting Norms	7	5	1	0	0
Voluntary	1	1	11	10	15
Winding up	1	11	0	0	0
Demerger	0	2	1	0	0

Source: www.bseindia.com

Table 2: List of Companies Opting for Voluntary Delisting over the Years under SEBI (Delisting of Equity Shares Regulations, 2009)

Year	Name of the Company
2010	HSBC InvestDirect India Limited
	Kanohar Electricals Limited
	Micro Inks Limited
	Sulzer India Limited
2011	Atlas Copco India Limited
	Binani Cement Limited
	SCIL Ventures Limited
	Sparsh BPO Services Limited
2012	Alfa Laval(India)
	Carol Info Services
	Chemplast Scanner
	Exedy India
2013	India Securities
	Jhaveri Flexo India
	Lotte India Corporation Limited
	Nirma
2014	Nidhi Polyster
	Patni Computer Systems
	UTV Software Communications
	Amrit Banaspati Company Limited
2015	Jolly Board Limited
	Chettinad Cement Corporation Limited
	FICS Consultancy Services Limited
	Kampani Consultants Limited
2016	Mangalam Ventures Limited
	Ratanbali Capital Markets Limited

Source: <https://www.moneycontrol.com/stocks/marketinfo/delisting/index.php>

2.0 Literature Review

Constant Djama, Isabelle Martinez, et.al (2012) viewed decision to delist as less studied in

corporate finance literature as compared to decision to go public despite its importance in the life of the firm. The distinction between involuntary and voluntary delisting is brought out. The incentives for voluntary delisting and strategies to avoid delisting are brought out.

Douglas Muyeche (2014) cited reasons for voluntary delisting such as cost of compliance for getting/continuing with security exchanges, shrinking volume of trade in stock exchange and market price is failing to reflect the true value of the company's equity.

Isabelle Martinez, Stephanie Serve, et.al (2016) provides reasons for delisting and consequences thereof in the US, UK and Continental Europe. The phenomenon of Delisting is characterized by a great heterogeneity and relatively unexplored in the international context. Three areas of contemporary research highlighted by the authors are: (a) Involuntary listing and economic consequences thereof, (b) Types of firms opting voluntary listing and impact of voluntary delisting on shareholders wealth and (c) Impact of involuntary and voluntary delisting on corporate governance of the firms.

Karishma Khadiwala et.al,(2015) in their project report, a Study on Trends in Delisting of Shares in India and its reasons, find that Delisting has become a phenomenon of paramount importance globally and due to dramatic market shifts in recent years, many public companies are facing delisting from NASDAQ and the NYSE.

The authors classified Delisting in India in types such as Voluntary Delisting and Compulsory Delisting. Voluntary Delisting is further classified in to three types viz. Voluntary Delisting from all stock exchanges, Voluntary Delisting from few stock exchanges subject to listing at least at one stock exchange having nationwide trading terminals and Voluntary Delisting for Small Companies. The authors of the project also cited reasons for Compulsory Delisting and Voluntary Delisting in India. Legal framework of Delisting is also brought out.

The authors compared trends of Delisting for the period 2001 through 2007 with trends of Delisting for the period 2008 through 2014. Except for 2004, which saw a huge spurt 977 companies getting delisted in the year of which 876 companies were compulsorily delisted, there is general decline in number of companies getting delisted for both periods. The authors evaluated existing Model and suggested propped model of delisting bring out concept of pink shares to help small companies in the process of listing of their shares and to support delisted companies to relist their shares.

Sun Min Kang (2017) made an empirical research on firms in Korea opting route of voluntary listing. Her findings are summarized as follows. First, firms with higher growth voluntarily delist more frequently. Second, firms with high largest shareholder ratios voluntarily delist more frequently than those with low largest shareholder ratios. Third, firms with higher liquidity more frequently delist voluntarily compared with firms with lower liquidity. Fourth, firms in non-high-tech industries more frequently voluntarily delist than those in high-tech industries.

Tiziano Onesti, Mauro Romano and et.al (2014), the studied the effects of delisting on the dynamics and value creation of delisted companies represents a very promising research opportunity for international research scholars. The authors find that traditional classification of delisting viz. voluntary delisting and involuntary delisting considered for research may result in to conceptual fallacy and therefore there is a need to relook this traditional classification for future research purpose.

The voluntary delisting is viewed by authors from three different profiles concerning subject issuing will to proceed for delisting, strategic context in which delisting falls and the operating conditions of the delisted company.

The voluntary delisting on the basis of these profiles have been identified for the purpose of the research are further classified by the authors in to eight categories such as Pre-Sale Delisting (in balanced operating conditions), Hidden potential Delisting (in balanced operating conditions), Control strengthening Delisting (in balanced operating conditions), Takeover Delisting (in balanced operating

conditions), Pre-Sale Delisting(in presence of crisis/operating distress), Hidden potential Delisting (in presence of crisis/operating distress),Control strengthening Delisting(in presence of crisis/operating distress), Takeover Delisting (in presence of crises/ operating conditions).

3.0 Objectives of the Study

- To examine trend of promoters role in voluntary delisting for selected companies in India.
- To measure impact on financial performance of selected companies opting for voluntary delisting.

4.0 Research Plan

- Universe of the Study: 27 Companies
- Sample Size: 5 Companies
- Sampling Method: Convenience Sampling.

Table: 3: The Companies Taken up for Study

Name of the Company	Year of Delisting	Industry Profile
Sulzer India Limited	2010	Manufacturing- Machine
Binani Cement Limited	2011	Manufacturing- Cement
Alfa Laval(India)	2012	Manufacturing- Equipments
Nirma	2012	Manufacturing - Consumer and Industrial Products
Mangalam Ventures Limited	2013	Manufacturing- Textiles

5.0 Research Methodology

5.1 Data collection

Secondary data from Published Accounts of the companies, SEBI, BSE and NSE Reports and Websites.

5.2 Research methods

Descriptive Study – Use of Tables and Ratios

5.3 Hypothesis

H_0 = There is no change in financial performance post delisting for the selected companies.

H_a = There is change in financial performance post delisting for the selected companies.

6.0 Analysis

- The reasons for delisting for selected companies for selected companies are given in tabular format below.

Table 4: Promoters Role in Delisting

Name of Company	Reasons for Delisting
Sulzer India Limited	Parent Company Promoters taking over balance stake of the Company from Public.
Binani Cement Limited	Parent Company Promoters taking over balance stake of the Company from Public
Alfa Laval(India)	Parent Company Promoters taking over balance stake of the Company from Public
Nirma	Promoters of the Company taking over balance stake of the Company from Public.
Mangalam Ventures Limited	Promoters of the Company taking over balance stake of the Company from Public

Source: SEBI official Website

- The market reaction to news of Delisting for the selected Companies is brought out below:

Table 5: Market Reaction to the News of Delisting

Name of Company	Pre Delisting Market Price Per Share	Exit Option Price offered to Public Shareholders per Share	Post delisting Announcement Market Price Per Share	Date of Announcement of Delisting
Sulzer India Limited	Rs.1028.87	Rs.1180	RS. 1234.65	29 June 2010
Binani Cement Limited	82.00	Rs.90	Rs.95.65	26 November 2010
Alfa Laval(India)	Rs.2821	Rs.4000	Rs.3385	1 February 2012
Nirma	Rs.224	Rs.260	Rs.264.85	23 November 2011
Mangalam Ventures Limited	Rs.52	Rs.60	Rs.55	19 January 2013

Source: BSE and NSE Reports/Websites

- The change in Earnings per Share for the selected companies where promoters of the company delisted shares is brought out in table given below:

Name of the Company	EPS for the Year of Delisting	EPS for 2018-2019	EPS Growth in Percentage
Nirma	10.93	42.54	289.70%
Mangalam Ventures Limited	2.43	84.53	3375%

Source: Audited Accounts of the Companies

7.0 Findings

- The exit option offered to non-promoters including public by all sample companies is fairly representative of their market value for the relevant period.
- The market reaction to news of public announcement of delisting is found generally positive except for Mangalam Ventures Limited.
- As market quotation is not feasible for delisted companies, EPS is considered appropriate measure to evaluate financial performance of sample companies for the relevant period.
- For companies delisted where promoters of parent company purchased shares of non-promoters including public offering them exit option, the consolidated accounts of the parent companies fail to provide adequate information on EPS of their Indian Companies. As a consequence, hypothesis is not tested. These sample companies are Sulzer India Limited, Binani Cement Limited and Alfa Laval (India).
- For companies delisted where promoters of the same companies purchased shares of non-promoters including public offering them exit option, the EPS shows improvement post delisting of shares. As a consequence, H_0 is rejected for these companies. These sample companies are Nirma and Mangalam Ventures Limited.
- Nirma and Mangalam Ventures focused on business development and reduction of cost of compliances as their corporate strategy to improve financial performance for the benefit of promoter shareholders' wealth in the competitive market scenario.

8.0 Limitation of Study

Non-availability of adequate data in public domain for companies delisted where non promoters shares are taken by promoters of parent companies.

9.0 Conclusion

Delisting is a measure of corporate restructuring that can be adopted by promoters of sound financial background having confidence in their future business prospects as Delisting of shares requires promoters to acquire non-promoters stake in the company by offering them exit option from their own funds.

References

1. Constant Djama, Isabelle Martinez, et.al (2012), what do we know about delisting? A survey of the literature. Commutabilities et innovation, May 2012, Grenoble, France pp.cd-rom. hal – 00937899.
2. Douglas Muyeche (2014), THE REASONS BEHIND VOLUNTARY DELISTING, Global Journal of Interdisciplinary Social Science, January-February 2014, ISSN: 2319-8834, www.gifre.org.
3. Isabelle Martinez, Stephanie Serve, et.al (2016), Reasons for delisting and consequences: A literature review and research agenda, Journal of Economic Surveys, 7 July 2016, <https://onlinelibrary.wiley.com/doi/abs/10.1111/joes.12170>
4. Karishma Khadiwala et.al (2015), a Study on Trends in Delisting of Shares in India and its reasons, Research Project Report of R. A. Podar College of Commerce and Economics, October 2015, an initiative supported by the P. J. Foundation Bombay Stock Exchange Investors Protection Fund.
5. Sun Min Kang(2017),Voluntary Delisting in Korea: Causes and Impact on Company Performance(2017), The Journal of Applied Business Research, March-April(2017), Volume 33, Number 2, ISSN:0892-7626(print), ISSN: 2157-8834(online).
6. Tiziano Onesti, Mauro Romano and et.al (2014), On Delisting of Corporations: a Three-Dimensional Classification Framework for Voluntary Delistings, *World Review of Business Research Vol. 4. No.1.March 2014 Issue. Pp. 1 – 18*

The Role of Women's Leadership Effectiveness towards Organizational Performance: A Case of Ethio Telecom in Addis Ababa

*Aselefech Hailgiorgis Belete**

ABSTRACT

Leadership is crucial for the success of the organization since it's difficult without effective leaders to achieve the organizational goals. However, the practice of effective leadership on improving the organizational performance in public institution is questionable. Therefore, this study aimed at investigating the role of women's leadership effectiveness towards the improvement of organizational performance. The study also considers the mediating role of leadership style, employee's commitment and individual's performance. To meet this objective, samples of 125 small firms were selected from employees of Ethio telecom in Addis Ababa. The ordinary least square regression combines the variables of women's leadership effectiveness with the mediating variables such as leadership style, employee's commitment, and individuals' performance and links to the organizational performance in order to establish a model. Besides, the studies assess the current practice about effectiveness of women's leadership and performances. Accordingly, the finding of the study states that the current effectiveness of women's leadership is not sufficient and also moderate organizational performances were reported. Regarding the ordinary least square regression results, it's found that the women's leadership effectiveness has a contribution for the better performance of the organizations. Among the mediators, the leadership style and individuals commitment positively mediates the relationship. Therefore, the leaders from Ethio telecom should try to adopt the transformational leadership and tend to improve the individuals performance.

Keywords: *Women; Leadership; Performance; Style; Organizational.*

1.0 Introduction

Leadership is a combination of personal traits and the ability to think and act as a leader in directing the activities of others for the good of all (Iussier, 2005). The leadership role is an extremely crucial characteristic of groups as the leader exerts influence over the other member of the group (Ivancevich 2005). The most fundamental role of leader is to define the organizational goal formulates plans and organizes to achieve the goals through the execution of plans (Iussier, 2005). However, developing appropriate leadership behavior to manage turbulent and uncertain environment is not very easy (İşcan et al., 2014). This indicates that leadership involves more than wielding power one exercising authority and his exhibited on deferent levels (Prabu, 2012). Leadership behaviour in general and transformational leadership in particular has long been considered an important individual factor that influences performance in the workplace (Keegan and Den Hartog, 2004; Yang et al., 2010).

Leadership is important in organization because without effective leaders it will be difficult for an organization to achieve their goals (Prabu, 2012). Leaders use influence to motivate followers and arrange the work environment so that they do the job more effectively (Steven, 2005).

**Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: aststmaa@gmail.com)*

However there is no single formal leader even in a formal group. Such a condition may exist in case of autonomous work groups self-managed teams (Ivancevich 2005). The selection of the leader depends on the personal characteristics and social and cultural factors (Bolden, 2004). Some studies found that male and female leaders do not differ in their levels of task oriented or people oriented leadership, while other studies indicate that women tend to adopt a more demonstrative leadership style (Steven, 2005).

Organizational performance is the transformation of inputs into outputs for achieving certain outcomes (Chen, et al. 2006). To meet the needs of the highly competitive markets, organizations should increase their performance (Arslan and Staub, 2013). A large portion of the everyday discourse about leadership and leaders takes it for granted that leaders make a big difference in terms of performance (Knies *et al.*, 2016). Practically, managers all over the world are recognizing the essential role that effective leadership is important in organizational performance (Prabu, 2012). The role of leadership is critically important for achieving the performance of organizations (Peterson et al., 2003) and a company's success is attributable to organizational performance (Bass and Riggio, 2006; Drucker, 2007).

Over the past 30 years, researchers have tried to establish the link between leadership and performance (Knies et al., 2016). From previous studies, it has been demonstrated that an appropriate leadership style can influence the success and the economic growth of both the organizations and employees (Madanchian, 2016). Some studies have suggested that leaders motivate and help their employees by using effective leadership styles to be competitive (Luftman et al., 2004). Particularly, transformational leadership has been shown to have a positive relation, commitment, self-sacrifice and high performance from others (Lussier, 2005). A number of studies on leadership styles (Kouzes & Posner, 2007; Yukl, 2009) propose that transformational leadership have a positive effect on the organizational performance. Apart from transactional leadership, it is strongly predicted that transformational leaders will have significant contribution to improve organizational performance (İşcan et al., 2014).

Even though, the above practices were significantly contributed to the performance of the organizations, Public sector organizations in Ethiopia are being challenged to increase their performance and efficiency, modify their attitudes regarding management and leadership, and provide better service to internal clients and the public (Paulos, 2000). Theoretically, the academic literature finds it hard to find reliable evidence for a clear association, because both main concepts (leadership and performance) are broad and difficult to define and because of many confounding variables that make it difficult to demonstrate clear cause and effect (Knies et al., 2016). Wang et al. (2005) studied the effect of transformational leadership on individual-level, team-level, and organizational-level performance. However they didn't consider the mediating role of the leadership style and employees commitment. Scholars have used different conceptualizations of the independent variable, such as transactional, transformational, and laissez-faire leadership, and/or have included several related concepts such as trust in leadership, leader-member exchange, and leadership structure (Knies et al., 2016). Still, there is a lack in testing the mediating effect.

Major areas to be considered to have an important impact on setting new courses and leading organizations to high performance by leaders are the support for performance (Prabu, 2012). Even though, many studies were conducted on the subject matter, the leadership is taken as an independent variables in the relation with the organizational performance. Besides, the study considers the effectiveness of the women's leadership in different contexts. As a result, the study contributes by providing the direct and indirect role of leadership on the organizational performance. In line with this the study answered the following research questions, (1) What is the current practices of leadership in Ethio telecom (2) What is the direct role of effective leadership on organizational performance? (3) Is the leadership style moderates the relationship between women's leadership effectiveness and organizational performance?

2.0 Methodology

2.1 Research framework and design

Positivist researchers essentially employ quantitative approach and attempt to identify causal explanation and fundamental laws to explain human behavior. Post positivist researchers on the other hand strongly believe that reality is not a rigid thing that exists in a vacuum. The research questions and purposes in this particular research leads us to qualitative approach in addition to quantitative approach due to the different reasons. To overcome the problems associated with using either of the qualitative or quantitative research approach, mixed research approach is employed. This is because, in such kind of study, the researchers applied mixed research approach, because employing mixed approach used to neutralize the biases of applying any of a single approach (Creswell, 2003). To cover the different aspects descriptive and explanatory research designs were employed. In the first case, we developed new concept by examining existing literature and observing current practices. The study also employs explanatory study in order to determine the influence of variables on organizational performance.

2.2 Sampling design and data collection instrument

The target population of this study is employees of Ethio telecom offices in Addis Ababa. All the employees working in Ethio telecom were considered as a study population and a total of 126 respondents has been selected and responded. Among the 126 selected respondents, only 92 of the questionnaire were returned. Some of the returned questionnaires were not appropriately filled and not used for analysis. Accordingly, a total of 79 questionnaire were validated and used for analysis.

To address the problems raised both primary sources of data were needed. The primary data source were obtained by using questionnaire and interview. The researchers administer survey method to collect data from the target group of small enterprises and high-tech firms. The questionnaire has three parts, from which some of them are adopted from previous studies. For instance, DeClerk (2008) and Scott & Davis (2015) states that there is no general agreement in the literature on the standards to be used in measuring the organizational performance. To provide some clarity, Richard et al. (2009) developed a multidimensional conceptualization of organizational performance, consisting of three specific areas: financial performance, product market performance and shareholder return. The objective performance measures are more reliable than subjective ones (O'Toole & Meier, 2014). Conversely Brewer (2008) argue that this will lead to a neglect of important performance dimensions (Knies et al., 2016). By taking this measures in to account, performance is measured by Sales growth, Share growth, and Employee growth rated on 7 point likert scale adopted from Kosa et al., (2018; 2019) for this study. The other factors such as women's leadership effectiveness, Leadership Style, individual performance and employee commitment were developed for this study and their reliability is tested using the Cronbach's alpha.

2.3 Data and analysis

Data analysis for this study will be conducted in three stages. Firstly, the data collected using different methods were organized and displayed to create order and sensible structure. Secondly, the analysis was proceeded with the generation of key themes that was emerged from the questionnaire and interview responses. Thirdly, the empirical information collected, coded and displayed was carefully connected to the theoretical propositions and the larger body of knowledge addressing the research problem. By connecting the meanings from qualitative and quantitative information, logical analysis were be made. The analysis technique that will be employed in this study will be descriptive statistics and hierarchical regression analysis. Descriptive statistics result will be presented using mean, standard deviation, and correlation analysis.

2.4 Model Specification

To test the hypotheses, hierarchical regression analysis was employed in order to capture the complex research models with regard to testing the influence of women's effective leadership on organizational performance. Accordingly the first model is given as follows;

$$OP = bo + b1 * WLE + e \quad \dots (1)$$

The other tests were run to determine the mediating role of leadership style, employee commitment, and individual performance in the relationship.

$$OP = bo + b1 * WLE + b2 * LS + e \quad \dots (2)$$

$$OP = bo + b1 * WLE + b2 * EC + e \quad \dots (3)$$

$$OP = bo + b1 * WLE + b2 * IP + e \quad \dots (4)$$

The last model that includes the independent and mediating variables is given below,

$$OP = bo + b1 * WLE + b2 * LS + b3 * EC + b4 * IP + e \quad \dots (5)$$

Whereas; bo is constant and $b1$ - $b4$ is coefficient of independent variable, WLE is women's leadership effectiveness, OP is organizational performance, LS is leadership style, IP is individual performance, & e is error term

3.0 Analysis and Discussion

3.1 The level of organizational performance and women's leadership practices

The employees of Ethio telecom in Addis Ababa rated the performance of the organization is moderate on average. The following table depicts the descriptive statistics result mean, standard deviation, and Pearson correlations.

Table 1: Descriptive Statistics Result

Variables	Mean	St. Dev	OP	WLE	LS	EC	IP
Organizational Performance	3.7468	1.48901	1				
Women's Leadership Effectiveness	2.6076	1.64409	.587**	1			
Leadership Style	4.2405	1.17904	.612**	.651**	1		
Employee Commitment	2.4557	1.38488	.535**	.789**	.670**	1	
Individual Performance	4.2405	.97685	.554**	.530**	.673**	.686**	1

The above table reveals that the organizational performance in Ethio telecom is moderate, which is not strong and insufficient for further growth. Particular to women's leadership effectiveness it's at a lower level, which needs more effectiveness. Similarly, employee commitment is also at lower level, while the individual performance is moderate.

3.2 The role of women's leadership effectiveness on organizational performance

As indicated below in table 2, in all tests the women's leadership effectiveness directly and indirectly influences the organizational performance.

The below table indicates that as the women's leadership is effective, it will have positive implication the performance of the organization. Individually, all the variables leadership style, employee commitment and individual performance were positively influenced by the women's leadership effectiveness. Regarding the mediators, leadership style ($C=.363$, $p<.05$) and individual performance ($C=.371$, $p<.10$) significantly moderates the relationship. The coefficients of total effects (i.e. direct and indirect effect) are .170 when leadership style mediates, .072 when employees commitment mediates, and .117 when individual performance mediates the influence of women's leadership effectiveness on organizational performance.

Table 2: Ordinary Least Square Regression Analysis Result

		B(Std. Error)	T	Sig.
Path 1	<i>DV: Organizational performance</i> <i>R=.587 R²=.345 Sig=.000</i>			
	(Constant)	2.360(.257)	9.181	.000
	WLE	.532(.084)	6.368	.000
Path 2	<i>DV: leadership style</i> <i>R=.651 R²=.424 Sig=.000</i>			
	(Constant)	3.023(.191)	15.838	.000
	WLE	.467(.062)	7.529	.000
Path 3	<i>DV: Employees Commitment</i> <i>R=.789 R²=.623 Sig=.000</i>			
	(Constant)	.723(.181)	3.982	.000
	WLE	.665(.059)	11.270	.000
Path 4	<i>DV: Individual Performance</i> <i>R=.530 R²=.281 Sig=.000</i>			
	(Constant)	3.419(.177)	19.356	.000
	WLE	.315(.057)	5.492	.000
Path 5	<i>DV: Organizational Performance</i> <i>R=.680 R²=.463 Sig=.000</i>			
	(Constant)	.072(.640)	.113	.910
	WLE (a)	.317(.132)	2.406	.019
	LS (b)	.363(.166)	2.195	.031
	EC (c)	-.108(.175)	-.619	.538
	IP (d)	.371(.196)	1.888	.063
Total	Path 2*path 5b	.170		
	Path 3*path 5c	.072		
	Path 4*path 5d	.117		

*** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$

Other studies also shows that, There is common agreement among management scholars that the success or failure of an organization is largely a function of leadership and its styles (Edoka, 2012). For instance, Leadership behavior has long been considered an important factor that influences performance in the workplace (Keegan & Den Hartog, 2004; Yang et al., 2010). Peterson et al., (2003) states that the role of leadership is critically important for achieving the performance of organizations. Avery (2008) also states that effective leadership behaviors can facilitate the improvement of performance when organizations face these new challenges. Therefore, this study is consistent with various studies conducted on the subject matter.

3.3 The mediating role of leadership style and individual performance

Table 2 states that, women's leadership effectiveness has a role on the leadership style that the leaders follow and the individual's performance. In return to this influence both the chosen leadership style and individuals performance plays a positive role on the organizational performance. Particularly, the previous finding shows mixed result about the role of leadership style on the organizational performance. For instance, Tosi (1982) expected transactional leadership has significant contribution in improving organizational performance. Similarly, A number of relative studies (Waldman et al., 2001) have also reported that transformational leadership behaviors are more positively related to subordinate effectiveness in a variety of organizational settings than are transformational behaviors. Conversely, A number of studies on leadership styles (Kouzes & Posner, 2007; Yukl, 2009) propose that the performs of the transformational leadership have a positive effect on the organizational performance. Keegan & Den Hartog, 2004 and Yang et al., 2010 argue that,

transformational leadership in particular has long been considered an important individual factor that influences performance in the workplace. Some studies indicate that both transformational and transactional leadership style has positive effect on the performance of the organization. Dumdum et al. (2002) and Judge and Piccolo (2002) analyzed the effect of transformational and transactional leadership on performance outcomes and also found a positive effect. This study is also consistent with the finding of scholars who argue that transformational leadership influences more the organizational performance than the transactional leadership.

As the finding of various scholars argued, leaders make a big difference in terms of performance (Knies et al., 2016), both individual and organizational performance. For instance, Wang et al. (2001) states that individual performance is stronger for contextual performance. Earlier studies have also stated positive relationships between leadership and outcomes at the individual level. That means, the effectiveness of leadership will have positive implication on the individual performance, which in turn plays a role on organizational performance. Therefore, this study indicates that the individual's performance positively mediates the relationship between women's leadership effectiveness and organizational performance.

4.0 Conclusion and recommendations

This study investigates the relationship between women's leadership effectiveness and organizational performance with testing a mediating role of the practiced leadership style, employee's commitment and individual's performance. From this, it's identified that women's effectiveness in their leadership contributes for the improvement of organizational performance. Its contribution is also goes further to the selection of leadership style, employee's commitment and individual's performance. On the other side, the more the women leaders tend to practice transformational leadership, the more the organizational performance is improved. Similarly, as the individual performance is improved form leadership effectiveness, the better the performance of the organization. By taking this finding in to account, the women leaders in Ethio telecom should try to practice the transformational leadership than the transactional one in order to improve the organizational performance. These leaders also try to improve the individual performance through effective leadership towards improving organizational performance.

References

1. Arslan, A., & Staub, S. (2013). Theory X and Theory Y Type Leadership Behavior and its Impact on Organizational Performance: Small Business Owners in the Şişane Lighting and Chandelier District. *Procedia -Social and Behavioral Sciences*, (75), 102-111.
2. Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*: Psychology Press.
3. Bolden, R (2004) what is leadership? Leadership south west research report 1. <http://www.leadershipsouthwest.com/>
4. Brewer, G. A. (2008). Employee and Organizational Performance. In: J. Perry & A. Hondeghem. *Motivation in Public Management: The Call of Public Service*. Oxford: Oxford University Press, 136-156.
5. Chebo, Abdela K.; KUTE, Idris M. (2019). A Strategic process and small venture growth: The moderating role of environmental scanning and owner-CEO. *Journal of Small Business Strategy*, [S.I.], v. 29, n. 3, p. 60-77.
6. Chen, J.-C., Silverthorne, C., & Hung, J.-Y.(2006). Organization communication, job stress, organizational commitment, and job performance of accounting professionals in Taiwan and America. *Leadership & organization Development journal*, 27(4), 242-249.

7. Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage
- DeClerk, C. C. (2008). *The relationship between retail store manager leadership styles and employee generational cohort, performance, and satisfaction*. University of Phoenix.
8. Drucker, P. F. (2007). *Management challenges for the 21st century*: Routledge.
9. Dumdum, U. R., Lowe, K. B., & Avolio, B. J. (2002). A meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension.
10. EDOKA J. (). *Effective Leadership and Organizational Performance: A Case Study of National Youth Service Corps (Nysc) Kogi State*. Master Thesis. <http://www.unn.edu.ng/publications/files/images/JOHN%20EDOKA.pdf>
11. Invancevich. (2005). *organizational behavior and management*, 7th edition. New York, McGraw hill Publishing.
12. İşcan O M., Ersarı G., Naktiyok A. (2014). Effect of Leadership Style on Perceived Organizational Performance and Innovation: The Role of Transformational Leadership beyond the Impact of Transactional Leadership – An Application among Turkish SME's.
13. Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89(5), 755.
14. Keegan, A.E. and Den Hartog, D. H., 2004. Transformational leadership in a project-based environment: a comparative study of the leadership styles of project managers and line managers. *International Journal of Project Management*, Vol 22, pp 609-617.
15. Knies, E.; Jacobsen, C. & Tummers, L.G. (2016). Leadership and organizational performance: State of the art and research agenda. In: Storey, J., Denis, J.L., Hartley, J. & 't Hart, P. (Eds.). *Routledge Companion to Leadership* (pp. 404-418). London: Routledge.
16. Kosa, A., Mohammad, I., & Ajibie, D. (2018). Entrepreneurial orientation and venture performance in Ethiopia: The moderating role of business sector and enterprise location. *Journal of Global Entrepreneurship Research*, 8(1), 25
17. Kouzes, J., & Posner, B. (2007). *A leadership challenge resource*. San Francisco, CA: John Wiley & Sons. Retrieved from. <https://www.lpionline.com/lpi/helpInfo/methodology.jsp/>
18. Luftman, J. N., Bullen, C. V., Liao, D., Nash, E., & Neumann, C. (2004). *Managing the information technology resource: Leadership in the*: Prentice Hall New York.
19. Lussier. (2005). *human relation in organization*, 6th edition. New York, McGraw hill Publishing.
20. Madanchian M., Hussein N., Noordin F., & Taherdoost H. (2016). Effects of Leadership on Organizational Performance. *Economics and Education*. ISBN: 978-1-61804-369-6.
21. Paulos C. (2000). *Civil Service reform in Ethiopia: Problems and Prospects*. Regional and Local Development Studies (RLDS) Working Paper, Addis Ababa University, Addis Ababa.
22. Peterson, R. S., Smith, D. B., Martorana, P. V., & Owens, P. D. (2003). The impact of chief executive officer personality on top management team dynamics: one mechanism by which leadership affects organizational performance. *Journal of Applied Psychology*, 88(5), 795.
23. Prabu S I. (2012). Importance of Leadership Effectiveness. Blog posted 20th April 2012. <https://www.trainingzone.co.uk/community/blogs/sudhakarprabu/importance-of-leadership-effectiveness>.
24. Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*.
25. Scott, W. R., & Davis, G. F. (2015). *Organizations and organizing: Rational, natural and open systems perspectives*: Routledge.
26. Steven L. (2005). *Organization behavior*, 3rd edition. New York, McGraw hill Publishing.

27. Tosi, H. (1982). Toward a paradigm shift in the study of leadership. In J. Hunt, U. Sekaran, & C. Schriesheim (Eds.), *Leadership: Beyond establishment views* (pp. 222-233). Carbondale, IL: Southern Illinois University Press.
28. Waldman, D. A., Ramirez, G. G., House, R. J., & Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environment uncertainty. *The Academy of Management Journal*, 44(1), 134-143.
29. Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, X. C. (2005), Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behaviour, *Academy of Management Journal*, 48, 420-432.
30. Yang J, Zhang, Z.X. and Tsui, A., 2010a. Middle manager leadership and frontline employee performance: Bypass, cascading, and moderating effects. *Journal of Management Studies* 47(4), 654-678.
31. Yukl, G. (2009). Leading organizational learning: Reflections on theory and research. *The Leadership Quarterly*, 20(1), 49-53.

Big Data for Customer Relationship Management in Banks

Amita Garg*

ABSTRACT

Customer Relationship Management is undergoing a paradigm shift from a single channel relationship (organization-to-customer relationship) to multi channels of relationships (customer-organization-organization- customer-machines) with the emphasis on integration and collaboration. The relatively recent developments of Information and Communication Technology, especially smart mobile devices and big data application have become the main drivers of this paradigm shift. The growth in big data is not only because of growing number of smart mobile devices, but is also triggered by pervasive computing abilities that is multiplying quickly. Customer behavior in using smart mobile device and Internet activities impact to banking sectors. We will use the CRM with big data enabled to motivate us in developing a model to address a direction of CRM strategies with big data enabled in mobile banking sector.

Keywords: *Customer relationship management (CRM); Big data; Smart mobile devices; Mobile banking.*

1.0 Introduction

There is obvious problem when sales and marketing teams spend much their time searching relevant information but data is insufficient, and oppositely sometime they miss the opportunities because of information overloaded. In the data- driven economy, data has become a critical asset for the development in banking sectors, similar to the natural resources and human capital. In fact, banking and finance industries have long relied on data accuracy and reliability, whether it is census data, transaction data, research data, logistic data, public consumption data, and any data related to economic transactions that can stimulate innovation on new business opportunities, accelerate business transactions, and produce knowledge sharing. Data generated from the multiple sources have become a source of growth, with the potential to boost the whole financial activities to foster innovation, competitiveness and customer participation, and to contribute effectively for the prosperity of society as a whole (Ritter, 2015).

How customer relationship management (CRM) with big data approach can transform data into actionable insight especially for mobile banking customers. Big data will make a big transformation in managing customers and it will affect long-term bank-customer relationship. This study seeks to provide a better understanding of banking system in considering CRM with big data enabled, and then explores the value of big data. Finally, the main challenges of its deployment of Big data for CRM in Banks.

2.0 Literature Review

Big data is defined as an extremely large volume of data that are analyzed with technology to show the patterns of human development or anything related to the society.

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India
(Email: Amita.garg@paruluniversity.ac.in)

Big data supports multiple type of analysis which gives more precise results and therefor helps to bring more accurate decision making and more efficient work. The data is growing quickly, it is expected that by end of 2020 there will be more than 16 zetta bytes of useful data (16 Trillion GB), which implies growth of 23.6% per year from 2013 to 2020 (Turner et al., 2014). Big data is a new generation of managing strategies, technologies and architectures, designed to economically extract value from very large volumes of a wide variety of data by enabling high- velocity capture, discovery, and analysis (Anshari and Alas, 2015).

Whenever banks offer any new product or service, its success depends upon the customer satisfaction level towards that product or service. In the high intense competition, bank must consider its primary customers. Bank must produce such level of services and products for its customers so that customers will get attracted. (Khattak, 2010). Customer satisfaction is defined as a customers' feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome in relation to their expectations (Kotler, 2000). For banking organizations, successful customer relationships influence the creation of brand equity, trust, customer satisfaction, relationship commitment, brand loyalty and brand awareness (Kim, 2008). Customers' satisfaction can be considered as an integrated response to the evaluation of service or product delivery (Low, 2013). In other words, customer's fulfillment is central to business strategy (Czepiel, 1974). Customer service must be viewed as an essential need for providing high quality banking and finance services, and for staying in the highly competitive business (Stanton, 2009).

2.1 Customer relationship management

Customer Relationship Management (CRM) is a strategy by utilizing ICT in attracting potential customers, retaining existing customer and extending new services to loyal customers (Anshari, 2009). The main objective of businesses including in banking sector is to earn profits by providing products and services, developing competitive advantages, and satisfying customers and stakeholders through value (Almunawar and Anshari, 2006). The strategies should be laid down in such a way that they provide benefits to the organization as well as customers. The shorter cycle times, greater customer involvement in service development and reduction in operation costs by redesigning business processes that eliminates work that does not add value to customers (Chen et al., 2012). Therefore, CRM is critical components in managing long-term customer relationship.

CRM with Web 2.0 (Social CRM) features can be used to empower customers, allowing them to access their financial activities-related information, interact with customer services professionals, or even interact with other customers. This will open the opportunity to improve banking services to customers and at the same time help improving their knowledge on financial literacy through efficient online services, consultations, and knowledge sharing (Almunawar and Anshari, 2006). Social CRM can be used by banking as a tool and strategy in meeting their customers' expectations. As such, Social CRM must be aligned with the organization's mission and objectives in order to bring about a sustained performance of business objectives and effective customer relationship. Customers can own the data on the Web 2.0 site and exercise control over that data (Anshari and Alas, 2015). For instance, when a bank acquires a new customer through marketing orientation, the customer will determine the value of each activity received from the organization. When the customers perceives the value is positive, they will be happy and satisfied. Otherwise, they may consider finding another banking organization for better value& satisfaction.

2.2 Big data

Big data is at an early stage, as most related technology and analytics applications were first introduced only around 2010 (Gantz and Reinsel, 2012). Big data is a new generation of managing strategies, technologies and architectures, designed to economically extract value from very large

volumes & wide variety of data by enabling high-velocity capture, discovery, and analysis (Laney, 2015). There are three main characteristics of big data: the data itself, the analytics of the data, and the presentation of the results of the analytics (Anshari et al., 2015). Big data is defined as an extremely large volume of data that are analyzed with technology to show the patterns of human development or anything related to the society since big data leads to more precise analysis thus helps to bring more accurate decision making and more efficient work. Big data is high volume, velocity and variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision-making (MGI: McKinsey Global Institute, 2015). Big data sources can be created by people or generated by machines like sensors gathering climate information, satellite images, GPS signals, digital pictures and videos, and transaction records.

The growth in big data is not only because a growing number of smart phone users, but also trigger by other smart mobile devices or pervasive computing abilities that is multiplying quickly (Anshari et al., 2015). For instance, marketing officer in a remote area can collect and transmit real-time data on every transaction made. Many of these smart mobile devices are able to interact with their users over mobile networks pervasive computing. Pervasive computing exchanges data and interact with people or computers and other smart devices. More than 30 million interconnected pervasive computing are now deployed worldwide, in areas such as security, health care, the environment, transport systems or energy control systems, and their numbers are growing by around 30% a year (Gafni and Geri, 2013).

One of the most important sources of big data is the Open Government Data (OGD). There is a growing trend in OGD initiative in many countries. When the society becomes relying on internet, social networks, and mobile technology, then OGD will accelerate the impact of big data for economic growth in the region. OGD proactively publishes real time data to be used by the public for triggering new ideas of business initiative, and improve decision making for corporations and SMEs. There is an ongoing paradigm shift on the issue of government data from the perspective of data as being (secret) assets or proprietary of the government to the paradigm that the government's data as public goods that will provide more benefits when they are shared to the public in real time so that people gains value from the extracted data (Mutchler et al., 2011). After the financial crisis in 2008, OGD was considered a way to create value from data which can be freely used, reused and distributed by anyone where it gives more value, influence, and more impact when it is shared with the public to the more open environment (Ritter, 2015). The value of OGD as part of the big data source will definitely play an important role in driving the success of banking sectors.

2.3 Smart mobile devices

Smart phones are becoming ubiquitous and are owned by both youngsters and old people (Statista, 2015). It is widely used throughout Asia, North and South America, Europe, and varies in use in another region (Park and Chen, 2007). The increase in number of users using smartphones shows that people are now partial to smartphone and ought to own at least one.

The behavioral intention to use was largely influenced by perceived usefulness and attitude toward using smart phone (Oulasvirta et al., 2012). Using one of the survey conducted of sixteen hundred managers and professionals of the consulting staffs in America as an epitome, 70% admitted of checking their smartphone each day within an hour after getting up, and 56% did so within an hour before going to bed and 26% confessed to sleeping with their smart phones (IDC, 2015). Smartphone's ability to a quick access of social networks and communication encourage users to check their phone repeatedly. Repetitive checking of smartphone is considered a compulsive behavior (Masters and Menn, 2015). Hence, this research is going to emphasize on the impact in utilization of mobile banking.

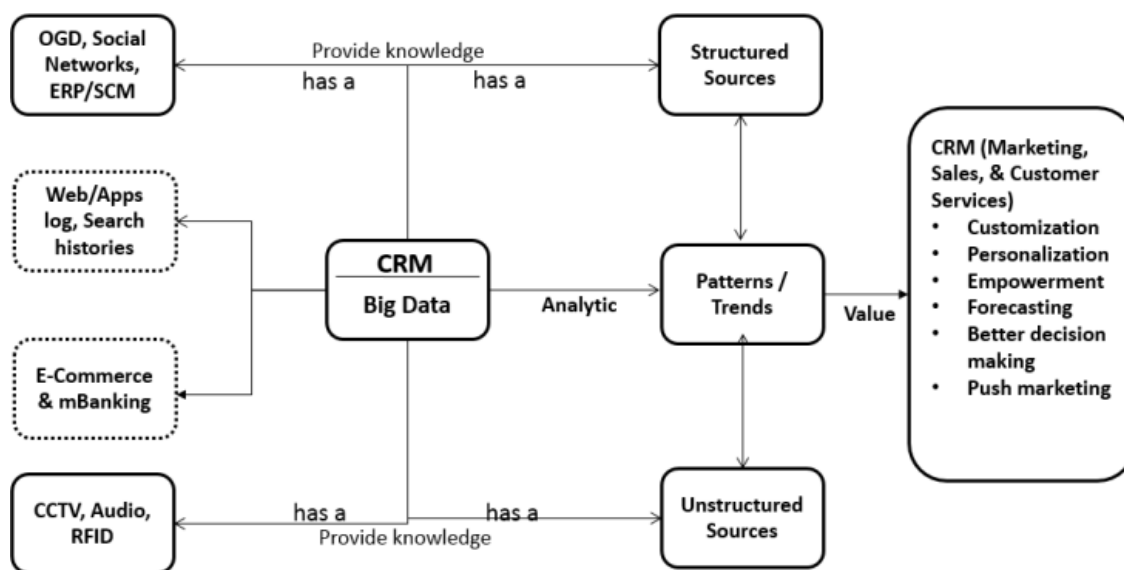
3.0 Method

This study builds on recent reviews of CRM and big data application in business environment. We employed thematic literature analysis of discussions that most importantly linked papers and articles. We chose only English-language articles, published in peer-reviewed journals. After removing duplicates and articles beyond the scope of this study, we reviewed and extracted each keyword, then applied them in identifying component of CRM with big data enabled and identifying the challenges. We developed the analysis in the proposed model based on the findings.

4.0 Results and Discussion

In a highly competitive environment, bank's awareness towards big data is still needed much attention to cope with growing data requirements. Big data comes from multi channels, data exchange of individual, community, business, and government. Customers that are voluntarily contributing a huge amount of digital footprints will generate a massive value in delivering banking services. CRM with big data enabled is important because banking sector is challenged not only to retain existing customers but also to acquire potential customers for the services, retaining them to use the services, and extending various services in the era of big data whereas big data transforms big value for organization as well as customers (Figure 1).

Figure 1: CRM with Big Data Enabled



In conventional CRM strategies, customers in banking sector are viewed as recipient of services. Since they have been perceived as a recipient of services, they become target of predefined CRM strategies (marketing, sales, and customer services) with less personalization, customization, and empowerment. CRM with big data enabled change the paradigm of customer from recipient to the partner of service.

How the paradigm is changed in CRM with big data enabled? Figure 1 is the components of CRM with big data enabled. CRM is a front-end system in any organization, which is directly dealing with customers. Big data sources are gathered from structured data sources and unstructured data sources relating the customers or potential customers. Structured data sources can be from social networks and IM activities of customers; While, unstructured sources can be gathered from CCTV or

vehicle registration numbers. In banking system, structured data sources are CRM data, social networks conversation, Web Application activities, Web search, e-commerce transaction. Whilst unstructured data sources can come from CCTV recording, face recognition at ATM, audio files, or RFID from plate registration number. For instance, CCTV recording at ATM station captures activities of customer in ATM. Bank can gain many values from the habit and behavior of customers in using ATM like time spending, mostly long queue time, idle time, and workload for each machine. Customers can receive personalize service when they visit ATM through big data analytic from face recognition data in ATM, e-banking transaction history, Web click behavior. Customer who frequently search car through search engine, he will see a short advertisement of car that may closely fit with his interest and budget. Customers are in queue for ATM will receive pop up message in their Smartphone containing bank's promotion product that may interest them. CRM team can design tailoring pop up message for customers in queue by combining data from CCTV, face recognition machine, and e-commerce record of respective customer.

From those multitude data sources, big data analytic works to form patterns, trends, habit, and behavior of customers. CRM team design strategies for marketing, sales and customer services based on those personal habit and behavior of customer. While customer will receive push message, alert, notification or suggestion based on their pattern. For banking organization, CRM with big data enabled can be designed in many layers from the lowest level of social media monitoring to the level where banking generates forecasting data, customers' trends, decision making, and personalize service based on customers' interest. Big data analytic will gather any personalize information that draws interest of each customer.

4.1 Customization and personalization

In the competitive commercial market, poor service and distrust in service lead customers to switch from a service provider to another, because poor service indicates inefficiency, higher cost, and lower quality of care. Nowadays, customers have more choices in where they seek financial and banking service and how they interact with their service providers. A great customer service can lead to major improvements in the banking system, and personalization of services can become value added in providing services. Therefore, CRM with big data offers superb customizable and personalization of banking services. Customizable banking service adjusts the banking services that fit for each customer in either mobile banking or internet banking. Meaning each customer will be having different set of interfaces especially in the CRM domain (marketing, sale, and customer service) program.

Customizable services empower customers banking to be in control what he wants to have in their e-services and what he does not want in it. For instance, mobile banking customers can enable and disable some services in their mobile bank application. For instance, based on customer's web internet habit, some customers have interest to read e-news through his smart phone. In this regards, mobile banking can offer him extra service free e- news in their mobile banking extras. In the long term, bank can expect customer's dependency and loyalty towards mobile banking services. Similarly, some customers may interest in weather forecasting so that mobile banking extras can provide regular alert for weather update.

4.2 Mobile banking and big data

The explosion of big data emerges from variety of data sources including from excessive using of smart mobile devices can extend the functionalities of smartphone to become 'smarter mobile banking'. CRM with big data enabled may offer an extra service as a value added for customers. For instance, customers are offered big data in transport that can alert customers with smartphone to find the best route in reaching the nearest bank or intended destination without being

trap in jam due to accident. Since big data is able to compile, integrate, and analyze and broadcast to the users who retrieve those information. If there is an accident in specific location, then source of data that accident has happened can be generated from various means either structured data or unstructured data. The data of accident is recorded by nearest CCTV with the details location then it is sent to the traffic controller system. Police who investigating also makes update about the event from his mobile device to the central traffic controller system. People who pass by the location also broadcast the event by updating status in social media (Facebook, Instagram, Tweeter, etc) and IM (WhatsApp, Line, etc). Then, big data analytic tool gathers all the data from those sources (CCTV, police report, social media, IM, etc), then alert message will be pushed to each customers' smartphone who going to pass the congested place. The 'smart message' can only send to smartphone's owner based on the vehicles registration number that are captured and they are going to the direction where the accident happen. Therefore, big data offers a better service that intelligently advises the best value, velocity, volume and variety for users in users' smartphone.

4.3 Forecasting and decision making

Big data analyses multiple data to recognize any patterns or trends, especially to user's behaviors and habit, which is generated from their online activities. Big data can be used to detect future problems such as business trends, product preference, and best route for travelers. This is due to its capabilities to gather data at a massive speed and able to distinguish the value of the data. For instance, with the aid of data generated from multiple sources like social networks or IM, banking organizations have more control and understanding of their 'loyal customers' behavior based on their clicks, comments, sharing contents, purchase, budget, etc. Understanding customers' behavior and pattern are possible since customers are voluntarily detailing their thought, opinions, interest, preferences, and they are voluntarily promoting best products and services to their circles. With the ability that they possess, CRM with big data is able to know what their customer's taste and personality is, and can predict what their next purchase might be they can consider this and advertise or offer discounts of products that would fulfil the customer's desire. In return, their business would expand by attracting more customers from reading the positive reviews by those loyal customers.

4.4 Push marketing strategy

CRM with big data enabled should able to manage conversations in any alert from multiple data sources for problem prevention because reacting to problems after they happen is usually more expensive than addressing them proactively. Proactive strategies will improve customer services. For instance, we give a simple scenario-identifying battlefield to win new customers or keep existing ones. Before customers engage in any service or product, customers spend a lot of time researching on their own, and gathering information takes place even before engaging with a marketing staffs or sales representative. It becomes the job of the marketing staffs to accurately predict what product or service will best fits, attract, and engage customers. Marketing staffs get connected with the potential customers in their social networks and trying to understand the views or type of person interest. Then, marketing teams design the most promising leads and develop highly targeted messages and campaigns through notification, push message, or alerts responding to the needs of potential customers with personalized content that influences engagement decisions. A great customer support will increase loyalty, revenue, brand recognition, and business opportunity.

4.5 Value creation

Organization should acknowledge the potential and promise of big data, the value and impact in realizing big data. For instance, customers are producing a massive of data every day. However, customers are very hard to realize the value of their own data produced voluntarily to the public.

However, when organization has abilities, tools, and mechanism to store, retrieve, explore, and visualize the data then they could see value. Organization can comprehend of the value of data for better decisions such as understanding their customers' habits, forecasting marketing trends, managing their services effectively. Similarly, it is applied in the context of banking sector that is a vast quantity of data produced can be managed, retrieved, analyzed to solve common problems in a banking like consumer distrust, inferior products or services, financial disaster prevention and response, regional business trends and forecasting, consumers' demand and supply. Banking is challenged to come up with the initiative to provide Enterprise Resources (ER) solutions focusing on CRM with the capability of 'Big Data Enabled'. For instance, a new generation of CRM will be empowered with mining a real time all of customer data, the interactions of the sales force with them, and combines the results with external datasets on industry and news, social networks of the customers, geographic and demographic patterns, to determine which forecasts are the most likely to make a transaction in the near future [32]. We also will witness more Web technology adopts big data enabled that can detect patterns of users based on their clicks, visiting a web page, and even social media conversation.

5.0 Conclusion

With the growing competition among banking service provider, managing the customer relationship and providing better services through big data CRM is a strategy that needs to be carefully planned. Big data in CRM could come from various sources like public, government, and business. People generate data from online conversations among people (SNS), interactions between people and systems and sensor-enabled machinery. The fast growing mobile and wearable technology fuels big data, which is commercially available data that users may will to share. Big data analytic shapes the pattern and behavior of targeting markets and potential audiences since user-generated data are stored accessed and analyzed. CRM with big data is standing at a new business reality: those communities that can take advantage of big data as the valuable new resource it is will be in the best position to become players in high intense global market competition. Big data become valuable asset for any organization because it helps them understand the things their customer behavior and demands.

References

1. Almunawar, M. N., & Anshari, M. (2012). Improving customer service in healthcare with CRM 2.0. *arXiv preprint arXiv:1204.3685..*
2. Anshari, M., & Alas, Y. (2015, August). Big Data Era: Big Challenges for ASEAN Economic Community. In *International Conference on Asean Studies* (Vol. 2, pp. 3-5).
3. Anshari, M., Alas, Y., & Guan, L. S. (2016). Developing online learning resources: Big data, social networks, and cloud computing to support pervasive knowledge. *Education and Information Technologies*, 21(6), 1663-1677.
4. Anshari, M., Al-Mudimigh, A., and Aksoy, M. "CRM initiatives of banking sector in Saudi Arabia". *Int J Comput Internet Manag*, 19 (SP1), (2009); p.56
5. Chen, H., Chiang, R.H.L., and Storey, V.C. "Business intelligence and analytics: From big data to big impact". *MIS Quarterly* 36, 4, 2012, 1165–1188.
6. Czepiel, J. A., L. J. Rosenberg. and Akerele, A. "Perspectives on Consumer Satisfaction". In R. C. Curhan (Ed.). 1974 Combined Proceedings Series No: 36. American Marketing Association, 1974.

7. Entel T., Huttner N., Machida J. "The Empathy Engine®", Achieving Breakthroughs in Patient Service, Katzenbach Partners, 2008.
8. Gafni, R., and Geri, N. "Generation Y versus generation X: Differences in smartphone adaptation. In Learning in the technological era", Proceedings of the Chais conference on instructional technologies research 2013, pp. 18-23
9. Gantz, J., and Reinsel, D. "The digital universe in 2020: Big data, bigger digital shadows, and biggest growth in the Far East". IDC iView: IDC, 2012, p. 1-16.
10. IDC. Big Data and analytics. Retrieved 20 June 2015 from <https://www.idc.com/prodserv/4Pillars/bigdata>, 2015.
11. Khattak, N. A. "Customer satisfaction and awareness of Islamic banking system in Pakistan". African Journal of Business Management, 2010, 4(5), 662.
12. Kim, K. H., Kim, K. S., Kim, D. Y., Kim, J. H., and Kang, S.H. "Brand equity in hospital marketing". Journal of Business Research, 61(1), (2008); 75-82.
13. Kotler, P., "Marketing Management". 10th ed., New Jersey, Prentice-Hall, 2000.
14. Laney, D. The Importance of 'Big Data: A Definition. Gartner. <https://www.gartner.com/doc/2057415/importance-big-data-definition>, 2012, Retrieved, 21 June 2015.
15. Low, K. C. P., and Anshari, M. "Incorporating social customer relationship management in negotiation". International Journal of Electronic Customer Relationship Management, 7 (3/4), (2013); 239-252.
16. Masters, B. and J. Menn. "Data theft overtakes physical losses". Financial Times, 18 October, www.ft.com/intl/cms/s/2/3c0c9998-da1a-11df-bdd7-00144feabdc0.html. 2010, Retrieved April 21 2015.
17. MGI: McKinsey Global Institute. "Big data: The next frontier for innovation, competition and productivity". McKinsey and Company, [www.mckinsey.com/~media/McKinsey/dotcom/Insights%20and%20pubs/MGI/Research/Tech nology%20and%20Innovation/Big%20Data/MGI_big_data_full_report.ashx](http://www.mckinsey.com/~media/McKinsey/dotcom/Insights%20and%20pubs/MGI/Research/Tech%20nology%20and%20Innovation/Big%20Data/MGI_big_data_full_report.ashx). 2011, Retrieved April 21 2015.
18. Mutchler, L. A., Shim, J. P., and Ormond, D. "Exploratory study on users' behavior: Smartphone usage". In AMCIS. Retrieved from http://www.researchgate.net/profile/Dustin_Ormond/publication/220894194, 2011.
19. Oulasvirta, A., Rattenbury, T., Ma, L., and Raita, E. "Habits make smartphone use more pervasive". Personal and Ubiquitous Computing, 16(1), 2012, 105-114.
20. Park, Y., and Chen, J. V. "Acceptance and adoption of the innovative use of smartphone". Industrial Management and Data Systems, 107(9), 2007, 1349-1365. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/02635570710834009>
21. Ritter, Waltraut, "Open Data in Asia. <https://knowledgeialogues.files.wordpress.com/2014/07/open-data-asia-09-2014.pdf>, 2015, Retrieved, 24 June 2015.
22. Stanton, Ken. "Customer Service in Healthcare"; Advance for Nurses Oakland August 4, 2009. Statista. "Number of smartphone users worldwide from 2012 to 2018". Retrieved from <http://www.statista.com/statistics/330965/number-of-smartphone-users-worldwide/>, 2015.
23. Turner, V, Gantz, John F., Reinsel, David, and Minton, Stephen. "The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things". Report from IDC for EMC April 2014.
24. Anshari, M., Alas, Y., Yunus, N., Sabtu, N. I., & Hamid, M. H. (2015). Social customer relationship management and student empowerment in online learning systems. *International Journal of Electronic Customer Relationship Management*, 9(2-3), 104-121.

Consumer Behaviour for Purchasing Gold as an Investment Avenue

Ashutosh Gaur*

ABSTRACT

Purpose: This paper aims to understand consumer behaviour for purchasing gold as an investment avenue.

Design/methodology/approach: The Mixed method research quantitative and qualitative method have applied for the data analysis. The cross-sectional survey has carried out for 100 respondent - the sampling technique used for the purposive sampling for the consumers of the gold. The data have collected with the help of social media like Facebook, LinkedIn Twitter and WhatsApp.

Findings: The respondents consider that gold is the most secure option. The customer considers investing in the gold with an objective of wealth creation. Most of the respondent do not have Financial advisor for suggesting them as an investment option. The main priority of the respondents is to invest in the gold is for child educations.

Research limitation/ Implication: The limitation is of sample size and scope of the study.

Policy implication: The stock in gold in the bank is critical for India to transform it is economy into manufacturing. By understanding, consumer behaviour for the purchasing gold wit gives better insight into the formation of the policy.

Originality/value: The results produced by the analysis of the researcher and the mixed method of research used to explain the objective. This kind of paper is not available in the academic domain.

Keywords: Consumer behavior; Gold; Investment.

1.0 Introduction

Gold is a metal highest in demand in the Indian metal commodity market. This feature of gold in the domestic market has made gold is one of the highest imported commodity in India. India ranked second in the overall ranking in the index of the importer in gold after China for many years. India has 10th largest gold reserve in the world, reserves in the worlds narrate World council data in Business Today. World Gold Council's (WGC) is an independent agency tracking and analysing gold trade globally at the wholesale level revel data. According to (WGC) latest report, India has 618.2 tonnes of the yellow metal as a holding, which is 6.9 percent of share held in the gold in total foreign reserve. United States (US) has the prime holding with 8133.5 tonnes, charted by Germany with 3366 tonnes and the International Monetary fund (IMF) with 2814 tonnes. Other countries having more gold holdings than India is Italy with 2451.8 tonnes, France with 2436 tonnes, Russian Federation with 2241.9 tonnes, China with 1948.3 tones, Switzerland with 1040 tonnes and Japan with 765.2 tonnes (Jayakumar, 2019). Gold reserve in the central bank is less than the import of the gold is a satire that India is the second-largest importer of the gold and still, India's rank is not in top five economies in terms of reserves. In another way, it proves that buying behaviour of the consumer for gold is towards as an investment avenue. This paper is an attempt to predict the purchasing pattern of the gold as an investment option and to understand customer preference for purchasing gold and author suggests strategies in order to expand the gold investment market. The author also addresses policy and managerial implication on purchasing gold as an investment option.

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: ashutosh.gaur90550@paruluniversity.ac.in)

The author illustrates that the consumer considers gold as the most secure investment option. It explains in analysis customer prefer to invest in gold mine and gold certificate more than in gold in physical form. The research has used mixed method of the research for the investigation of the research objective.

2.0 Objective

1. To study consumer behaviour in purchasing gold as an investment option.
2. To study the customer preference for purchasing investment options.
3. Suggest strategies in order to expand the gold investment market

3.0 Literature Review

(Ibrahim, 2012)The authors analyse the relation among the gold return and stock market return and whether its relation shifts in times of consecutive negative market returns for an emerging market, Malaysia. The authors apply the autoregressive distributed model. To connect gold returns to stock returns with TGARCH/EGARCH error specification using regular statistics since August 1, 2001, to March 31, 2010, an aggregate of 2,261 observations. The author illustrates a significant positive but low correlation between gold and once-lagged stock returns. The author explained that consecutive negative market returns do not seem to strengthen the co-movement among the gold and stock markets. As usually documented among national stock markets in times of financial turbulences. The author narrates, there is some evidence that the gold market surges when faced with consecutive market declines.(Wei Fan, 2014)The author evaluates the impact of the Micro factors on the wall prizes. The author uses the EGARCH model to test the volatility. The VAR model is used to validate the idea of decomposing gold's value, into three parts, according to its features. The author proved that three Micro factors have an impact on gold's price. The USDX index is negatively associated with the gold price, while the CRB index and the US Treasury CDS spreads positively correlate with the gold price. In particular, it found that the one-legged CR Bindex, one-legged USDX index and two-legged US Treasury CDS spreads have a significant impact on the gold price.(Arfaoui & Rejeb, 2017)The author examines, from a global perspective, the oil, gold, US dollar and stock prices interdependencies. The author also identifies instantaneously direct and indirect linkages among them. Author analysis methodology uses simultaneous equations system use to identify direct and indirect associations for the period 1995-2015. The authors try initially to find theoretical answers to the central question of the study by discussing causal bilateral relationships while focusing on multilateral interactions. Simultaneous equations system use to identify direct and indirect linkages for the period 1995-2015. The authors try initially to find theoretical answers to the central question of the study by discussing causal bilateral relationships while focusing on multilateral interactions. The author illustrates. The results show significant interactions between all markets. The authors found a negative relationship between oil and stock prices, but the oil price is significantly and positively affected by gold and USD. Oil price is also affected by oil futures prices and by Chinese oil gross imports. Gold rate concern about changes in oil, USD and stock markets. The US dollar is negatively affected by the stock market and significantly by oil and gold price. Indirect effects always exist which confirm the presence of global interdependencies. It involves the financialisation process of commodity markets.(Pan, 2014)The author discusses the role of oil and gold prices roles in the economic development of a country. The author uses the historical data of oil and gold prices as research data, and uses the historical price tendency charts of oil and gold, as well as cluster analysis, to discuss the correlation between the historical data of oil and gold prices. By referring to the technical index equation of stocks, the technical indices of oil and gold prices calculate as the independent variable and the closing price as the dependent variable of the forecasting model. The author proved that there

is no apparent correlation between the price tendencies of oil and gold. According to five evaluating indicators, the MFOAGRNN forecast model has better forecast ability than the other three forecasting models (Wei Jiang, 2014). The Author analyses the price of gold futures based on heterogeneous investors' overconfidence. The Author divides the traders of gold futures market into two kinds. The speculators and arbitrageurs. Then constructs a market balance model of futures pricing to analysing the behaviours of the two kinds of traders with overconfidence. After receiving the decision-making function, the market balance futures price attain on the condition of market clearing. The author also analyses the overconfidence impacts on futures price, the unpredictability of the price of gold futures and the effects on individual utility. The author illustrates that under different market conditions, the overconfidence psychological impacts of the varied investor on the price and volatility of futures are different, sometimes opposite. (Christian Simoni, 2010) The author examines current patterns of international marketing activities of Italian gold firms with a special emphasis on the US market and to contrast them with those adopted by Indian gold firms. A sample of small- and medium-sized enterprises (SMEs) from Italy and India helped as the study setting. Data collected via depth interviews from the owners/managers of four Italian and three Indian firms the Author illustrates the competitive behaviour of Italian SMEs is primarily reactive. In contrast, Indian companies strategically focus on the expanding Indian immigrant community. (Smriti Verma, October 2014 - March 2015) The author illustrates both males and females investing in gold assuming that both view it as a product for usage as well as investment. The author narrates the inclination of individuals having children of marriageable age were investing. The author explains the quantum of investment. Individuals are having children of marriageable age invest around 25-50% of their savings in gold as compared to individuals not having children of marriageable age who invest only up to 25% of their savings in gold.

4.0 Research Methodology

Researchers have used mainly on primary data and analysis; also, the researcher reviews literature as secondary data to highlight Gold. Research reports, journals and newspaper articles from eminent writers have reviewed.

A structured questionnaire with a demographic profile and attributes related to objectives is to use. The sample size is 100. The sampling technique is purposive sampling. Qualitative and Multivariate Quantitative technique has used. The data have collected with the with google form, survey monkey with the help of social media like Facebook, LinkedIn, twitter and WhatsApp and direct contact with the respondent.

The researcher are used NVIVO, SPSS, MS Excel and Tableau software used for the data analysis.

4.1 Data analysis

Figure 1: Have Consumer Invest in Gold

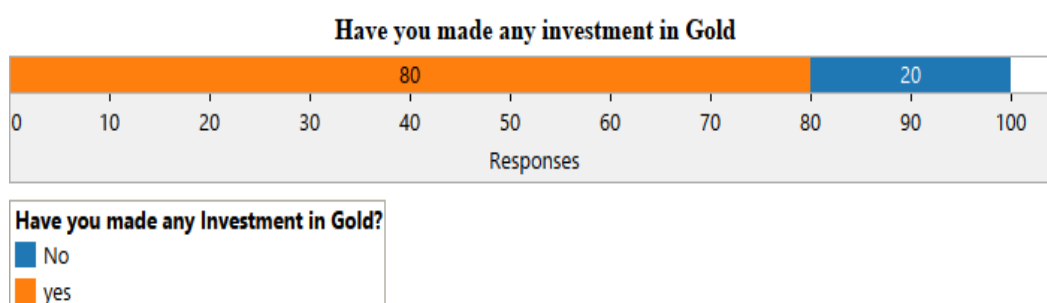
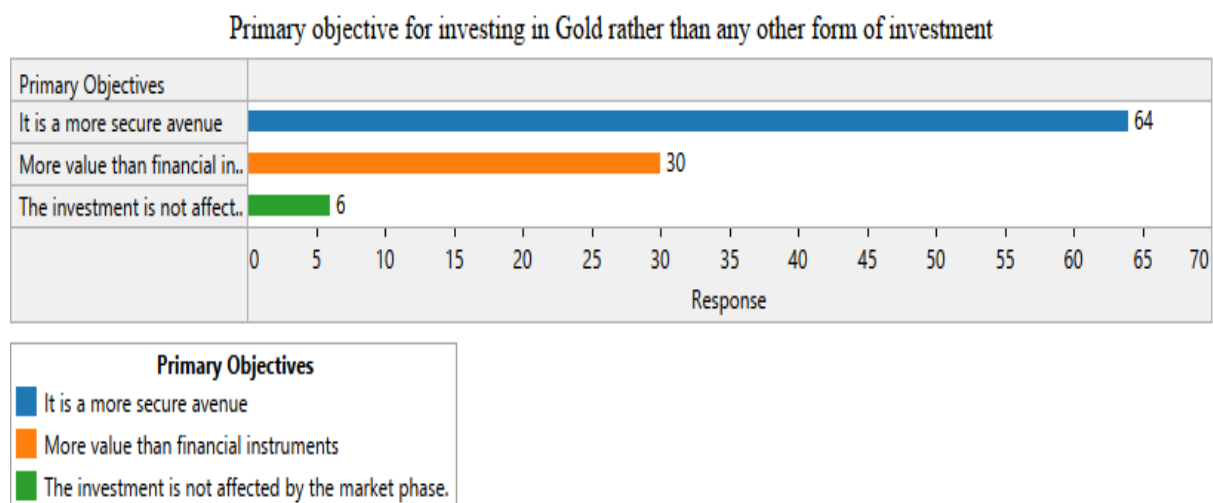
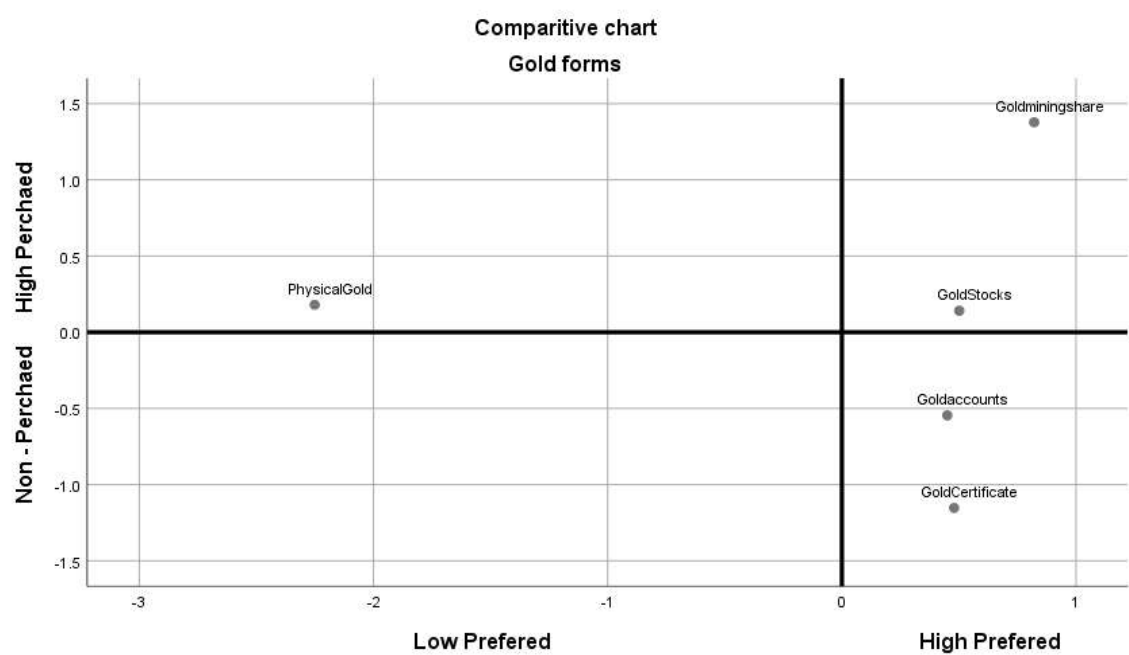


Figure 2: Primary Objective for Investing in Gold**Figure 3: Multi Dimension Scale of Competitive Position of Gold****Table 1: Descriptive Statistics of Figure 2**

Descriptive Statistics				
	N	Sum	Mean	Std. Deviation
Gold accounts	100	271	2.71	1.008
Gold Certificate	100	276	2.76	1.296
Gold Stocks	100	279	2.79	.880
Physical Gold	100	304	3.04	2.010
Gold mining share	100	370	3.70	1.382
Valid N (listwise)	100			

Figure 7: Word Tree of Gold

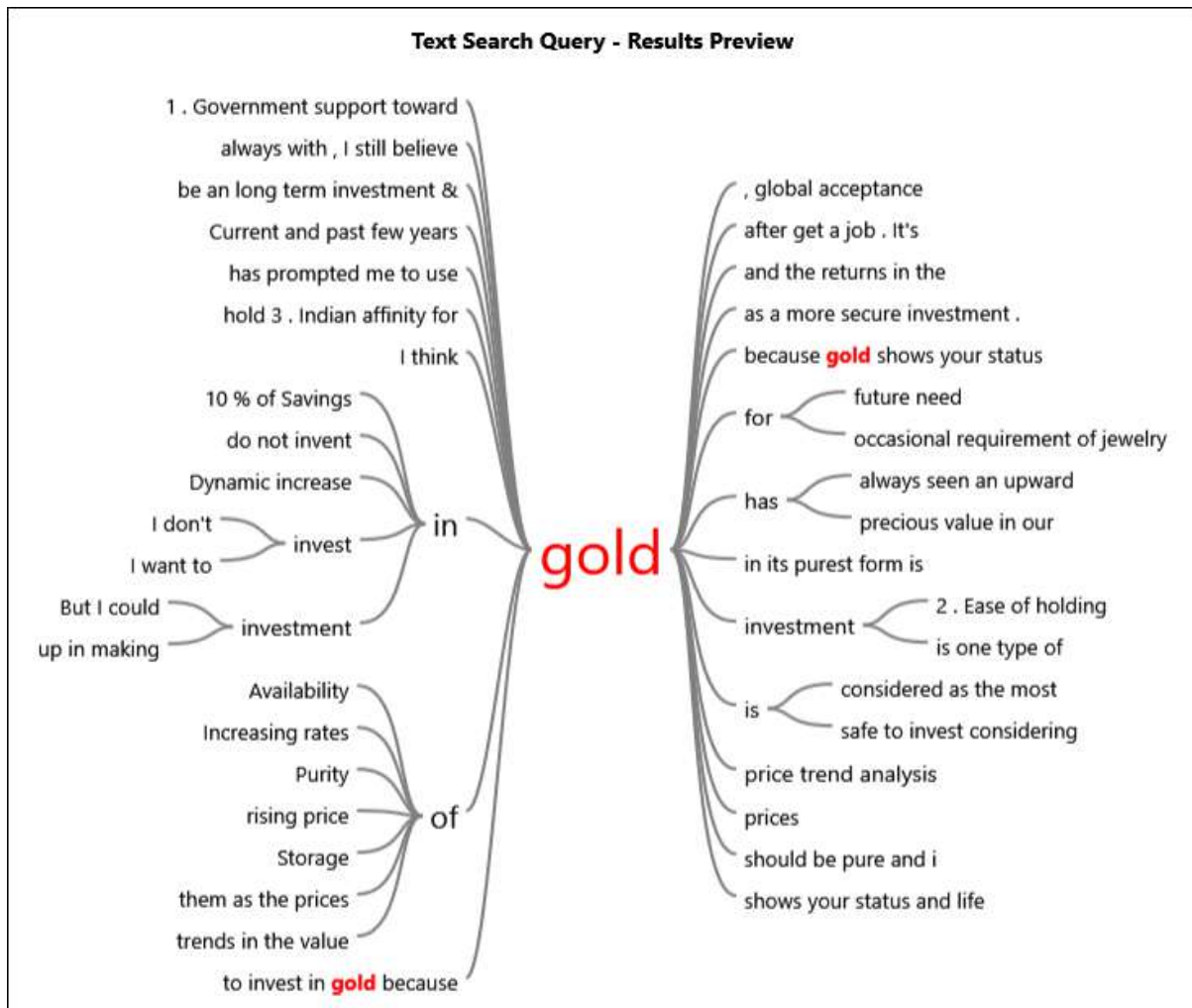


Figure 8: Factor Stop to Invest in Gold



Figure 9: Word Tree of Gold

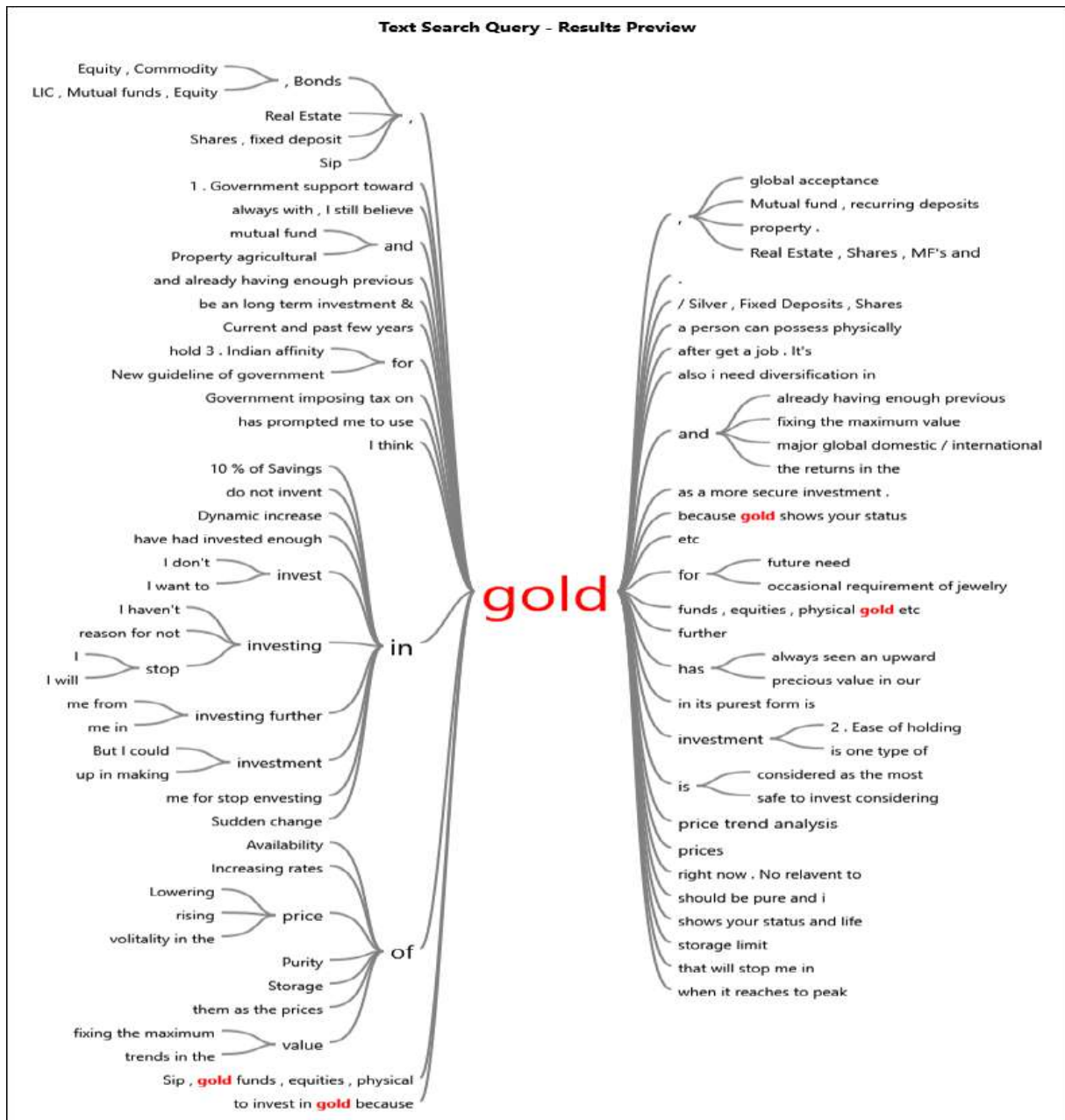


Figure 10: Financial Advisor

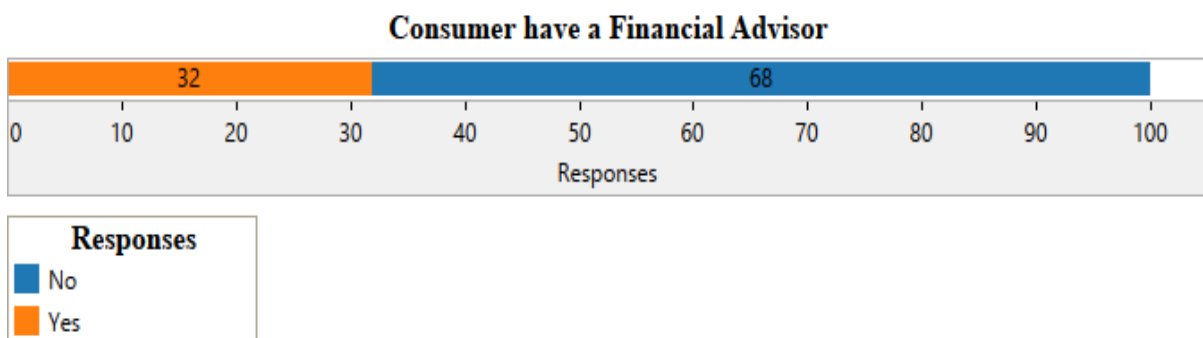
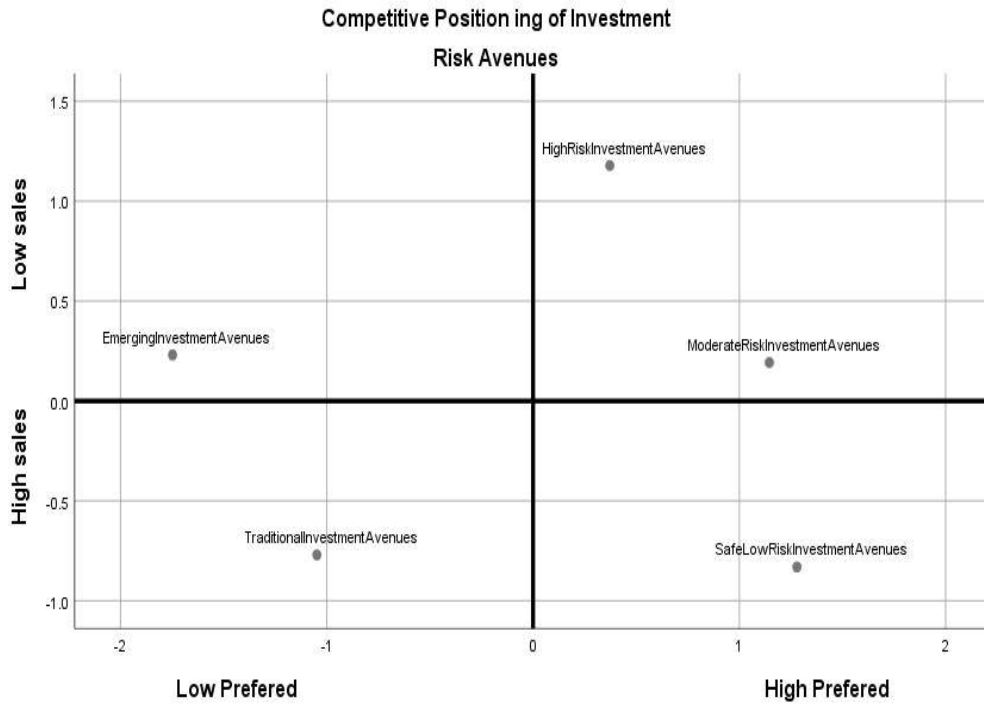


Figure 11: Multi Dimension Scale on the Investing Options

**Table 2: Descriptive Statistics of Figure 11**

Descriptive Statistics				
	N	Sum	Mean	Std. Deviation
Safe/Low-Risk Investment Avenues	100	210	2.10	1.159
Moderate Risk Investment Avenues	100	264	2.64	1.177
High-Risk Investment Avenues	100	309	3.09	1.334
Traditional Investment Avenues	100	333	3.33	1.319
Emerging Investment Avenues	100	384	3.84	1.441
Valid N (listwise)	100			

Figure 12: World Cloud Reason for Investing in a Gold



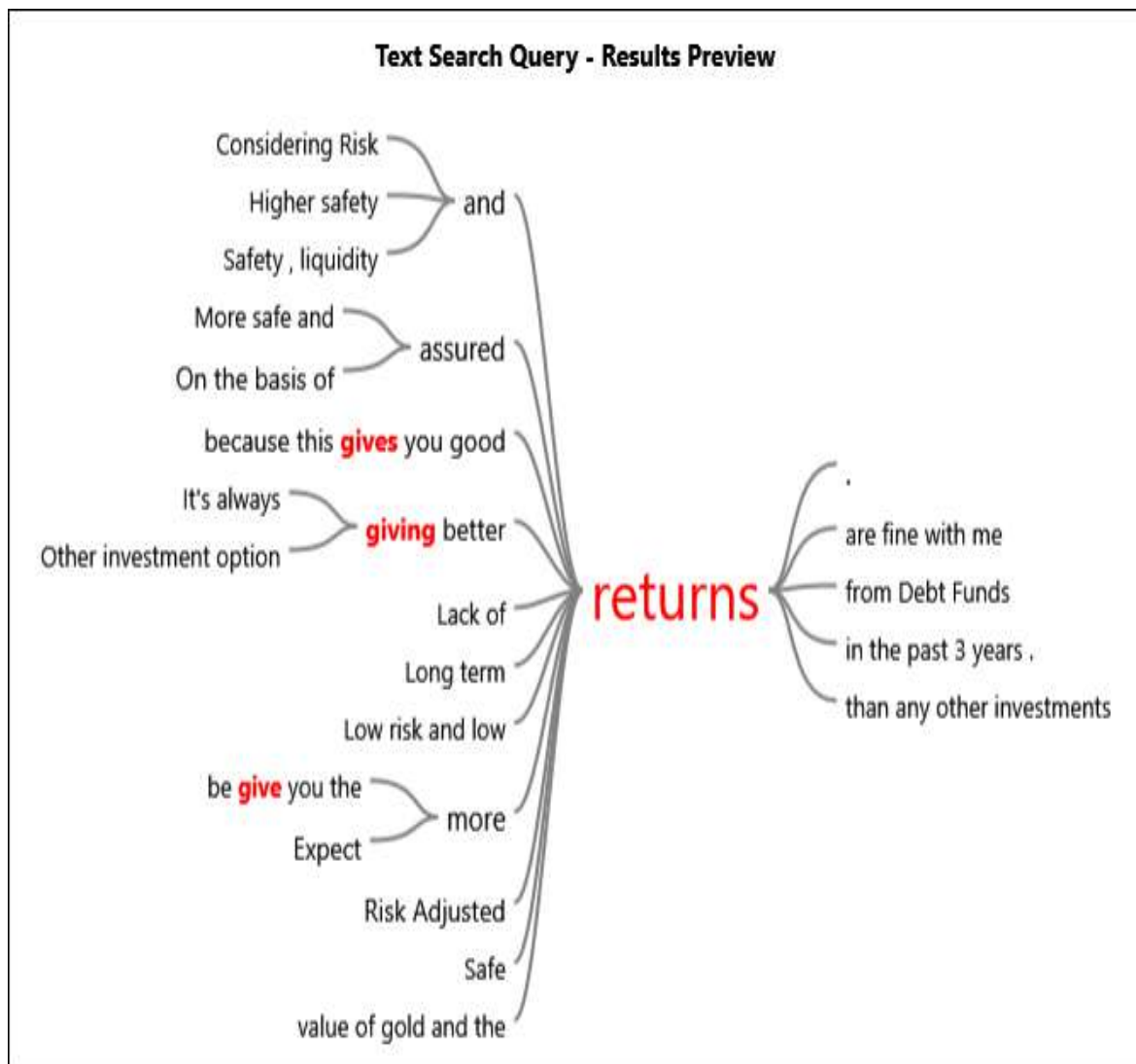
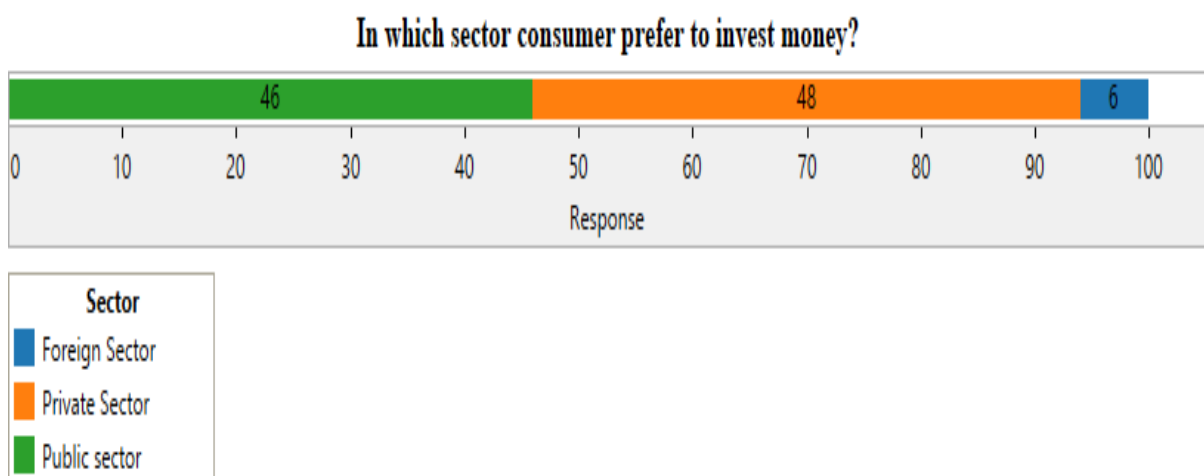
Figure 15: Word Tree of Returns**Figure 16: Sectors of Investments**

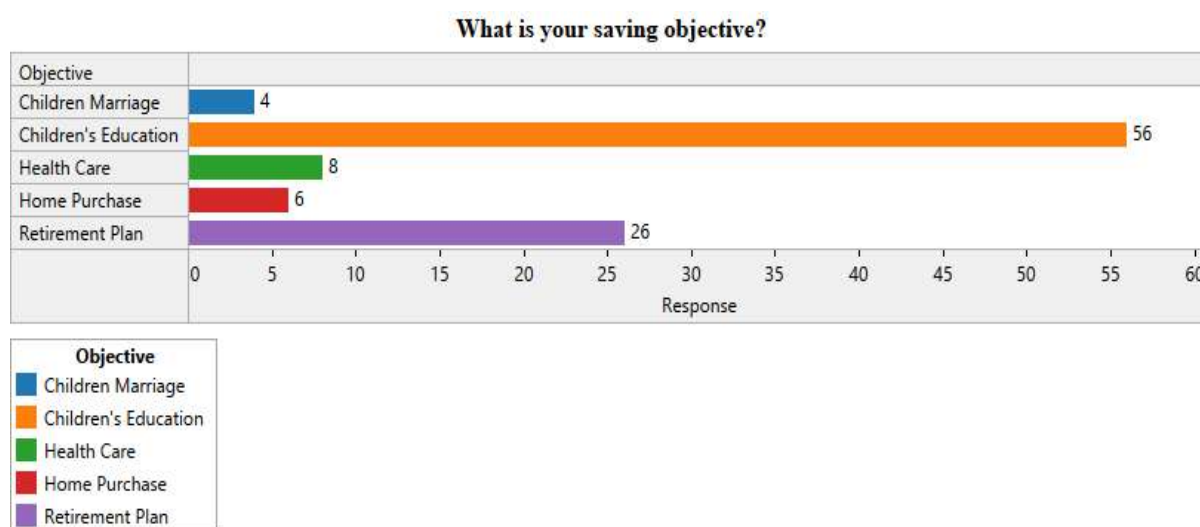
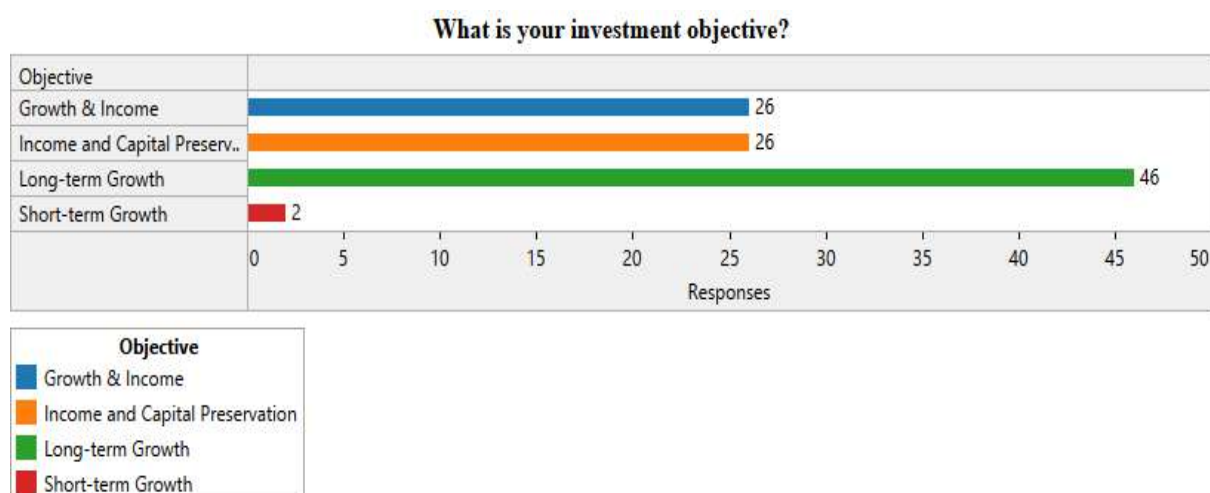
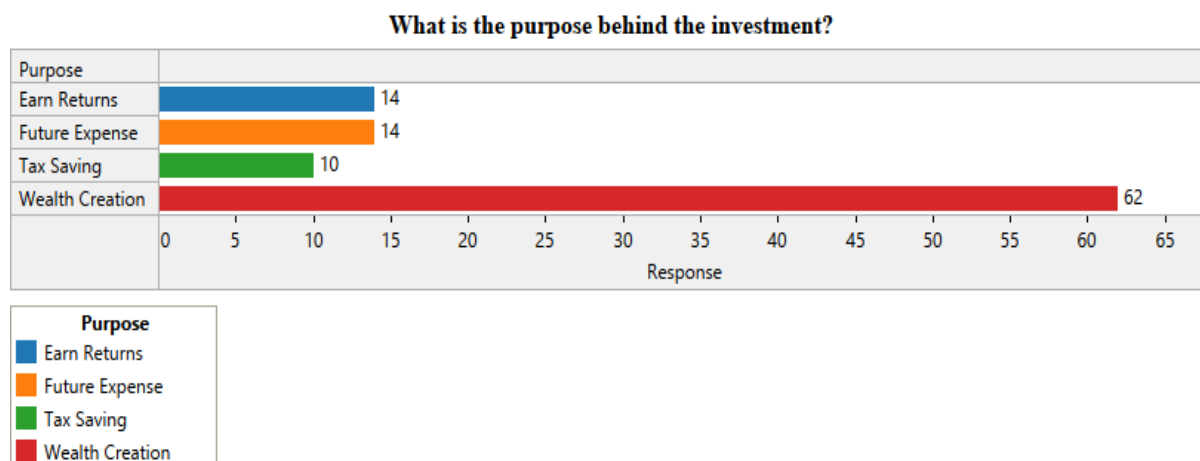
Figure 19: Saving Objectives**Figure 20: Investment Objective****Figure 21: Purpose behind the Investments**

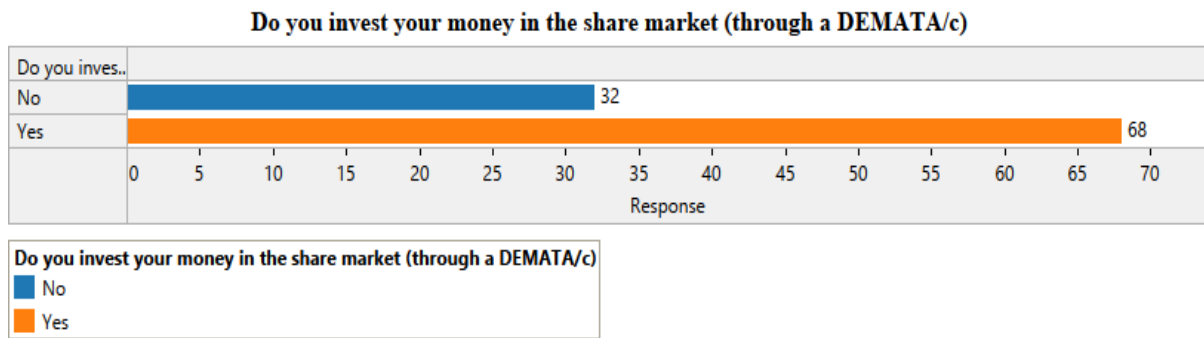
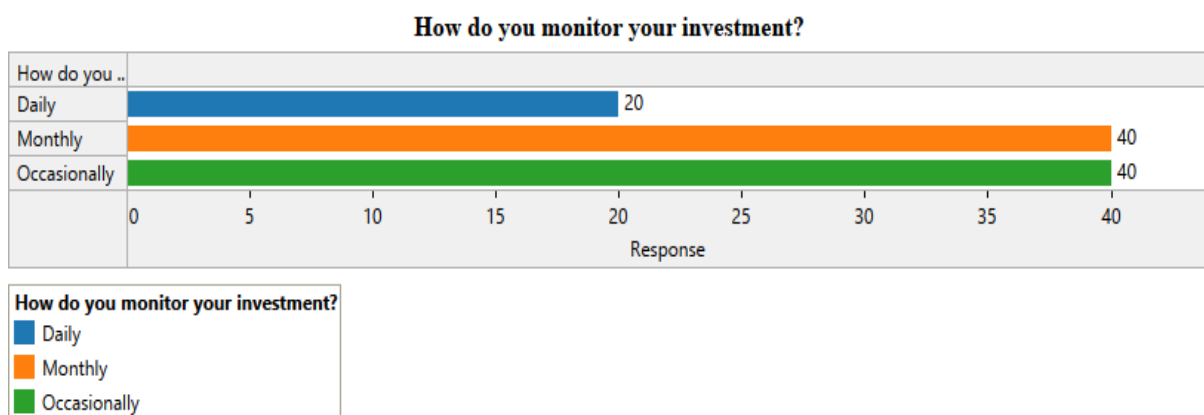
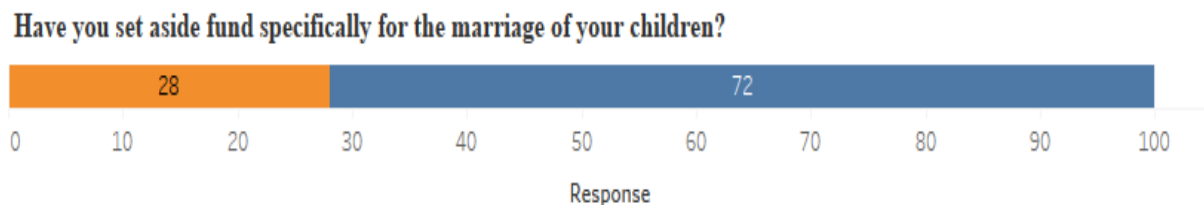
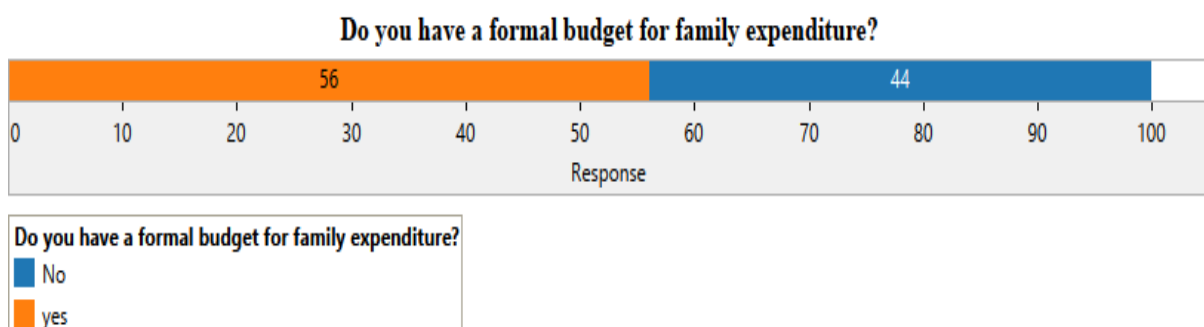
Figure 22: Share Market (through a DEMAT A/c)**Figure 23: Monitor Investment****Figure 24: Funds for Children Marriage****Figure 25: Formal Budget for Family Expenditure**

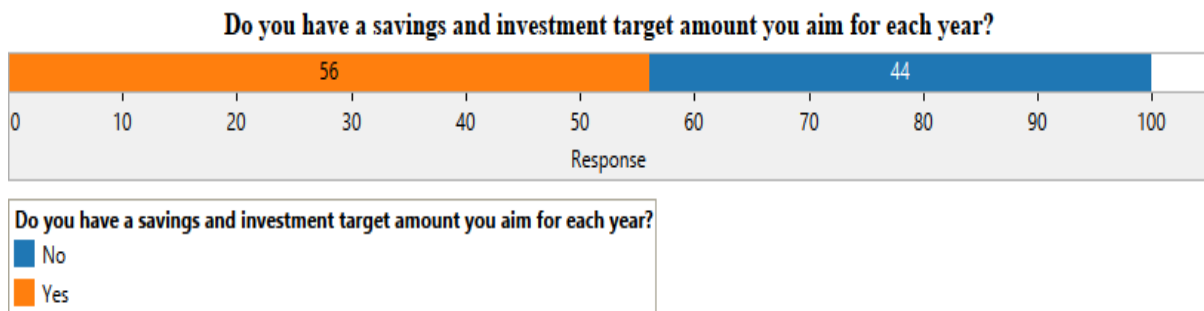
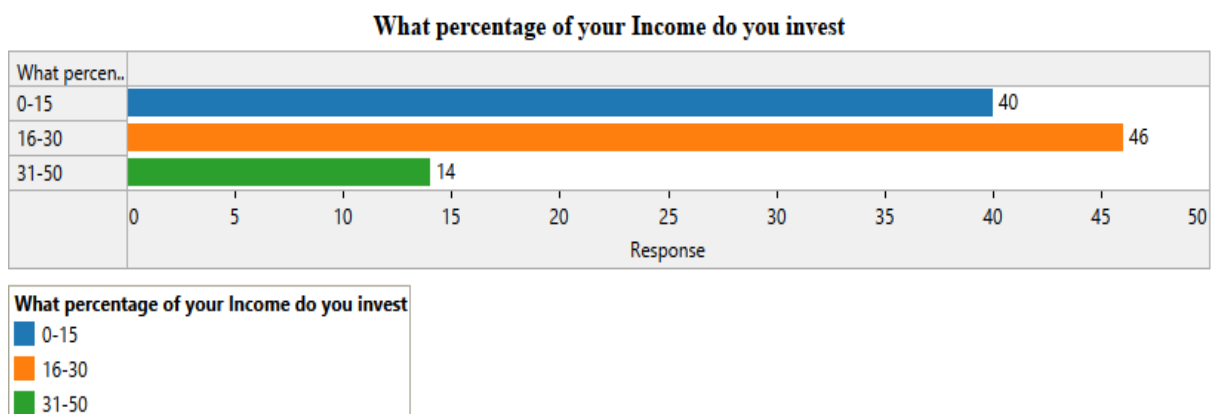
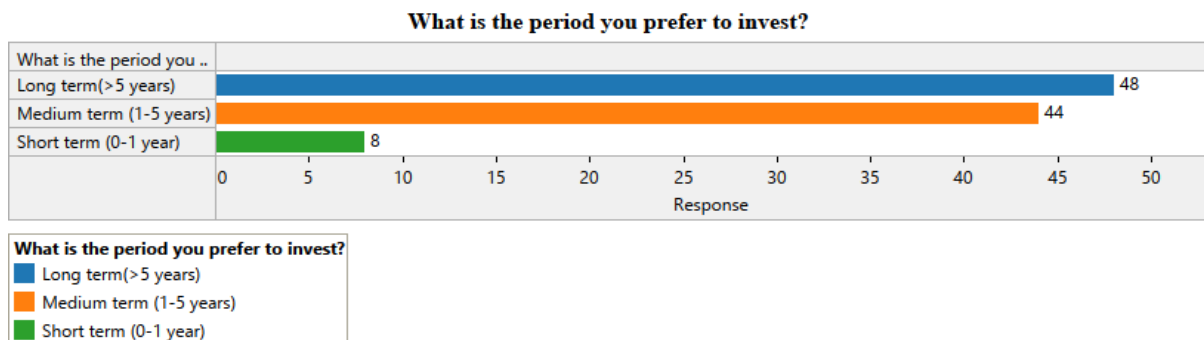
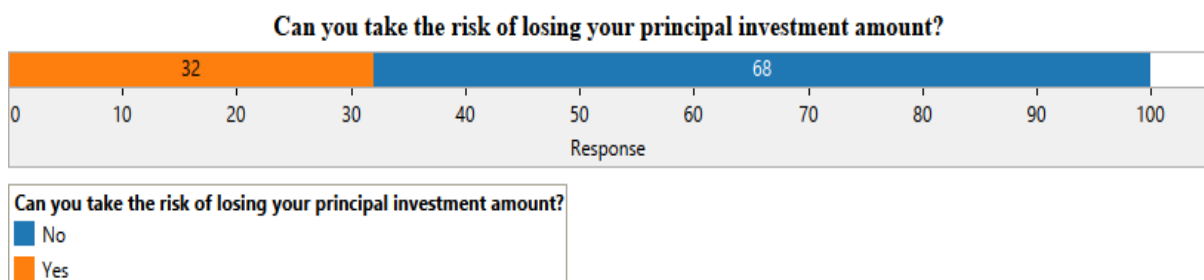
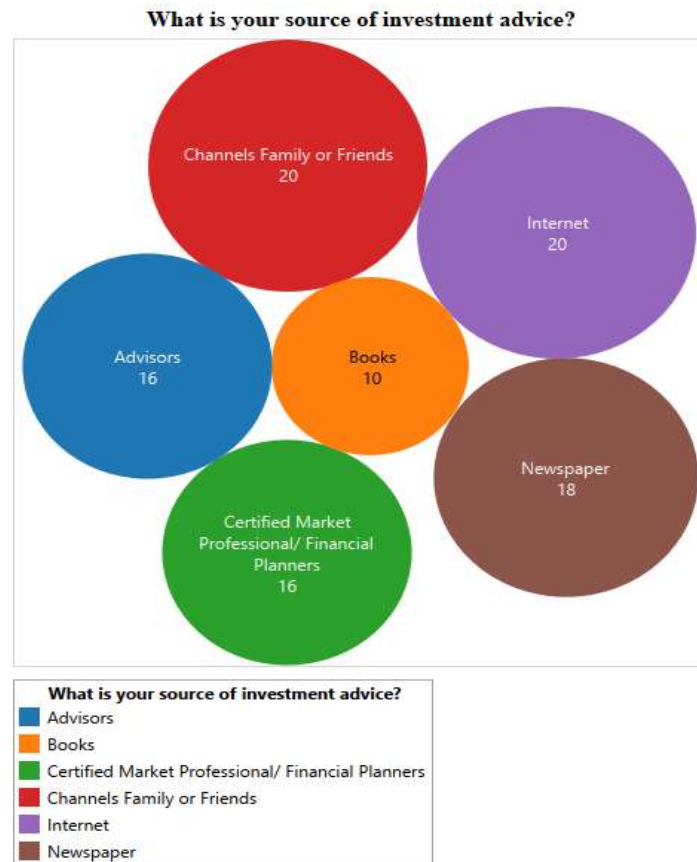
Figure 26: Target Amount of Saving and Investment**Figure 27: Percentage of Income Invest****Figure 28: Prefer a Period of Invest****Figure 29: Risk of Losing Principal Investment Amount**

Figure 30: Source of Investment Advice

5.0 Discussion

During the thematic analysis of the data following for main criteria has emerged

Criteria: An investment decision on Gold are primary made on the emotional criteria. The other criteria are price and purity of the Gold. Risk of investment is also an essential criterion for Investments. Consumers are more interested in investing in a secure option for investment. Gold satisfies all the criteria; therefore, it is an attractive avenue for the investment.

Deposit: The consumer considers investment option saving in bank accounts, fixed Deposits, Postal Recurring Deposits, LIC, Mutual funds, gold and property. All these investment avenues give a sense of security, safety on the consumers hard earn money Consumers expects better liquidity, a better return than other investment option. The decision primarily bases on the knowledge of the financial sector.

Gold: Global acceptance is the most critical factor for the consumer to invest in the gold. The consumer can sell & purchase gold anywhere in the world. Government has supported anywhere the investment in gold. Gold has always had an upward price trend in the long-run — investment in gold shows status in society & life. Ease of holding Gold is a factor that causes the consumer to store it limitlessly. The consumer feels that an investment in gold is the most secure Avenu. Gold protected against downfall in price is an important criterion. The increasing price and purity are the second criteria. The volatility in the price of gold makes it a primary global avenue of investment.

Investment: Government support towards gold investment compared to equity & other popular options Consumer consider fixed investment for the next generation in a given period. The consumer considers long term investment option in gold.

6.0 Conclusion

“The desire for gold is the most universal and deeply rooted commercial instinct of the human race”----- Gerald M. Loeb

The data analysis proved that Most of the respondents are investing in the Gold. Respondents invest in gold because respondents consider investment in gold is a secure option. Most of the customers prefer to invest in the Gold Mining and Gold Stocks. The respondents more purchase Physical form of gold but consumer preferred to invest in Gold Certificates and Gold accounts. The sixty-eight per cent of the respondent does not have the Financial Advisor. The respondent priority is to invest in safe/Low- Risk Investment Avenues (Saving Account, Fixed Deposits, Public provident funds, National saving certificate, post office savings, Government Securities.). The second option of the responding is to invest in Moderate Risk investment Avenues (Mutual Funds, Life Insurance, Debenture bonds). The respondent has the least preference to invest in Traditional investment Avenues (Real Estate (property), Gold/Silver, Chit Fund) still consumer invest more in this option. Respondent prefers to invest in Public sector than Private and Foreign sector. The children education is a prime objective of the saving followed by the retirement plan to the respondent. Customer prefers to invest for the longer term. The respondent prime objective is wealth creation. Most of the respondents sixty-eight invest in share market (through a DEMAT A/c), consumer invest for the longer duration for an increase in return. The respondent monitor investment monthly and occasionally not daily. Twenty-eight per cent of consumer set aside funding specifically for the marriage of children. Fifty-six per cent of the consumer have a formal budget for family expenditure. Fifty-six per cent of the consumer has saved, and investment target amount aims for each year. The respondent has expected to have 15-30 per cent to grow their investment and forth per cent expect to grow their family income to grow 0-15 per cent.

Most of the respondent prefer to invest for a more extended period. Most of the respondent consumers do not prefer the risk of losing the principal investment amount. The most preferred source of investment advice for consumers is Channels Family or Friends and internet.

7.0 Policy Implication

Public policy: The government should increase the interest rate on fixed deposit min to 9%. Gold accounts and the gold certificate should be globally accepted. The government should take active steps for monetisation of gold.

Managerial policy: Internet should use for the promotion of Investment option. Financial Advisor should be work proactively.

Acknowledgement: Researchers are grateful to the Indian Institute of Management – Ahmedabad (IIM-A) library officials for providing access to library resources. Researchers are grateful to all previous researchers who have carried out significant work and concrete foundation for this research work.

References

1. Arfaoui, M., & Rejeb, A. B. (2017). Oil, gold, US dollar and stock market interdependencies: a global analytical insight . *European Journal of Management and Business Economics*, pp. 278-293.
2. Christian Simoni, S. R. (2010). Italian and Indian gold and jewellery SMEs, marketing practices in the USA A comparative case study . *Journal of Small Business and Enterprise Development*, pp. 403-417.

3. Ibrahim, M. H. (2012). Financial market risk and gold investment in an emerging market: the case of Malaysia. *International Journal of Islamic and Middle Eastern Finance and Management* , pp. 25-34.
4. Jayakumar, P. (2019, November 4). *Economy*. Retrieved from <https://www.businesstoday.in/:https://www.businesstoday.in/current/economy-politics/india-has-10th-largest-gold-reserves-in-the-world-reveals-world-gold-council-data/story/388189.html>
5. Pan, W.-T. (2014). Mixed modified fruit fly optimisation algorithm with general regression neural network to build oil and gold prices forecasting model. *Kybernetes*, 1053-1063.
6. Smriti Verma, M. S. (October 2014 - March 2015). A Study of the Factors Affecting Gold as an Investment Option. *International Journal of Business Insights & Transformation / Volume 8 / Issue 1 /* , 18-24.
7. Wei Fan, S. F. (2014). Macro-factors on gold pricing during the financial Crisis. *China Finance Review International*, pp58-75.
8. Wei Jiang, P. L. (2014). The study of the price of gold futures based on heterogeneous investors' overconfidence. *China Finance Review International*, pp. 24-41.

Consumers' Knowledge and Attitude towards Organic Food Products in Surat City

Swati Sharma* and Anil Kumar**

ABSTRACT

Globally the food consumption habits are changing because of health and environmental issues leading to increase in demand for organically produced food throughout the world. Also the demand for organic products in India has been growing significantly. In this regard this study aims to find the consumers' knowledge and attitude towards organic food products in Surat city. The primary data were collected by survey method with a pre- designed structured questionnaire. The sample size of this study was 150 consumers selected through convenience sampling method from Surat city of South Gujarat. The analytical tools employed include tabular analysis and relevancy rating used to rank the factors. The finding of the study reveals that majority of the consumers lacked knowledge about organic foods products and very few were buying organic food products in the study area. The major reasons for not buying organic food products were like don't know where to buy from, lack of knowledge, high prices and possibility of fraud etc. The attitude of surveyed consumers was found positive towards organic food products and majority of the consumers showed their willingness to be informed about organic food products in future. So from the study it could be concluded that there is an urgent need for organizing intensive informative promotion campaigns by both government organizations and private players to educate the consumers and increase their knowledge of organic food products which could lead to increase the demand for organic food products benefitting both the farmers and processing firms.

Keywords: Organic food products; Consumption; Knowledge; Attitude.

1.0 Introduction

Food consumption patterns are changing as a result of health and environmental issues. Organic agriculture has evolved as a movement in India over the last few years. The Indian organic business is poised to be valued at United States Dollar (USD) 1.5 billion by the year 2020, and the market for organic food in India is anticipated to grow at a Compound Annual Growth Rate (CAGR) of over 25 per cent during 2015-20. At present organic cultivation and organic business is witnessing major shift because of growing awareness of farmers and consumers about environmental protection and sustainable agricultural practices, and the adverse impact of chemical inputs on the soil, environment and human health. Also the organic food products offer profitable business opportunities as they fetch higher returns than conventional food products in the domestic as well as export markets.

In order to boost trade in Indian agricultural products and capture significant share in global market, it is an imperative that India focuses on organic products which give it competitive edge in global market, namely organic cotton, spices, essential oils, medicinal and aromatic plants and fresh fruits and vegetables. Organic farming in irrigated and intensive farming areas holds another kind of promise, a source of sustainable and value added commercial farming.

*Corresponding author; Assistant Professor, Department of Agriculture, Navsari Agricultural University, Navsari, Gujarat, India (Email: swatisharma_abm@yahoo.co.in)

**Research Scholar, Department of Agriculture, Navsari Agricultural University, Navsari, Gujarat, India

The main objectives of this study were to assess consumers' knowledge and attitude towards organic food products in Surat City. To achieve these initial objectives, the study has been divided into several secondary objectives:

- To study the socio-economic profile of consumers
- To examine the food shopping habits of potential consumers
- To determine the level of knowledge about organic food products
- To study the attitude of consumers towards organic food products.

2.0 Literature Review

Aarthi and Balusamy (2018) concluded that the attitude and preference to purchase organic food products was found to be satisfactory, however, based on the interference of the policy makers and initiative by the government will help to achieve good health situation by the consumers and prospering business by the producers and retailers promoting organic food products. Consumer behaviour plays a major role in Organic food products segment. Krishna kumare and Niranjana (2016) stated in the study that the main reason for buying organic food product was health. Though the organic food product was healthy, some respondents were refused to buy them because of high premium price and lack of trust on the originality of organic food products. The organic respondents had positive attitude towards organic food products whereas non-organic had negative attitude towards organic food products. According to Singh H. and Rachna (2017) the demand for the organic products in the market is increasing day by day. The concern of consumers towards health and harmful effect of chemical products is forcing them to use organic products. The quality characteristics of organic products constituted as input into raising demand for these products. They were preferred for the improved human health and overall well-being. The quality and health aspect act as major motivator for the buyer to buy organic products. Moreover, the environmental protection perspective further makes them more attractive to the consumers. Thatte L., Pawar S. and Zankar G. (2016) concluded that in case of Maharashtra, a large number of people are aware of superiority of organic food over conventional, but are found to be consuming less. Higher demand is found to be a function of less price and better educational background. Surprisingly the most dominant reason for low demand is neither price nor illiteracy but less supply of organic food. In this regard the present study focuses on the potential South Gujarat consumer of organic produce. The present study aims to evaluate opinion and awareness of consumers for organically grown produce in South Gujarat.

3.0 Research Methodology

The nature of the present study was Descriptive. The data were gathered from both the primary and secondary sources. The primary data were collected by conducting personal interview of consumers in the study area. The Convenience Sampling methodology was used for the selection of 150 respondents. The primary data were gathered by administering a structured questionnaire with 150 consumers of Surat city of South Gujarat. The secondary data were collected through various sources like magazines, internet, journals and other sources. The quantitative approach was used for the data analysis. Simple statistical tools and tabular analysis was done for the fulfilment of the objectives.

4.0 Results and Discussion

The results of Socio-economic profile of respondents were summarized in Table 1. The customers consisted of 87 male and 63 female. The 42 per cent respondents were in age group of 26-

40 yrs. followed by 26 per cent between 41-50 yrs. The majority of the respondents 74 per cent were married and 73 per cent respondents had nuclear family type. The majority of the respondents 21 per cent had post-graduation and 44 percent had graduation as their educational qualification with at least 14 per cent had studied up to HSC as their minimum qualification as their academic qualification. The 43 per cent were involved in private occupation and 37 per cent were into government sector. The monthly family income range between Rs. 20,000-40,000 with 42 per cent respondents was the highest, so they fall under the middle income group followed by 27 per cent between incomes Rs. 10,001 – Rs. 20,000.

Table 1: Socio-Demographic Profile of Respondents (n=150)

Gender		
Parameters	Frequency	Percent
Male	87	58
Female	63	42
Age of respondents		
18-25 years old	33	22
26-40years old	63	42
41-50 years old	39	26
>50 years old	15	10
Marital Status		
Married	111	74
Unmarried	39	26
Family Type		
Nuclear	110	73
Joint	41	27
Education Qualification		
Secondary	17	11
High Secondary	21	14
Graduate	66	44
Post Graduate	32	21
Professionals	15	10
Occupation		
Business	30	20
Government	56	37
Private	65	43
Monthly income (Rs.)		
<10,000	30	20
10,000-20,000	41	27
20,000-40,000	63	42
>40,000	17	11

5.0 Shopping Habits of Potential Consumers

From **Table 2** it could be depicted that most of the respondents i.e. 30 per cent usually prefer to purchase food items i.e. grocery and fresh produce from “Mandis”, which is considered to be a wholesale traditional market for grocery and fresh produce. About 24 per cent purchase food items from kirana stores and 21 per cent purchase food items from modern supermarkets. The rest 16 per cent of the people surveyed purchase food items from mobile vendors and 9 per cent from specialized shops.

Table 2: Preferred Place to Purchase Food Items (n=150)

Number of family members	Frequency	Percentage
Mandis	45	30
Specialized shop	14	9
Modern Supermarket	32	21
Mobile vendors	24	16
Kirana stores	36	24
Total	150	100

The consumers were asked to rate the importance of the factors affecting the food items consumption. A Likert-type scale from 1 to 5 was used, (1 being not very important and 5 – very Important). From **Table 3** it could be observed that consumers in the study area give much importance to the factors like freshness, quality and taste, price and useful features. This is a definitely positive result. According to consumers visibility in the shop and packaging were not considered important factors affecting the consumption of food items.

Table 3: Factors Affecting the Consumption based on Importance (n=150)

Affecting factors based on importance	Not Important 1	Slightly Important 2	Moderately Important 3	Important 4	Very Important 5	Mean	Rank
Price	0(0)	8 (16)	35 (105)	42 (170)	65 (325)	4.1	III
Quality and Taste	0(0)	3 (6)	30 (90)	42 (168)	75 (375)	4.27	II
Freshness	0(0)	0(0)	8 (24)	25 (100)	117 (585)	4.73	I
Useful features	15 (15)	25 (50)	28 (84)	40 (160)	42 (210)	3.46	IV
Presentation in shop	42 (42)	30 (60)	11 (33)	31 (124)	36 (180)	2.92	V
Visibility in shop	59 (59)	14 (28)	12 (36)	31 (124)	34 (170)	2.77	VI
Packaging	62 (62)	12 (24)	12 (36)	30 (120)	34 (170)	2.75	VII

The **Table 4** depicts that 42 per cent consumer's major source of information about food items were word of mouth. About 28 per cent consumers used to get information by visibility in shop and rest 24 per cent and 6 per cent consumers come to know about food items through advertisement and other sources respectively.

Table 4: Source of Information about Food Items (n=150)

Parameters	Frequency	Percentage
Advertisement	36	24
Word of mouth	63	42
Visibility in shop	42	28
Other sources	9	6
Total	150	100

6.0 Knowledge of Organic Produce

With regard to the concept the consumers surveyed have about organic produce, **Table 5**

indicates, that there is a predominant trend to identify these foods as chemical free products. From **Table 5** it could be concluded that the 35 per cent consumers identified organic products as produced without chemical fertilizers; around 18 per cent identify these products as healthier food and 9 per cent as natural foods. Almost 16 per cent of the consumer surveyed didn't know the meaning of organic produce.

Table 5: Knowledge about Concept of Organic Produce (n=150)

Organic food are	Frequency	Percentage
Natural foods	14	9
Produced without chemical fertilizers	53	35
Ecologically clean foods	11	7
Healthier foods	27	18
Produced using organic methods	23	15
Don't know	24	16
Total Responses	150	100

Table 6 shows attitude of consumers towards advantages of organic produce. Around 37 per cent consumers considered that healthiness is the main advantage of organic produce. Another 26 per cent indicated safety and 13 per cent considered nutrition as an important advantage. About 12 per cent of the consumer surveyed didn't know any advantage of organic food.

Table 6: Advantages of Organic Produce (n=150)

Organic food are	Frequency	Percentage
It's tasty	12	8
It's healthy	56	37
It's safe	39	26
It's nutritional	20	13
Better smell	6	4
Don't know	18	12
Total Responses	150	100

Table 7 shows that the vast majority of the consumer surveyed 52 per cent didn't know any organic brand selling organic produce. Around 12 per cent of the respondents were aware about 24 Mantra and 11 per cent were aware about Organic India brand. And rests of the consumers were less aware about organic brands available in market.

Table 7: Awareness of any Organic Food Brands (n=150)

Brands	Frequency	Percentage
24 Mantra	5	12
Down to earth	18	3
Orgavita	15	10
Fab India	11	7
Green Fiesta	8	5
Organic India	17	11
Don't know	78	52
Total Responses	150	100

Table 8 shows that around 55per cent of the consumers were not aware about the availability of organic produce in the study area.

Table 8: Awareness about Availability of Organic Produce (n=150)

Awareness	Frequency	Percentage
Yes	68	45
No	83	55
Total Responses	150	100

Table 9 depicts that 71 per cent of the consumers have not ever tried the organic products.

Table 9: Have You Ever Tried Organic Products (n=150)

Ever tried organic produce	Frequency	Percentage
Yes	44	29
No	107	71
Total Responses	150	100

From the **Table 10** it could be concluded that 55 per cent consumers were not using organic products as according to them they don't know where to buy from, another 28 per cent said that the reason of not buying was the lack of knowledge. And for about 13 per cent of the consumers' high prices and for rest 4 per cent of consumers there might be a possibility of fraud the other reason for not using organic products.

Table 10: Reasons for not Using Organic Products (n=107)

Reasons for not using	Frequency	Percentage
Don't know where to buy	59	55
Possibility of fraud	4	4
Lack of knowledge	30	28
High prices	14	13
Total Responses	107	100

The respondents were asked to evaluate the different aspects related to organic products. To assess these attributes, a Likert-type scale has been used, assessing sentences from 1-5 according to their meaning: 1 (Strongly disagree) to 5 (strongly agree). From the **Table 11** it could be concluded that the highly valued aspects were: the fact that they are more natural, relationship with health, high quality and better taste, the fact that they contain less toxic and dangerous waste. The vast majority of the people surveyed disagree that organic foods are a fraud or like a fashion. This is a positive result. The respondents also don't think that organic foods are worse than conventional ones.

The consumers were also asked how they would make sure that the product is organic. In this regard **Table 12** depicts that 37 per cent of consumers said they will find out through difference in taste. About 31 per cent of the consumers surveyed gave importance to certification as a way to be assured that the product is organic. However, only 5 per cent of consumers gave importance to trust make. Only 6 per cent said that they get assurance through "special packaging" that the product is organic.

Table 11: Respondents' Attitude towards Organic Products (n=150)

Statements	Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5	Mean	Rank
Organic foods are healthy	0(0)	0(0)	9 (27)	55 (220)	86 (430)	4.51	II
Organic foods are more natural	2 (2)	2 (4)	11 (33)	52 (208)	83 (415)	4.41	III
Organic foods are of higher quality and better taste	0(0)	0(0)	7 (21)	56 (224)	87 (435)	4.53	I
Organic foods are more environment friendly	0(0)	7 (14)	11 (33)	50 (200)	82 (410)		V
Organic foods are of better smell/flavour	15 (15)	17 (34)	16 (48)	41 (164)	61 (305)	3.77	VIII
Organic foods produce less toxic and dangerous waste	11 (11)	9 (18)	16 (48)	46 (184)	69 (345)	4.02	VI
Organic foods are of higher level of guarantee and control	20 (20)	23 (46)	12 (36)	40 (160)	55 (275)	3.58	IX
Organic foods are more expensive	12 (12)	10 (20)	11 (33)	49 (196)	68 (340)	4.01	VII
Organic foods don't last long	26 (26)	30 (60)	12 (36)	34 (136)	47 (235)	3.29	X
Organic foods don't look as good	35 (35)	35 (70)	11 (33)	27 (108)	42 (210)	3.03	XI
Organic foods are fraud	41 (41)	32 (54)	26 (78)	23 (92)	28 (140)	2.75	XII
Organic foods are like fashion	54 (54)	55 (110)	14 (42)	13 (52)	14 (70)	2.17	XIII
Organic foods are worse than conventional ones	65 (65)	60 (120)	14 (42)	5 (20)	5 (25)	1.82	XIV
Organic foods produce are difficult to find	0(0)	3 (6)	5 (15)	61 (244)	81 (405)	4.46	IV

Table 12: Assurance Factors that the Produce is Organic. (n=150)

Assurance factors	Frequency	Percentage
Difference in taste	40	37
Difference in appearance	13	12
Difference in price	3	3
I trust	5	5
Certified	33	31
Special packaging	6	6
Labelled duly	2	2
Other	4	4
Total Responses	107	100

From **Table 13** it could be concluded that 44 per cent of the respondents preferred to acquire organically grown produce from specialized shops. Approximately 23per cent and 19 per cent of the

people surveyed were willing to acquire organic food from supermarkets and conventional market respectively. It was surprising to see that only 8 per cent consumers preferred the organic produce to be delivered at home/office.

Table 13: Preferred Method to Acquire Organic Food (n=150)

Preferred method	Frequency	Percentage
Delivered at home/office	12	8
Specialized shops	66	44
Supermarkets	35	23
Conventional markets	29	19
Other	9	6
Total Responses	150	100

The table 14 depicts that about 78 per cent of the respondents surveyed were willing to regularly be informed how to get organic product. This is a clearly positive result. They chiefly provided their personal e-mail addresses and some provided telephone numbers.

Table 14: Willingness to be Informed about how to acquire Organic Product (n=150)

Willingness to be informed	Frequency	Percentage
Yes	117	78
No	33	22
Total Responses	150	100

The respondents were asked to identify their preferred media to get information about organic product. Table 15 shows that 35 per cent of the consumers preferred to get information through special TV Programs, another 24 per cent prefers TV advertisement. Newspaper is also an important information source for around 17 per cent of the people surveyed.

Table 15: Preferred Media to get Information about Organic Produce (n=150)

Preferred media	Frequency	Percentage
Special TV programs	53	35
TV advertisement	36	24
E-mail	21	14
Radio	5	3
Newspapers	26	17
Word of mouth	11	7
Total Responses	150	100

The respondents were asked whether or not they are willing-to-pay a price premium for organically grown produce. Table 16 depicts that **only 14 per cent of the consumers were not willing to pay any premium**. The rest of the people were ready to pay some price premiums. Around 37 per cent of the consumer surveyed mentioned about their willingness to pay a price premium between 10 and 20 per cent. Approximately 19 per cent and 14 per cent of the respondents showed readiness to pay 20-30per cent and 30 50per cent price premiums respectively. All in all, it can be said that about 60per cent of the sample is willing-to-pay a price premium between 10 and 30 percent.

Table 16: Willingness-to-Pay a Price Premium for Organically Grown Produce (n=150)

Willingness-to-Pay	Frequency	Percentage
NO	21	14
Yes< 10per cent	12	8
Yes 10-20per cent	56	37
Yes 20-30per cent	29	19
Yes 30-50per cent	26	17
Yes 50-75per cent	5	3
Yes 75-100per cent	3	2
Total Responses	150	100

7.0 Conclusions and Suggestions

The finding of the study suggests that lack of knowledge and information is one of the important factors playing important role in consumption of the organic produce. In this regard, intensive promotion and information campaign should be implemented, so that consumers can get to know the exact meaning of organic produce, their advantages and the regulation procedures that guarantee their quality to avoid the possibility of fraud. Also the most effective way to resolve the information asymmetry problem is certification. It is possible to alleviate the information asymmetry through certification, in order to improve consumers willing to pay a price premium for certified organic produce. Also health and physical fitness issues should be placed with organic produce to increase the demand of organic products. In order to attract new consumers; the organic produce range should be enlarged and should be made available at consumer desired locations. And together with expansion of organic product market, consumers' knowledge and attitude could be changed leading to the growth of organic food industry. There is need for Innovation in certification, packaging and labelling to increase consumption of organic product. Also, some dedicated speciality retail store need to create awareness as well as promote sale of organic products.

References

1. Baladhandapani K. and Sivalingam S.(2016). Consumer Attitude towards organic food product. *International Journal of current Research*; 8(10): 39730-39732.
2. Balaji V, Injodey JI (2017). Organic Food Products: A Study on Perceptions of Indian Consumers. *Indian Journal of Marketing*; 47(1).
3. B. Krishnakumare and S. Niranjana (2017). Consumers' Buying Behaviour towards Organic Food Products in Tamil Nadu. *Agricultural Economics Research Review*; 30(1): 133-138.
4. Bash, M. B., Mason, C., Shamsudin, M. F., Hussain, H. I., & Salem, M. A. (2015). Consumers Attitude Towards Organic Food. *Procedia Economics and Finance*; 31:444-452.
5. Beharrell B., Macfie J.H. (1991). Consumer Attitudes to Organic Foods. *British Food Journal*; 93 (2):25-30.
6. Bharthi, Ananthnag, & Nagaraja. (2014). Buying behaviour of urban residents towards organically Produced food Products. *International Journal of Research in Applied, Natural and Social Sciences*; 2(2):33-38.
7. Chiciudean D, Funar S, Arion F, Chirla G, Man A. (2017). The Factors of Influence over the Consumer Buying Behaviour for Organic Food. *Bulletin UASVM Horticulture*; 69 (2):68-71.

8. Laheri VK, Arya PK. (2015). A Study on Consumer Decision Towards Purchase Of Organic Food Products: A Case Study of Delhi. *Indian Journal of Commerce & Management Studies*; 6(2):84-87.
9. Manaloor V, Srivastava D, Islam S. (2016). Growth of Organic Food Industry in India. *AGROFOR International Journal*; 1(2):69-76.
10. M. Aarthi and S. Balusamy(2018). Impact of Consumers Attitude Towards Organic Foods in South Coimbatore. *International Journal of Applied Research*; 4(1): 128-131.
11. Mehra S, Ratna PA. (2014).Attitude and Behavior of Consumers Towards Organic Food: An Exploratory Study in India. *International Journal of Business Excellence*; 7(6):677-696.
12. Nayana Sharma and RituSinghvi. (2018). A Market Study of Organic Food Products Available in Udaipur City. *International Journal of Current Microbiological Applied Science*; 7(08): 845-856.
13. Patel Ripal and Donga Gautam (2018). *International Journal of Latest Technology in Engineering, Management & Applied Science. Consumers' Awareness and Consumption: A Study of Organic Product*; VII(VI): 120-124.
14. Singh H. and Rachna (2017). A study of Consumers Attitude towards Organic Products. *International Journal of Advance Research in Computer Science and Management Studies*; 5(6):116-119.
15. Sharma G, Dewan R, Bali S. Factors Influencing Consumer Buying Behavior& Awareness towards Organic Food: A Study of Chandigarh &Panchkula Consumers. *International Journal of Science and Research*. 2014; 5(2):689-696.
16. Sivathanu B. (2015). Factors Affecting Consumer Preference towards the Organic Food Purchases. *Indian Journal of Science and Technology*; 8(33):1-6.
17. Thatte L., Pawar S. and Zankar G. (2016). Analysing Consumer Behaviour towards Organic Food with Special reference cities - Mumbai & Thane. *International JournalApplication or Innovation in Engineering & Management*; 5(8):94-108.

Data Envelopment Analysis: A Non-Parametric Approach to Evaluate the Efficiency of Selected Equity Mutual Funds

Aashka Thakkar*

ABSTRACT

With the robust growth of the Mutual Fund industry within the past 20 years, the analysis and evaluation of the performance of mutual funds has become imperative. Generally, a mutual fund performance is evaluated on the basis of its risk and return parameters. Moreover, the fund Manager's performance is also considered as an important parameter to rank the performance of the fund. The traditional investment avenues and their returns have become less attractive, and it is the reason of the rapid growth of Mutual funds in India. Therefore, it becomes really important to grasp and evaluate the factors affecting the efficiency of Mutual Funds. Data Envelopment Analysis, a non-linear programming method which will evaluate the efficiency of a fund with reference to its Inputs and Outputs. The current research takes into account the 10 years data of selected equity diversified mutual funds for the purpose of DEA Analysis.

Keywords: *Mutual funds; Data envelopment analysis; Risk return.*

1.0 Introduction

Financial markets have become more confined by introducing a vast range of innovative financial instruments. A large number of mutual funds are floated into the market like, sectoral, equity diversified, balanced, income and ELSS funds. Usually the performance of mutual funds is usually evaluated on the basis of risk- return parameters only. Mutual funds have become the most popular investment avenue amongst the investors to fulfil their financial goals.

2.0 Literature Review

Hasan Qamar and Sanjay Singh (2017) used DEA approach- the non parametric method to analyze the efficiency of mutual funds. They studied 46 funds for the period of 10 years. The study reveals that the top ranking mutual funds as per CRISIL has also rated an inefficient mutual funds by DEA Model.

D K Malhotra, Rashmi Malhotra, Vivek Bhargava (2016) has done analysis of 35 funds on an efficiency scale of 1 to 100. By considering a 12 month return, turnover ratio, SD, Expense Ratio, as inputs and outputs of DEA, it was found that only 11 growth funds were 100% efficient.

Shubhasis DasGupta and Mayank Patel (2015) in the paper "Performance evaluation of Indian Mutual Funds using Data Envelopment Analysis" suggested that DEA is a useful approach in understanding not only the performance pattern of mutual funds but also other variables affecting its efficiency.

Leila Zamani, Resia Beegam and Samad Borzoian (2014) studied portfolio selection using DEA of selected Indian companies, wherein 3 different portfolios of stocks were analyzed, which provided a super efficiency coefficient ranging between 1.3909 to 2.0934.

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: aashka.thakkar2013@gmail.com)

Antonella Basso and Stefania Funari (2014) in her study concluded that DEA approach allows defining performance measures that are able to treat the multidimensional nature of the fund's performance, besides the traditional risk- return parameters.

Forough Ahmadizadeh (2014) studied the potential of peak moments of mutual funds in context of DEA. Assuming constant returns to scale, out of total 24 funds 9 only 9 funds were found 100% efficient during the study period.

Nikhath Afshan (2013) made an attempt to evaluate the relative performance of Mutual Funds under Balanced category using DEA approach from 2009 to 2012. The results showed that the overall performance of both types of has increased over a period of time, out of which some funds have remained 100% efficient right through the period of study.

3.0 Objectives of the Study

- To analyze the inputs and outputs affecting the efficiency of equity mutual funds.
- To evaluate and measure the efficiency of selected growth funds by using DEA approach.

4.0 Methodology of the Study

Data Envelopment Analysis evaluates the efficiency of an individual unit, corresponding to its inputs and outputs. It defines the efficiency measure of a production unit mathematically by a ratio of weighted sum of total outputs to weighted sum of total inputs.

5.0 Data Envelopment Analysis

5.1 Inputs for DEA

- Minimum Investment
- Standard Deviation
- Beta
- Expense Ratio
- Total Assets

5.2 Output for DEA

- Annual Return
- Sharpe Ratio
- Alpha

6.0 Limitations of the Study

- It only focuses on selected equity diversified mutual funds for the purpose of study.
- The funds which are operative for the past 10 years are considered for the purpose of study.

The Table 1 indicates the input variables and output variables of the selected 12 equity growth mutual funds for the study.

The Table 2 depicts the efficiency scores of selected equity mutual fund schemes by using Data Envelopment Analysis approach. The schemes having efficiency score of one are said to be performing efficiently, while the schemes having efficiency score of less than one are inefficient.

Table 1: Input and Output Variables for selected Mutual Funds

Sr. No	Name of the Scheme	Expense Ratio	Mini Investment	SD	Total Assets (Cr)	Beta	Annual Return (%)	Turnover (%)	Sharpe Ratio	Alpha
1	Birla Sunlife Equity Fund	1.97	1000	14.33	10035	0.98	19.19	100	0.87	1.21
2	Baroda Hybrid Equity Fund	2.70	5000	11.33	686	0.89	12.57	107	0.50	-1.98
3	DSP Equity Opportunity Fund	2.08	1000	15.56	5439	1.02	18.23	115	0.70	-0.62
4	HDFC Equity Savings Fund	2.09	5000	5.61	6254	1.07	10.42	35.89	1.02	2.19
5	Sundaram Diversified Equity Fund	2.21	500	15.45	2539	1.07	15.71	63	0.61	-1.71
6	IDFC Core Equity Fund	2.08	1000	14.79	2826	0.92	14.19	41	0.45	-1.08
7	Invesco India Dynamic Equity Fund	2.21	5000	10.30	1036	0.85	16.04	300	0.64	-0.70
8	Kotak Equity Opportunity Fund	2.09	5000	13.41	2332	0.88	18.02	95.72	0.75	1.50
9	SBI Focused Equity Fund	2.36	5000	14.01	3452	1.02	26.04	80	0.78	-1.05
10	Mirae Asset India Equity Fund	2.05	5000	13.27	1458	0.95	23.18	48	0.94	2.67
11	Reliance Growth Fund	2.15	5000	15.71	6452	0.87	18.14	157	0.62	-0.43
12	Tata Equity PE Fund	1.98	5000	15.05	5029	0.70	20.86	47.29	0.95	3.48

Table 2: DEA Analysis of Selected Mutual Fund Schemes

Name of the Scheme	Constant Returns to Scale	Variable return to Scale
Birla Sunlife Equity Fund	1	1
Baroda Hybrid Equity Fund	0.893	0.815
DSP Equity Opportunity Fund	1	1
HDFC Equity Savings Fund	1	1
Sundaram Diversified Equity Fund	0.726	0.827
IDFC Core Equity Fund	0.937	1
Invesco India Dynamic Equity Fund	1	1
Kotak Equity Opportunity Fund	1	1
SBI Focused Equity Fund	1	1
Mirae Asset India Equity Fund	1	1
Reliance Growth Fund	1	1
Tata Equity PE Fund	1	1

DEA uses two types of scales Constant Return to Scale and Variable Return to Scale. CRS assumes that an increase in input will result in the proportionate increase in output. In other words, there is a significant relationship between input resources and output. In case of Mutual Fund scheme

if the inputs will deviate than there will be a proportionate change or increase be observed. All the Mutual Funds except Baroda Hybrid Equity Fund, Sundaram Diversified Equity Fund, and IDFC Core Equity Fund have their efficiency scores less than 1.

On other hand Variable return to scale proposes that an increase in input resources will result in disproportionate increment in output. It means, either a growth or a decline in inputs or outputs does not result in proportionate change in inputs and outputs respectively. As per the above analysis it is been observed that Baroda Hybrid Equity Fund and Sundaram Diversified Equity Fund has the least efficiency score which is below 1. These funds are inefficient as compared with the other funds operating in the market considered for the study.

7.0 Conclusion

Mutual fund efficiency analysis throws the light on the fact that the performance of the funds is not only affected by its risk quotient but also the other factors like Expense Ratio, Turnover and total Assets. Therefore in this paper DEA approach- a non-parametric method is been used to analyze the efficiency of mutual funds. The results reveal that in spite of the good returns, some of the funds failed to prove it efficiency on the DEA parameter. So it becomes imperious that a Fund Managers also controls and analyzes the other parameters also to evaluate the efficiency of the Mutual Funds.

References

1. Antonella Basso and Stefania Funari “DEA models with a constant input for SRI mutual funds with an application to European and Swedish funds”, International Transactions in Operational Research- Wiley Online Library, Vol-21, Issue 6.
2. D K Malhotra, Rashmi Malhotra, Vivek Bhargava “Identifying Tax efficient Mutual Funds using Data Envelopment Analysis Model” International Journal of Management Research, Vol.7, No 1&2.
3. Leila Zamani, Resia Beegam and Samad Borzoian “Portfolio Selection using Data Envelopment Analysis (DEA): A Case of Select Indian Investment Companies”, International Journal of Current Research and Academic Review, ISSN: 2347-3215, Vol-2, No-5, pp-50-55
4. Nikhat Afshan “Performance Evaluation of Mutual Funds in India: DEA APPROACH, Romanian Review of Social Sciences (2013), No.5 p.2
5. Shubhasis DasGupta and Mayank Patel “Performance Evaluation of Mutual Funds using Data Envelopment Anaysis” IIMS Journal of Management Science, Vol.6, No.1, January- April 2015, pp.61

Determinants of Profitability in Hotel Industry: A Case Study in Hawassa City Administration, Ethiopia

Ayneshet Agegneu*

ABSTRACT

The objective of this study is to determine the relationship between factors affecting hotel profitability (Age of hotels, Firm size, cost ratio, Equity ratio and profitability of four star in Hawassa. In order to carry out the study, secondary data of four star hotels over the period of 2013-2017 was obtained on the financial performance from the annual reports and audited financial statements and secondary data. Data collected was analyzed using SPSS20 econometrics software. Regression analysis was used to analyze the data from secondary source. The study findings indicate that the variables are statistically significance to influencing profitability of four star hotels in Hawassa. This implies that Equity ratio, operation cost ratio, and firm size has significant impact at five percent significance level on profitability of four star hotels in Hawassa but hotel age is insignificant. Based on the findings, the study recommends that the four star hotels must work towards improving their operating cost management. Further studies should be undertaken to analyze the different sectors in the economy to determine any significant differences in the relationship between firm characteristics and profitability in the hotels industry by incorporating other independent variable.

Keywords: Profitability; Return on asset (ROA); Firm size; Equity; Cost ratio.

1.0 Introduction

In developed countries, services in general are highly heterogeneous and include a great variety of interesting, complex, and often highly innovative activities. Over the past few decades, their importance has steadily grown compared to that of tangible goods. Hotel industry is a very competitive business in which customers place great emphasis on reliability and timely service delivery. The vision of all such businesses is to provide quality high class services to customers in order to successfully thrive and achieve their mission (OECD, 2012).

Profitability refers to measure of financial performance, it is one of the main aims of Hotel Industry or Hotel sector. Profit is an essential precondition for an increasing attractiveness of a company. In addition, profit attracts investors and improves the level of solvency, and thus, strengthens consumers' confidence. The financial performance of Hotel Industry is also appropriate within the macroeconomic framework since the Hotel industry is one of the financial system components, development economic growth and stability. Hence, the determinants of Profitability have attracted the interest of academicians, practitioners and institutional supervisors (Brau et al., 2003).

1.1 Empirical review of related studies and research gap

Dissimilarity of profit among Hotels Industries over the years in a given city would result to suggest that internal factors or firm specific factors and external factors play a vital role in influencing their factors affecting financial performance.

*Lecturer and Researcher, Department of Accounting and Finance, Pharma College, Hawassa, Ethiopia (E-mail: yonasayneset@gmail.com)

It is therefore imperative to identify what are these factors as it can help Hotels Industries to take action on what will increase their factors affecting financial performance and investors to prediction the factors determining profitability of Hotel Industry in Hawassa City Administration.

Chen in 2010, originate a consensual relationship between tourism and hotel industry. In other words, the ability of hotels in expanding the economic situations and the performance of tourism related firms make it one of the most major segments of the hotel industry.

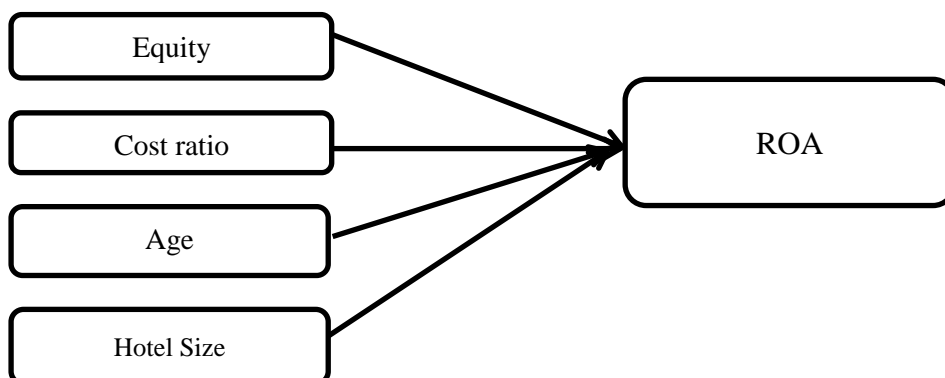
Success is based on the organization's ability to rely (Anderson and Vincze, 2000). Competition is at the core of the success or failure of firms (porter, 2009). Competition determines the appropriateness of a firm's activities that can contribute to its performance, such as innovations, a cohesive culture, or good implementation.

The main problem in this research lack of Cost management, Equity Management, unplanned Debt management, Firm Size is reduction of profitability in Hotel Industry. This Effect can account for Disorganizations in a company's operation when it is not able to pay off its due obligation and will not be able to provide service required to customer. Therefore, Hotel Industry profitability can be risked as a result. On the best of researcher knowledge, there was no doing previse study related to the topic in Hawassa City Administration in particular area. Therefore, this study was aimed to fill this gap theoretically and practically in the mentioned area.

1.2 Conceptual framework of the study

Independent Variables Dependent Variable

Figure 1: Conceptual Frame work



Source: Researcher own work 2018

1.3. Objective of the study

1.3.1 General objective

The main objective of the Study was Identifying Determinants of Profitability in Hotel Industry in case of Hawassa city Administration.

1.3.2 Specific objective

The specific objective of the Study is as follow:

- To examine the relationship between Equity and profitability.
- To examine the relationship between operating cost and profitability.
- To examine the relationship between hotel age and profitability.
- To examine the relationship between Firm size and profitability.

1.4. Research hypothesis

After reviewing different Literature the Researcher propose the following directional Hypothesis:

H1: Equity has statically significant and positive effect on profitability.

H2: Cost income ratio has statically significant and negative effect on profitability.

H3: Hotel Age has statically significant and Positive effect on profitability.

H4: Firm size has statically significant Positive effect on Profitability.

2.0 Materials and Methods

2.1 Research design

A quantitative type of data has been used based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity (Kothari, 2004). According to Creswell, (1998), quantitative research is a means for testing objective theories by examining the relationship among variables.

2.2 Population and sample

The researcher focused on four-star rated hotels; those have been served for five years and above operation and provide financial report (statement of profit and loss and statement of financial position) in Hawassa city administration. There are seven (7) four-star rated hotels in Hawassa city administration. Those are Haile Resort, Lewi Resort, Central Hotel, Lake view hotel, south star international hotel, Rori hotel and Pina Hotels.

2.3 Sample design and sampling techniques

Out of these four star rated hotels found in Hawassa city the study has focused on four star hotels (i.e. Haile Resort, Lewi Resort, Central Hotel, and Pina Hotels) based on their establishment that have at least a five year financial statements to make analysis by using five years balanced panel data. So, the matrix for the frame is 5×4 that included 20 observations. To have a fair representativeness of the sample size for the study of the total numbers of the seven (7) Four Star Hotels, the researcher has been selected Four (4) four-star StarHotels purposively based on five years operation.

2.4 Data source and type

To gather the necessary data copies of audited financial statements in the form of statement of profit and loss and statement of financial position over the period of 2013 to 2017 has been used.

2.5 Data analysis techniques

The collected panel date was analyzed using descriptive statistics, correlations, multiple linear regression analysis so as investigate the relation between dependent and independent variables. And also, the multiple linear regressions model was run and ordinary least square/OLS regression approach including all of its assumptions was tested. The panel data which were collected from selected hotels was analyzed by using SPSS version 20 software package.

2.6 Model specification

The regression analysis is conducted to find out the following:

The relationship between Age, Total operating cost, Equity and Hotel size and profitability in Hawassa hotel Industry: the researcher used 5 years period (2013-2017) for four star Hotel Industry; This is multivariate regression model which is presented below:

$$ROA = \alpha + \beta_1 ER + \beta_2 TC + \beta_3 Ag + \beta_4 S + \beta_5 Liq + \varepsilon$$

Y-dependent variable

X- Independent variable

ε -error term

Application

ROA- profitability indicator

ER- Equity ratio indicator

TC-Total Operating cost indicator

S-Company Size indicator

Liq- Liquidity Ratio

It is the regression function which determines the relation of X (TC, ER, AG, Liq and Hotel Size) to Y (ROA). α is the constant term and β is the coefficient of the function, it is the value for the regression equation to predict the variances in dependent variable from the independent variables.

3.0 Descriptive Statistics

This section discussed the summery statistics of each variables of the study. Key descriptive statistics analysis techniques including mean, maximum, minimum and standard deviation were used by the researchers to elaborate the finding of the study.

Table 1: Descriptive Statistics of the Variables

Variables	Minimum	Maximum	Mean	Std. Deviation
Return on Asset	0.10	0.81	0.4670	0.13034
Equity Ratio	1.68	3.82	2.6341	0.57162
Operating Cost	4.13	5.30	3.5720	0.21682
Age	1.02	3.18	1.7739	0.53202
Company Size	6.20	8.14	7.311	1.23634
Liquidity Ratio	1.11	3.29	2.0372	0.49842
N	20	20	20	20

Source: SPSS Output of Financial statements of sample dall Hotels Industry2018

From the above Table 1 Return on Assets (ROA) was used to measure the profitability of the Hotel Industry. As indicated in the above table, the profitability measures (ROA) shows that Four Star Hotels in Hawassa City achieved on average a positive Net profit after tax over the last 5 years. For the total sample, the overall mean of ROA was 0.4670 with a maximum of 0.81 and a minimum of 0.10. That means the most profitable Hotels Industry among the sampled earned 0.81 cents of profit after tax for a single birr invested in the assets of the firm. Regarding the standard deviation, it's mean to both sides by 0.13 which indicate there was some variation from the mean. This implies that Four star Hotels need to optimize the use of their assets to increase the return on their assets.

Equity ratio Standard deviation operating income was 0.57162. This implies that on average, most Four Star Hotels from the sample is a measure of capital adequacy. The higher percentage of this ratio causes the lower risk and makes firm safer and profitable. The minimum and maximum values of the Equity Ratio are 1.68 and 3.82 respectively. The mean value of Equity ratio overall deviate from its mean to both sides by 0.57162. This indicates that there is high variation in Equity performance in four stars Hotel in Hawassa during the study period.

4.0 Pearson Correlation

Table 2 indicates the level of correlation between the dependent variable (ROA) and

independent variables (Equity Ratio, Operating cost, Hotels Age, company size, and liquidity ratio). In the above table, Equity ratio, Firms size, and Hotel age of this study are positively correlated with profitability of Four Star Hotels in Hawassa. but under Operating Cost and Liquidity ratio are negatively correlated with profitability of Four stars Hotels in Hawassa.

Table 2: Pearson Correlation between ROA and Explanatory Variables

Variables	Return on Asset	Equity ratio	Operating cost	Hotels Age	Firms Size	Liquidity ratio
Return on Asset	1					
Equity ratio	0.321	1				
Operating Cost	-0.108	-0.150	1			
Hotels Age	0.035	0.550	0.367	1		
Firms Size	0.415	0.260	0.215	0.343	1	
Liquidity ratio	-0.237	-0.045	0.173	0.047	0.241	1
N	20	20	20	20	20	20

Source: SPSS Output of the Secondary Data, 2018

Correlation test shows that return on assets (ROA) has moderate and positive correlation between Equity ratio of Four star Hotels with the value of (0.321), Hotels age with the value of (0.035), and Firm Size with the value of (0.415). Total Operating Cost with the value of (0.108) and Liquidity ratio with the value of (-0.237) has weak and negative relationship.

5.0 Regression Analysis

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.851	0.708	0.601	0.34275	1.758

Source: Own Survey Result, 2018

From the table 4.3, R=0.851, and R square=0.708. R square (0.601) shows the power of the independent variables to predict the dependent variable. It also shows approximately 85.1 % of total variation in the dependent variable is explained by the linear combination of the independent variables from sample of 20. R indicates the relationship of independents and dependent variable. This indicates high correlation between these two variables. Coefficient of determination (R Square) explains the extent to which changes in the dependent variable can be explained by changes in the independent variables or the percentage of variation in the dependent variable (profitability of Four Star Hotels in Hawassa) that is explained by all the five independent variables.

Table 4: ANOVA (Analysis of Variance)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	14.695	8	1.942	88.501	0.000
Residual	1.012	51	0.020		
Total	15.707	59			

Source: Own Survey Result, 2018

The highest value of “F” shows that the regression model is good fit of the data. Table 4.4

shows that the independent variable are statistically significant to predict the dependent variable, $F = 88.501$, $p < 0.05$. Therefore, the regression model is a good fit of the data. Since F calculated is greater than the F critical, this means that the overall model was significant, and hence, it is good for prediction.

Table 5: Predicting Profitability by Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.041	0.105		1.074	0.000		
Equity Ratio	0.013	0.011	0.038	2.320	0.000	0.337	2.968
Operating Cost	-0.001	0.039	0.009	0.221	-0.003	0.531	1.315
Hotel Age	0.021	0.041	0.218	3.328	0.001	0.278	3.598
Firms Size	0.018	0.059	0.018	0.106	0.002	0.339	2.953
Liquidity Ratio	-0.016	0.104	0.015	0.219	-0.012	0.201	1.432

Source: Own Survey Result, 2018

From table 4.5, β -value or the coefficient of the independent variables indicates that to what extent the independent variables affect dependent variable of this study.

The above coefficient table shows that there is relationship between independent variables and dependent variable. The coefficient values of these independent variables are for Equity Ratio (0.013), Total operating cost (-0.001), Hotel Age (0.021), Firm Size (0.018) and Liquidity ratio (-0.016). This Shows that Liquidity ratio and Leverage ratio have negative relationship with Profitability of the Four Star Hotels in Hawassa. This implies that, when Liquidity of the Four star Hotels increases by one unit, the profitability of the Hotel decrease. The same is true for all independent variables whose have negative relationship with dependent variables. Equity ratio, Hotel age, and Firm Size has positive relationship with Profitability of the Four Star Hotels in Hawassa City. This implies when Hotel Age of the Four Stars Hotel is large, the Profitability of the Four star Hotels increases. The same is true for all independent variables whose have positive relationship with dependent variables.

6.0 Summary

In this study, the empirical analysis of investigating the determinants of the profitability of Hotel industry was conducted using a panel data set consisting of financial data of over the period of 2013 to 20117 and supports the finding with secondary source of data.

The major findings of this study are based on the analysis of the secondary data used for this study purposes. These are as follows:

According to the findings of this study, Equity Ratio, Operating Cost, Hotels Age, Firm size, Liquidity ratio of this study are positively correlated with Profitability of Four star Hotels in Hawassa. Liquidity ratio and Total operating Cost are negatively correlated with Profitability of Four Star Hotels in Hawassa.

The researcher found that independent variables share 85.1% of Profitability in Four star Hotels in Hawassa. This means that 14.9% of the factors affecting Profitability are not explained in this study.

According to the findings of this study, there is no Independent Variable have no significant effect on Profitability of the Four Star hotels in Hawassa. Since p-value is greater than 0.05. All Independent variable have significant effect on Profitability of the Four Star Hotels in Hawassa. Since p-value is less than 0.05.

7.0 Conclusions

Hotels Industry plays a significant role in a country's economic growth and offers financial protection to an individual or firm against monetary losses suffered from unforeseen circumstances. Therefore, in order to survive negative shocks and maintain a good financial stability, it is important to identify the determinants that mostly influence the Hotels Profitability.

In the study, Equity Ratio, Total operating cost, Hotels Age, Firms Size and Liquidity ratio are considered as independent variables while return on asset (Profitability) is considered as dependent variable. The empirical findings on the effect of Determinants of Profitability in Hawassa for the sample suggested the following conclusions.

Minimizing Leverage ratio will certainly improve the insurers' Profitability since taking an excessive Leverage ratio can affect the Hotels stability through higher loss. Total assets have a positive impact on Profitability with strong significance coefficient. This indicates that as larger four stars Hotels of the country experience more significant increases in Profitability through economies of scale. Regarding Hotel Age, results in this study revealed that has a positive and significant effect on Profitability.

8.0 Recommendations

Based on the research findings the following recommendations were presented for this study:

Generally, the empirical findings of this study revealed that Hotels specific variables and regulatory factors have more significant Determinants of profitability of Hotel. From those variables Equity ratio, total operating Cost, Hotel Age, liquidity ratio and Leverage ratio are significant key Determinants drivers of Profitability Four star Hotels in Hawassa city. Indeed focusing and reengineering the institutions alongside these indicators could enhance the financial performance of the Ethiopian Hotels industry.

- Hotel Size is positive to have high consideration of increasing the Hotels assets. Because the size of the Hotel is an important factor as it influences its competitive power. Small companies have less power than large ones; hence they may find it difficult to compete with the large firms particularly in highly competitive markets.
- Great attention should be paid to total operating cost. Four Star Hotels that are highly incurred cost may be at risk of bankruptcy if they are unable to make payments on their operation; they may also be unable to find new lenders in the future..
- By taking evidence from other industries, increasing the number of observations through the use of longer years of data, other issues that could be covered in future research include whether Hotels Industry effectively and efficiently out of risks.
- The Government emphasis for Voluntary Investor to Join in Hotel Industry .

Finally, the study sought to investigate the determinant of Profitability in Four star Hotels in Hawassa. However, the variables used in the statistical analysis did not include all factors that can affect Profitability Hotels Industry. It only includes few firm specific and macro-economic variables. Thus, future research shall conduct on the issue like impact of government regulation policy and other directives and non-financial determinant of Profitability such as management quality, efficiency and productivity and etc.

Reference

1. Anderson, D. & Vincze, (2000). Statistics for business and economics, Thomson South- Western.

2. Autio, E. (2005). Toward a theory of international new ventures. *Journal of International Business Studies*, 36(1), 9-19.
3. Barbosa, N. & Louri, H., (2005). Corporate performance: Does ownership matter? A comparison of foreign-and domestic-owned firms in Greece and Portugal. *Review of Industrial Organization*, 27, 73-102.
4. Chen, L. (2014). Effects of firm specific factors and macroeconomics on financial performance of property-liability insurance industry in Taiwan. *Asian Economic and Financial Review*.
5. Creswell, (1998). Research methodology methods and techniques, se. ed, college of commerce university of Rajasthan, Jaipur (India).
6. Kothari C. R., (2004). Research methodology methods and techniques, se. ed, college of commerce university of Rajasthan, Jaipur (India).
7. Porter, M. E. (1990). *The competitive advantage of nations*. New York: Free Press.

Emerging Issues and Challenges in Indian Banking Sector: With Special Reference to Artificial Intelligence

Asmita Mali*

ABSTRACT

Man-made consciousness (AI) is quick creating innovation for over the world. The financial segment is getting one of the primary adopters of Artificial Intelligence. Artificial Intelligence aka machine language learns about human and human interactions through various means and interaction points. Real time analysis can be done with help of Artificial Intelligence. Banks are investigating and executing innovation in many new different manners. Computerized reasoning is improving and more brilliant step by step every day. Right now, we will talk about how Artificial Intelligence is utilized in the Indian financial area, what are the advantages and what are the Challenges confronting India's Artificial Intelligence. Advancement that Artificial Intelligence offers to FinTech and the various manners by which it can improve the activities of an Indian financial area. Fake Super Intelligence alludes to insight route more intelligent than people. Further this paper is descriptive in nature and based on secondary data.

Keywords: Artificial intelligence; Banking area; Finance area.

1.0 Introduction

Man-made reasoning (AI) is quick developing as the go-to innovation for organizations over the world to customize understanding for people. The innovation itself is improving and more intelligent step by step, permitting more and more up to date businesses to embrace the AI for different applications. Banking area is getting one of the principal adopters of AI. Furthermore, much the same as different fragments, banks are investigating and executing the innovation in different manners.

The simple applications AI incorporate bring more astute talk bots for client support, customizing administrations for people, and in any event, putting an AI robot for self-administration at banks. Past these fundamental applications, banks can actualize the innovation for acquiring more productivity to their back-office and even diminish misrepresentation and security dangers.

Obviously, look into firms are bullish on the capability of AI in banking. As indicated by Fintech India report by PwC in 2017, the worldwide spending in AI applications contacted \$5.1 billion, up from \$4 billion of every 2015. There is an unmistakable fascination for the Indian financial segment as well.¹

2.0 Objectives

- To study the Various areas where the artificial intelligence is being used by the banks.
- To study the issues and challenges faced by Indian banking sector for the application of Artificial intelligence.

Scope: The Study covers the mechanical advancements in Indian financial area as it were.

*Assistant Professor, Faculty of Commerce, Parul University, Vadodara, Gujarat, India (E-mail: asmita.mali90728@paruluniversity.ac.in)

3.0 Methodology

The study is descriptive in nature and is based on secondary data. The data are collected from various reports, journals, news articles, various bank portals, RBI portal and internet sources.

The Study is Conceptual in nature and depends on secondary data. The information are gathered from different reports, diaries, news stories, different bank entries, RBI gateway and web sources.

3.1 What is artificial intelligence?

As per the dad of Artificial Intelligence, John McCarthy, it is —The science and designing of making smart machines, particularly canny PC programs.

Computerized reasoning is a method for making a PC, a PC controlled robot, or a product think keenly, in the comparative way the shrewd people think.

Computer based intelligence is cultivated by considering how human mind thinks and how people learn, choose, and work while attempting to tackle an issue, and afterward utilizing the results of this investigation as a premise of creating insightful programming and frameworks.

3.2 Artificial intelligence overview

Artificial intelligence alludes to _Artificial Intelligence_ which implies making machines equipped for performing clever assignments like individuals. Artificial intelligence performs computerized assignments utilizing knowledge. The term Artificial Intelligence has two key segments:

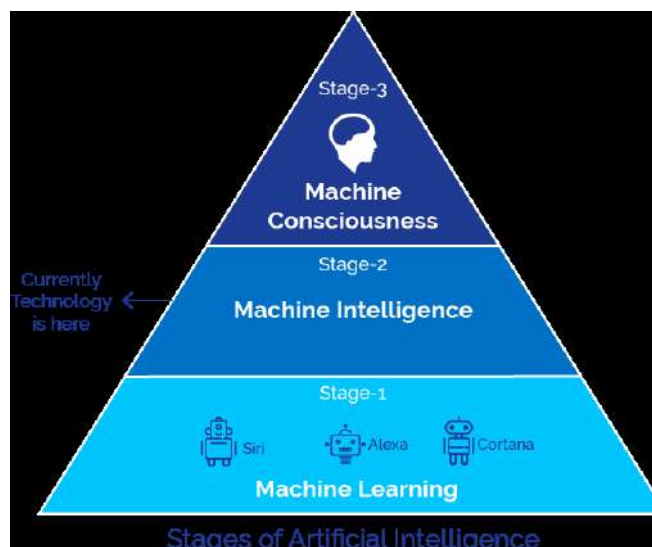
1. Automation
2. Intelligence

3.3 Stages of artificial intelligence

Stage 1: Machine Learning: It is a set of algorithms used by intelligent systems to learn from experience.

Stage 2: Machine Intelligence: These are the advanced set of algorithms used by machines to learn from experience. E.g. Deep Neural Networks. Artificial Intelligence technology is currently at this stage

Stage 3: Machine Consciousness: It is self-learning from experience without the need of external data.



Sources : <https://www.upwork.com>

3.4 Difference between Nlp, AI, ML, DL & Nn

Simulated intelligence or Artificial Intelligence

Building frameworks that can do canny things.

NLP or Natural Language Processing

Building frameworks that can get language. It is a subset of Artificial Intelligence.

ML or Machine Learning

Building frameworks that can gain as a matter of fact. It is likewise a subset of Artificial Intelligence.

NN or Neural Network

Naturally enlivened system of Artificial Neurons.

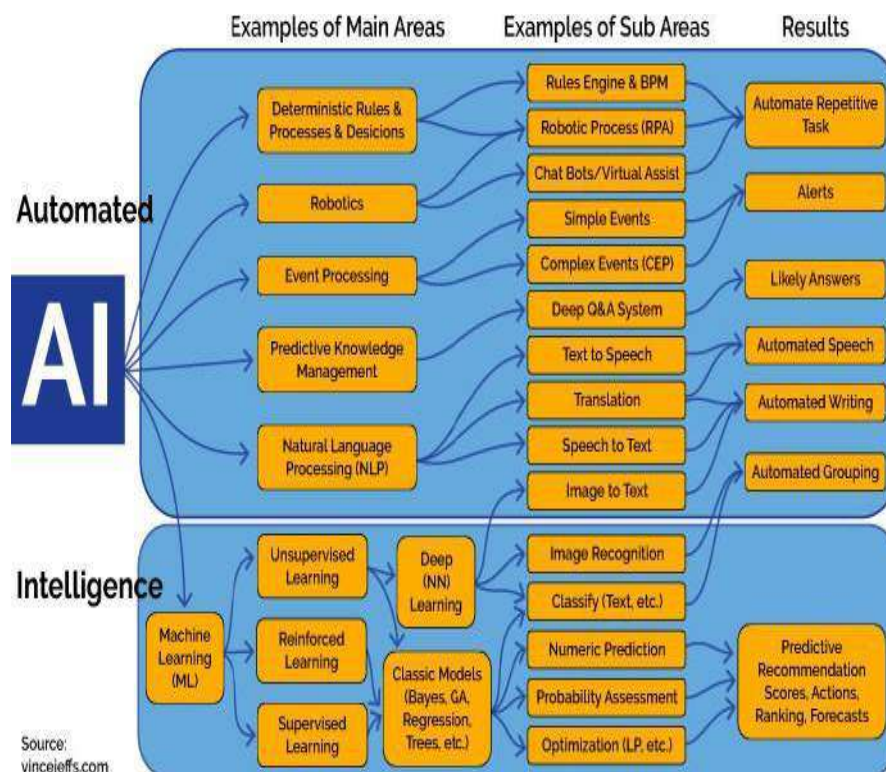
DL or Deep Learning: Building frameworks that utilization Deep Neural Network on an enormous arrangement of information. It is a subset of Machine Learning

3.5 Types of artificial intelligence

ANI – Artificial narrow intelligence: It includes fundamental/job errands, for example, those performed by chatbots, individual colleagues like SIRI by Apple and Alexa by Amazon.

AGI – Artificial general intelligence: Fake General Intelligence contains human-level errands, for example, performed independent from anyone else driving autos by Uber, Autopilot by Tesla. It includes ceaseless learning by the machines.

ASI – Artificial super intelligence: Fake Super Intelligence alludes to insight route more intelligent than people.



Sources: "Artificial Intelligence – https://www.sas.com/en_us/insights/analytics/what-is-artificial-intelligence.html. Accessed 19 Dec. 2018.

4.0 Background of Artificial Intelligence

The term artificial intelligence was coined in 1956, but AI has become more popular today thanks to increased data volumes, advanced algorithms, and improvements in computing power and storage.

Early AI research in the 1950s explored topics like problem solving and symbolic methods. In the 1960s, the US Department of Defense took interest in this type of work and began training computers to mimic basic human reasoning. For example, the Defense Advanced Research Projects Agency (DARPA) completed street mapping projects in the 1970s. And DARPA produced intelligent personal assistants in 2003, long before Siri, Alexa or Cortana were household names.

This early work paved the way for the automation and formal reasoning that we see in computers today, including decision support systems and smart search systems that can be designed to complement and augment human abilities.

While Hollywood movies and science fiction novels depict AI as human-like robots that take over the world, the current evolution of AI technologies isn't that scary – or quite that smart. Instead, AI has evolved to provide many specific benefits in every industry. Keep reading for modern examples of artificial intelligence in healthcare, retail and more.

5.0 Artificial Intelligence Industry in India – Present Scenario

A news report distributed in October in The Economic Times stated, —Start-ups observed 108% development in financing in India in 2018. The news report additionally referenced that Artificial Intelligence was among those areas which saw quickest appropriation among industry segments. Right now there are around 400 new companies taking a shot at AI and AI spaces. About \$150 million dollars is put resources into India's AI division by private players alone and the number has been developing since 2016. Despite the fact that there has been development, India lingers a long ways behind nations like US and China as far as speculation. With an extensive pool of STEM ability and with developing populace of adolescents, India will count on AI for its financial development and improvement in personal satisfaction of its residents.

There are a few new businesses that are situated in urban communities, for example, Bengaluru, New Delhi, Mumbai and Hyderabad which take a shot at man-made brainpower standards to serve shoppers better. Their item extend fluctuate from multi-lingual talk bots to internet shopping help and robotized buyer information examination. The organizations have been working in regions, for example, web based business, social insurance, edtech, fintech and so forth. In spite of the fact that in their early stage, the exhibition of these organizations have been promising.

6.0 Indian Banks and the Technology

The balanced approach followed by Indian central bank, Reserve Bank of India, is another major factor in any new technology adoption in Indian banking sector. In the last few years—especially during the governorship of Raghuram Rajan and his successor Urjit Patel—RBI has taken a cautious but pragmatic view of embracing new technologies, often forcing technology adoption on banks through regulation, wherever it has seen scope to enhance customer experience and efficiency using a particular technology. RBI's proactive push of new technology adoption has not just been restricted to creating policy frameworks. It has used a mix of regulation, evangelism and even worked with the industry to make things easier and effective.

The creation of National Payment Corporation of India (NPCI) which has significantly brought down the cost of electronic transactions is a case in point. The regulator also has an

academic/research unit, Institute of Development and Research in Banking Technology (IDRBT) which keeps studying the opportunities and challenges in new technology areas. It is not a coincidence that both these units have been actively involved in testing out blockchain as a proof of concept.

India's position is quite unique here. It is a fact that India is a tech-hub. Apart from being a large technology outsourcing destination, India is also the home to vendors with a large core banking market share globally. Two of the top three core banking solution vendors—Infosys and TCS—are headquartered in India. Of late, India has also seen a lot of activity in the fintech arena. The country has become one of the global fintech hubs. While in many developed markets, fintechs and banks have enjoyed an uneasy relationship, in India, most progressive banks like ICICI Bank, Axis Bank and HDFC Bank have proactively gone to fintechs, creating contests and hackathons to get the best of innovations, sometimes even sharing their APIs with these fintechs.

Bank Chain was announced on 8 February 2017 by SBI, India's largest bank. It's a 30+ member consortium led by SBI, the country's largest lender, and includes banks, NBFCs and the National Payments Corporation of India (NPCI), an organization set up by Indian banks to support retail payments. Simply put, Bank Chain is a community of banks for exploring, building and implementing blockchain solutions. Bank Chain is supported by Pune-based startup Primechain Technologies to create these solutions. Currently, it has 37 members and 8 live projects.

7.0 Artificial Intelligence Technology in Banking And Finance

Personalized Financial Services: Personalized connect will reach new heights as automated financial advisors and planners provide expertise in making financial decisions. They analyse market temperament against the user's financial goals and personal portfolio, and offer recommendation regarding stocks and bonds.

Smart Wallets: Advanced wallets are touted as the eventual fate of true installment innovations, with significant players like Google, Apple, Paypal and others, getting on board with the temporary fad and building up their own installment passages. This declines the reliance on physical money, in this manner growing the compass of cash to more prominent levels.

Underwriting: The insurance sector is also coming up with a storm as they are moving towards congruent automation. By utilizing AI systems that automate the underwriting process, the organizations come armed with more granular information to empower their decisions.

Voice Assisted Banking: Physical presence is slowly fading away as technology empowers customers to use banking services with voice commands and touch screens. The natural language technology can process queries to answer questions, find information, and connect users with various banking services. This reduces human error, systemizing the efficiency.

Physical nearness is gradually blurring endlessly as innovation enables clients to utilize banking administrations with voice directions and contact screens. The normal language innovation can process inquiries to address questions, discover data, and interface clients with different financial administrations. This decreases human blunder, systemizing the proficiency.

8.0 Data-driven AI applications for lending decisions

Applications installed in end-client gadgets, individual robots, and money related establishment servers are fit for examining a colossal volume of information, giving altered monetary counsel, figuring and estimates. These applications can likewise create budgetary plans and techniques through research, with respect to different modified speculation openings, advances, rates, expenses, and so on and track the advancement.

Customer support: As discourse preparing and characteristic language preparing innovations develop, we are moving nearer to the day, when PCs could deal with most client care questions. This would check a conclusion to holding up in line and subsequently bring about more joyful clients.

Digitalization instead of branch lines: Banking is an extensive procedure, with past records of long lines and drowsy reaction damaging the efficiency. In any event, opening a financial balance was seen in negative terms as harried customers would run column to post, while getting the fundamental documentation complete. Digitization of documentation facilitates that agony and makes an exhaustive stage, where the shoppers and suppliers associate.

Blockchain hastening payments: The client base that banks serve is experiencing a significant move as far as purchasing practices and inclinations, driven by the computerized upheaval, especially web based life and versatile. An expanded interest for increasingly decision and control by the way they associate with a bank is on an ascent. Slow installment procedures will be a relic of days gone by as Blockchain is set to install the upside of constant installment process, rushing up the system of installment, in this manner expanding backing and fulfillment.

Artificial Intelligence Banking In India: As indicated by PwC FinTech Trends Report (India) 2017, worldwide interest in AI applications contacted USD 5.1 billion (Euro 4.3 billion) in 2016. PNB as well as banks prefer SBI, HDFC, ICICI, HSBC and Axis banks in India have turned towards AI.

State Bank of India (SBI): SBI propelled a national hackathon called ‘Code For Bank’ for engineers, new businesses and understudies to concoct inventive thoughts and answers for banking part that spotlights on advances, for example, prescient investigation, fintech/blockchain, computerized installments, IoT, AI, AI, BOTS and mechanical procedure computerization. The bank is as of now utilizing an AI-based arrangement created by Chapdex (the triumphant group from its first hackathon), that catches the outward appearances of the clients and encourages them in understanding the conduct of its clients.

HDFC Bank: HDFC bank has built up an AI-based chatbot called ‘Eva’ (Electronic Virtual Assistance), worked by Bengaluru-based Senseforth that has tended to over 2.7 million client inquiries, associated with more than 530,000 exceptional clients, and held 1.2 million discussions. The gadget can give answers in under 0.4 seconds and has in the initial hardly any days of its dispatch addressed in excess of 100,000 questions from a large number of clients from 17 nations. The bank is likewise trying different things with in-store automated applications called IRA (Intelligent Robotic Assistant).

ICICI Bank: ICICI bank has conveyed programming mechanical technology in more than 200 business forms across different elements of the organization. Considering it the mechanical programming the bank claims it to be the first in the nation and among not many on the planet to send this innovation, that copies human activities to mechanize and perform tedious, high volume and tedious business assignments.

Axis Bank: Axis Bank as of late propelled an AI and NLP (Natural Language Processing) empowered application for conversational banking, to assist purchasers with monetary and non-money related exchanges, answer FAQs and connect with the bank for advances.

9.0 The Challenges Facing India’s Ai Development

- Computer based intelligence based applications to date have been driven generally by the private part and have been centered basically in shopper products. The rising scale and ramifications of the innovation make it basic for policymakers in government to pay heed.

- Early exercises of AI accomplishment in the United States, China, South Korea, and somewhere else offer open and private subsidizing models for AI investigate that India ought to consider.
- The consecutive arrangement of training and work is obsolete in the present financial condition as the idea of occupations moves quickly and abilities become important and outdated in merely years.

10.0 Benefits of AI for banking sector fraud detection: Advantages

Anomaly detection can be used to increase the accuracy of credit card fraud detection and anti-money laundering.

Customer Support and Helpdesk: Humanoid Chatbot interfaces can be used to increase efficiency and reduce cost for customer interactions.

Risk Management: Custom-made items can be offered to customers by taking a gander at recorded information, doing hazard examination, and disposing of human blunders from hand-created models.

Security: Suspicious conduct, logs investigation, and misleading messages can be found to forestall and conceivably foresee security ruptures.

Digitization and automation in back-office processing: Capturing documents data using OCR and then using machine learning/AI to generate insights from the text data can greatly cut down back-office processing times.

Wealth management for masses: Personalized portfolios can be managed by Bot Advisors for clients by taking into account lifestyle, appetite for risk, expected returns on investment, etc.

ATMs: Image/face recognition using real-time camera images and advanced AI techniques such as deep learning can be used at ATMs to detect and prevent frauds/crimes.

11.0 Conclusion

Artificial intelligence has many benefits to offer for the banking sector. Artificial intelligence is changing business processes and customer-facing services in the banking sector in India. It is also being used to meet regulatory compliance, detect fraud, and assess individual creditworthiness. The application of AI has the potential to create more efficient business processes, offer personalized services, and assist in larger goals such as financial inclusion. There is no doubt that the recent push towards digitalization is rapidly influencing the traditional banking models. However, it has also exposed the institutions to increasing cyber security threats and vulnerabilities. The banks are increasingly looking at emerging technologies such as block chain and analytics in creating an active defense mechanism against cybercrimes.

References

1. <https://www.livemint.com/AI/v0Nd6Xkv0nINDG4wQ2JOvK/Artificial-Intelligence-in-Indian-banking- Challenges-and-op.html>.
2. —Banking in the age of disruption, I EY, February 2017.
3. http://www.latinia.com/IF/Documentos/Intelligence_Digital_Banking.pdf
4. Shivkumar Goel and Nihaal Mehta A Survey on the Role of Artificial Intelligence in FinTech, International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 6, June 2017.
5. Driving AI for Financial Services – Similarity Whitepaper

6. <https://dzone.com/articles/ai-and-the-future-of-banking>
7. <https://www.financialexpress.com/money/8-amazing-ways-consumers-can-benefit-from-artificial-intelligences-impact-on-banking-financial-sectors/985652/>
8. <http://www.cxotoday.com/story/impact-of-artificial-intelligence-on-the-banking-sector/>
9. <https://www.financialexpress.com/industry/banking-finance/sbi-turns-to-artificial-intelligence-powered-chat-assistant-here-is-what-you-get/870752/>
10. <https://www.maparesearch.com/5-use-cases-ai-banking-beyond-helpful-chatbots/>
11. M. Bhuvana, P. G. Thirumagal and S .Vasanth, Big Data Analytics - A Leveraging Technology for Indian Commercial Banks, Indian Journal of Science and Technology, Vol 9 (32), August 2016 .
12. https://www.tutorialspoint.com/artificial_intelligence/artificial_intelligence_overview.htm

Evaluating the Impact of Changes in Accounting System on Donor Fund Utilizations: The Case of Southern Regional State Bureau of Finance and Economic Development

*Taddesse Shiferaw Deneke**

ABSTRACT

The objective of this study is evaluating the impact of changes in accounting system on Donor Fund Utilizations: the case of Southern Regional State Bureau of Finance and Economic Development. In order to carry out the study, both primary and secondary data of Southern regional state bureau of Finance and Economic development over the period of 2003-2013 was obtained on the BOFED from the annual reports and audited financial statements and primary data obtained through Questioner and Interviews. The researcher has been used Stratified Sampling Techniques. The population of the study was 100 and sample size was 80. Data collected was analyzed using SPSS20 econometrics software. The researcher has been used Descriptive analysis. The study findings indicate that the major respondent of age group was young peoples, the major respondent of educational level was Bachelor Degree, the respondent felt that, accounting recording system was single entry bookkeeping. As a result the sector was not in a position to get sustainable grant and loan before the reform. Based on the findings, the study recommends that the country has been trying to fill the required resource gap especially, financial resource deficits, through loans of either local or foreign sources and through grants to be secured from different development partners if the country accept different precondition set by those loan or grant provider. Further studies should be undertaken to analyze the different sectors in the economy to Develop a better accounting and financial management and control system, better planning of the public sector so that budget allocations are driven by policy or program not by expenditure. And also now it is in assessment to implement full accrual base.

Keywords: *Accounting system, Budgeting, Fund, expenditure planning.*

1.0 Introduction

Southern nation nationalities regional state is found in the Capital city of South region called Sidama Zone- Hawasa City Administrations. Located 275 KM from Addis Ababa which is the Capital City of Ethiopia. The Bureau is established with proclamations from Constitutions Based on Articles 133/2003 with regional Governments and Organized to administer the financial and Budget system of the region. Currently the Bureau of Finance and economic Development (BOFED) restructured with Business Process reengineering (BPR) with six (6) Main Work process and Nine (9) Support Work process for the above administration purpose.

Federal Government of Ethiopia (FGE) accounting system which was a cash basis of accounting and single entry bookkeeping used up to 2002 G.C was in service for more than half a century.

**Research Scholar, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: dtaddesse1219@gmail.com)*

1.1 Back ground of the study

Governments decide that there was a need to reform and change the accounting processes and system as an integral part of the civil reform. There has been a grant fund or Aid and credit facilities which finance the region thorough BOFED. These are Africa Development Bank (ADB), World Bank (WB), and Unite nation Development Program (UN Excom) with different specific program like WASH, HIV /AIDS, Education and Gender empowerments.

These program or The Project activities are planned to execute at Various levels Zones, Wereda and City administrations including regional Bureau with 20/80 based Budget distributions. This study was designed to assesses and evaluate the impact of the accounting system change and other reform on the amount of donor fund utilizations at SNNPR BOFED. (DSA M-52 March 28,2005 G.C)

1.2 Statements of the problem

Southern Nation Nationalities Regional State like other region operates using annual budget , loan, and assistance. The region sometimes faces budget deficits and this deficits has been covered from different funding agencies in the form of loan and Grant. The funds obtained by the region or the country as a whole have their own nature or depend on Risk level Fund release Assessments. These are Macro level assessments and Micro Level Assessments.

The main problem of this study was the accounting Policy and Procedure which the country specially SNNPR BOFED used, Different stage of reform taken place by the region and its Changes in system, and finally its impact on the volume of the donor fund obtained by grant, by aid or by loan from foreign development agencies / Partner. (The bottom line on monthly financial reform bulletin, Vol. III No. 13 April /May 2006 p10)

2.0 Objectives of the Study

2.1 General objectives

To evaluate the impact of change in accounting system on the amount of donor fund utilizations in SNNPR BOFED before and after reform.

2.2 Specific objectives

The research has the following specific Objective:-

- To describe the Accounting, the basis and the record keeping system
- To describe the source of fund and its volume of transactions obtained from foreign developments funding agencies.
- To describe different funding agreements and preconditions set.
- To describe the level of understanding of this fund related specific preconditions by top level, middle level and lower level employees.
- To describe the kind of reform taken place so far in the region which support the donor fund flow.

2.3 Research question

The Following are some of the specific research questions / problems that this research has tried to address:

- What was the Accounting, the basis and the record keeping system before and after the reform?
- How was the source of Fund from funding agencies before and after the reform?
- What are the main preconditions set by funding agencies?
- Did the bureau faced fund blockage on accounts of its poor ground fund utilizations and financial report?

- What kinds of Reform taken place so far and the reason why it could be performed?

2.4 Significance of the study

Budget is the back bone of any activity in any part of the world and Countries allocates its scarce resources for the implementations of its planed activates. The real situations reveal that different countries faces financing shortages to implements their planed activity and they are trying to fill this budget gap in different fund raising strategy. This is true for SNNPR BOFED also. (SNNPRS Councils 2002) (World Bank, WB 2007) and UNDF Documents)

2.5 Scope of the study

The procedure to undertake the reform for the whole country is based on experience getting from pilot region, which means it is almost similar and it will be time, resource consuming to discuss each step of reform procedure in all region of the country. Therefore, the scope of this study will be limited to evaluation of the impact of change in accounting system and different reform taken place, on the volume of donor fund utilizations Channeled through Southern Nation Nationalities Peoples Regional Bureau of Finance and Economic development (SNNPR BPFED) during 2000 Ethiopian Budget year up to 2008 Ethiopian Budget Year.

3.0 Research Design and Methodology

To get necessary data for the research, both primary and secondary data was collected. Primary data was collected through structured questionnaires prepared in English and translated to local language. Some general information has been collected through interview from experts and top level managements. Beside data which was collected and analyzed in quantitative way, from certain respondents that show typical result positively or negatively; in narrative by observations form was also included in the study. The researcher has been used descriptive analysis.

3.1 Sampling techniques

In the region we have three types of Public sectors Economic, social and Administrative sector. For these research purpose the researcher has been selected one from each sector based on the amount of Fund received from Funding agency. The types of sampling was through Stratified Sampling technique because we first classify the population of total public sector by three with the nature of the sector it establish to accomplish the predetermined government objectives which is social, Economic and Administrative program. After the researcher make discussions about the proposing research deeply and review related literature the researcher was preceded to the preparation of questioners. From total population of employee of the SNNPR BOFED and Sector bureau the researcher was selected respondents using the stratified random sampling technique. The researcher used these sampling techniques because it is more reliable, valid as well as each individual respondent has an equal probability of being selected. Further for this study the researcher was used questioners as the best data collecting tool. This is because, questioner is more reliable and valid, least expensive, time saving and encourage the respondents to fill their feeling. The collected data were analyzed by adopting the statistical methodology based percentage, tables and figures the statistical analysis was conducted. To achieve its objectives a total of 80 questionnaires were prepared and distributed to Finance officials of SNNPR BOFED, Bureau of Health, Bureau of Agriculture, Bureau of Educations, bureau of water and regional council office. Out of these questionnaires, 60 were filled and returned. The rest 20 questionnaires were unreturned. Therefore, the rest 60 questionnaires were valuable for further analysis. To analyze the survey data, the researcher used descriptive method.

3.2 Data analysis

Based on the nature of the data collected through questionnaires, interview, and documents, the following procedures and statistical tools were employed. Data was checked for consistency and completeness then data was coded, checked, and entered to computer. Finally, it has been processed and analyzed by Statistical Package for Social Sciences (SPSS) version 20. The data collected through interviews and documents were analyzed qualitatively by descriptive statements. The results that were obtained from the interviews used concurrently to strengthen the analysis of the questionnaires. In addition to this, ratios also used to analyze incremental of the fund and performance of implementing units in order to compare the performance of grant fund usage against that of governmental budgets after and before the stated reforms.

3.3 Data presentation, interpretation and analysis

Table 1: Background of the Respondents

Sex Distributions	Male	37	61.7 %
	Female	23	38.3 %
Age Distributions	< 25	4	6.7 %
	26 - 35	33	55.0 %
	36 - 50	18	30.0 %
	Above 50	5	8.3 %
Educational Levels	10/12 Complete	0	0 %
	Certificate	0	0 %
	Diploma	10	16.7 %
	Degree	48	80.0 %
	Above Degree	2	3.3 %

Source: researcher own computation 2013

From The above Table2:-The major of respondents of basis of accounting system was 85%. This indicated that the accounting system the government was not accepted. The accounting system which the SNNPR BOFED and Other sector used before the reform was a single entry cash basis of accounting and the report produced from this system was not accepted by international funding agency and this was the issue leads the federal Government of Ethiopia – SNNPR to different reform to change the system from single entry to double entry from cash basis to modified cash basis of accounting.

Table 2: The Accounting the Basis and Record Keeping System in the Region

Questions	Choice item	Frequency	Percent
-What kind of bookkeeping system was used by SNNPR BOFED and other sectors? Before the reform	- Single Entry	46	76.7
	-Double Entry	14	23.3
	- Others	0	
-It was internationally accepted and reasonable to understand the Financial reports of the country before the reform	-Strongly agree	3	7
	-Agree	4	7
	-Neutral	4	7
	-Disagree	14	23
	-Strongly Disagree	34	57
	- Not respond	1	1
-What was the basis of accounting System used by SNNPR BOFED	-Cash Basis	51	85
	-Modified Cash Basis	8	13.3
	-Full accruals	1	1.7
	- Other	0	

Source: Researcher own computation 2013

From Table 3 the source of the fund obtained foreign development partner the major respondent 55 % felt very low. This indicated us the fund flow from funding agency before the accounts and other reform was not satisfactory to fill the gap of budget deficit. Therefore, to attract funding agency the reform was necessary.

Table 3: The Source of the Fund Obtained from Foreign Developments Partner

Questions	Choice item	Frequency	Percent
How was The Condition on amount or the volume of donor fund before the reform?	Very High Very Low There was no aid Medium Other Not respond	7	11.7
		33	55.0
		4	6.7
		13	21.7
		1	1.7
		2	3.3

Source: Researcher own computation 2013

Table 4: The Precondition Set by Different Development Partner for the Purpose of Grant and Loan

Questions	Choice item	Frequency	Percent
What kind of precondition was set by Donor and other loan provider?	-Bookkeeping method and basis of accounting are internationally accepted	13	21.7
	-The Acc. system must be easy, understandable and transparent budget system	12	20
	-The reports must be transparent and Time bounded	13	21.7
	- All of the above	22	36.7
There are fund which the region loses based on different preconditions set by funding agencies	-Strongly agree	18	30
	-Agree	30	50
	-Neutral	5	8.3
	-Disagree	7	11.7
	-Strongly Disagree	0	0

Source: researcher own computation 2013

From the Table 4, the precondition set by different Development partner for the purpose of grant and loan the major respondent 36.7% felt all choice items and the major respondent 50% felt agree regarding fund loses by the region. This means that from other preconditions set by funding agencies regarding accounting the basis and reporting must be internationally accepted, there must be easy and transparent budget report. And there was an adverse situations which the SNNPR loses fund due to those preconditions. And it is necessary to fulfill the risk level Assessment set by funding agencies to release fund.

From Table 5 the accounting system was single entry cash basis and it was not internationally accepted. Regarding the source of the fund before the reform it was satisfactory to fill the budget gap and the reform was necessary to attract the attention of different funding agencies. The preconditions set by funding agencies (even if it depend on funding agency) regarding accounting system and reporting style, the system must be internationally accepted, there must easy and transparent budgeting and reporting system and With this there was adverse situations on which the SNNPR loses the fund.

Table 5: Civil Service Reform in the Region

Questions	Choice item	Frequency	Percent
When was The accounts and The budget reform are taken place by the region?	-1994 E.C	0	0
	-1995 E.C	47	78.3
	-1996 E.C	8	13.4
	-Note respond	5	8.3
SNNPR BOFED made Different awareness creation workshop or training	-Strongly agree	7	11.67
	-Agree	35	58.33
	-Neutral	5	8.33
	-Disagree	9	15
	-Strongly Disagree	4	6.67
How many reform are taken place before theses research are conducted	Less than 5	7	11.67
	6 to 10	2	3.33
	Not respond	51	85

Source: Researcher own computation 2013

4.0 Findings of the Study

The accounting and recording system before the reform was single entry bookkeeping system and Cash basis of accounting system. It was not accepted by funding agencies as the result the source of the fund from funding agencies was not satisfactory to fulfill the budget gap and the reform was necessary to attract the attention of funding agency.

The preconditions set by the funding agencies regarding the accounting, budgeting, and report style and format must be internationally accepted and it must be easy and transparent budgeting and reporting format. There was adverse situations on which SNNPR loses fund from donor, it was necessary to fulfill the risk level assessment which made by donors and preconditions set by different funding agencies in order to get fund.

Civil service in the Region: The reform was taken place in 1995 Ethiopian budget Year, there was different awareness creations workshop and training (I was one member of the reform team in accounting practice training), Regarding major differences on modified cash basis of accounting.

5.0 Conclusion

- As the researcher discussed earlier financial reform is not simply a slogan or a concept. It is a difficult process of linking complicated sub-systems together in to a well – functioning whole. Reform by definition is a multidimensional process that cannot be solved by introducing a single solutions, be it double entry accounting, output/outcome budgeting or medium term Expenditure frame work.
- Financial Reform is a difficult Challenge for any government. It takes political Commitment, administrative capacity and significant financial and human resources. It also takes a long time. It is extremely difficult to stay the course of the reform's design and mobilizing and managing the resources needed for the reform in the midst of pressing and short term domestic and international demands. It is also difficult for governments to maintain the coherence of the reform when pressed with never ending and changing recommendations. The objective of Ethiopia's financial reform should not be to win the 'international reform tombola" but to build sound financial system through a coherent, appropriate and feasible reform.

6.0 Recommendations

- Even if, Ethiopia's Civil Service program (as case of SNNPR) has passed many ups and down it shows fruitful results and external donors and creditors want to build up government's capacity so that assistance and loans are increasingly provided.
- And Development agencies are pressing for building capacity begins by recognizing existing capacity, a commitments to avoid duplications and appreciations of the importance of ownership by governments in the capacity – building process.
- Finally the researchers recommend that systems are dynamic and not static; whatever challenge may face the Civil service reform and other development program it must be continued in the same fuchsine.

7.0 Acknowledgments

Above all, I would like to thank the Almighty God and His Mother Kidist Dingle Mariam for helping me in the successful accomplishment of this Research paper. This paper would not have been completed without the involvement of individuals either directly or indirectly. Even if it is not possible to mention the names of all those individuals who have contributed their effort, my deepest gratitude goes to Dr. Adamu Abate , my advisor, who has given me his guidance until the completion of the paper, without which it would have been difficult to succeed. I would also like to extend my special thanks to my wife Sosina Haddis Gebeyehu and my friends Solomon Fikire , Ketema Nurelign, Ahmed Mohamed, Dawit Tessema, Demisew Wosen, John Teshome, DinksewTaye, Adankegn Mokonene, TesfayeTaddesse, Misrak Haddis, Tamirat kelile, Wondosen Abate for their moral as well as Idea assistance. Finally, but important, my special thanks goes to all of those organizations, particularly SNNPR BOFED , Bureau of Heath, Bureau of Education, Bureau of agriculture, and Bureau of Water Finance sections, who were very cooperative in providing the necessary data and documents by sacrificing time to fill the questionnaires

References

1. Abbot, L.J., S. Parker, and Y. Park. 2000. The effect of audit committee activity and independence on corporate fraud. *Managerial Finance* 26(11): 55-67
2. Accounting for Mangers by Paul M. Collier Aston Business School, Aston University
3. Anthony R. 1965. Planning and Control system: A Framework for Analysis.
4. ARD, Inc. Ethiopia Evaluation of the In-Service Training Program for Financial Management P, VI
5. Ayenew M. 1998. Some Preliminary Observations on institutional and Administrative gaps in Ethiopia's Decentralization process.
6. Carcello, J.V., D.R. Hermon son, and K. Raghunadan.2005. Factors associated with U.S. public companies' investments in internal auditing. *Accounting Horizons* 19(2): 69-84.
7. Caiden N. 1996. From here to here and beyond: Concepts and Applications of Public Budgeting in developing countries.
8. Decentralization Support activity project. 1996. The Strategy of Civil service Reform Paper presented to the Ethiopian Civil service Reform, Addis Ababa.

9. Decentralization Support activity project. 1997. The Training Strategy for accounts, Budget and financial planning under Civil service reform. Paper prepared for the ministry of Finance, Federal Republic of Ethiopia, Addis Ababa.
10. Decentralization Support activity project. 1998. Synchronizations of financial reform in Ethiopia, paper prepared for the ministry of Finance, Federal Republic of Ethiopia, Addis Ababa.
11. DSA project Brief Project report : M-52 March 28,2005 G.C 12 DSA Project Brief, P3
12. 13 Financial Accounting and its environments Macmillan and Grunski Consulting 14 Manual 3 S - Accounting system for regional sector Bureau
13. Peterson S 1996c Financial Reform in Kenya: implementing a public investment program in line minsters. In public budgeting and Financial administrations in Developing Countries,
14. Price R 1975. Society and Bureaucracy in Contemporary Guan. University of California: Berkley, CA
15. Schic A.1966. The road to pbb: the Stage of Budget reform. Public administration Review
16. Schick A. 1998. Why most Developing Countries should not try New Zealand reforms. Paper presented to PREN Seminar. World Bank: Washington
17. SNNPRS Councils 2002
18. SNNPR Governments Public Expenditure and Financial Accountability (PEFA) Assessments Reports
19. The bottom line on monthly financial reform bulletin Vol. III No. 13 April /May 2006 P10 22 The bottom line newsletter Vol. III No. 13 April /May 2006 p.4
20. 23 Theory and Problems on Bookkeeping and accounting third edition by lerner jole J MS PHD 24 World Bank, WB 2007 and UNDF Documents
21. World Bank 2000. Ethiopia: Public Expenditure review 2000 Aide Memoire, Addis Ababa
22. Yardley J.1997. Assessment of Training Needs in Accounting and Accounting Practice. DSA project Report A-2, Addis Ababa.

HRA: An Impact of Recruitment in HR Performance

Kamal D. Patel and Jeeghesh Trivedi***

ABSTRACT

Human resource accounting means the measurement of the cost and value of people to organizations. HRA is not only a system of accounting for the cost and value of people to organizations, it is also a way of thinking about the management of people of formal organizations. Since the time of HRM evolution, researchers are trying to calculate HRA in order to manage people well in an organization. HRA comprises of two things: HR cost and HR value for which methods are still not that much developed during decades. Recruitment is a core HR function to explore and secure potential talent from the market with an aim to attain organizational objectives. If it is to be done in proper manner, value of resultant arrival will be high. Further, high value indicates positive part of human resource contribution in an organization. Attempt has also been made to review relevant literature. Implications have been provided to managers in the context of recruitment and HRA.

Keywords: *Human resource accounting; Recruitment; Performance; Human resource management.*

1.0 Introduction

Human resource department tend to be one of the most effective department since last decade both nationally as well as globally. Recruitment is one of the most significant functions along with other functions of HR. To recruit new candidates and placed them properly is said to be difficult task for HR managers in the fierce competitive era of globalization (Barber, 1998; Breaugh, 1992). It is considered to be prime responsibility of managers among all other tasks being allocated to them. Effective recruitment can make sure the long-term existence of any organization due to resultant competitive advantage of having talented work-force. Organizations' need to approach different techniques in order to recruit talented personnel for their overall target attainment. Many researchers have studied on the topic of sources of recruitment since 1960 (Zottoli, 2000).

Firms have started to consider and analyze their manpower just like what they used to do in the case of other assets or resources around 1970. It is still an innovative concept for many orthodox companies to analyze the contribution of employees against cost incurred to maintain them, whereas many researchers have tried to search out different methods through which such analysis can be made possible. It is necessary to find both cost and value side of humans for any organization in order to analyze and evaluate them but pre-condition is to bring potential people in an organization which can make sure about the target attainment of the company.

As mentioned, researchers have studied various methods developed to measure human resource accounting, there is a lack of research which can connect human resource accounting and recruitment. If one can correlate both the variables, it will be optimization of resources for an organization. An attempt has been made through this study to determine the relationship between both these variables.

**Corresponding author; Research Scholar, Department of Business Administration, Chiman Bhai Institute of Business Administration, Ahmedabad, Gujarat, India (E-mail: kdp1881@gmail.com)*

***Assistant Professor, Khyati School of Business Administration, Ahmedabad, Gujarat, India (E-mail: jixhrm13@gmail.com)*

2.0 HRA: Human Resource Accounting

"Human resource accounting" means accounting for people as organizational resources. It means the measurement of the cost and value of people to organizations. It is not only a system of accounting for the cost and value of people to organizations, it is also a way of thinking about the management of people of formal organizations.

Human resource accounting is having prime objective to develop methods of measuring human resource cost and value. These measurements help managers to provide a means of putting decisions involving certain matters (i.e. acquisition, development, allocation, compensation and replacement of human resources) on a 'cost-value' basis (Flamholtz, 1972).

Human Resource Accounting is the process of identifying and measuring data about Human Resources and communicating this information to interested parties (American Accounting Association's Committee, 1973). Kanuf (2004) mentioned that Human Resource Accounting is the measurement and qualification of Human organization inputs, such as recruiting, training, experience and commitment.

3.0 Significance of Human Resource Accounting

Flamholtz, Bullen & Hua (2003) showed the incremental cash flows that an organization will receive due to investment in management development and concluded that use of HRA as a tool to measure the value of management development enhances not only the value of human capital but also the value of management accounting. Toulson and Dewe (2004) conducted a survey study utilizing component analysis and found two reasons why measuring human resources is important. First is that measurement reflects the strategic and competitive importance of human resources, and the second suggests that to earn credibility, human resources must be expressed in financial terms.

Moore (2007) suggests that the value of human capital should be more fully considered when making decisions about the acquisition and disposal of people. He further added that majority of firms consider and acknowledge their employer's contribution but they mostly fail to acquire or dispose human capital same way they do for fixed capital assets. Boedker, Mouritsen & Guthrie (2008) examined contemporary trends from Europe, Australia, and the United States in "enhanced business reporting" (EBR), which includes aspects of HRA and they found a vast diversity in international EBR practice, including measurement and reporting models, and suggested the need for further research about the barriers to and consequences of harmonization.

4.0 Methods to Calculate Human Resource Accounting

HRA can be calculated by applying cost-value based analysis described as follows:

4.1 Measuring human resource costs

Three different concepts have been proposed for the measurement of human resource costs: original cost, replacement cost, and opportunity cost. "Original cost" is the actual, historical outlay incurred as an investment in human resources. "Replacement cost" is the sacrifice (cost) that would have to be incurred today to replace an organization's human resources. "Opportunity cost" is the maximum amount that human resources could earn in an alternative use.

4.2 Measuring human resource value

Hermanson proposed two possible techniques for the monetary valuation of "human resources": 1) The unpurchased goodwill method, and 2) the adjusted present value method. The

former involves forecasting future earnings and allocating any excess above normal expected earnings for an industry to human resources. This approach is based on the premise that human resources are responsible for differences in earnings among firms. The latter method is more accurately labeled "the adjusted discounted future wages method."

Few methods of HRA by which Human Resources can be valued as per four bases as under:

a) Cost-based methods

1. **Historical cost method / acquisition cost method (Brummet, Flamholtz and Pyle, 1968):** This approach was developed by Brummet, Flamholtz and Pyle (1968). Some believe that it was developed by Likert in R.G. Barry Corporation of U.S.A. in 1967. According to the 'Cost Principle' of accounting, each expense incurred on employees must be treated as their cost and must be capitalized and shown as an asset in the Balance Sheet. In this approach, the actual costs of recruiting, selecting, hiring, training, placing and developing the employees of an organization are capitalized and repaid over the expected useful life of the assets concerned.
2. **Opportunity cost method (Heikimian & Jones, 1967):** The Opportunity Cost Method is also known as 'Competitive Bidding Method' which was developed by Hekimian and Jones in 1967. The value of an employee and his alternative use should be determined, as a basis for estimating the value of Human Resources employed by the enterprise, is suggested by this method.
3. **Replacement cost method (Flamholtz and Likert, 1973; Walker, 1974):** This approach was developed by Likert and Flamholtz in 1973. This method is somewhat similar to estimating cost of replacing an existing physical asset like machinery etc. an estimate of cost is made of replacing the firm's existing Human Resources. In this method Likert suggests, that the value should be determined of total Human Resources on the assumption that a similar organization is to be created from scratch. This method values the Human Resources at their present replacement cost. In other words, we can say that Human Resources of an organization are to be valued on the basis of the assumption, what would cost the firm, if the existing Human Resources are required to be replaced with others of equivalent talents and experience.
4. **Standard cost approach (Watson, 1978):** This approach has been suggested by Watson in 1978. Based on the historical position employees of an organization are categorized into different groups, for using standard cost approach. Standard Cost is fixed for every category of employees and their values are calculated. The method is easy and simple, but does not take into account difference in employees put in the same group. In many cases, these differences may be quite vital.

b) Monetary value based

a. Present value approach

- i. *Present Value of Future Earning Model / Lev and Schwartz Model (1971):* This model has been developed by Lev and Schwartz (1971), which is the Human Capital model to estimate the Stock of Human Capital of the Society. According to the concern of Human Resource Value of organization, the logic of Human Capital raises a bit of doubt. It might be close to the reality, when we see it from the employee's perspective but it might not probably in the public sector, the payments made to the employees are not directly linked to the productivity.
- ii. *Rewards Valuation Model / Flamholtz Model (1971):* This model has been suggested by Flamholtz (1971). According to this model, the last word measure of an individual's value to a corporation is his expected realizable value. Expected realizable value is predicated on the idea that there's no direct relationship between cost incurred on an

individual's and his value to the organization at a specific point of your time. An individual's value to the organization are often defined because the present worth of set of future services that the expected to supply during the amount he remains within the organization.

- iii. *The Jaggi-Lau's Model (1974)*: In this method there is some difficulties in assessing the career movement of employees between service states on an individual basis, the exit probability of individuals from a firm is necessary to evaluate of every individual employee. Instead of each individual, the group basis of valuation can have some greater reliable estimates of career movement and the exit and consequently, the value of the Human Resource.

b. Other methods

- i. *Hermanson Model (1964)*: Hermanson (1964) proposed this method in his pioneering work at Michigan State University (USA). Hermanson suggested in his method, that discounting of wage payments to the employee as a measure of the person's value to an organization. He also suggested the adjustment of his discounted future wages stream by an efficient factor. He makes use of weighted average of firm's net income to calculate efficiency ratio.
- j. *Net benefit Model / The Morse Model (1975)*: This approach has been suggested by Morse in 1975. The value of Human Resources is equivalent to the present value of the net benefits derived by the organization from the service of its employees, which is suggested by the Morse Model's approach.
- k. *Stochastic Model on Human Resource Valuation / The Sadan and Auerbach Model (1974)*: The proposed model synthesizes the contribution of Lev and Schwartz (1971) and Flamholtz (1971) to provide a basis for Human Resource Valuation. The economic value of an individual to a firm has been defined as the present value of the expected future contributions from every individual, discounted by the firm's cost of capital. Accounting surrogate for the contribution of a production factor (Human Resource in this case) is its periodic cost but the rationale for accounting surrogate may be true in the case of a perfectly competitive profit maximizing firms and accountants do not restrict the practice to perfectly competitive environment only.

c) Non-monetary value-based approaches

- i. *Likert Model (1967)*: Likert (1967) has advocated for the dollar estimation of the changes in the value of Human organization. Changes in the key dimensions of the human organization are used to predict the Human Asset Value. The process involves measuring the key variables through a Social-psychological Measurement Instrument, in two-time periods. The measurement instrument would contain variables like leadership, motivation, communication, decisions, goals, control etc., covering the profile of organizational characteristics.
- ii. *Normative Economic Model / Flamholtz Model (1971)*: The model as proposed by Flamholtz (1971) aims at measuring an individual employee's value to the organization to which individual belongs, based on the economic principles. An individual has been considered as the unit of valuation as individuals are the central focus for various management decisions like selection, training, job design, job allocation, promotion, compensation and retirement.
- iii. *Certainty Equivalent Net Benefit Model / Pekin Ogan Model (1976)*: This approach has been suggested by Ogan (1976). In this approach, Ogan suggests to the net benefits if occurs should also be taken into account, while determining the value of Human Resources.

d) Other surrogate approaches

- i. *Human Asset Multiplier Method (Robinson and Giles, 1972)*: Giles and Robinson (1972) hypothesized that the goodwill of a firm in terms of supernormal earnings is attributable to its Human Resource. The total value of its Human Resource is nothing but the value of the goodwill of the firm as assessed by the relative price earning ratio of organization as compared to the industry average. The total value of the Human Resource of an organization, reflects the value of an individual or the different groups, the concept of multipliers has been advocated in model popularity, called as Human Asset Multiplier.
- ii. *Myers and Flowers (1974)*: It has been hypothesized by Myers and Flowers (1974) that five dimensions or attributes of an individual and their interrelationships determine an individual's contribution and therefore his/her value to the organization. According to Myers and Flowers, knowledge enables an individual to direct his or her skills and health enables to apply them. Employees continue to stay with the organization due to various combinations of work and non-work reasons. Though, the psychological availability is primarily determined by the work-related factors.
- iii. *Input/ Output Control Mechanism (Prabhakara Rao, 1986)*: Rao developed a system of Human Resource Accounting and illustrated its application in a transport equipment manufacturing concern. He has designed the system based on the Input and Output Control Mechanism. The output variables of the system are described to be the indicators of Human Resource Development and utilization.
- iv. *Increasing Value of Goodwill Method*: Goodwill is valued and is shown in accounts, indirectly it amounts to valuation of Human Resource. But goodwill is not valued in business every year. Human Assets are not given sufficient importance in accounts. Besides, the accountant prefers to write off goodwill shown in books at the earliest opportunity. If the profitability of business is increasing and the goodwill is being gradually written off, it would amount to showing less profit than the true profit and creating secret reserves.

5.0 Recruitment

Recruitment has emerged as a key element of organizational effectiveness in the existing competitive globalized world, (Barber, 1998; Breaugh, 1992, Rynes, 1991). Recruitment includes those practices and activities carried out by the organization with the primary purpose of identifying and attracting potential employees and persuade them toward becoming an organizational member. Breaugh and Starke (2000) mentioned that it is one of the most essential segments of human resource management because it influences applicant pool characteristics and thus defines the set of individuals who will be influenced by all subsequent human resource practices (Taylor, 2000). Having a large and qualified applicant pool is important for organizations in the sense that they could be more selective (since the selection ratio would be lower), which results in better hiring and post-hire outcomes for both organizations and individuals in terms of increased performance (Carlson, Connerley and Mecham 2002). The need for a large and qualified applicant pool requires organizations to choose more than one recruitment methods. In other words, choosing multiple recruitment methods guarantee higher visibility of the vacancy/s among the different strata of the population. The choice of the Recruitment method requires that the organization goes through an elaborate procedure considering the cost of reaching the target group, the time scales involved, the fit with the organizational culture and the opportunity presented to enhance the organization's public relations (Galanaki, 2002).

Recruitment helps a firm to bring out talented pool which ultimately is responsible in

attainment of organizational objectives. If applied properly, recruitment turns out to be one of the most powerful competitive advantage as it is always difficult to imitate human resources among various similar other resources available with an organization (Dessler and Varkkey, 2009).

5.1 Sources of recruitment

Recruitment sources mainly divided into two segments i.e. Internal and External

5.2 Internal sources

Firms tend to rely on internal source of recruitment when the required number of candidates is small in number. Firms can seek support from their past employees by bringing them back to the workplace, promoting or transferring the existing staff, getting references from the existing staff. To recruit people internally is advantageous in many aspects. First, when the requirement is of small numbers. Second, as employees have already been working with the same firm, it becomes easy for them to get accommodate in the existing work-culture faster than others. Third, due to internal promotion, hard-working employees get motivation to perform better in order to attain the same advantage for them. Internal recruitment has few limitations as well. First, people recruited from inside lack new ideas or thoughts. Second, due to promotion of few, others may get deceived feeling towards boss and the company. Third, even after being promoted, it is difficult for the insiders to create a great impact on performance (Aswathappa, 2013).

5.3 External sources

When firms are in need of large number of candidates to fill vacant positions, they will eye on external sources of recruitment. Huge variety of external sources are available ranges from traditional ones such as job advertisement, employment agencies to modern sources such as social media, event recruitment, job portals, referrals, walk-ins, head-hunting and many more. Recruiters utilize type of source (i.e. traditional or modern or combo) based on his requirement and factors influencing the process of recruitment.

There are few advantages of recruiting people by applying external sources. First, new people bring new innovativeness in the company. Second, due to external recruitment, internal politics will not be able to dilute harmony among employees. Some limitations are also associated with the external recruitment. First, people inside company who are deserving promotion, will be demotivated. Second, new entrant will take time to adjust and aware with company's culture. Third, this method is time-consuming and costly than the internal one (Dessler and Varkkey, 2009).

Recruiters try to find and place better candidates for the vacant positions by applying any of the above mentioned sources to attain the ultimate objective of organizational performance. In any of the source being utilized, recruiter needs careful attention and he should be diligent while going for recruitment of human resource since it grabs attention of prospective employees at large.

5.4 Recruitment and human resource accounting

Recruitment is an essential function to acquire suitable talent for the organization which ultimately leads an organization towards goal attainment. If an organization succeeds to get potential people through proper recruitment efforts, notable amount of expenses can be saved which is otherwise necessarily to be spending on human resource. Further, from HRA point of view, it will be positively shown in books of accounts as costs incurred on human resource are lesser than the profits gained by the organization which predicts that proper recruitment results into timely goal-attainment and resultant positive valuation of human resources in HRA.

Negligent amount of research has been done so far with respect to relate both the above mentioned variables. Many researchers have tried to showcase the effectiveness of recruitment in

attainment of organizational objectives (Von Hoyer, 2007; Allen, Mahto and Otondo, 2007; Breaugh, 2009; Emma and Parry, 2009; Arclar and Bilgic, 2013).

Taylor and Collins (2000) mentioned that recruitment is one of the most critical and vital activity for organizational success. Becker (1995) also observed that a successful recruitment function is critical for a nation's economic growth due to the labor shortage in many countries. Rynes and Barber (1990) mentioned that labor market demand is an important factor affecting the impact of recruitment on organizational attractiveness. Hansson (1997) presented evidence that HRA information is critical for increased accuracy in investment-related decisions which ultimately responsible for organizational performance. HRA measurement not only provide numerical information related to employees' contribution but also send the message that people are valuable organizational resources and therefore they should be treated accordingly (Flamholtz, Bullen and Hua, 2002). Hansson (1997) have shown that an increasing dependence on human resources is associated with increased abnormal return and HRA would be the best method to measure such dependency. Efforts to determine the relationship between human resource investment information and the reflected value as depicted in stock prices have suggested that information regarding human resources is becoming more critical for accurate business decisions (Flamholtz, 1999). Human resource accounting can serve as a tool to measure the critical aspects of human resource performance so that it can be a component of an organizational control system.

P1a: Effective recruitment process helps an organization to attract talented pool of applicants.

P1b: Availability of talented applicants may increase the chance of getting best employees for an organization.

P1c: Best employees convert organizational goals into reality by showing superior level of performance.

P1d: Good organizational performance of employees will lead to show case higher valuation of employees as compared to costs incurred on them.

P1: Recruitment helps an organization to quantify the efforts of employees in a better context.

6.0 Limitations and points for future research

Our study has certain limitations. First, as this is a conceptual research, we have mainly used only literature review in the form of secondary data to support our arguments. Hence, future research is possible in an empirical form by taking primary data of company's HR policy and HRA techniques. Secondly, the study focused on using recruitment as a prime variable. All the analysis of the study is limited to the one variable only. Therefore, in future, researchers may take various other variables of human resource management practices such as training & development, performance appraisal, working conditions, etc. to explore the relationship between HRM practices and organizational performance (Collins & Han, 2004) Further, the researcher has not examined the effect of mediating variables on the relationship between such relationship. Future research may be conducted to find out the mediating effect of other variables such as type of company, number of employees available, location of the firm and many more. Last but not least, till date we cannot determine universally accepted method to value human resources.

7.0 Conclusion

Since 1960, concepts of HRA has been derived, during 70's models have been drawn, from 1970-78 rapid growth has been shown and during 1978-80 interest has been declined which again resurged from 1980 and it continues till today (Flamholtz, Bullen and Hua, 2002). Various organizational applications of HRA concepts and models have developed during existing phase to

respond the academic work. An interaction of the evolution of management practice with HRA's intellectual theory has started now. Therefore, it is highly essential that HRM policies e.g. recruitment, training etc. aligned with organization strategies in order to easily analyze through HRA techniques and ultimately bring better organizational performances. HRA will lead to better overall firm evaluation and decision-making along with making better other internal decisions such as appraisal, lay-off.

References

1. Acarlar, G., & Bilgiç, R. (2013). Factors influencing applicant willingness to apply for the advertised job opening: the mediational role of credibility, satisfaction and attraction. *The International Journal of Human Resource Management*, 24(1), 50-77.
2. Allen, D. G., Mahto, R. V., & Otondo, R. F. (2007). Web-based recruitment: Effects of information, organizational brand, and attitudes toward a Web site on applicant attraction. *Journal of Applied Psychology*, 92 (6), 1696.
3. Aswathappa, K. (2013). *Human resource management: Text and cases*. Tata McGraw-Hill Education.
4. Barber, A. E. (1998). *Recruiting employees: Individual and organizational perspectives*. Sage Publications, Inc.
5. Becker, G. S. (1995). Human capital and poverty alleviation, World Bank, Human Resources Development and Operations Policy.
6. Boedker, C., Mouritsen, J. & Guthrie, J. (2008). Enhanced business reporting: international trends and possible policy directions. *Journal of Human Resource Costing & Accounting*, 12(1), 14-25.
7. Breaugh, J. A. (1992) Recruitment: Science and practice. Boston: PWS-Kent.
8. Breaugh, J. A. (2009). The use of biodata for employee selection: Past research and future directions. *Human Resource Management Review*, 19(3), 219-231.
9. Breaugh, J.A., Starke, M. (2000). Research on employee recruitment: So many studies, so many remaining questions. *Journal of Management*, 26: 405-434.
10. Brummet, R. L., Flamholtz, E. G., & Pyle, W. C. (1968). Human Resource measurement--A challenge for accountants. *The Accounting Review*, 43(2), 217-224.
11. Carlson, K. D., Connerley, M. L., & Mecham, R. L. (2002). Recruitment evaluation: The case for assessing the quality of applicants attracted. *Personnel Psychology*, 55(2): 461-490.
12. Collins CJ, Han J. (2004). Exploring applicant pool quantity and quality: the effects of early recruitment practices, corporate advertising, and firm reputation. *Pers. Psychol.* 57:685-717
13. Dessler, G. & Varkkey, B. (2009). *Human resource management: Text and cases*. Pearson Prentice Hall.
14. Flamholtz, E. (1971). A model for human resource valuation: A stochastic process with service rewards. *The Accounting Review*, 46(2), 253-267.
15. Flamholtz, E. (1972). Toward a theory of human resource value in formal organizations. *The Accounting Review*, 47(4), 666-678.
16. Flamholtz, E. G., & Main, E. D. (1999). Current issues, recent advancements, and future directions in human resource accounting. *Journal of Human Resource Costing & Accounting*, 4(1), 11-20.
17. Flamholtz, E. G., Bullen, M. L., & Hua, W. (2002). Human resource accounting: a historical perspective and future implications. *Management Decision*, 40(10), 947-954.
18. Flamholtz, E. G., Bullen, M. L., & Hua, W. (2003). Measuring the ROI of management development: An application of the stochastic rewards valuation model. *Journal of Human Resource Costing & Accounting*, 7(1), 21-40.

19. Galanaki, E. (2002). The decision to recruit online: a descriptive study. *Career Development International*, 7 (4), 243-251
20. Giles, W. J., & Robinson, D. F. (1972). *Human asset accounting*. Institute of Personnel Management, Institute of Cost and Management Accountants.
21. Hansson, B. (1997). Personnel investments and abnormal return: knowledge-based firms and human resource accounting. *Journal of Human Resource Costing & Accounting*, 2(2), 9-29.
22. Jaggi, B., & Lau, H. S. (1974). Toward a model for human resource valuation. *The Accounting Review*, 49(2), 321-329.
23. Jones, C. H., & Heikimian, J. C. (1967). Put People on Your Balance Sheet. *Harvard Business Review*, 45.
24. Knauf, R.; Gonzalez, A.J.; Abel, T. (2002). A Framework for Validation of Rule-Based Systems. *IEEE Transactions on Systems, Man and Cybernetics, Part B: Cybernetics*, vol. 32, # 3, pp. 281–295, 2002.
25. Lev, B., & Schwartz, A. (1971). On the use of the economic concept of human capital in financial statements. *The Accounting Review*, 46(1), 103-112.
26. Likert, R. (1967). Mobilizing economic forces to accelerate organizational development.
27. McKenzie, J. L., & Melling, G. L. (2001). Skills-based human capital budgeting: A strategic initiative, not a financial exercise. *Journal of cost management*, 15(3), 30-36.
28. Moore, R. (2007). Measuring how ‘human capital’ appreciates in value over time. *Plant Engineering* 61 (4), 29
29. Morse, W. J. (1975). Estimating the human capital associated with an organization. *Accounting and Business Research*, 6(21), 48-56.
30. Myers, J. H. (1964). Research Projects in Accounting, 1964. *The Accounting Review*, 39(4), 1079.
31. Myers, M. S., & Flowers, V. S. (1974). A framework for measuring human assets. *California Management Review*, 16(4), 5-16.
32. Ogan, P. (1976). A human resource value model for professional service organizations. *The accounting review*, 51(2), 306-320.
33. Parry, E., & Wilson, H. (2009). Factors influencing the adoption of online recruitment. *Personnel Review*, 38(6), 655-673. Flamholtz (1971)
34. Rao, D. P. (1986). *Human Resource Accounting*. Stosius Incorporated/Advent Books Division.
35. Rynes, S. L., & Barber, A. E. (1990). Applicant attraction strategies: An organizational perspective. *Academy of management review*, 15(2), 286-310.
36. Sadan, S., & Auerbach, L. B. (1974). A stochastic model for human resources valuation. *California management review*, 16(4), 24-31.
37. Taylor, M. S., & Collins, C. J. (2000). Organizational recruitment: enhancing the intersection of research and practice. In C. L. Cooper & E. A. Locke (Eds.), *Industrial and Organizational Psychology: Linking Theory with Practice*, pp.304–334. Malden, MA: Blackwell Publishers.
38. Toulson, P. K., & Dewe, P. (2004). HR accounting as a measurement tool. *Human Resource Management Journal*, 14(2), 75-90.
39. Van Hoyer G, Lievens F. 2007. Investigating web-based recruitment sources: employee testimonials vs. word of- mouse. *Int. J. Select. Assess.* 15:372–82 Walker, 1974
40. Walker, J. W. (1974). Evaluating the practical effectiveness of human resource planning applications. *Human Resource Management*, 13(1), 19-27.
41. Watson, J. (1978). A study of possible gains from international investment. *Journal of Business Finance & Accounting*, 5(2), 195-205.
42. Zottoli MA, Wanous JP. 2000. Recruitment source research: current status and future directions. *Human Resource Management Rev.* 10:353–382

Impact of Surrogate Advertising: An Empirical Study with Reference to Vadodara

Paresh Patel*

ABSTRACT

Advertisements are used to get the attention of people thereby forming a distinct image in one's mind. Alcohol and cigarette advertisements were found to have severe impact on people due to increased consumption rate. So, Indian government banned alcohol and cigarette advertisements in 1995. This gave birth to the rise of surrogate advertisements in India. Surrogate advertisement is a form of advertisement used to advertise banned products by replacing them with a surrogate product¹. Hence, these products are advertising indirectly and therefore it creates impact on consumer's perception. It relates with the duplication of one product's brand image which will promote another product of same brand². This paper will study the impact of surrogate advertisement on youth's perception in Vadodara City. For research study 310 respondents of Vadodara city taken on the basis of judgmental sampling. The study shows surrogate advertisement has significant impact on the perceptions of youth regarding surrogate products.

Keywords: *Surrogate advertisement; Banned products; Perception.*

1.0 Introduction

Surrogate advertisements are those which are used to publicize those products banned by law as they are injurious to health. Different products witnessing such advertisements are alcohol beverages, tobacco products & Gutka advertising themselves as pan masalas³. It is technically acceptable to promote Smirnoff cassettes in television advertisements in India, but not Smirnoff vodka. For example, all those playing cards, soda water bottles, apple juices, mineral water and other product advertisements we see, are actually clever promotions for liquor and cigarette brands by the same name. In India there is a large number of companies doing surrogate advertising, from Bacardi Blast music CD's, Bagpiper Club Soda to Officers Choice playing cards⁴.

It is just a strategy used to generate top of the mind recall. While this continued helping them to promote their liquor through this route as many companies did not even modify the existing advertisements and instead just replaced the text and voice-overs. This is what challenging about surrogate advertisement as for ethical business practices one should not mislead consumer's especially young generation to lean towards drinking alcohol⁵.

In India extensive surveys resulted in similar findings which showed that liquor ads had direct influence on Consumers purchase behavior, and no sooner the Cable TV Regulation Act banned liquor and cigarette advertisements, thus India gradually adopted surrogate advertisements⁶.

2.0 Literature Review

This paper will study the impact of Surrogate advertisements on youth. Is the youth identifying the original product being advertised and will they purchase the original product by viewing such advertisements?

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: Paresh.patel@paruluniversity.ac.in)

Is the young generation also fascinated by the celebrities endorsing such events and products? For example, Ranveer Singh and Arjun Kapoor have been endorsing India's premier alcohol brand Royal Stag. It was concluded that the age group from 16 to 40 years are highly influenced by such surrogate advertisements and are motivated to consume the original products⁷.

The current study was undertaken to explore the positive dimensions of surrogate advertisements & to investigate its influence on consumer buying decision thereby its impact on company's brands. Hence with this inspection the required data was collected from 108 respondents using a comprehensive open – ended questionnaire undergoing a judgmental sampling. The result shows that Surrogate ads on television are equally unconscionable, as they have been telecasted indirectly with the help of products⁸.

This article is an attempt to understand the concept of 'Surrogate Advertisement' vis-à-vis the International and National Regulations in place and the prevalence of this practice in the Indian market today. The finding shows that Surrogate advertisement is not only misleading, but also false and dishonest in many cases. This method is used by the corporate because the legislation that is in place as of now performs only a half hearted job in controlling this menace⁹.

Different Brand Promotion against its Surrogates in India

Product category	Brand	Surrogates
Tobacco	Rajnighanda	Kesar Pan Masla
	Goa Gutka	Pan Masala
	Pan Parag	Pan Masala
	Manikchand	Filmfare Awards
Cigarettes	Red & white Cigarettes	bravery award ceremony
	Gold Flake	Tennis Tournaments
	Wills Lifestyle	India Fashion Week, Lifestyle (textiles) showrooms, Indian Cricket Team/Matches
	Charms	Audiocassettes and CDs.
	Four Square white	water rafting& Gliding
Alcohol Beverages	Seagram's	Music
	McDowells No. 1 platinum	Water and Soda
	Bagpiper	Water, Soda, and Music – cassettes & CDs
	Red and White	Bravery Awards
	Bacardi	Music
	Kingfisher	Mineral Water and Calendars
	Wills Lifestyle	Apparels, Accessories
	White Mischief	Holiday Resort
	Imperial Blue	Cassettes & CDs
	Smirnoff Vodka	Fruit Juices
	Royal Challenge	Golf Tournaments
	Aristocrat	Apple Juice
	Officer's Choice	Social Obligation towards Society
	Hayward's 5000	soda and packaged drinking water
	Royal Stag	Music CD and Mega Cricket

3.0 Objective of the Study

- To study whether surrogate advertisement motivate to buy other product then product shown in the adds.

- To study the element of the advertisement help remembering the surrogate adds.
- To study the ethical aspect of surrogate advertisement

4.0 Research Methodology

Study Area: The field survey for the present study was conducted in the Vadodara City. Collection of Data: Primary data have been collected by distributing questionnaire among the people of Vadodara City. To collect necessary primary information 310 questionnaire have been distributed and collected for analysis.

Sampling Technique: Judgmental Sampling have been used on literacy based.

Research Instrument: Structured Questionnaire was used for the survey of target population. The questions were designed on four points Likert scale with 'Strongly Agree consider the highest level of believe, and 'Strongly Disagree as the highest level of disbelieve.

Technique of analysis of Data: The collected data have been processed and analyzed by software SPSS, version -16. To find interpretation crosstabs has been done.

5.0 Data Analysis and Interpretation

Objective 1: To study whether surrogate advertisement motivate to buy other product then product shown in the adds.

Table 1: Analysis of Youth Perception towards Surrogate Products

Count						
		Do you buy the surrogate products like soda; water etc. after seeing their Ads on the media?				Total
		Never	Occasionally	Often	Regularly	
Are you the Customer of Alcohol Product	Yes	14	18	19	18	69
	No	57	51	62	38	208
	May Be	5	10	11	7	33
Total		76	79	92	63	310

Above Table shows that 74.52% (231 respondents out of 310 samples) of the people drink the surrogate products like soda: water etc. after seeing surrogate advertisement.

Objective 2: To study the element of the advertisement help remembering the surrogate adds.

Table 2: Analysis of Preferred Advertisement Element for Surrogate Adds

Crosstab					
			Celebrities/ Cartoon Endorsing		Total
			Yes	No	
Celebrities	Yes	Count	63	68	131
		% within Celebrities	48.1%	51.9%	100.0%
		% within celebrities/ cartoon endorsing	38.7%	46.3%	42.3%
	No	Count	100	79	179
		% within Celebrities	55.9%	44.1%	100.0%
		% within celebrities/ cartoon endorsing	61.3%	53.7%	57.7%
Total		Count	163	147	310
		% within Celebrities	52.6%	47.4%	100.0%
		% within celebrities/ cartoon endorsing	100.0%	100.0%	100.0%

Table shows that 52.6% (163 respondents out of 310 samples) of the people like celebrities as the main element of the advertisement help them to remember the surrogate adds.

Objective 3: To study the ethical aspect of surrogate advertisement

Table 3: Analysis of Youth's Opinion about Ethical of Surrogate Adds

Crosstab						
		What is your opinion about Surrogate advertisement is ethical?				Total
		Strongly Disagree	Disagree	Agree	Strongly Agree	
Are you the Customer of Alcohol Product	Yes	10	15	24	20	69
	No	46	53	70	39	208
	May Be	3	9	13	8	33
Total		59	77	107	67	310

Above data shows 56.13% (174 respondents out of 310 samples) of the people believe that Surrogate advertisement is ethical.

6.0 Findings

From the analysis it is found the Respondents are motivated to buy the original product after watching surrogate adds. From the study I analyze that respondent were remember the product with the help of celebrities. Majority of alcoholic and no alcoholic people believe that Surrogate advertisement is ethical.

7.0 Conclusion

Surrogate advertisements have influenced population to remind and recall the brand original product.

Celebrities endorsing such products are the most effective factor that influences the consumer to consume.

Government needs to liberal the laws regarding surrogate advertisements as majority of people believe it is ethical.

References

1. Punit Kumar, Amit Verma, Ranit Halder, Punjala Varun Datta "Effect of Surrogate Advertising in Alcohol Industry" October 2017
2. Shivesh Rajpal, Amrita Nayak "Impact of Surrogate Advertisement on consumer perception in Indore City" April 2015
3. Varalakshmi .T " AN EMPHIRICAL STUDY ON SURROGATE ADVERTISEMENTS: A PIONEERING TREND" January 2013
4. Lamb, Charles W.; Hair, Joe F. & McDaniel, Carl. Essentials of marketing. Cengage Learning. p. 76.
5. Avadhesh Vyas, Dr Gaurav Bissa "Surrogate Advertisement on Television "An Analysis with Special reference to Indian Youth" August 2017
6. <http://surrogateadvertisement.blogspot.com/>

7. Ms. Deepa Nathwani “Impact of Surrogate Advertising” July 2016
8. Varalakshmi .T “ AN EMPHIRICAL STUDY ON SURROGATE ADVERTISEMENTS: A PIONEERING TREND” January 2013
9. Ms. Barcelona Panda “Surrogate Advertisements: India's Response Towards International Regulations” www.manupatra.com.

Indian States Performance and Contribution on Pradhan Mantri Jan Dhan Yojana

*Pranali Loliyana**

ABSTRACT

To address the issue of financial exclusion and long drawn financial sufferings, Prime Minister Narendra Modi announced a new scheme on 15th Aug 2014, and launched on 28th August, 2014, An attempt has been made in this paper to analyze the working, growth and journey of 29 states and 8 union territories in India and compared the percentage of PMJDY(Pradhan Mantri Jan DhanYojana) account open with respect to the state population as on 29th January 2019 as well as analysis the overall performance of PMJDY2019. The study is based on secondary sources collected from published articles, various journals, newspapers, reports, books, and official websites of PMJDY. The study concludes that, PMJDY (Pradhan Mantri Jan DhanYojana) scheme has created incredible result in the banking sector with regard to eradication of financial untouchability in the country. It is found that 38.01 crores bank accounts were opened out of which the performance of Public Sector Banks (PSBs) is at the top with 30.26 cores contributions in PMJDY.

Keywords: *Financial inclusion; Financial sufferings; Financial exclusion.*

1.0 Introduction

Even when sixty-eight years of independence, an outsized section of the Indian population still remains unbanked. Within recent years the government and bank of India have been pushing the conception and plan of monetary inclusion. The money inclusion set up aims at providing easy accessibility to money services to those sections of the society area unit bereft of it to date at reasonable value thereby transportation them into the thought of monetary sector, in distinction to money exclusion wherever those services do not seem to be on the market or reasonable. Pradhan Mantri DhanYojna (PMJDY), as a national mission on money inclusion having primary objective being to produce checking account to each house within the country and build on the market basic banking services like money withdrawal and deposits, cashtansfer, balance inquiry, rupay revolving creditfacility and lengthening mobile banking facility, within the next part, small insurance, and pension, etc. The Government of India was launched the program on 28/08/2014. The locution of Pradhan Mantri Jan-Dhan Yojana is 'MerraKhattaBhaygaVidhata' It is aforesaid that since the banking services area unit within the nature of the public product, the provision of banking and payment services to the whole population while not discrimination is that the prime objective of monetary inclusion publicly policy. With a checking account, each house gains access to banking and credit facilities. This may alter them to return out of the grip of moneylenders, manage to stay far from money crises caused by emerging desires, and most significantly, take pleasure in a spread of monetary products/benefits. Run by Department of monetary Services, Ministry of Finance, on the Inauguration Day, 1.5 Crores (15 million) bank accounts were opened below this theme.

**Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: pranali.loliyana24147@paruluniversity.ac.in)*

Guinness World Records acknowledges the Achievements created below PMJDY, Guinness World Records Certificate says the most bank accounts opened in one week as a region of monetary inclusion campaign is eighteen,096,130 and was achieved by Banks in India from twenty-three to twenty-nine August 2014". By twenty-five Nov 2015, 19.34 Crores bank accounts were opened, with 26,956.45 lakhs were deposited below the theme.

2.0 Review of Literature

Harpreet Kaur & Kawal Nain Singh (2015), studied the recent trends in money inclusion in India with distinctive relevancy Pradhan Mantri Gregorian calendar month Dhan Yojana (PMJDY), light its key areas and counseled ways to make sure most money inclusion for the underprivileged and unbanked area.

Sonam Kumari Gupta (2015) highlighted on Performance of the Pradhan Mantri Gregorian calendar month Dhan Yojana (PMJDY) and latest trends being enforced for money inclusion by PMJDY. It's found that of the accounts opened at public sector banks below the Gregorian calendar month Dhan Yojana, seventy-one area, zero balance against 64% for personal banks free by the ministry, solely 28% of the accounts opened below the theme and 9000 crores deposited in these.

Patnaik (2015) analyzed that, only 13.8% of the respondent in Bhubaneswar have access to checking accounts and out of total respondents who don't have bank account thanks to numerous reasons area unit ominous don't seem to be attentive to PMJDY theme. Amongst males, 78.9% and 95.08% wasn't attentive to the theme. The study over that, the banks ought to build a lot of effort in making awareness on zero balance account and may sharply campaign for the theme.

Diveyesh Kumar (2014) mentioned the summary of monetary inclusion mistreatment PMJDY in India. It is discovered that it is best step ever taken to eradicate impoverishment area unit money inclusion through PMJDY. It is recommended that the success of this theme constant review and regular check is incredibly a lot essential.

3.0 Objective of the Study

The main objective of the study is to investigate the performance and progress of Pradhan Mantri Jan-DhanYojan of Indian states

4.0 Research Methodology

The study is especially supported the secondary knowledge. The secondary knowledge is additionally collected from various sources like books, journals, reports, magazines, internet & newspapers.

4.1 Statistical tools and techniques

In this research paper data is collected from secondary sources & this collected information processed through statistical tools like tabulation, percentage, graphs and Charts.

5.0 Scope of the Study

The scope of the gift study is restricted to the performance and progress of Pradhan Mantri Jan-Dhan Yojana by state bench vise. The study can even line the contribution of Public Sector banks, regional and rural banks sector banks towards the money inclusion below PMJDY theme, option and challenges

6.0 Action Plan for Implementing Pradhan Mantri Jan Dhan Yojana

Two phases of this theme have been determined within which the target of economic inclusion of the weaker section of the society is meant to be achieved. The PMJDY theme is being enforced in 2 phases. The primary part was to be fifteenth August 2014 to ordinal August 2015 and therefore the second part from fifteenth August 2015 to ordinal August 2018.

6.1 Phase I of PMJDY (15th august, 2014 to 14th august, 2015):

- Universal access to banking facilities for all households across the country through a bank branch or a hard and fast purpose inside an inexpensive distance except areas with infrastructure and property constraints.
- Covering all households with a minimum of one basic banking account with an order of payment facility of up to Rs. 5,000 once satisfactory operation for six months
- Expansion of direct profit transfer facility underneath numerous government schemes is provided through checking account of the beneficiary
- Issuing KCC as RuPayKisan.
- Providing basic banking accounts and RuPay Debit card which has inbuilt accident insurance cover of Rs. 1 lakh.
- Financial literacy programme under the scheme will be implemented up to village level.

6.2 Phase II of PMJDY (15th august, 2015 to 14th august, 2018)

- Covering 7.5 crores large integer households with a minimum of one PMJDY
- Overdraft facility up to Rs. 5,000 after six months satisfactory operation / history.
- Creation of Credit Guarantee Fund for coverage of defaults in accounts with an order payment limit up to Rs. 5,000.
- Small insurance will be provided to the people.
- Unorganized sector pension schemes like Swavalamban is to be projected through the business correspondence.
- Coverage of households in unsmooth, social group and troublesome areas and coverage of remaining adults in the households and students.
- Reactivating oversized number of dormant accounts.

7.0 Performance and Progress of PMJDY

Table 1: Number of Accounts Opened under PMJDY as on 29.01.2020 (All Figures in Crore)

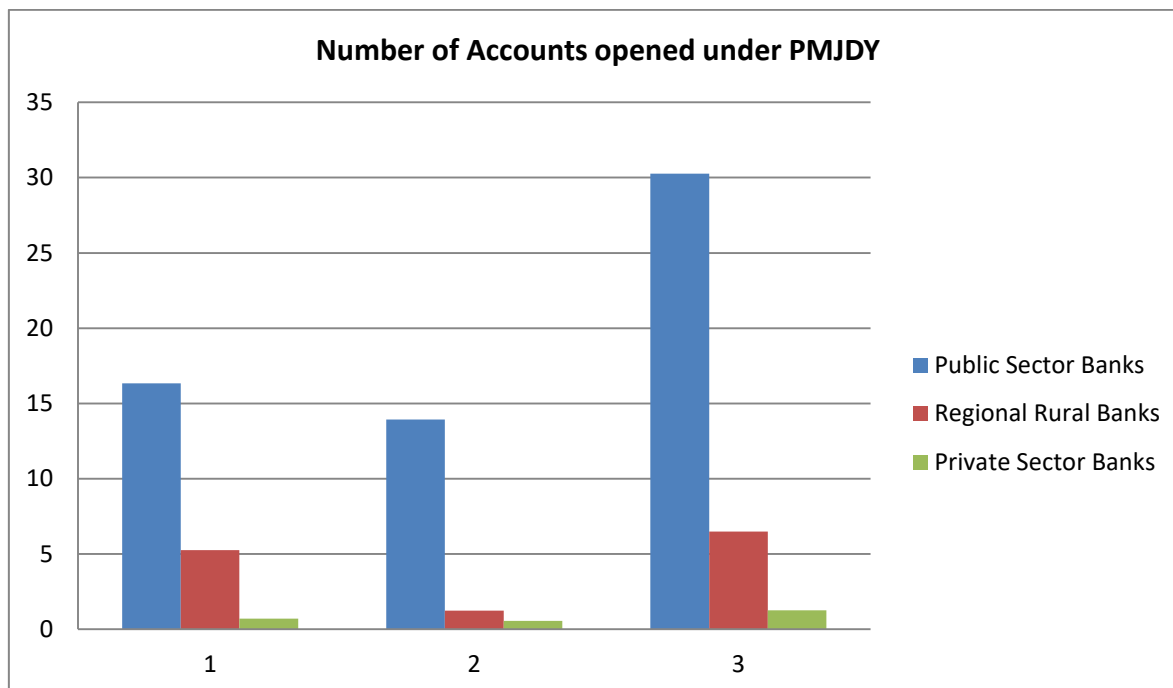
Bank	Rural	Urban	Total	Deposits in Accounts(In Crore)	Number of Rupay Debit Cards issued to beneficiaries
Public Sector Banks	16.33	13.93	30.26	89867.03	24.34
Regional Rural Banks	5.26	1.24	6.49	20696.69	3.56
Private Sector Banks	0.7	0.56	1.25	3112.5	1.15
Grand Total	22.28	15.73	38.01	113676.2	29.05

Source: <https://pmjdy.gov.in>

Chart 1. Variety of accounts opened underneath PMJDY as on 29/01/2020. The table 1 shows that the overall variety of saving bank accounts opened in rural and concrete areas underneath the PMJDY theme, variety of RuPay positive identification issued, balance in accounts, underneath PMJDY theme publically sector banks Regional Rural banks & personal sector banks. It is found that

38.01 crores accounts were opened underneath the theme, amongst Public sector banks had opened 30.26 crores accounts, Regional Rural banks had opened 6.49 crores accounts & personal sector banks had opened 1.25 crores account as of 29/01/2020

Chart 1: Number of Accounts Opened under PMJDY as on 29.01.2020



Furthermore, it's found that the overall 22.28 crores accounts were opened underneath the theme in rural areas, amongst Public sector banks had opened 16.38 crores accounts, Regional Rural banks had opened 5.26 crores accounts & personal sector banks had opened 0.7 crores accounts.

A total of 15.73 crores accounts were opened underneath the theme in urban areas, amongst Public sector banks had opened thirteen.93 crores accounts, Regional Rural banks had opened one.24 crores accounts & personal sector banks had opened zero.56 crores accounts. It unconcealed that, a total of twenty-nine.05 Crores RuPay positive identification issued by banks underneath PMJDY as of Gregorian calendar month twenty-nine, 2020, out of that twenty-four.34 crores RuPay positive identification issued by public sector banks, 3.56 Crores RuPay positive identification issued by Regional Rural banks, & 1.15 Crores RuPay positive identification issued by personal Sector banks. It is found that a total of thirty-eight.01 Crores bank accounts are opened with deposits totaling. 113676 Crores as of Gregorian calendar month twenty-nine, 2020. Out of that, Balance publically sector banks 89867.06 Crores, Balance in camera sector banks 3112.5 Crores, & Balance in Regional Rural banks 20696.69

It concludes that the performance of the general public sector banks is quite the RRB's and personal sectors banks underneath PMJDY theme as on 29/01/2020

Table 2: State-wise Accounts gap in Rural & Urban Areas, Deposits, & RuPay card issued as on 29/01/2020 The PMJDY knowledge for twenty-nine states and eight union territories in Bharat are provided within the following table and organized within the decreasing order of proportion PMJDY accounts with regard to the state population. This life reflects the success of the theme within the state (higher the proportion, the higher is that the performance of the state in providing PMJDY accounts to the population within the state).

**Table 2: State wise Accounts Opening in Rural & Urban Areas,
Deposits & RuPay Card Issued as on 29/01/2020**

S. No	State Name	Beneficiaries at rural/semi-urban centre bank branches	Beneficiaries at urban/metro centre bank branches	Total Beneficiaries	Balance in beneficiary accounts (in crore)	No. of RuPay cards issued to beneficiaries	population	% PMJDY	% rupay card
1	Andaman & Nicobar Islands	2,37,088	66,945	3,04,033	146.46	2,31,850	3,79,944	80.02	61.02
2	Chhattisgarh	94,72,595	52,21,638	1,46,94,233	3,299.64	1,04,23,030	2,55,40,196	57.53	40.81
3	Assam	1,23,31,498	39,01,171	1,62,32,669	3,782.22	1,01,85,459	3,11,69,272	52.08	32.68
4	Madhya Pradesh	1,61,91,393	1,79,77,775	3,41,69,168	6,468.18	2,61,91,282	8,29,41,943	41.20	31.58
5	Jharkhand	96,55,547	35,93,443	1,32,48,990	3,818.68	1,01,42,801	3,29,66,238	40.19	30.77
6	Dadra & Nagar Haveli	1,02,044	24,887	1,26,931	57.88	84,190	3,42,853	37.02	24.56
7	West Bengal	2,43,05,228	1,18,74,606	3,61,79,834	12,692.86	2,47,45,869	10,01,93,142	36.11	24.70
8	Bihar	2,76,08,936	1,57,48,246	4,33,57,182	11,962.46	3,48,41,215	12,17,54,329	35.61	28.62
9	Manipur	4,12,587	5,39,558	9,52,145	199.99	6,67,263	27,21,756	34.98	24.52
10	Rajasthan	1,55,51,736	1,08,40,220	2,63,91,956	8,568.37	2,11,12,549	7,71,23,684	34.22	27.37
11	Odisha	1,14,63,789	41,15,440	1,55,79,229	5,482.23	1,26,27,398	4,61,43,782	33.76	27.37
12	Mizoram	1,21,244	1,89,400	3,10,644	107.61	85,986	10,91,014	28.47	7.88
13	Total	22,27,91,959	15,72,71,484	38,00,63,443	1,13,676.22	29,05,18,686	1,35,03,29,874	28.15	21.51
14	Telangana	48,66,981	48,77,919	97,44,900	1,896.17	81,28,747	3,51,93,978	27.69	23.10
15	Haryana	36,36,515	37,66,331	74,02,846	3,497.87	58,09,440	2,77,61,063	26.67	20.93
16	Uttar Pradesh	3,59,12,222	2,46,00,643	6,05,12,865	21,367.43	4,80,80,306	22,79,20,005	26.55	21.10
17	Uttarakhand	15,63,655	9,88,604	25,52,259	1,233.33	20,57,087	1,01,16,752	25.23	20.33
18	Delhi	4,92,542	43,67,932	48,60,474	2,006.88	40,43,905	1,94,83,678	24.95	20.76
19	Arunachal Pradesh	2,05,027	1,28,669	3,33,696	122.68	2,86,113	13,82,611	24.14	20.69
20	Tripura	6,23,300	2,60,688	8,83,988	643.48	4,44,760	36,71,032	24.08	12.12
21	Daman & Diu	25,160	30,221	55,381	22.16	43,146	2,42,911	22.80	17.76
22	Punjab	39,70,132	29,57,012	69,27,144	2,575.87	56,73,892	3,04,52,879	22.75	18.63
23	Karnataka	82,19,543	66,36,064	1,48,55,607	4,248.28	1,04,18,699	6,82,36,674	21.77	15.27
24	Maharashtra	1,32,16,189	1,35,79,072	2,67,95,261	6,943.95	1,92,82,875	12,31,74,918	21.75	15.65
25	Gujarat	65,83,538	67,72,352	1,33,55,890	4,442.19	1,10,75,124	7,02,08,143	19.02	15.77
26	Himachal Pradesh	11,41,241	1,50,545	12,91,786	703.59	10,29,348	71,23,184	18.13	14.45
27	Chandigarh	40,530	2,12,426	2,52,956	117.9	1,87,128	14,43,939	17.52	12.96
28	Meghalaya	4,02,599	71,290	4,73,889	194.22	3,33,607	29,64,007	15.99	11.26
29	Nagaland	1,23,743	1,80,235	3,03,978	64.82	2,56,237	19,80,602	15.35	12.94
30	Jammu & Kashmir	17,90,375	3,21,445	21,11,820	1,000.24	17,26,849	1,45,37,863	14.53	11.88
31	Sikkim	65,413	28,166	93,579	39.24	71,357	6,58,361	14.21	10.84
32	Ladakh	16,960	1,961	18,921	15.05	19,377	1,33,487	14.17	14.52
33	Tamil Nadu	49,57,170	56,77,900	1,06,35,070	2,157.03	87,72,676	7,90,96,413	13.45	11.09
34	Puducherry	70,554	87,726	1,58,280	46.65	1,18,853	12,44,464	12.72	9.55
35	Kerala	21,15,620	21,86,135	43,01,755	1,379.51	27,05,097	3,47,42,592	12.38	7.79
36	Andhra Pradesh	51,71,902	52,49,944	1,04,21,846	2,265.56	84,83,330	8,46,65,533	12.31	10.02
37	Goa	1,22,950	43,762	1,66,712	96.84	1,26,653	14,57,723	11.44	8.69
38	Lakshadweep	4,413	1,113	5,526	8.71	5,188	64,429	8.58	8.05

Source: <https://pmjdy.gov.in/statewise-statistics> <http://www.indiaonlinepages.com/population/india-current-population.html>

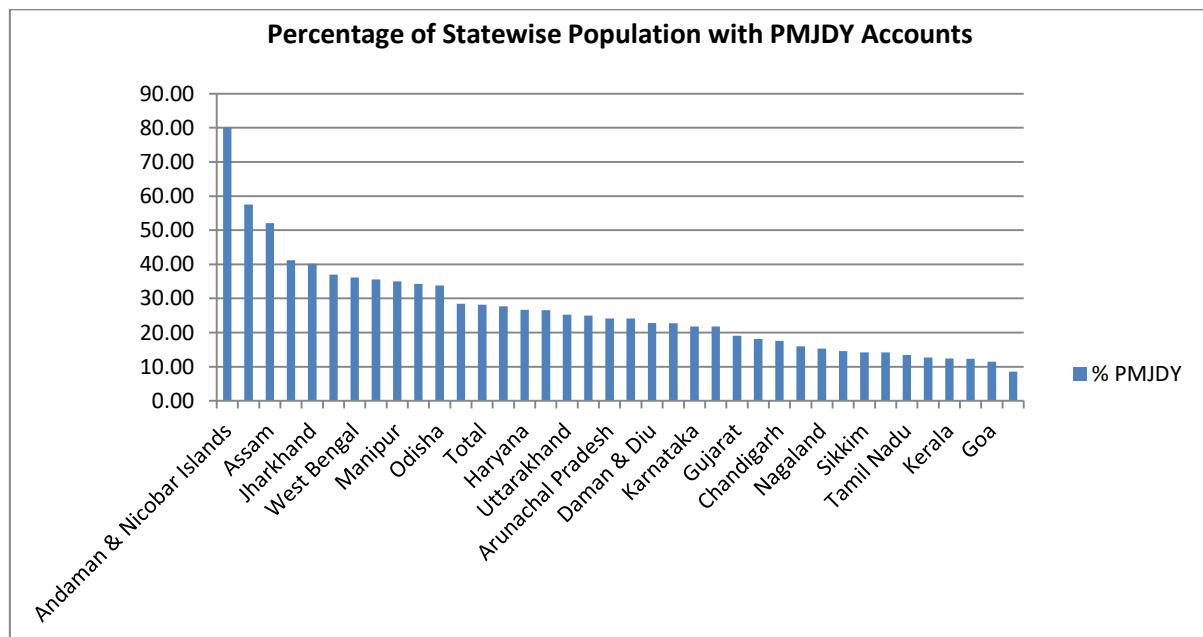
- % PMJDY denotes the proportion of PMJDY account holders among the entire population in every state

- % Rupay denotes the proportion of Rupay revolving credit issued among the whole range of accounts in every state

Table 2 highlights the following

- Among all the states, PMJDY theme has been enforced most with success in Andaman & Nicobar Islands (80%).
- Chhattisgarh, Assam, Jharkhand and Madhya Pradesh, Dadra Nagar Haveli, west Bangal, and province have conjointly performed well with over thirty-fifths of PMJDY accounts with relevancy the state population.

Chart 1: Percentage of PMJDY Accounts with Respect to the State Population



Comment: The chart for the percentage of PMJDY accounts with respect to the state population. It shows performance of 29 states and 8 union territories. It shows that Andaman nicobar has highest number of percentage and Lakshadweep has the lowest percentage of number of accounts on 29th January 2020.

8.0 Conclusion

The PMJDY is the government's considerable efforts to confirm money inclusion and to get rid of money untouchability. The PMJDY could be a massive step towards money inclusion. This initiative taken by PM Narendra Modi can facilitate the poor to become financially sturdy and connecting themselves to the vehicle of the economy. This theme has comprehensive coverage because it includes each rural and concrete areas. As way as performance is bothered the performance of public sector banks is sensible as compared to the regional rural banks and personal sector banks to hold PMJDY theme and it's been expeditiously enforced and additionally promoting money acquirement. it's additionally determined that this theme is making overburden on public sector banks. Business correspondents ought to be used by banks in villages and trained earlier for promoting money inclusion programs. Banks got to open additional branches at intervals rural areas and making additional awareness concerning banking services among rural individuals by telling them concerning the advantages of the banking services.

References

1. Hussain (2015), “Pradhan Mantri Jan Dhan Yojana: The most intensive Financial Inclusion scheme in India”, International Journal of Core Engineering & Management (IJCEM), Volume 2, Issue 3, June 2015.
2. Kaur and Singh (2015), “Pradhan Mantri Jan Dhan Yojana (Pmjdy): A Leap towards Financial Inclusion in India” International Journal of Emerging Research in Management & Technology, ISSN: 2278-9359, Volume-4, Issue-1.
3. Kumar Divyesh, Venkatesha HR. Financial Inclusion Using Pradhan Mantri Jan -DhanYojna. A Conceptual Study, Asia- Pacific Journal of Research. 2014; 1(20):37-42.
4. Nimbrayan, P. K. (2018). Pradhan Mantri Jan Dhan Yojana (PMJDY): The Biggest Financial Inclusion Initiative in the World. *Economic Affairs*, 63(2). doi:10.30954/0424-2513.2.2018.38
5. N, Prakasha(2017). An Impact of Modi’s Government on Indian Economy with Special Reference to Selected Governmental Programmes. *IRA-International Journal of Management & Social Sciences* (ISSN 2455-2267), 7(2), 281-285. doi:http://dx.doi.org/10.21013/jmss.v7.n2.p18
6. Patnaik BCM, Litt D, SatpathyIpsita, ChandrasupkarAvinash. Pradhan Mantri Jan DhanYojna (PMJDY): A New Direction for Mainstreaming the Financially Excludes. *International Journal of Management*. 2015; 6(2):31-42
7. Verma, Y., & Garg, P. (2016). Pradhan Mantri Jan Dhan Yojana (PMJDY): A Step towards Eradicating Financial Untouchability. *Indian Journal of Finance*, 10(1), 56. doi:10.17010/ijf/2016/v10i1/85845
8. Indiaonlinepages.com. (2019). *India Population 2019 - Current Population of India*. [online] Available at: <http://www.indiaonlinepages.com/population/india-current-population.html> [Accessed 22 Feb. 2019].
9. <https://pmjdy.gov.in/statewise-statistics>
10. <https://www.pmjdy.gov.in/scheme>
11. https://en.wikipedia.org/wiki/Pradhan_Mantri_Jan_Dhan_Yojana
12. Research report:-Dutta, Das, T. A. (2017). *Analyzing Data of Pradhan Mantri Jan Dhan Yojana*. Mumbai: Department of Mathematics Indian Institute of Technology Bombay
13. http://www.math.iitb.ac.in/~ashish/workshop/PMJDY_2017.pdf

Practices, Problems and Opportunities of Livestock Marketing in Ethiopia with Special Reference to Borana Zone, Oromia Regional State

Feteh Weldesenbet Zebrga and Bijal Zaveri***

ABSTRACT

Livestock production and marketing is a major livelihood in the pastoral areas of Ethiopia. Livestock marketing development covers enormous scope for the socio economic development of pastoralist community in Borana. Although few studies are available in the areas of livestock marketing, an in-depth analysis on the marketing practice, problems and opportunities in livestock marketing is found to be scanty in Borana Zone. Therefore, the research was conducted to assess the livestock marketing practices, examining the factors/problems affecting livestock marketing and to identifying the opportunities in livestock marketing in Borana zone. The research was conducted by taking 112 sample traders from pastoralist area of Borana zone on simple random basis. Primary and secondary data were collected and used for analysis. Data collected through semi structured interview were analyzed quantitatively using descriptive and inferential statistics. Moreover, data collected through focus group discussion and key informant interview were organized and analyzed qualitatively to supplement/substantiate with survey data. Besides, multiple linear regression analysis was used to examine the factors affecting livestock marketing. The finding of the study shows that the existing market for livestock in the study area is unregulated since majority of the traders operate their business without license. A vast majority of pastoralist traders sell their livestock to nearest local markets due to proximity to market. Large traders and abattoirs were the predominant stakeholders in livestock sales. More than half of the respondents determines price of livestock through negotiation whereas nearly one third of the respondents stated that buyer dominates in price determination. Social networking was found to be predominant mode of livestock trading. It was found that cattle, camel and shoats are the types of animals mostly traded. Nonetheless, cattle are the most dominant traded species of animal in the study area. Most of the traders trek their livestock to bush, primary and secondary markets and had access to market information by visiting directly to the market. Market information is available to the traders both on weekly and fortnightly basis. The major factors affecting livestock marketing are credit sale due to few cash buyers, poor access to credit, and poor linkage with high land and export markets, drought and weak institutional support since all these factors have positive significant influence statistically. On the other hand, highly demanded Borana breed of cattle, high livestock population, and increased number of livestock market centres, improved veterinary service and favourable government policy were identified as major opportunities for pastoralist traders' efficiency and of Borana.

Keywords: *Livestock, marketing; Practices; Problems; Opportunities.*

1.0 Introduction

Ethiopia is a centre for many livestock species and suitable for livestock production in Africa.

**Corresponding author; Research Scholar, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: fwmatf@yahoo.com)*

***Dean, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: bijal.zaveri@paruluniversity.ac.in)*

Livestock productions are of significant importance to the economies of Ethiopia and to local livelihood systems. According to the national accounts estimates of Ethiopia, the livestock sub-sector contributes a significant proportion to value added of agriculture and allied activities. Next to coffee, though smaller compared to the potential, livestock exports constitute a major source of foreign exchange earnings (Million Tadese, 2003). It is believed to have as the country with the largest livestock population in Africa (CSA 2013; Solomon et al. 2003; Tilahun and Schmidt 2012). The Central Statistical Agency (CSA) survey of 2011/12 showed that the total cattle population of Ethiopia is about 52 million. Moreover, about 24.2 million sheep and 22.6 million goats are estimated to be found in the country, while the total poultry population is estimated to be about 45 million chickens (CSA 2011/12). The direct contribution of livestock to GDP is estimated by LSIPT at ETB 150.7 billion per year, which amounts to 17% of GDP and 39% of the agricultural GDP. This rises to about 21% of the national GDP and 49% of the agricultural GDP, if the contribution of processing and marketing (35.6 billion) is taken into account. If the indirect contribution in organic fertilizer and traction (37.8 billion) is taken into account the contribution of livestock to the GDP will rise to 25.3% (Barry I Shapiro et al., 2017). It also contributes 15% of export earnings and 30% of agricultural employment (Behnke, 2010). Borana Zone Report Monitoring and Evaluation Office (BZRMEO, 2010) the semi-arid Borana Plateau in Southern Ethiopia is home to 1,113,538 Borana pastoralists and supports over one million head of cattle as well as large number of goats, sheep, and camels. The Borana pastoralists have traditionally been viewed by development experts as unwilling, or unable, to significantly engage in commercial livestock trade. It has also been observed in the last several decades that animal sales have little or no role in regulating the cattle population on the Borana Plateau (Desta and Coppock, 2002). Various meeting and forums of pastoralists were undertaken in Borana zone to discuss on issues of pastoralists and had indicated that there is limited access for pastoralist traders to engage in domestic and export livestock market. Thus, this study is rather designed to investigate key issues surrounding livestock marketing in selected pastoral districts of Borana Zone.

2.0 Statement of the Problem

Ethiopian pastoralists have traditionally been characterized by less involvement in commercial and formal contractual livestock trade (Desta and Coppock, 2002). Especially, pastoralists in southern Ethiopia in general, had a very limited knowledge of emerging livestock export market as well as limited knowledge of the potential role of the livestock production and marketing which could play vital role in improving their livelihoods. Many social, economic, ecological, and policy factors have been cited as constraints that limit livestock commercialization and formalization. However, as human population grew and per capita milk supply declines in rangeland areas, the traditional pastoral production system will be increasingly unable to fully support growing human populations, and hence pastoralists will be forced to engage in more commercial activity simply to increase human carrying capacity of the rangelands through the exchange of animals for grain via market transactions (Desta and Coppock, 2004). Enhancing the access for the poor smallholder farmers and pastoralists to markets and actively engaged, is one of the most pressing development challenges in the area. Remoteness in location from urban centres and infrastructure results in lower farm gate price and lower returns to labour and capital and increased input costs as compared to the nearer rural areas. This in turn reduces the incentives to participate in economic transactions and results in subsistence rather than market oriented production systems (Holloway D. and Ehui S., 2002). Access to markets is profoundly affecting the abilities of all members of Borana lowland society to make better living and contribute to national wealth. Studies conducted on this area were not in - depth and did not consider the factors affecting livestock marketing practices especially in the study area that resulted in information and knowledge gap.

3.0 Objectives of the Study

The following are the specific objectives of the study

- To assess the livestock marketing practices in the selected pastoral districts of the study area;
- To examine the factors/problems affecting livestock marketing practices: and
- To identify the opportunities for better livestock marketing practices in selected pastoral districts of Borana zone.

4.0 Materials and Methods

As the study is descriptive in nature, field survey method was adopted. Borana Zone of Oromia Regional State, Ethiopia was selected purposively as the study area owing to the main pastoralist Zone in Ethiopia. Yabelo and Elwaye pastoral Woredas (districts) of the Borana Zone were selected purposively due to high concentration of livestock, pastoralist community and local traders. Primary data was collected from livestock traders, pastoralists and officials, through semi-structured interview schedule, focus group discussion and key informant interview respectively. Out of 258 local traders, samples of 112 were selected on simple random sampling technique.

Semi-structured interview schedule was used to gather data from pastoralist traders who are involved in livestock marketing. Questions included in the semi structured interview schedule were demographic, social and economic characteristics of local traders, marketing practices and factors affecting livestock marketing and opportunities for better livestock marketing. Both closed and open-ended questions were prepared and translated into Afan Oromo language in order to ease the data collection work. Focus group discussions (FGDs) were conducted with four groups each comprised of 8-10 participants, two FGDs each with pastoralist and officials. Data was analysed using descriptive statistical tools such as tabulation, simple percentage, mean and ranking. Inferential statistics viz., Multiple Linear Regression model was used to examine the factors affecting livestock marketing since the dependent variable is continuous in nature. Sales volume of livestock was considered as dependent variable for the model.

5.0 Results

Table 1: Demographic, Social and Economic Characteristics of the Respondents

Variables	No. of Respondents (N=112)		
	Category	Frequency	Percentage
Sex	Male	109	97.3
	Female	03	02.7
Age	18-30	14	12.5
	30-64	81	72.3
	Above 64	17	15.2
Level of Education	Illiterate	54	48.2
	Grade 1-8	40	35.7
	Grade 9-12	11	09.8
	Diploma & Above	07	06.3
Marital status	Single	05	04.5
	Married	107	95.5

Source: Field survey, 2018

A cursory look at the Table 1 reveals that a high majority (97.3%) of the sample traders were male while the remaining 2.7% were female. As for age, 72.3 percent of the traders were in the age

group of 30-64 whereas young and old age group forms insignificant proportion. Nearly half of the subjects were illiterate and one third of the respondents had grade 1-8 as their education. A high majority of the respondents were married.

Table 2: Livestock Marketing Practices

Marketing Practices	Category	Percentage
Sources of Livestock purchase for resale	Primary market	31.2
	Secondary market	44.1
	Bush market	06.5
	Producer	18.3
Legality of traders	Licensed	26.9
	No license	73.1
Market areas for livestock sales	Near distance local market	93.5
	Far distance local market	05.4
	Informal cross border market	01.1
Choice for preference of market areas	Better price	61.3
	Proximity to market	38.7
Main purchasers of livestock	Large trader	48.4
	Abattoir	36.6
	Butcher	08.6
	Exporters	06.5
Livestock market price determination	Buyer	29.6
	Seller	09.8
	Broker	09.4
	Negotiation	51.2
Mode of price determination	Weight basis (small stocks)	95.8
	Visual appraisal (Large ruminants)	98.7
Market structure	Regulated	08.6
	Unregulated	91.4
Mode of trading	Social networking	92.3
	Contract basis	07.7
Types of livestock traded	Cattle	67.7
	Camel	15.5
	Shoats	17.2
Transportation system	Trucking	07.5
	Trekking	78.5
	Both	14.0
Access to market information	Yes	79.6
	No	20.4
Source of market information (N=74)	Relatives	17.1
	Neighbours	11.6
	Visit to market directly	71.3
Frequency of market information	Weekly	66.7
	Fortnightly	33.3
Accuracy of market information	High	34.4
	Medium	49.5
	Low	16.1

Source: Field survey, 2018

The survey data as depicted in Table 2 shows that, majority 44.1% and 31.2% of traders purchase livestock from secondary and primary markets respectively and the remaining 18.3% and 6.5% purchased livestock from producer and bush markets respectively. Regarding the legality of livestock trading, the survey data shows that, greater part of traders (73.1%) undertakes livestock trading without license and only 26.9% of traders undertake livestock trading with license. Greater part, 93.5% of pastoralist traders sell their livestock to nearest local markets while only 5.4% of traders indicated selling their animals at far distant livestock markets. Proximity to the market is the major preferred factor for livestock sale. Large traders (48.4%) and abattoirs (36.6%) were the predominant stakeholders in livestock sales. More than half of the respondents determines price of livestock through negotiation whereas nearly one third of the respondents stated that buyer dominates in price determination. Livestock market in the study area was found to be unregulated. Social networking was found to be predominant mode of livestock trading. It was found that cattle, camel and shoats are the types of animals mostly traded. Nonetheless, cattle are the most dominant traded species of animal in the study area. Most of the traders trek their livestock to bush, primary and secondary markets which is the major mode of transportation. Majority (79.6%) of the traders had access to market information by visiting directly to the market. Market information is available to the traders both on weekly and fortnightly basis. Majority of the traders accepted about the accuracy of market information.

Table 3 depicts the factors affecting livestock marketing in the study area. The results of multiple linear regression analysis show that independent variables such as credit sales, lack of capital, poor linkage with high land and exporters, drought and lack of institutional support were the predominant factors since these variables have positive significant influence on the dependent variable livestock marketing ($P < 0.01$). Further, variables such as conflict between buyers and sellers, lack of entrepreneurial capacity and poor infrastructure were also found to be the factors since these variables have positive significant influence on the dependent variable livestock marketing ($P < 0.05$).

Table 3: Factors Affecting of Livestock Marketing – Multiple Linear Regression

Independent variables	Unstandardized Coefficient	Sig.
	β	
Constant	-.477	.013
Credit sales	1.127	0.000***
Lack of capital	1.038	0.000***
Poor linkage with highland area & export marketers	0.071	0.000***
Drought	2.823	0.026***
Lack of institutional support	4.954	0.003***
Conflict between buyers and sellers	2.498	0.038**
Lack of entrepreneurial capacity	0.085	0.022**
Lack of market information	0.080	0.132
Seasonal demand	0.022	0.533
Livestock disease	0.182	0.481
Lack of grading and standardization	0.105	0.274
Poor infrastructure (Market, road)	2.493	0.035**
Seasonal supply	0.060	0.171
R^2	0.994	

Source: Field survey, 2018

Note: *** denotes 1% significance level; ** denotes 5% significance level

Table 4: Opportunities of Livestock Marketing

Opportunities	Mean (N=112)	Rank
High demanded breed	4.52	1
Large livestock population	4.23	2
Increased number of livestock markets	3.96	3
Improved veterinary service	3.74	4
Supportive government policy	3.53	5
Road and communication infrastructure development	3.12	6
Establishment of support institutions	2.91	7
Cross border trade	2.59	8

Source: Field survey, 2018

A perusal of Table 4 shows that the local traders in the study area have identified some opportunities to improve the livestock marketing practices. High demanded breed, large livestock population, increased number of livestock markets, improved veterinary services and supportive government policy were the opportunities available to enhance the livestock marketing system in the study area.

6.0 Discussion

Livestock marketing practices: Primary markets have been identified as village level markets with a supply of less than 500 head of livestock per week where primarily producers (farmers and pastorals) sell small number of animals to small traders, other farmers (for replacement), farmer/pastoralist traders and in some cases to consumers and local butchers. In these markets, reproduction and resale are the main purposes of buying. Similar finding also found in Ayele et.al, (2003). Secondary markets are characterized by their resale and consumption as the most important objective of buying. These markets are trader and to some extent butcher dominated markets with an average offer of 500-1000 heads of livestock per week. This finding is supported by Yacob, (2002). These markets are mainly located in regional capitals. Focus group discussion held with Woreda Officials indicates that livestock trading without License is illegal. And also has an adverse impact on traders by limiting their participation in various livestock oriented bids. This is considered as a major constraint which can limit pastoralist traders in accessing domestic and export livestock markets. Traders have limited access to other livestock markets, like any other terminal markets including those markets situated at the border areas of Moyale.

The study result shows that pastoralist traders have limited access to central and to the export markets. They buy livestock from the local areas and sell them in local markets. Only few of them enter the terminal markets. Taking into consideration cross border trade, focus group discussion results show that the traders resented the fact that they could not have access to an alternative marketing outlet due to the legal restriction by the Ethiopian government on cross border livestock trade as well as due to the prevalence of tribal conflict in Northern Kenya. The traders' price decision at their purchase market and sales market can be influenced by the demand condition of each market used for purchase and sale. The majority of sample traders interviewed are found to be small and medium scale traders operating in Bush, primary, and secondary markets.

Majority of the traders have influenced the market price by their side at their purchase market but at their sales market, mostly price tends to be decided by traders from the highland and central market places. It is imperative to note that method of sale of livestock is not based on the

conventional style of weighing and fixing prices on weight basis. However, in this region livestock in particular the small stocks are sold on scale basis whereas the larger ruminants are sold on the spot negotiation or visual appraisal between the buyer and the seller. There is no auction market taking place.

Cattle are the most dominant species of animal traded by the majority of pastoralist traders. The phenomena are attributable to the traditional breeding style of the Borana pastoral societies as well as the commanding demand of the Borana breed of cattle both for domestic and foreign consumption. Focus group discussion with Woreda Trade and Market Agency, at a Woreda and Zonal levels show that there is a new livestock marketing rules and regulations, which guide livestock trading. Even though the smaller numbers of the respondents accept and recognize the existence of the government's livestock marketing rules and regulations while the majority numbers of the respondents do not take up this fact, there appears to be a gap of misunderstanding.

Regarding livestock Business undertakings, majority of pastoralist traders identified social networking as their main system of trading to create linkage with low-land and highland traders. This social networking strategy is preferred because of inadequate formal institutional support to link pastoral traders with exporters, abattoirs and feed letters. Majority of the sample respondents trek their livestock to bush, primary and secondary markets. This finding is consistent with Habtamu (2008) which state that transportation of livestock was difficult when compared to other agricultural products and the truck owners asked more costs for livestock transportation. This led the traders to choose trekking transportation in areas where there were inadequate infrastructures. The lack of easily accessible and formal market information, such as end market quality and quantity requirements, prices and delivery timing needs might be available to limited market participants. However, for those at the lower levels, particularly for the pastoralist traders, lack of the formal market information could result in mistrust and weak relationships along the chain and might be a contributing factor in decreasing the efficiency of the livestock marketing in pastoralist area of Borana Zone. Focus group discussion result indicate that there is variation among livestock traders in accessing market information those traders which have customer from central market and also in better status in their business financing has more access to market information. Availability of mobile telephone has contributed in accessing information although there are problems like quality of service and net work coverage.

Factors affecting livestock marketing: Credit sales are the most important factors affecting livestock marketing. This implies that the pastoralist traders were obliged to sell livestock on credit basis because of fewer cash buyers and also selling on credit basis is regarded as institution. During the FGD discussion, it was understood that there appears to be no linkage with modern marketing agency that brings both buyers and sellers under one roof. Drought is considered as the highly affecting factor in the many pastoralist areas of Ethiopia. Particularly in the Borana pastoralist area, the effect of drought is very high due to its occurrence on recurring basis. Various factors contribute for occurrence of drought pastoralist traders expressed that increased number of livestock and lack of rain are among major contributors for drought. The widely prevalent livestock diseases are major constraints to Ethiopian livestock export (LMA, 2001). Livestock export from Ethiopia is jeopardized by repeated bans, in particular from the countries in the Arabian Peninsula, as they are perceived to carrying the risk of introducing a number of trans-boundary livestock diseases. Lack of institutional support led poor linkage with highland and exporters. Also for involvement in large trading activities, local traders lack with capital which affects the livestock marketing.

7.0 Conclusion

To conclude, the existing livestock marketing practices in the study area is highly unregulated

which causes serious problems to the local traders and pastoralists. Most of the traders involved in the marketing without license which does have repercussions on the purchase and sale proceeds. Although livestock marketing cooperatives are found in the study area, their role in regulating the livestock marketing is not appreciable owing to operational and functional deficiencies. Major opportunities identified by study include: high livestock population in the area, highly demanded Borana breed domestically and overseas, increased number of livestock market centres, improved veterinary service, and favourable government policy liberalization, road infrastructure development and communication. Livestock traders in pastoral Woreda operate their business under various constraints. Among the major constraints, the main ones include: Pervasive sale on credit due to few cash buyers, poor access to finance to capitalize their business, poor linkage with central and export markets, poor access to market information and transportation problem, weak institutional support, lack of entrepreneurial capacity, limited access to cross border trade, recurrent drought, animal disease which impact livestock marketing and others.

8.0 Implications and Recommendations

Livestock traders in pastoral areas are highly dependent on income from sale of their livestock. Access to market will profoundly affect the abilities of all members of Borana lowland society and to improve their livelihoods. Pastoralists and traders need to access local, central and export markets, market will be a major source of revenue, growth and employment. The success of pastoral system from small producers, traders in rural areas to large international traders requires addressing first and foremost those factors that limit market access. To tackle those limiting factors of livestock marketing in Borena pastoral Districts, joint actions of community, government and development partners required. Based on this study the following are recommended:

- Facilitate simplified contract law agreement and effective implementation of existing livestock marketing rules and regulations.
- Increasing access for formal and informal access to credit.
- Government has to create conducive and stimulate competitive marketing strategy to address market failures in the area.
- Create awareness on the existence of rules and regulation for guiding livestock marketing.
- Orientation needs to be given to traders by relevant institution on the sale of livestock accompanied by a written agreement.
- Strengthen formal Institutional Support for linking pastoralists with highland and central markets. Enhance access to market information.
- Enhance livestock transaction modality in terms of establishing grade and standards.
- Facilitate capital injection in pastoral areas and develop livestock marketing infrastructure.
- Promote ways and means for cross border trade.
- Facilitate livestock auction and livestock marketing cooperatives. Strengthen physical infrastructure development.
- Encourage pastoralist traders to design their own risk minimization strategy like forming traders association to undertake livestock business.
- Empower female participation in livestock marketing.
- The marketing system needs to avoid any kind of abuse by either the middlemen or uncertified brokers.
- Market promotion and search for further destination.
- Capacity building for value chain actors (training, financial support, etc.).
- Conduct further research work on value chains in order to promote trading and commercialization.

References

1. Ayele Solomon, Assiegid Workalemahu, Jabar M.A, Ahmed M.M and BelachewHurissa, 2003. Livestock Marketing in Ethiopia: A review of structural, Performance and development initiatives. Socio-economic and Population.
2. Barry I Shapiro , Getachew Gebru , Solomon Desta , Asfaw Negassa , Kidus Nigussie , Gezahegn Aboset and Henok Mechale, 2017. Ethiopia livestock sector analysis, Ethiopia Ministry of Livestock and Fisheries and the International Livestock Research Institute Livestock master plan team, International Livestock Research Institute (ILRI), Ethiopia.
3. Behnke R., 2010. The Contribution of Livestock to the Economies of IGAD Member States: Study Findings, Application of the Methodology in Ethiopia and Recommendations for Further Work. UK: Odessa Centre, IGAD Livestock Policy Initiative, Great Wolford; 2010. IGAD LPI Working Paper 02-10.
4. Borena Zone Report, 2010. Monitoring and Evaluation (BZRME0, 2010).
5. Central Statistical Agency (CSA), 2013. Federal Democratic Republic of Ethiopia. Agricultural Sample Survey, 2012/13, Volume II: Report on Livestock and livestock characteristics (Private peasant holdings). Statistical Bulletin 570. Addis Ababa.
6. CSA and the World Bank (database). 2011/12. Living standards measurement study– Integrated surveys on agriculture (LSMS-ISA): Ethiopia Rural Socioeconomic Survey (ERSS).
7. Desta, S., and Coppock, D.L. 2002. “Cattle Population Dynamics in the Southern Ethiopian Rangelands, 1980-97.” *Journal of Range Management* 55: 439-451.
8. Desta, S., and Coppock, D.L. 2004. “Pastoralism under pressure: Tracking system change in southern Ethiopia.” *Human Ecology* 32(4): 465-486.
9. Habtamu, B. 2008. Factors Affecting Livestock Marketing, Acase Study. In Geda Pastoralists Cooperative Union, Borana, Zone, Oromia Regional State, Ethiopia. M.A. thesis, Ambo University
10. Holloway, G. and S. Ehui, 2002. Expanding Market Participation Among Smallholder Livestock Producers. Socio-Economics and Policy Working Paper 48. ILRI (International Livestock Research Institute), Nairobi, Kenya. 35pp.
11. Livestock Marketing Authority (LMA), 2009. *Study on Causes of Cross-Border Illegal Trades in South, Southwest and Eastern Ethiopia*, Market Research and Promotion Department, Addis Ababa, Ethiopia.
12. Million Tadesse, 2003. Challenges and opportunities to livestock and livestock products marketing in Southern Nations, Nationalities and Peoples Region: A case study of Wolaita Zone.
13. MoA (Ministry of Agriculture). 2012. 2011/12 (2004 E.C) Performance assessment report on the growth and transformation agenda in the spheres of agriculture.
14. Mohamed, A., Ahmed, M., Ehui, S. and Assefa, Y. 2004. Dairy development in Ethiopia. EPTD Discussion Paper No. 123. Environment and Production Technology Division, International Food Policy Research Institute, Washington, DC 20006 U.S.A.
15. Solomon A, Workalemahu A, Jabbar MA, Ahmed MM, Hurissa B. Socio-economics and Policy Research, 2003. Working Paper 52. Nairobi: Kenya, ILRI (International Livestock Research Institute).

16. Solomon Tilahun, 2004. Performance of Cattle Marketing System in Southern Ethiopia with Special Emphasis on Borena Zone. A Thesis Submitted to School of Graduate Studies. Alemaya University, Alemaya.
17. Tilahun H, Schmidt E. Spatial Analysis of Livestock Production Patterns in Ethiopia, 2012. ESSP II Working Paper 44. Addis Ababa, Ethiopia: International Food Policy Research Institute/Ethiopia Strategy Support Program II.
18. World Bank, 2016. Empowering Ethiopia's Pastoral and Agro-pastoral Communities, Retrieved from <http://www.worldbank.org/en/news/feature/2016/10/11/empowering-ethiopias-pastoral-and-agro-pastoral-communities>.
19. Yakob Aklilu. 2002. An Audit of the Livestock Marketing States in Ethiopia, Kenya and Sudan. Nairobi, Kenya.

Qualitative Investigation of Cognitive Dissonance in E-Sports among Generation-Y in India

*Dhruvinkumar Chauhan**

ABSTRACT

Cognitive Dissonance is a psychological theory that studies the discomfort felt by an individual, holding conflicting ideas, beliefs or values. E-sports is a form of sports competition using video games. E-sports often takes form of organised, multiplayer video game competitions, particularly between professional players and individuals or as teams. E-sports is growing in popularity with top tournaments drawing crowds of spectators rivalling traditional sporting events. Understanding the extent to which e-sport operates similarly to traditional sport, it also becomes vital to develop marketing strategies for the same. It is important to think about how cognitive dissonance skews our perception about people and situation even when it comes to e-sports. Some online spectators or fans are instilled at an early age the value of loyalty, but undying loyalty can also prohibit authentic and truthful discussion. What are the fans to do about cognitive dissonance created by rooting for a player online because of their 'amazing gameplay' even though the player do not pass the individuals personal moral test. This paper also studies how the gamers have 'gamer names', making them a different online individual. The general public knows and recognises the gamers more by their gamer names rather than their real name. We have interviewed 20 individuals using in-depth interviewing technique and this paper discusses the findings by the authors.

Keywords: *Quality investigation; Cognitive dissonance; Generation Y.*

1. Introduction

Electronic sport, shortly written as e-sports is a type of sport in which the primary aspects of competition are enabled by electronic systems; the input of players and teams as well as the performance of the e-sports system is mediated by interfaces between human and machine. There is an existing body of research in e-sports, the millennium also known as Generation Y or simply Gen Y and its association with e-sports and e-sports research in both India and worldwide. There is also plenty of work based on the study of what motivates the crowd to spectate e-sports and when and how e-sports got a substantial increase. Given all the above works and analyzing them, this paper explores the cognitive dissonance observed in e-sports, and this is where our research gap lies. Cognitive dissonance is a state of contradictory thoughts, values, or attitudes, particularly in relation to behavioral choices and change of attitude. In simple words, when a person experiences inconsistencies in his / her attitudes and behaviour, this can lead to something known psychologically as cognitive dissonance. Spectators can watch a gamer because the game played by the player is exciting, or because of many other reasons. It may be likely, however, that the player is not a person of personality with whom the spectator likes to share a relationship in real life. The player can be an exact opposite person to what he / she portrays online. The main focus of this research is therefore to analyze these variants and what viewers think of them. Although for this reason, this paper discusses detailed understanding various aspects which are discussed further in detail.

**Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: dhruvinkumar.chauhan24149@paruluniversity.ac.in)*

2.0 Literature Review

2.1 History, evolution and status of e-sports

Considering the history of gaming with e-Sports, e-Sports can be divided into two eras: the arcade era and the Internet era. Popular e-Sports games in the former period (from the 1980s to the 1990s) included NBA Jam and Virtua Racing (Electronic sports, 2009). The first e-Sport event held was known to be a major event for the arcade game 'Space Invaders' which was, according to Hope (2015), an event held in 1981. The second landmark can be seen as the tournament games which took place in Seattle in October 28, 1981. The event invested more than \$200,000 on organizing and promoting the tournament, and at that point the e-Sports industry had never seen so much money put into a single event. The next major milestone for e-Sports is seen as televising the contests. A program called Starcade was transmitted between 1982 and 1984, featuring numerous competitive gaming competitions and interviews.

Until early 1990, e-Sports continued to operate on a smaller scale, mostly due to technological lack. Many e-Sports games gained popularity as the Internet grew across local area networks. The technology also allowed internet play, which was part of the reason why two well-known game genres used today were developed: Real Time Strategy (RTS) and FPS (First Person Shooter). The Red Annihilation Tournament and the Cyberthlete Professional League (CPL) FRAG Tournament both held in 1997, used the most of this technology. Two major events; D.Devil calls these cases as the birth of today's established e-Sports without arcade games. The number of events continued to grow steadily until 2000, which within e-Sports is seen as one of the highest peaking years. The creation of the games Doom (1993), Warcraft (1994), Quake (1996), StarCraft (1998) and Counter-Strike (1999) were important milestones in the growth of e-Sports.

Another highlight in e-Sports' history is the introduction of live streaming on the Website Justin.tv, now known as Twitch.tv, in 2007. This allowed all professional players and all tournaments to display online matches rather than big television shows – making it much easier to reach viewers. The popularity of e-Sport has grown dramatically in the following years, with tournaments held around the world concentrating on the different genres of games. Launch of the Riot Games game League of Legends in late 2009 as the next e-Sports highlight. Today, the game is regarded as one of the leading e-Sports games which attracts players and viewers from every corner of the world. This can be seen in 2013 where the World Finals of the League of Legends had the biggest e-Sport tournament in the world, with 32,000,000 online viewers during the competition (Pereira 2013). The development of e-Sport can also be seen as a prize pool, while the 2014 International Tournament exceeded a total prize pool of more than 10 million dollars. In recent years, sports and games have gone the mainstream, making a core form of entertainment around the world from lively Global sports revenue projections through 2022. Even though e-sports once represented a subset of sporting culture, it has grown into an entire industry unto itself. This change was motivated by a growing number of mainstream outlets including ESPN, Michele Jordan, Drake and DJ Marshmello, and at least partly by the frenetic rise of a game, Fortnite which has recently been released in 2017. According to the Business Insider Intelligence projections, the overall e-sports viewing is expected to increase at a 9% compound annual growth rate (CAGR) from 454 million in 2019 to 646 million in 2023. The pop culturing of sports has led to the explosions in investment and profits in e-sport. E-sports have largely reached this stratosphere due to the social dimension of live streaming and play. Different streaming platforms such as Twitch and YouTube Gaming provide viewers with direct links to their players and teams, while more mainstream social networks have allowed these connections to survive and grow. The remarkable audience and spectator growth of e-sports is a direct result of a deep-rooted experience in the media, says Peter Warman, CEO of Newzoo. Most competitions and events have huge crowds, and businesses will monetize these e-sports fans directly. As this began last year, the

early learning is constantly expanding. As a result, 2019 will be the first trillion-dollar year for sports, a market in which all sectors continue to attract brands. According to Newzoo Global Report, for the global e-sport industry, 2019 marks a major milestone which will surpass the \$1 billion mark for the first time. Nonetheless, 2019 will have a substantial \$1.1 billion in revenues, which will rise year-over-year by + 26.7%. Sponsorship is the world's biggest revenue for individual e-sporting activities, raising \$456.7 million in 2019. The report states that by 2022, the overall e-sports audience will reach 645 million. The e-sports market is expected to hit US\$ 1.8 billion in 2022 on its present path. If any one of the variables speeds up, revenues hit \$3.2 billion in a more optimistic scenario.

2.2 Generation Y/Millennial and E-sports

The number of fans is growing rapidly, with E-sports booming. The biggest audience segment is Millennial. Often known as Generation Y or 'Gen Y,' millennial – a group comprising individuals aged 24 to 35 years old – have gained prominence because target marketers have not been able to fully understand. This has become a reality for the world of e-sports as well, the first generation to embrace e-Sports. With the vast majority of players and fans belonging to this age group – about 60% – companies are now asking what is the best way to effectively get their messages across and keep them loyal to their games and brands. According to Corey Austin's findings, who is a digital strategist, the average consumer day comparable to the social media takes a portion for console gaming alone – 51 minutes versus 50 minutes Facebook. But while the growing interest reaches nearly every generation, Millennial and Gen Z offer the real opportunity. In fact, according to his report, 58% of millennial have video games played over the last 30 days, and a fifth of those players have spent about 20 hours (roughly 5 hours a week) playing. They're 25% more likely to play on a regular basis than Gen X. This trend is even higher for the younger generation. It is tempting to lump Millennial and Gen Z into a single group of youths, particularly when their practices overlap with gaming. E-Sports is a growing global trend particularly common among Millennial. Many researchers (Deloitte, Neilson, Newzoo) identified Millennial as the main e-Sports viewers, with a focus on those aged between 18 and 35 years. Deloitte reports 75% of the spectators are Millennial, and 82% are males. They also seem to offset the hours spent watching other traditional sports by fans who spend about four hours a week on events or entertainment related to e-Sports. E-Sport betting is also becoming more popular with the growth of e-Sports and its popularity is growing among better people between the ages of 21 and 35. Nielsen reports indicate that 61 per cent of e-Sport betters are Millennial. The worldwide trend of e-Sports is only gathering more momentum and is pushed for thousands of years, and it's powered by millennial. While e-sports dominate Asia, Europe and the United States, Canada is constantly increasing in the professional competition sector and many Canadian millennial are considered legitimate career option.

In other than the major tournaments, the players use screen sharing sites such as Twitch to increase their enthusiasm. Twitch is an online streaming platform designed for gamers to upload their content while playing live games, and has built a million-strong community of viewers. Twitch reports that 55% of its users are millennial and their streamers are capable of winning subscribers and advertising to earn revenue. Although professionals achieve this in the course of their competitive seasons, Twitch is an amateur gamers outlet to stand by and earn additional money. Today, much talk around e-Sports tends to focus on the gaming community itself introspectively. Nevertheless, the huge market opportunity that the e-Sport industry brings to the national table has been ignored. It is notoriously difficult for centuries to hit advertisers searching for an entrance into the sensory bubble of millennial. The e-Sports industry's facilities are untapped and as more people are involved in gaming and consider e-Sports as a workplace, businesses will remember the pent-up options that this sector has. Group or event sponsorships, network advertising, or publicity for games are all ways in which brands can expand their scope and grab more of the centuries-old market. When less millennial

consume content through traditional means such as television, radio, newsprint and as they become even more segmented online, advertisers have a strong case for investing time and money in e-Sports space. Although e-Sports is fuelled by the millennial playing, competing and buying into the sport; it is also anticipated that Generation Z will pursue the millennial route of participating in this industry. The KidsSay Trend Tracker estimates that 89 per cent of Generation Z (children aged 8-15) own a game console in the United States, with many buying more than one. By the time they reach post-secondary school, they will have logged into their gaming console thousands of hours and lauded other e-Sports pioneers as role models of modern day.

2.3 E-sports in India

E-Sports Federation of India (ESFI) currently runs e-sports in India. Their main goals are to encourage, coordinate, train, educate and manage e-sports in India. This looks forward to providing training and developing a sustainable eco-system for e-sports in India and not just for organizing events and tournaments. The ESFI looks into official organization in complete and sole in charge of all e-Sports matters in India and to guard and enforce rules in co-operation with the States e-Sports Associations/Federations of the country and in full and complete collaboration with the Indian Olympic Association, to select and control the Indian e-Sports Contingent to the Olympics, Asian Games, Commonwealth Games and various International competitions under the patronage of the IESF, OCA, IOA other Federations Associations and to stimulate the interest of the people of the country in promotion of e-Sport. Its mission is to Lead, Grow and Support e-Sports in India. Another Indian player is Nodwin gaming, the country's leading and most known sports business. NODWIN gaming has played a crucial role in the sport's development over the last decade. It has partnered with ESL and ESWC to popularize the country's competitive gaming. NODWIN also provides online content for sports and games, including e-sports facilities and a showcase of games and gadgets.

India won bronze in a special category at the Asian Games 2018, which ended in September, although it didn't count in the official medal tally: it was in the Hearthstone collectible card-based video game tournament. Tirth Mehta (23) from Gujarat has built some kind of history by winning the country's first electronic sports trophy. Nodwin Gaming's managing director, Akshat Rathee, who promotes e-sports in the country and has built the scene since 2014, said audiences are increasing, whether digitally or physically present at events. The company, which has exclusive licensing agreements with the world's largest e-sports organization, Electronics Sports League, and, among others, E-sports World Convention, was in the news earlier this year when mobile gaming firm Nazara Technologies acquired a 55% stake. "Though the competition on the Indian servers is considerably lower than that on Chinese servers, which is lower than the US servers, which is still lower compared to the European servers, India has come a long way," says Manish Agarwal, CEO of Nazara Technologies. According to competitive gaming resource website e-sports Earnings, as of October 31, 285 players from India had earned \$216,761.38 in various tournaments and games, ranking India at number 64. "The market is doubling every year and is expected to speed up even more," says Rathee. Agarwal, of Nazara Technologies, credits the increase in gaming and e-sports popularity to the low data rates and the growth in internet connections. "In gaming, a good internet connection plays a major role and has been responsible for the growth of online gaming in India. Players used to face a lot of difficulties while connecting some years ago," says Agarwal. "There has been an upsurge in the number of high-end mobile phone users after the 4G rollout in India and dropping data costs have helped in the growth of this sector."

Today, India is in the near-becoming USD 1.5 billion E-sports market at a world number 17. The Indian E-sports market, though largely unstructured, is growing rapidly, valued at around \$818 million. Worldwide, the number of online gamers has risen from 20 million in 2010 to 250 million in 2018, while the number of game-developing companies has increased from 25 in 2010 to 250 in

2018. One point that is very interesting was that India is so huge that even if it does well in one city it would have a huge audience. There are 37 million gamers in Germany. It is projected that by 2020 India will have 628 million players. In the next few years alone, gaming and e-sports over India will also grow 2-5 fold. This is far from the gaming market in other countries like China or USA, but it represents a huge opportunity.

2.4 E-sports and cognitive dissonance

Cognitive dissonance is a state of contrary thinking, morals or attitudes, especially with regard to behavioral choices and attitude change. In simple words, when a person experiences inconsistencies in his / her attitudes and behaviour, this can lead to something known psychologically as cognitive dissonance. During the cognitive dissonance process information of the triadic model is applied. Psychological tension or disagreement emerges when one of the variable of the model is modified. In other words, a person is indecisive, 'caught in two minds', this is psychological dissonance. Dissonance is an efficient way to make a difference, because an individual is driven to restore equilibrium between components. It is important to think about how cognitive dissonance skews our perception about people and situation even when it comes to e-sports. Some online spectators or fans are instilled at an early age the value of loyalty, but undying loyalty can also prohibit authentic and truthful discussion. What are the fans to do about cognitive dissonance created by rooting for a player online because of their 'amazing gameplay' even though the player do not pass the individuals personal moral test. It may be likely, however, that the player is not a person of personality with whom the spectator likes to share a relationship in real life. The player can be an exact opposite person to what he / she portrays online. It may be likely that the player should be involved in activities which may be immoral to the individual's eyes. Nevertheless, the person is still engaged online with that gamer. Let's just assume a player cheats for instance, which is the wrong thing to do for an athlete as per the consumer. However, he/she does enjoy watching the player cheat online, though. In-fact they spectate them because of that reason claiming that "it's entertaining to watch them cheat, although, they do get banned for that" as responded by one of our interviewee. Another such example could be the general belief that it would be harmful for eye and even mental health to look at the screen for too long. Though, Gamers claim it helps to concentrate and build focus because they must be very conscious as they have to keep a good attention over the game. In fact there are lots of games that need mental application and a lot of brainstorming to win. Thus, cognitive dissonance can be observed here. Considering the degree to which e-sport functions in a similar manner to traditional sport, it is also important to develop marketing strategies for the same, and therefore also to consider cognitive dissonance in e-sports.

2.5 Research gap

In the literature review we established that there are several studies on the history (Borowy and Jin 2013) evolution (Wagner, 2006) and future (Business Insider Intelligence projections) of e-sports, Millennial/Generation Y and their relation with e-sports (Deliotte, Neilson, Newzoo) and Image of E-sports in India (Rathee, Agarwal, Nazara). Regarding e-sport and its association with cognitive dissonance there is, however, a lack of literature. We could not find an extensive study that addressed this area. The analysis hence goes further and tries to understand this field.

3.0 Research Methodology

The author conducted the study using in-depth interview methodology. An in-depth interview is an interview in which a single respondent is examined to find out basic attitudes, opinions and feelings by a professional interviewer (Stokes & Bergin, 2006).

3.1 Sampling characteristics

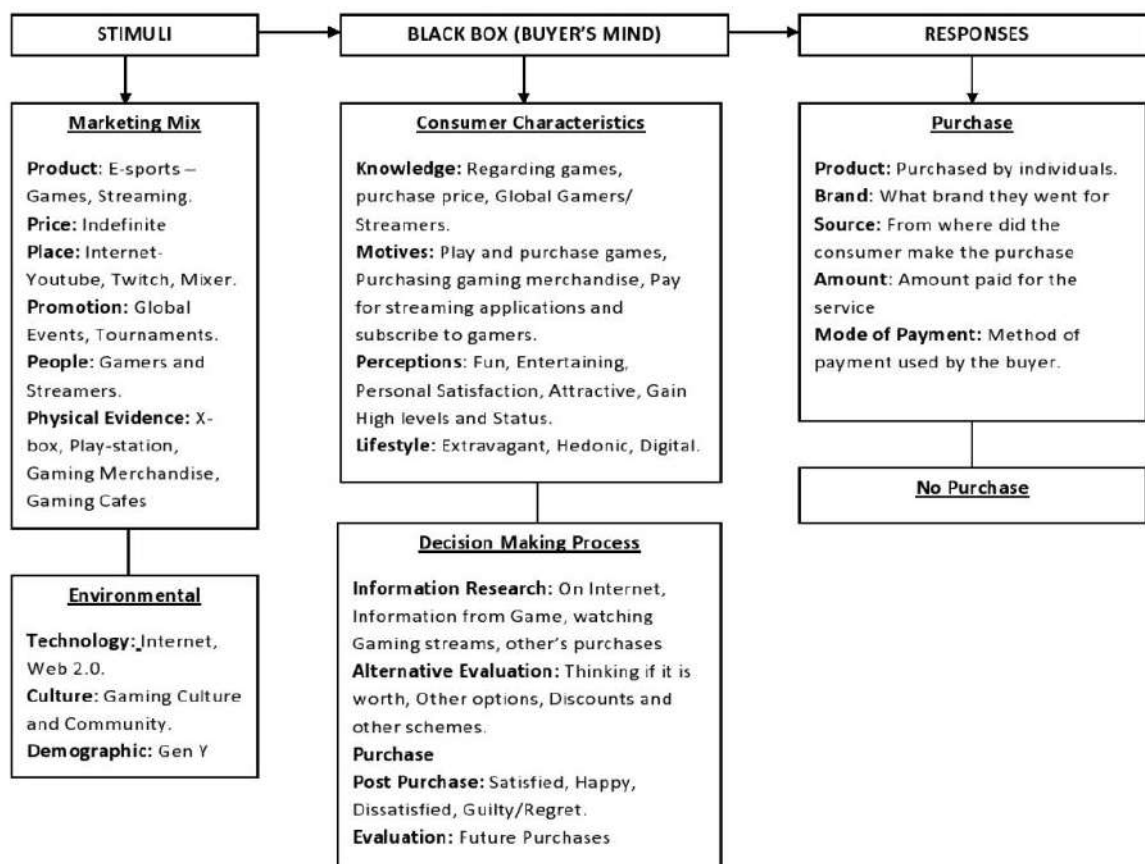
In the 18-25 age group from Gujarat a total of 20 participants were interviewed with equal number of males and females. Grounded Theory has been approached with inductive approach. It ensures that the recommendations need to be updated according to the findings after each interview and that interview should be overridden if data is repetitive.

3.2 Protocol and process

At a suitable place and time, the respondents were interviewed. With audio recording, each interview lasted about 15 to 30 minutes; field notes were taken for further study. The in depth interview focused mainly on asking questions to the respondents regarding the reasons to Play or stream e-sports, how much time do they spend for the same, purchases made over e-sports, reasons and specifications to purchase, how they decide what to buy, where do they get information, how much they pay and how much they are willing to pay in future, their post purchase evaluation and whether they are willing to make future purchases or not. Questions relating to why they do so were also asked so as to gain information regarding what motivates people to engage into e-sports activities.

4.0 Data Analysis and Results

Themes were established after careful analysis of all the data collected from interviews to explain the qualitative data. Various respondents responded to different questions and they are further noted. Based on the in-depth interview, we developed a model (Figure 1)



The model consists of 3 central interdependent categories with sub-categories. Stimuli, Blackbox and Responses were the three main categories. This can be explained simply as Input-Buyer's mind-Output. Two factors, the marketing mix and environmental factors were analyzed by stimuli. The marketing mix here in relation to e-sports considered the 7 P's in service marketing; where Product was games and streaming services, Price being indefinite, Place where the service was available included internet, Youtube, twitch and mixer, Promotion included global events and tournaments, People acquiring the service were gamers and streamers. Furthermore, under Physical evidence of service were availability of products for gaming such as X-box and playstation included. It also includes the gaming merchandise available in the market and gaming cafes as well.

Table 1: Themes and Evidence

Category	Themes	Evidence
Purpose to play.	Source of fun, relaxation or escape boredom.	"I play online games because they're very fun and interesting. It's a good leisure activity." "After coming home I'm tired and want to forget about college and work stuff so I start playing games."
	Part of interest or hobby.	"I've been playing video games since childhood and always loved it. I can never stop playing." "I can spend all night playing my favorite games. I do. Even if I've a bit of free time I open my phone and start playing."
Factors motivating to spectate gaming streams.	Source of entertainment and learning and communication with gamer.	"Gamers are very funny and that makes the streams very entertaining to watch. I also watch them because I want to see their techniques and strategies so that I can improve my gameplay." "These gamers are live and we can share our comments anytime during the stream. So we can communicate with the gamer live. It's like we talk to our friends on video calls."
	Cannot play the game themselves.	"There are a few games that are expensive or may require a good PC. So when I cannot get a game. I watch it online."
Reasons of making purchases or subscribe to streams.	Making it more attractive and interesting.	"Playing for free is cheating. It cuts off the entertainment received through that game." "I want my clothes and guns and character look attractive in the game. I want to gain high levels as well."
	Subscription is way to join the community.	"I become part of the gamers group when I subscribe (pay) to him. Then I can even play with him." "When I subscribe to him, my name pops up on his screen and he will give me a shout-out. I get recognized by a famous person."

Technology, cultural and demographic aspects are included under the environmental factors influencing the stimuli. Technology included the internet and web 2.0, while cultural factors covered the gaming culture and community. Demographic consisted of the generation Y.

The second main classification was Black box which is 'The Buyer's Mind' and it comprised of two aspects, Consumer Characteristics and Decision making process. Consumer Characteristics embraced the Knowledge an individual had regarding e-sports activities, Motives of what purchases to make, their Perception on those purchases and the Lifestyle of the consumers which was generally extravagant, hedonic or digital. Decision Making Process studies Information research done by the individual and the sources from where information was gained. It also included Alternative evaluation done by the individual, purchase and post purchase analysis and future Evaluation. The Buyer's mind influenced the Output which would result to either Purchase or No purchase. Purchase factor covered the product purchases, brand of the product, source, amount and the mode of payment opted by the consumer.

Themes were developed, as mentioned earlier, after careful analysis of all the data collected from interviews to explain the qualitative data. The themes are discussed further extensively in Table 1.

5.0 Limitation and Scope for Future Studies

This research is of a qualitative nature; future studies may be carried out to quantify parameters and measures. This research focuses on a specific age group residing within an urban area. Similar studies can be carried out on different age groups and in small, semi-metro towns. In addition, future studies in other emerging countries can be created, and intercultural issues can be studied.

References

1. Juho Hamari, Max Sjcblo, What is e-sports and why to people watch it, Article in Internet Research. (Jan 2017)
2. John Ireland, Attitude and sport performance, Jan 2018
3. Study on scope, growth and awareness of e-sports in India, 1A RehimanZakirParkar, Student-MSM- II, 2Abhijit Dhabade – COO
4. Anders Hval Olsen, The Evolution of e-sports, September 2014-15
5. Anthony D. Pizzo, Bradley J. Baker, Sangwon Na, MiAe Lee, Doohan Kim, and Daniel C. Funk, e-Sport vs. Sport: A Comparison of Spectator Motives. (2018)
6. Forbes India 30 Under 30 Article, India in E-sports Arena, NaandikaTripathi, <http://www.forbesindia.com/article/real-issue/india-in-the-esports-arena/51779/1>.
7. Sports Lovers' Transition to Online Gaming, AasthaSingal, June 2019, <https://www.entrepreneur.com/article/335854>
8. Newzoo: Global Esports Economy Will Top \$1 Billion for the First Time in 2019, <https://newzoo.com/insights/articles/newzoo-global-esports-economy-will-top-1-billion-for-the-first-time-in-2019/>
9. Game change: How Millennial rule e-sports, Frank A. Sliwka, July 2018, <https://www.linkedin.com/pulse/game-change-how-millennials-rule-esports-frank-sliwka>

Reaction of Stock Price to NEWS Related to Renewable Energy Companies in India

Divyang Joshi* and Tushar Pradhan**

ABSTRACT

Energy is a vital resource which is required for the development of an economy. The International Energy Agency estimates that India is the world's fourth largest energy consumer after United States, China and Russia and will be the third largest by 2030, as to meet the energy requirement for such a fast growing economy, India will require an assured supply of 3–4 times more energy than the total energy consumed today (“India—International—Analysis—U.S. Energy Information Administration (EIA),” n.d.). The renewable energy sources like wind energy, solar energy, geothermal energy, ocean energy, biomass energy and fuel cell technology can be used to overcome energy shortage and requirement in India (Times, 2018). The renewable energy is one of the options to meet this requirement. Today, renewable account for about 33% of India's primary energy consumptions. India has great potential to accelerate the use of its endowed renewable resources to power its growing economy with a secure and affordable energy supply. This is the reason why government is concerned about the development of renewable energy sector and introducing so many policies. Having financial interest, with increased interest of government in renewable energy sector in terms of requirement as well as development, study attempts to study the relationship between the announcements of any news or event and reaction of the stock prices of publicly listed companies of wind and solar sectors. Total 237 news of 6 listed companies were collected for the study period from 2015 to 2018. To test the hypotheses cross tabulation, event study has been used. The stock price does get impacted by the announcement of news as it led to significant fluctuations in the Average change in Volume in case of solar sector companies and wind sector companies.

Keywords: NEWS; Renewable energy; Event study; AAR; CAAR.

1.0 Introduction

Energy is a vital resource which is required for the development of an economy. The International Energy Agency estimates that India is the world's fourth largest energy consumer after United States, China and Russia and will be the third largest by 2030, as to meet the energy requirement for such a fast growing economy, India will require an assured supply of 3–4 times more energy than the total energy consumed today (“India—International—Analysis—U.S. Energy Information Administration (EIA),” n.d.). Renewable energy sources and technologies have potential to provide solutions to the long-standing energy problems being faced by the developing countries. The Government of India recognizes that development of local, renewable resources is critical to ensure that it is able to meet both its economic and environmental objectives, and it has promoted this development through policy action.

*Corresponding author; Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: divyang.joshi@paruluniversity.ac.in)

**Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: tushar.pradhan@paruluniversity.ac.in)

For the Indian economy to continue the requirement trajectory, India needs to address its energy challenges, which cross all sectors and impact all citizens. Electricity—both in terms of quality and access—is a key challenge. The renewable energy sources like wind energy, solar energy, geothermal energy, ocean energy, biomass energy and fuel cell technology can be used to overcome energy shortage and requirement in India (Times, 2018). The renewable energy is one of the options to meet this requirement. Today, renewable account for about 33% of India's primary energy consumptions. India has great potential to accelerate the use of its endowed renewable resources to power its growing economy with a secure and affordable energy supply. The quality of the current electricity supply is impeding India's economic growth. Issues such as voltage fluctuation, frequency variation, spikes, black-outs, brown-outs, and other disruptions impact industrial, commercial, and residential consumers which can be overcome by renewable energy. This is the reason why government is concerned about the development of renewable energy sector and introducing so many policies. The stock prices are observed differently reactive to different types of news in different way. The reaction of stock prices of six renewable energy companies deal with the issue of efficient market hypothesis (EMH). If the repetitive pattern is observed in stock prices during the news announcement the investors can form their trading strategy.

2.0 Literature Review

(Taghizadeh-Hesary, Yoshino, & Inagaki, 2018) had observed the reduction in the consumption of solar energy by the People's Republic of China (PRC). The solar power consumption was \$5810 per kilowatts (kW) in 2007 which was reduced to \$570 per kW in 2015 and less than \$350 per kW in 2017. The correlation between solar module prices and five economic factors were calculated. The study did not found significant impact of wages on solar module prices, change in interest and exchange rate, oil prices and capital expenditure had significant impact on solar module prices. (Mazzucato & Semieniuk, 2018) had studied the relationship between innovation in renewable energy and different types of finance and their willingness to invest in renewable energy. The 11 investors were classified under the head of private, public and others. The investment patterns of 11 investors were studied and it was observed that risky projects are financed by public investors. Therefore major share on investment in renewable energy was observed from the public sector companies. (Best & Burke, 2018) had analyzed the roles of policies and preferences in national adoption of solar and wind energy technologies. They observed that climate change perceptions make a considerable contribution to solar energy adoption but not to wind energy. The policy support is positively associated with solar energy use. The more financial provision lead more expenses towards renewable energy.

The movement of the share price is always being the interesting topic for the researcher. The growing researches focus on the impact of bonus share announcement, stock split, right share, earning announcement, dividend announcement, and business announcement (Joshi, 2017). (Crowley, Meng, & Song, 2019) had studied the impact of announcement by European Union and Chinese government regarding import restriction on the stocks. The abnormal returns were calculated with respect to announcements made. The daily stock prices of selected stocks of Shanghai-Shenzhen, New York stock exchange and Hong Kong stock exchange. The companies with big export base were observed highly reactive to the announcements compared to other companies. And the firms listed on US markets were observed highly responsive to news compared to the stocks listed in China and Hong Kong. (Joshi, 2018) The event study and sentiment analysis was applied to measure the impact of Business specific News on the stock prices. The business specific news was collected from the moneycontrol.com for the study purpose. Total 392 business news of 5 companies were collected and analyzed. The impacts of news were observed and no significant impacts were observed for positive

v/s negative news. The impact of different news events limited to S&P 500 stock prices were analyzed by Sprenger & Welp (2011). The live twitter news was classified as positive and negative news with computational linguistic methods. Total 4,39,960 stock specific news were analyzed with machine learning packages. They found that positive news offered higher abnormal return compared to negative news.

The research papers were observed for the energy specific or event specific. But, very few research papers were observed which had measured the impact of news related to renewable energy on the stock prices. The aim of this paper is to study the impact of news related to renewable energy on the stock price of wind energy and solar energy stocks.

3.0 Method and Data

For the study purpose data of 3 companies of wind energy, 3 companies of solar energy and BSE Sensex were collected. The daily closing prices from 2014 to 2018 collected for 6 companies (See Table 1) and 1 index.

Table 1: Detail of Company

Name of the Company	Sector	Establishment Year	Key Person	Life Time High
Indo Solar	Solar	2005	Mr. H. R. Gupta -CEO	30.95
Ujaas Energy	Solar	1999	Mr. Anurag Mundra(MD)	51.65
Urja Global	Solar	1992	Mr. Bharat Merchant - CEO	10.4
Indowind Energy Ltd	Wind	1995	Mr. K. V. Bala - MD	211.8
Inox Wind Energy	Wind	2009	Kailash Tarachandani - CEO	494.4
Orient Green Power	Wind	2006	Venkatachalam Ayyar - CEO	47.25

Table 2: Total News Collected and Analysed

Name of the Company	2015		2016		2017		2018		Total No. of News	
	Collected	Analysed	Collected	Analysed	Collected	Analysed	Collected	Analysed	Collected	Analysed
Indo Solar	7	5	7	5	5	4	1	1	20	15
Urja Global	13	6	5	4	8	8	1	0	27	18
Ujaas Energy	13	7	17	10	15	8	2	2	47	27
Inox Wind Energy	29	8	37	13	16	8	7	3	89	32
Indowind Energy Ltd	9	7	3	2	5	3	0	0	17	12
Orient Green Power	17	9	9	7	7	4	4	4	37	24
Total News	88	42	78	41	56	35	15	10	237	128

For the data analysis purpose news announced for the company specific were collected from moenycontrol.com. To avoid impact of overlapping of news, if there was more than single news announced on the same day and/or announced within 10 days was ignored. Total 237 number of news of six companies were collected and total 128 number of news were considered for the study purpose. It was observed that the period from 2015 to 2018 was bullish trend and the total number of news announced were declined year by year which was in support of (Mitra & Mitra, 2011). To measure the impact of news announcement the event study was apply. The abnormal returns of the stock were calculated with the market model. The abnormal return is the difference between actual and expected return. To avoid the influence of extreme values, the logarithm of daily market return was used to calculate index and stock return. To calculate the expected return, the daily returns of BSE Sensex 30 index were regressed with the daily stock returns. The intercept, slope-Beta and error were calculated

using 252 days before the event for deriving expected return of the stock. The non-zero AR is the evidence of the impact of analysts' recommendations. The t-test was applied to test the statistical significance of the AR at 5% significance level. The abnormal return of each day was divided by the standard error to derive the statistical significance of the abnormal return. The values greater than 1.96 at 0.05 confidence level were considered as statistically significant abnormal return. The Cumulative Abnormal return was also calculated to measure the general impact of the news.

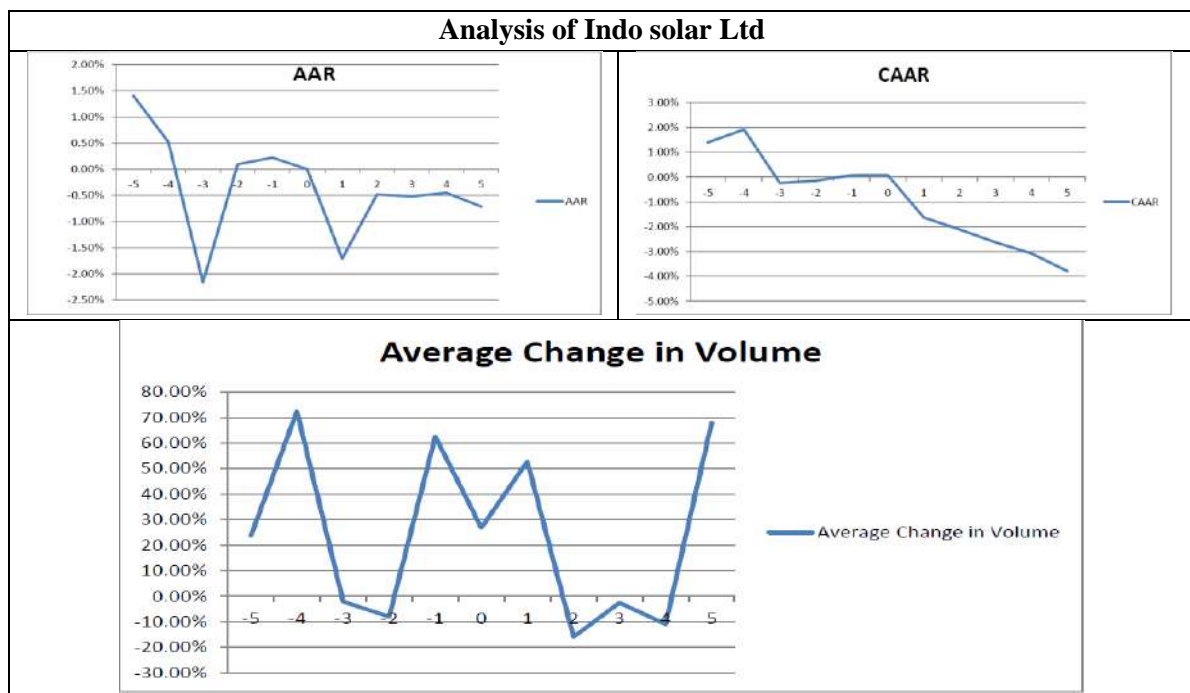
The impacts of news were also measured on the volume because significant change in volume on the news announcement day is the evidence of impact of news announcement. The percentage change in volume is calculated for the 5 days (-2, 0, +2).

H_0 : There is no significant difference between percentage change in stock prices and announcement of news in the market.

4.0 Data Analysis and Interpretation

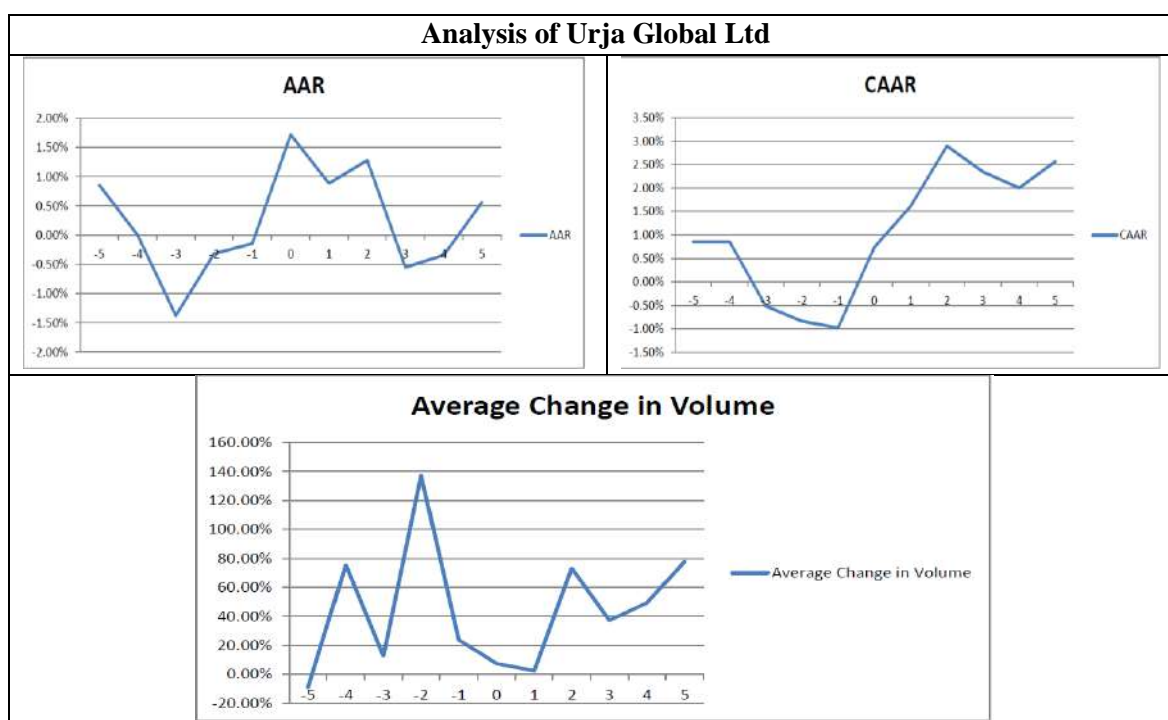
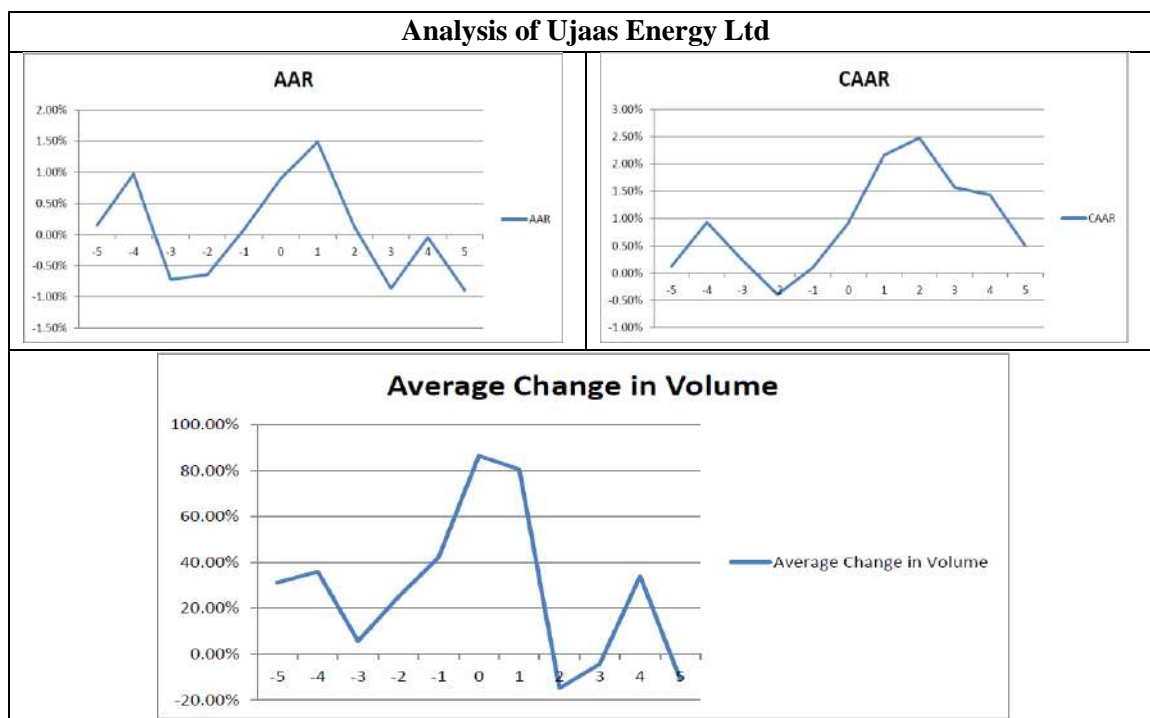
Out of total 237 news collected, 54% news were analyzed. Year wise maximum number of percentage of news analyzed was from the year 2018 (67%). Company wise maximum number of percentage of news analyzed was from Indo Solar. Considering the average of percentage news analyzed of both the sectors, average 66.33% news were analyzed from Solar Sector and 57.33% news were analyzed from Wind Sector.

4.1 Analysis of solar energy companies



Indo solar Ltd: AAR of Indo solar Ltd was observed negative during post and pre event. It was observed positive on the event day. The CAAR was observe positive on event day and then observed negative. The volume had shown zigzag movement before and after the event. There is no significant impact on news was observed on the volume.

Ujaas energy ltd: The AAR of Ujaas Ltd observed rising from -1 day and continued rising upto +1 day. While the CAAR was observed rising from -1 day and continued upto +2 day of the event. There was significant movement was observed in the volume during -1 to +2 days.

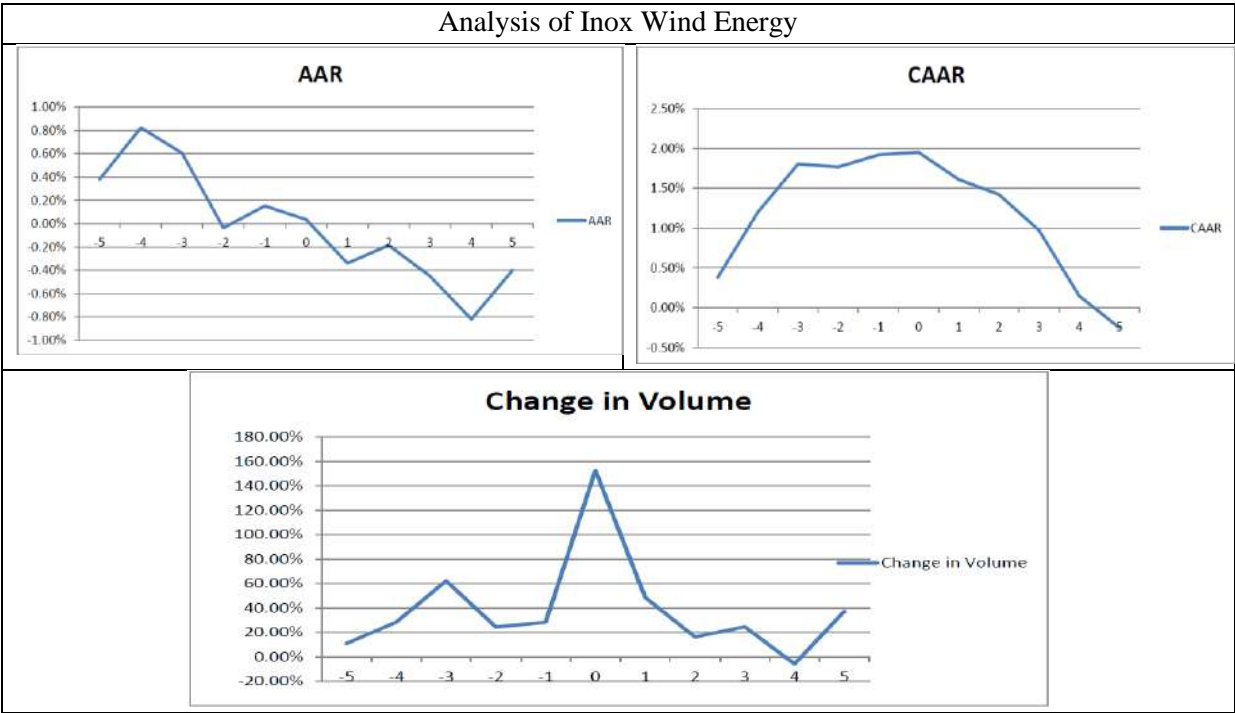
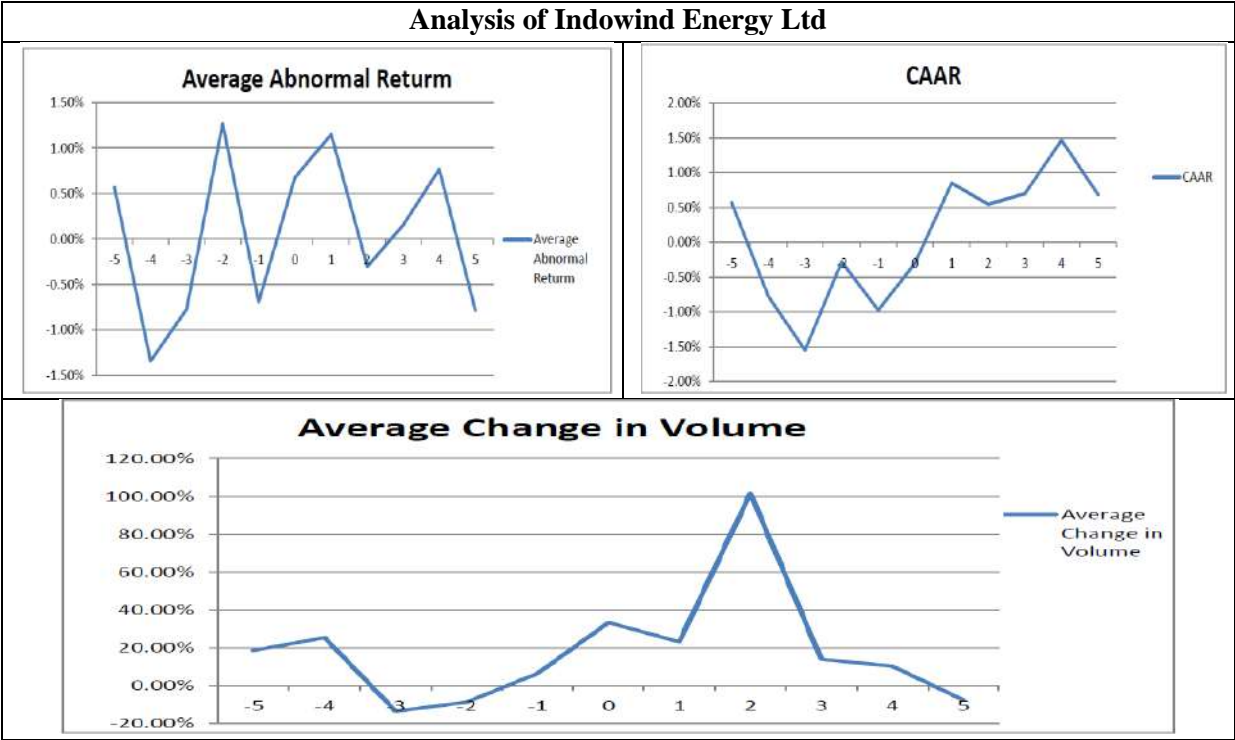


Urja global ltd: The stock was found slow in reacting towards the event announcement. The AAR was positive on the event day and continues upto 2 days post event. The CAAR was observed positive from the event day to +5 days. It means, the investors were observed under reactive towards news of a company. The volume was also observed going up after the event.

Indo wind: The AAR was obtained from the calculated AR. The calculated AAR is fitted in a time plot to establish the trends. It is observed from the above figure that AAR started increasing from 3 days before announcement of news in the market. So it shows that information is absorbed in the market and there is change in AAR due to the event and it decreases in the long run for the company. CAAR was increased till the 4th day following the event date. But on day +5 it decreased. So it shows

that stock offered positive report before the event and after the event stock prices decreased. Volume started increasing before 2 days of announcement of the news in the market. On the following day of the announcement, volume decreased which shows that news was absorbed in the market.

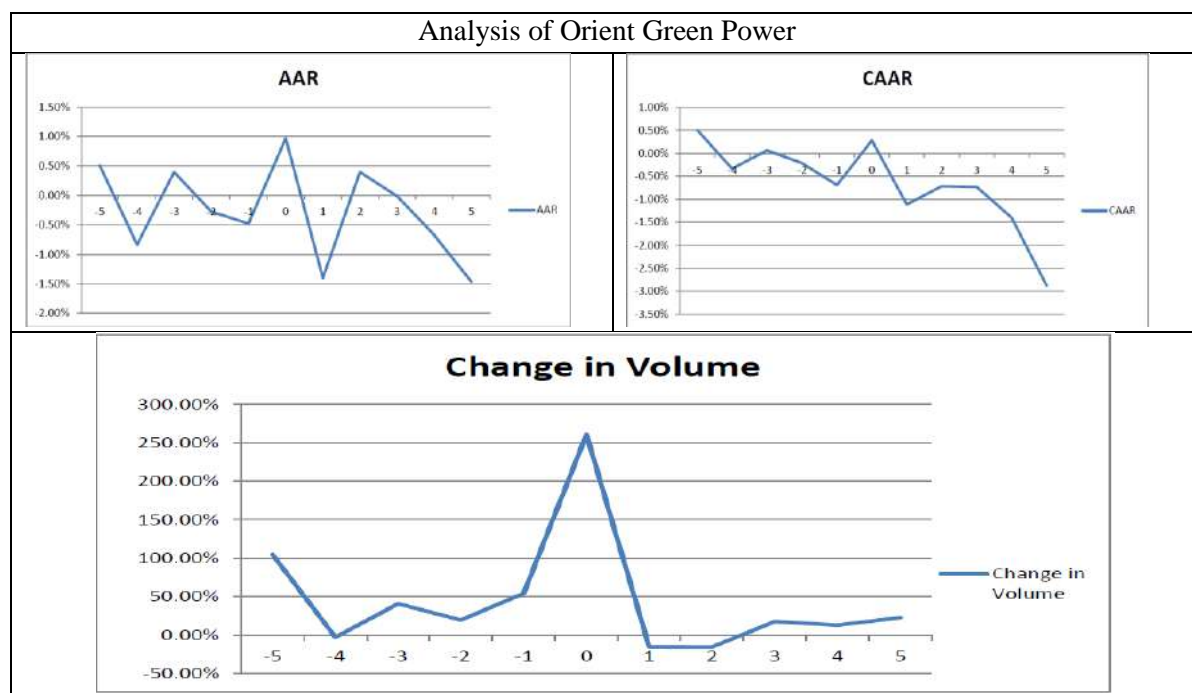
4.2 Analysis of wind energy companies



Inox wind energy: AAR of Inox wind-energy observed high on two days before the event

then it is observed falling. CAAR was also observed moving up upto event day and then it was observed as falling. The highest volume was observed on event day. The stock price had negatively reacted to the event.

Orient green power: AAR and CAAR was observed positive on the event day. It means stock was found more reactive to the news and had offered positive return on the event day. The spike in volume was observed on the event day. It was observed the increase in the volume by 200% on the event day. It supports the hypothesis that there is significant impact of news on the volume of the stock.



5.0 Conclusion

The energy stocks were reactive to the news announcement. The information was observed prior to the event and reverses direction was observed after the event. It means, market absorbs the information and it supports the semi-strong form of EMH.

6.0 Further Scope of the Study

This study is limited to six companies, three from wind energy and three from solar energy. As, the major announcement from the government was started in last 5 years, the data were collected for four years. So, the further study can be carried out considering more companies with more years of data. The event study was limited to 5 days and gave impact of event in short duration only. The big event window can help in understanding better impact of event in long term.

References

1. Best, R., & Burke, P. J. (2018). Adoption of solar and wind energy: The roles of carbon pricing and aggregate policy support. *Energy Policy*, 118, 404–417. <https://doi.org/10.1016/j.enpol.2018.03.050>

2. Crowley, M. A., Meng, N., & Song, H. (2019). Policy shocks and stock market returns: Evidence from Chinese solar panels. *Journal of the Japanese and International Economies*, 51, 148–169. <https://doi.org/10.1016/j.jjie.2019.02.006>
3. Henriques, I., & Sadorsky, P. (2010). Can environmental sustainability be used to manage energy price risk? *Energy economics*, 32(5), 1131-1138.
4. India—International—Analysis—U.S. Energy Information Administration (EIA). (n.d.). Retrieved December 19, 2019, from <https://www.eia.gov/beta/international/analysis.php?iso=IND>
5. Joshi, D. (2017, December 16). Impact of Earning NEWS on Investors' Decision.
6. Joshi, D. (2018). A Study On The Impact Of Business News On Investors' Decision. Zenodo. <https://doi.org/10.5281/zenodo.1210863>
7. Mazzucato, M., & Semieniuk, G. (2018). Financing renewable energy: Who is financing what and why it matters. *Technological Forecasting and Social Change*, 127, 8–22. <https://doi.org/10.1016/j.techfore.2017.05.021>
8. Mitra, G., & Mitra, L. (2011). *The Handbook of News Analytics in Finance*. John Wiley & Sons.
9. Spratt, S., Dong, W., Krishna, C., Sagar, A., & Ye, Q. (2014). What Drives Wind and Solar Energy Investment in India and China? (No. IDS Evidence Report; 87). IDS.
10. Taghizadeh-Hesary, F., Yoshino, N., & Inagaki, Y. (2018, June 25). What are the reasons behind the decrease in solar module prices? | Asia Pathways. Retrieved December 24, 2019, from <https://www.asiapathways-adbi.org/2018/06/what-are-the-reasons-behind-the-decrease-in-solar-module-prices/>
11. Times, E. L. E. (2018, December 21). Renewable Energy: Indian Scenario of the Renewable Energy. Retrieved December 19, 2019, from ELE Times website: <https://www.eletimes.com/renewable-energy-indian-scenario-of-the-renewable-energy>
12. Zhang, H., Zheng, Y., Ozturk, U. A., & Li, S. (2016). The impact of subsidies on overcapacity: A comparison of wind and solar energy companies in China. *Energy*, 94, 821-827.

SMS Messaging – A Mobile Marketing Medium

Prashant Amin*

ABSTRACT

The term "SMS" is used for both the user activity and all types of short text messaging in many parts of the world. SMS is also employed in direct marketing, known as SMS marketing. SMS advertising, which is an area of mobile commerce, is a form of advertising that targets users of handheld wireless devices such as mobile phones and Personal Digital Assistants (PDAs). With the increase usage of mobile technology in India, it is believed that SMS is the new advertising medium and behavior of the consumer need to be understood. But this study intends to relate several of these scattered opportunities and threat to give a coherent understanding of the factors leading to growth of mobile advertisement, and its attitude towards the advertisement, thereby trying to fill a gap in the existing literature in Indian markets context. Moreover, since this study concentrated only on SMS advertising, future research could focus on how consumers perceive the other possibilities offered by the mobile phone and followed by implications and suggestions of the study.

Keywords: SMS marketing; SMS advertising; Mobile marketing.

1.0 Introduction

SMS marketing can be more cost effective than other media as its main cost is buying cell phone numbers. This is necessary if a company fails to convince customers to “opt-in”, or give their permission to receive wireless advertising. According to Forrester Research, the price for 1,000 numbers can be as high as 30\$ in comparison to 1\$ for 1,000 e-mail addresses. According to experts, SMS’ effectiveness in reaching target groups helps justify this higher price. The demand for mobile devices – equipment such as cellphones, PDAs, and digital music players that are typically used on an anytime, anywhere basis without being connected by wires – and services that use these mobile devices (mobile services) is growing rapidly worldwide. Furthermore, mobile services such as global positioning system (GPS) navigation, mobile email, and text and video messaging are growing at a significant pace.

Formally, we define mobile marketing as the two-way or multi-way communication and promotion of an offer between a firm and its customers¹ using a mobile medium, device, or technology. Because it involves two-way or multi-way communication, mobile marketing is primarily interactive in nature, and could include mobile advertising, promotion, customer support, and other relationship-building activities. Such interactive marketing activities are becoming increasingly important in the changing business landscape (Ancarani and Shankar 2003; Bolton and Saxena-Iyer 2009; Deighton and Kornfeld 2009)ⁱ. Research on mobile commerce has primarily addressed the role of technology in facilitating the growth of transactions through mobile devices. However, research on mobile marketing is nascent. Existing research has yielded some insights, but these remain scattered across disciplines.

*Assistant Professor, Faculty of Commerce & Business Management, The Maharaja Sayajirao University, Vadodara, Gujarat, India (E-mail: prashant.amin-cbm@msubaroda.ac.in)

To better understand mobile marketing, it is useful to briefly review the key characteristics of mobile media and devices, and to compare mobile and mass marketing. The mobile channel – the marketing channel involving mobile devices – is growing rapidly in the multichannel environment (Neslin and Shankar 2009)ⁱⁱ. All mobile devices incorporate one or more of the following capabilities: audio, text/data, and video. Furthermore, the following properties of mobile devices have key marketing implications.

2.0 SMS Advertising – A Part of Mobile Marketing

SMS advertising is a part of mobile marketing that utilizes the SMS technology. It allows marketers to send messages to consumers through the use of a mobile device (Zhang and Mao, 2008) and is considered as a form of one-to-one marketing (Xu, 2006/2007). It enables marketers to promote goods, services, and ideas through personalized, context driven and relevant messages that are sent directly to individual consumers (Rohm and Sultan, 2005; Grant and O'Donohoe, 2007; Xu, 2006/2007; Muk and Babin, 2006). SMS messaging system has been predominantly used as a communication tool between friends, family, and peers. However, businesses have effectively implemented SMS advertising to update their customers, and track people and parcels (Leung, 2007). Furthermore, SMS advertising has also prompted marketers to send coupons to consumer's mobile phones (Xu, 2006/2007; Varshney and Vetter, 2002). For example, consumer brands like Adidas, Coke, and Dunkin Donuts have already implemented and developed mobile marketing communication campaigns targeted at the youth market (Grant and O'Donohoe, 2007). In addition, SMS advertising is also commonly used to reinforce other traditional media such as broadcast and print media (Zhang and Mao, 2008).

3.0 Consumer Attitude toward SMS Advertisement in General

Attitudes are conventionally regarded as an indicator of the effectiveness of advertising (Jun and Lee, 2007). According to Fishbein and Ajzen (1975), an attitude towards an object is defined as an individual's internal evaluation based on his or her beliefs. Similarly, consumer attitudes towards SMS advertising can be determined by the values that they attribute to SMS advertising (Ducoffe, 1995). As suggested by Jun and Lee (2007), when consumers are provided with benefits such as entertainment and information, they will perceive advertising in a more favourable light. In addition, SMS advertising is found to be attention grabbing, a source of information, interesting, and interactive (Maneesoonthorn and Fortin, 2004; Lee et al., 2006).

While SMS advertising is identified to be a more effective medium to generate consumer response, young consumers hold increasingly negative attitudes towards advertising (Zanot, 1984; Tsang et al., 2004). This could be attributed to the accumulated past negative experiences (Muk and Babin, 2006). High frequency SMS users also want to have control of the types of SMS advertising that they receive. Consumers may choose to switch service providers or delete the SMS ads without reading them if they find such ads personally intrusive (Carroll et al., 2007). It is therefore crucial to examine if attitudes towards SMS advertising would discourage

SMS usage frequency. As such, attitudes towards SMS advertising could in fact affect the behavioral outcome of using SMS (Jun and Lee, 2007).

4.0 Factors to Willingness to Accept SMS Advertisement

The audience's trust to advertising messages can be investigated in two dimensions. First is the real confidence that the audience has about advertising claims being made in the short message

advertising that in many studies has been named as validity instead of the term trust. In the second, the audience's trust in SMS advertising means that short message advertising that the user has received does not contain any risk for him. Thus the existence of such media for advertising, marketers are interested to know what factors affecting the audience trust to this type of advertising.

The audience's trust to SMS advertising is affected directly through his perception of the advertiser's company reputation, perceived size of advertiser corporate, perceived trustworthiness of the advertiser corporate, perception of privacy and perceptions about risks and benefits derived from SMS advertising.

Audience perception of advertiser corporate reputation and size is important factor because this factor can help audience to trust the corporate and provide guarantees for the ability, integrity and goodwill of other corporate sectors. A company's reputation, which include the buyers believe that the seller of corporate product is honest and concerned about the customer needs (Jarvenpaa & Tractinsky, 2000). Several studies have shown that perceived corporate reputation is a determining factor in trust to internet shopping (Chen *et al.* 2002; Koufaris, 2004). When the perceived reputation of the company is positive, consumers will have more confident to company advertisement. Customer perceived size of company is customer perception about the size of advertiser Company. Then customers believe that larger company more understands their interest which acts to its promises to the consumer. Apparently consumers believe a large company provides services for them and they will support consumer need and will be able to compensate defect of products (Koufaris, 2004).

Jarvenpaa and Tractinsky (1999) stated that the company size and reputation are likely interaction because it is more likely that a larger companies remains in the business longer and the larger and most famous companies are more trusted. If a consumer believes that the ability and motivation of advertiser's company to deliver goods and services is consistent with the expected quality, it can be said that there is trust (Jarvenpaa & Tractinsky, 2000).

Perceived privacy is a kind of self-concept that a user has in system that maintain the privacy of personal information. Topic of privacy in e-commerce and mobile commerce will affect consumer buying behaviour (Furnell, 2004). Violations of consumer trust according to an invasion of privacy or misuse of personal information will have negative effect on willingness to buy company's products (Monuwe *et al.*, 2004).

Mobile commerce like traditional shopping has the risks and benefits. Although somebody avoid m-commerce because of its risks but also there are those who use it because of the benefits that they have received of ecommerce. Risk represents potential that there is in desired outcome when a person is exposed to a SMS advertising message. Perceived benefits show the audience believes that when he/she receive a SMS advertising, led to comfortable him/her. These benefits include greater convenience, saving time and spend less time to select the product or service.

5.0 Objectives of the Research Study

- To identify consumers' perception and effectiveness on SMS advertisement.
- To identify major user's of SMS advertising.
- To understand Motives and attitudes towards SMS advertising

6.0 Research Design of the Research Study

The research design of in this research study was descriptive one in nature considering its rationale' objectives, and hypothesis as well as, sources of information, sampling decisions, data analysis and interpretation as well as in view of results, findings and limitations of the research study.

7.0 Data Preparation and Analysis

7.1 Reliability

Reliability tests were applied to determine how strongly the attitudes of mobile user's were related to each other to composite score. All dimensions of the structured questionnaire related with measurement of SMS' advertisement perception, attitude and effectiveness of SMS advertisement were tested for selected products and services. The Cronbach's alpha was 0.867 for overall statements. It confirmed internal reliability of the scale. (Naresh K. Malhotra,2007;G.C.Beri,2008).

The summary of Cronbach's Alpha score for all criteria is given in Table number- 5.7 as follows

Table 5.10: Overall Results of Reliability Testing for Mobile User's Opinion on SMS Advertisement (Overall)

Sr No	STATEMENTS	CRONBACH'S ALPHA
1	I feel SMS advertisement interrupt my normal use of the Mobile phone.	0.626
2	I like getting SMS advertisement via mobile phone.	
3	I think getting advertisement through SMS is good.	
4	I think SMS advertisement is reliable.	
5	I can get useful information from SMS Advertisements.	
6	I feel comfortable to get SMS advt. is easy.	0.910
7	Receiving SMS advertising easy.	
8	SMS advertising is easy to read.	
9	Getting timely information from SMS advertising is easy.	
10	Learning from SMS message is easy.	
11	SMS advertisement is useful for daily life.	
12	SMS advertisement is informative.	
13	Receive SMS advertisement make shopping easier.	0.642
14	I use SMS advertisement as a reference for purchasing.	
15	SMS advertisement fun to use.	
16	SMS advertisement exciting and interesting.	0.8
17	I feel that SMS advertisement is pleasant.	
18	I feel SMS advertising is not boring.	
19	I like to take chances for SMS advertisement than other Adt Media.	
20	I like to experiment with new way of doing things.	
21	SMS Advertisement is good source of product information.	
22	SMS Advertisement help me decide what to buy.	0.901
23	SMS advertisement good source of information.	
24	SMS advertisement is cumbersome.	
25	SMS Advertisement is annoying me.	0.647
26	SMS Advertisement is irritating me.	
27	I think SMS advertisement is less innovative.	
28	I think SMS advertisement does not suit personal need.	
29	SMS advertisement relayed at wrong time.	
30	I clutter as a result of too many ads.	
31	SMS advertisement caused disturbance at work.	0.748
32	Its time consuming to go through SMS Ads.	
33	I recall brands advertise thorough SMS advertisement.	
34	I find SMS advertisement relevant.	
35	I feel irritated to get SMS advertisement.	
36	I benefit from SMS advertisement giving promotional announcements.	
37	I think SMS advertisement is convincing.	
38	I consider SMS advertising not silly.	
39	I welcome permission based SMS advertisement.	

40	I consider SMS advertising of instructive nature.	
41	I feel SMS advertisement give clear message.	
42	I think SMS advertisement is worth remembering.	
43	I think SMS advertisement is not easy to forget.	
44	I like to take advantage of SMS advertisement.	0.783
45	I would like to improve knowledge.	
46	Would like to use for special promotions.	
47	Invasion of personal space.	
48	Marketing related to promotional scheme, are more interesting.	
49	I am interested in participating in SMS advt.campaign.	
50	I will use text messages in future too.	
51	There is risk of misuse of personal data due to use of SMS advt. & advt. service.	0.890
52	I would like to share SMS advt. to my friends.	
Overall Reliability		.867

From the above table it has been found that overall reliability of all statements which measure attitude and perception toward SMS advertising is 0.867. Which is in range of $0.6 \leq \alpha \leq 0.9$ and good (Low-Stakes testing). Internal consistency interpretation shown in table to know meaning of Cronbach's alpha value and its internal consistency result interpretation.

Table 5.11: Cronbach's Alpha and Internal Consistency Interpretation

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.7 \leq \alpha < 0.9$	Good
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Table 5.12: Overall Result of Reliability for Selected Products / Services

	List of Products / Services	Cronbach's Alpha if Item Deleted
PRODUCTS	Book cinema/ theater tickets through SMS	.860
	Book Travel Tickets Through SMS Information	.859
	Buy Electronic Product :SMS Advt Information	.860
	Make Micropayment in shop or elsewhere	.860
	Received and read news through SMS	.860
	New collection of garment information through SMS	.858
	New Collection of watch information through SMS	.858
SERVICES	Entertainment & Lifestyle	.858
	Games, Downloads & Application	.858
	Social Networking	.861
	Mail & Messaging	.859
	Devotional	.860
	Health	.859
	News & Finance	.858
	Travel & Transportation	.858
	Caller Management Services	.859
	Access and use transaction services/account balance information through SMS Advt.	.860
	Insurance Service SMS Advt. Messages	.859
	Online Education course offered SMS Advt.	.857
Overall Reliability		.865

To know SMS advertisement perception and effectiveness on selected products and service. Researcher has selected most popular products and services which is advertise by SMS marketing medium. Researcher had carried out Factor analysis and to know which products / services very much like by respondents to extract products / services set. Reliability analysis for product and service as follows. Overall reliability is 0.865 which is indicates as good (Internal Consistency).

8.0 Limitations of the Study

One of the limitations of this study was lack of enough related literary items about SMS ads. Another limitation was verifying the best method to choose sample group and determining sample size. In Iran, there are no permitted SMS ads, so we could not examine the effect of permitted/not permitted SMS ads on attitudes. Mobile marketing -and as particular, SMS advertising- is in new initiated way and needs more academic and empirical researches. Accessing large range of mobile phone users was considered.

By design, the study is limited in its scope. The same study can be done by companies that launch SMS advertising, which have access to both advertised companies and consumers. Further, the variables omitted from this study and the relationships which provide in modified model are clear candidates for future investigations. This result could be studied further by looking into the effect of push and pull marketing strategies discussed earlier. Previous research seems to agree that both push and pull strategies are used in mobile marketing (Scharl 2005; Rettie 2005; Salmenkivi & Nyman, 2007). However, there has been contradicting results as to which strategy is more effective. Quah and Lim (2002) argue that push marketing will be the dominant form in mobile marketing since consumers do not have to ask for the information that they need. Instead useful content is provided to them automatically. It would be interesting to conduct further research concerning the attitudes of these two groups toward all advertising in general. This would reveal whether positive attitudes toward mobile advertising are related to positive attitudes toward all advertising in general or is there some unique variable related to mobile advertising which causes a positive attitude. Kover (1992) and Mehta's (1995, 2000) research suggested that attitude toward advertising in general is channel dependent. Therefore it would be interesting to study how attitude toward advertising in general differs between different channels and how the mobile channel is situated in this context. Moreover, since this study concentrated only on SMS advertising, future research could focus on how consumers perceive the other possibilities offered by the mobile phone.

9.0 Implications of the Study

- Seeking an understanding of mobile phone users' attitudes towards and behavioural responses to SMS ads from a use-and-gratification perspective will help advertisers to design SMS messages that mobile phone users do not feel intrusive.
- The theoretical contribution of this study lies in outlining the key factors that influence consumers' attitudes, perceptions, and adoption of mobile advertising.
- For mobile advertisers and marketers, such intervention can prove beneficial to increase the adoption and effectiveness of mobile advertising.
- The present findings have implications for both researchers and marketers. It would be interesting to know what the factors which contribute to create these negative attitudes toward mobile advertising and how we can change it.
- SMS-based mobile advertisements and the relationships among attitude, intention, and behaviour. As the empirical data show, the respondents held negative attitudes about receiving mobile ads.

This may have been because they found mobile ads irritating, given the personal, intimate nature of mobile phones. Their attitudes were favourable if advertisements were sent with permission. This implies that permission-based advertising may become a major mechanism in the mobile environment in the future.

10.0 Suggestions of the Study

- The study demonstrated that most types of misperceptions predicted perceived usefulness of mobile advertising.
- On the other hand, mobile marketers and advertisers can also create misperceptions (or perceptions) to encourage mobile advertising adoption by shaping what consumers view what will be the norms in society.
- For advertisers as well as media and marketing professionals, the managerial implications of this study are to help them better understand mechanisms and factors leading to more effective mobile advertising campaigns.
- For mobile marketers and advertisers, it is important to understand that mobile advertising is a personal communication medium that empowers them to engage consumers in a one-on-one relationship.
- If mobile advertising is conceptualized as a permission-based, it is thus important to ensure that mobile users will accept mobile advertising as expected.
- Introducing new mobile programmes which enables consumers to download movie previews on their cell phone and forward this content to other consumers for free. Such offers stimulate interest and knowledge in not only a mobile service innovation but also the studio's latest new movies.

References

1. (i) Ancarani, Fabio and Venkatesh Shankar (2003), "Symbian: Customer Interactions through Collaboration and Competition in a Convergent Industry," *Journal of Interactive Marketing*, 17 (1), 56–76.
2. (ii) Bolton, Ruth N. and Shruti-SaxenaIyer (2009), "Interactive Services: Framework, Synthesis and Research Directions," *Journal of Interactive Marketing*, 23 (1), 91–104.
3. (iii) Dickinger Astrid, and MirellaKleijnen (2008), "Coupons Going Wireless: Determinants of Adoption of Consumer Intentions to Redeem Mobile Coupons," *Journal of Interactive Marketing*, 22 (3), 23–39.
4. Neslin, Scott A. and Venkatesh Shankar (2009), "Key Issues in Multichannel Management: Current Knowledge and Future Directions," *Journal of Interactive Marketing*, 23 (1), 70–81.
5. ¹Rogers, Everett M (1995), "Diffusion of Innovations," (4th ed.), New York: The Free Press.
6. ¹Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35, 982–1003.
7. ¹Fishbein, M. and I. Ajzen (1975), "Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research," Reading, MA: Addison-Wesley.
8. ¹Venkatesh, Viswanath, and Fred D. Davis (2000), "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," *Management Science*, 46 (2), 186–204
9. ¹Pagani, Margherita (2004), "Determination of Adoption of Third Generation Mobile Multimedia Services," *Journal of Interactive Marketing*, 18 (3), 46–59

10. ¹Kleijnen, M., de Ruyter, K. and Wetzels, M. (2004). Consumer adoption of wireless services: discovering the rules while playing the game. *Journal of Interactive Marketing*, Vol. 18 (2). 51-61
11. ¹Dickinger Astrid, and Mirella Kleijnen (2008), "Coupons Going Wireless: Determinants of Adoption of Consumer Intentions to Redeem Mobile Coupons," *Journal of Interactive Marketing*, 22 (3), 23–39.
12. ¹Shankar, Venkatesh and Marie Hollinger, (2007), Online and Mobile Advertising: Current Scenario, Emerging trends, and Future Directions. Marketing Science Institute Special Report, 07–206.
13. ¹Cuno, Alice Z. (2005), "Marketers Get Real Serious about the Third Screen," *Advertising Age*, 11 (July).
14. ¹Zhang, J. and Mao, E. (2008), "Understanding the acceptance of mobile SMS advertising among young Chinese consumers", *Psychology & Marketing*, Vol. 25 No. 8, pp. 787-805.
15. ¹Xu, H., Teo, H. H., & Wang, H. (2002). Foundations of SMS commerce success: Lessons from SMS messaging and co-opetition. In R. Sprague (Ed.), *Proceedings of 36th Hawaii*
16. ¹(i)Rohm and Sultan, 2005 (ii)Grant, I. and O'Donohoe, S. (2007), "Why young consumers are not open to mobile marketing (iii)Xu, 2006/2007 (iv)Muk, A. and Babin, B.J. (2006), "US consumers' adoption – non-adoption of mobile SMS advertising", *International Journal of Mobile Marketing*, Vol. 1 No. 1, pp. 21-9.
17. ¹Leung, L. (2007), "Unwillingness-to-communicate and college students' motives in SMS mobile
18. ¹(i)Varshney, U. and Vetter, R. (2002), "Mobile commerce: framework, applications and networking support", *Mobile Networks and Applications*, Vol. 7, pp. 185-98. (ii)Xu, D.J. (2006), "The influence of personalization in affecting consumer attitudes toward mobile advertising in China", *The Journal of Computer Information Systems*, Vol. 47 No. 2, pp. 9-19.
19. ¹Grant, I. and O'Donohoe, S. (2007), "Why young consumers are not open to mobile marketing
20. ¹Zhang, J. and Mao, E. (2008), "Understanding the acceptance of mobile SMS advertising among young Chinese consumers", *Psychology & Marketing*, Vol. 25 No. 8, pp. 787-805.
21. ¹Boroza, 2002 —The antecedents and consequences of trust in online-purchase decisions, *Journal of Interactive Marketing*, Vol. 16 (2), pp. 47-63.
22. ¹PUCA 2001-AMA –Mobile Marketing Association
23. ¹MobileInfo, 2001- Mobile Advertising Revenue Report for the half year 2011, www.iab.net
24. ¹Barnes(2002) Barnes & Scornova(2004) —Electronic Home Shopping: A review of Evidence and expert opinion from the USA and UK, Working Paper No. 96-802, PPn.76
25. ¹Barwise P, Strong C. Permission-based mobile advertising. *J Interact Market* 2002;16(1):14–24
26. ¹Spiller L, Baier M. Contemporary direct marketing. Upper Saddle River, NJ: Prentice-Hall; 2005.
27. ¹Barwise P, Strong C. Permission-based mobile advertising. *J Interact Market* 2002;16(1):14–24.
28. ¹Kavassalis P, Spyropoulou N, Drossos D, Mitrokostas E, Gikas G, Hatzistamatiou A. Mobile permission marketing: framing the market inquiry. *Int J Electron Commer* 2003;8(1):55–79.
29. ¹Sadeh N. M-commerce: technologies, services, and business models. New York: Wiley; 2002.
30. ¹D2 Communications, 2005-Mobile marketing Associations
31. ¹Tsang MM, Ho SC, Liang TP. Consumer attitudes toward mobile advertising: an empirical study. *Int J Electron Commer* 2004;8:65–78 (Spring)
32. ¹Marinova A, Murphy J, Massey BL. Permission e-mail marketing as a means of targeted promotion. *Cornell Hotel RestaurAdm Q* 2002;43(1):61–9. Furnell, S. (2004) .E-commerce security: A question of trust. *Computer Fraud & Security*. Vol. 2004(10). 10-14
33. ¹Jun, J.W. and Lee, S. (2007), "Mobile media use and its impact on consumer attitudes toward mobile advertising", *International Journal of Mobile Marketing*, Vol. 2 No. 1, pp. 50-8.

34. ¹Ducoffe, R. (1995), "How consumers assess the value of advertising", *Journal of Current Issues and Research in Advertising*, Vol. 17 No. 1, pp. 1-18.
35. ¹Maneesoonthorn, C. and Fortin, D. (2006), "Texting behaviour and attitudes toward permission
36. ¹Mobile advertising: an empirical study of mobile users' acceptance of SMS for marketing purposes", *International Journal of Mobile Marketing*, Vol. 1 No. 1, pp. 66-72.
37. Zano, E. (1984), "Public attitudes toward advertising: the American experience", *International Journal of Advertising*, Vol. 13, pp. 3-15.
38. Tsang MM, Ho SC, Liang TP. Consumer attitudes toward mobile advertising: an empirical study. *Int J Electron Commer* 2004;8:65–78 (Spring)
39. ¹Carroll, A., S. J. Barnes, E. Scornavacca and K. Fletcher, "Consumer perceptions and attitudes towards SMS advertising: recent evidence from New Zealand," *International Journal of Advertising*, Vol. 26 No. 3, pp. 225-236, 2007.
40. ¹Jun, J.W. and Lee, S. (2007), "Mobile media use and its impact on consumer attitudes toward mobile advertising", *International Journal of Mobile Marketing*, Vol. 2 No. 1, pp. 50-8
41. ¹Azjen, I. (1991). The theory of planned behavior. *Organizational Behavior & Human Decision Processes*, 50, 179–211.
42. ¹Bhattacharjee, 2001, "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," *Management Science*, 46 (2), 186–204.
43. ¹Spiller L, Baier M. Contemporary direct marketing. Upper Saddle River, NJ: Prentice-Hall; 2005
44. ¹Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13, 319–340. (i) Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35, 982–1003 (ii) Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22, 1111–1132.
45. ¹van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 28, 695–704.
46. ¹Gentry and Calantone (2002), "An exploratory investigation of consumers' perceptions of wireless advertising", *Journal of Advertising*, Vol. 36 No. 4, pp. 129-45
47. ¹Hong, S., & Tam, K. (2006). Understanding the adoption of multipurpose information appliances: The case of mobile data services. *Information Systems Research*, 17, 162–179.
48. ¹Lin, C., Shih, H., & Sher, P. J. (2007). Integrating technology readiness into technology acceptance: The TRAM model. *Psychology & Marketing*, 24, 641–657.
49. ¹Hsu, C., Lu, H., & Hsu, H. (2007). Adoption of the mobile Internet: An empirical study of multimedia message service (MMS). *The International Journal of Management Science*, 35, 715–726.

i

- (i) Ancarani, Fabio and Venkatesh Shankar (2003), "Symbian: Customer Interactions through Collaboration and Competition in a Convergent Industry," *Journal of Interactive Marketing*, 17 (1), 56–76.
- (ii) Bolton, Ruth N. and Shruti-SaxenaIyer (2009), "Interactive Services: Framework, Synthesis and Research Directions," *Journal of Interactive Marketing*, 23 (1), 91–104.

(iii) Dickinger Astrid, and Mirella Kleijnen (2008), "Coupons Going Wireless: Determinants of Adoption of Consumer Intentions to Redeem Mobile Coupons," *Journal of Interactive Marketing*, 22 (3), 23–39.

ⁱⁱ Neslin, Scott A. and Venkatesh Shankar (2009), "Key Issues in Multichannel Management: Current Knowledge and Future Directions," *Journal of Interactive Marketing*, 23 (1), 70–81.

The Current Situation regarding the use of Shopping Applications in Kigali-Rwanda

Valery Nsabimana* and Bijal Zaveri**

ABSTRACT

The use of shopping applications is becoming a common way of shopping in most developed countries, but not necessarily in developing countries like Rwanda. The conducted researches indicated that not only consumers in Rwanda have a very low awareness regarding shopping applications; most of them have previously never used any. To be precise, 89% of the total respondents indicated that they have never downloaded or used any shopping application. On the other hand, the current technological development in the country indicates that consumers in Kigali-Rwanda are expected to use shopping applications for their purchasing activities in the near future. This article highlighted the perceived awareness of shopping applications in Kigali-Rwanda, the perceived technological challenges, perceived General challenges, perceived technological solutions, and perceived general solutions to the issues limiting the introduction and use of shopping applications in Rwanda.

Keywords: *Mobile applications; Shopping applications; Mobile commerce; Consumer buying process.*

1.0 Introduction

Rwanda is a country that had a terrible history of genocide of 1994 that left over 1 million people inhumanly slaughtered and left the country devastated and ruined. After the genocide, the country was struggling with security issues, rebuilding the country, reconstructing the national economy, etc. but also reuniting its people.

This explains why technology was not a priority until recently, and the Rwandan government is now focusing on technology development and innovation in all sectors as a way of modernizing the country but also as a way of boosting the national economy.

This gives hope that in the near future, Rwandans will be using and benefiting from the use of recent technologies including shopping applications

2.0 Objectives of the Study

The objectives of this article are:

- To assert the perceived awareness regarding the use of shopping applications in Rwanda
- To assert the perceived technological challenges limiting the use of shopping apps in Rwanda
- To assert the perceived general challenges limiting the use of shopping apps in Rwanda
- To highlight the perceived technological solutions to the technological challenges limiting the use of shopping apps in Rwanda

*Corresponding author; Research Scholar, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: valnsabimana@gmail.com)

**Dean, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: bijal.zaveri@paruluniversity.ac.in)

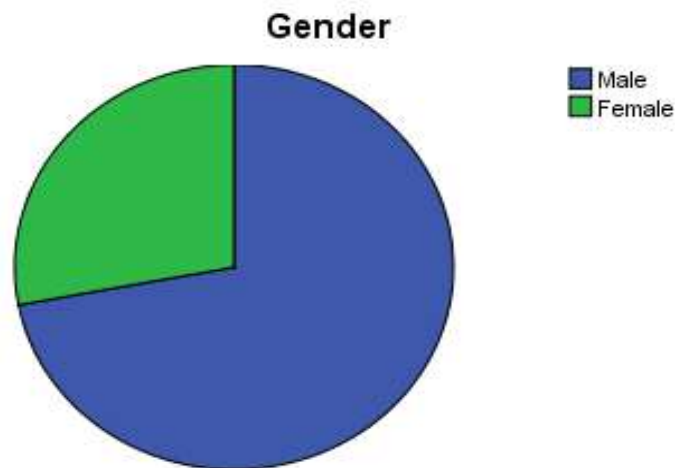
- To highlight the perceived general solutions to general challenges limiting the use of shopping apps in Rwanda.

3.0 Sample Size

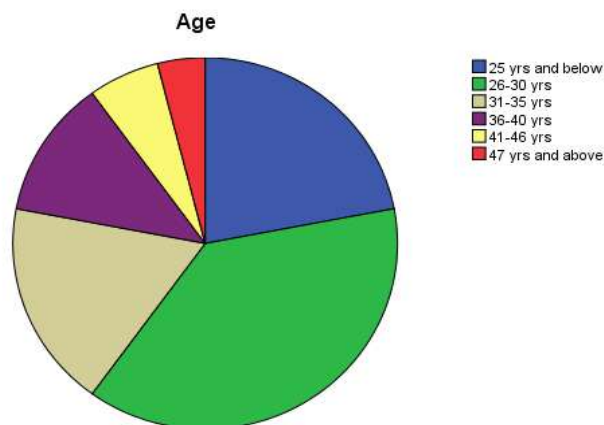
In this article, 200 respondents from Kigali city were randomly selected and answered to different questions from the research instrument based on their own judgment.

4.0 Brief of the Findings

Gender: In the total of 200 respondents, 144 (72%) are males while 56(28%) are females.



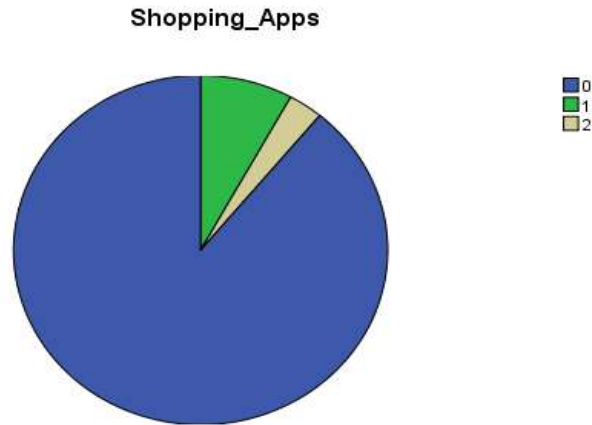
Age bracket: In the total of 200 respondents, 44(22%) were below 25 years of age, 76 (38%) were between 26 to 30 years of age, 36(18%) were between 31 to 35 years, 24 (12%) were between 36 to 40 years, 12(6%) were between 41 to 46 years, while 8(4%) were above 47 years old.



Level of studies: 4(2%) had a primary level education, 20(10%) had a high school level education, 32(16%) had an undergraduate level education, 96 (48%) had a graduate level education, 40 (20%) have postgraduate level education, 4(2%) have doctorate level education; while 4 (4%) had professional level education.

Total mobile applications: 92(46%) had between 1 to 10 applications on their smartphones, 52(26%) had between 11 to 20 applications, 28(14%) had between 21 to 30 applications, while 28(14%) had more than 31 applications

Shopping applications: 178 (89%) had not even a single shopping application on their smartphones (never downloaded or used any shopping app), 16(8%) had just 1 shopping app, while 6(3%) had just 2 shopping apps.



Shopping applications usage: 178(89%) have never used any shopping application in their entire lives, 20(10%) have been using shopping applications for less than 6 months, while just 2(1%) used shopping applications for between 6 months to 1 year.

4.1 Purchases

Table 7: Purchases in Kigali-Rwanda using Shopping Apps

N ⁰	Products	Never	once	twice	Many times	Total
1	Consumer Electronics	93%	5.5%	1%	0.5%	100%
2	Clothing & Apparel	97.5%	2%	0.5%	0	100%
3	Beauty& Health products	98%	2%	0	0	100%
4	Books& Movies	93%	3.5%	2%	1.5%	100%
5	Linens home & Kitchen	99%	0	1%	0	100%
6	Accessories	95.5%	3%	1%	0.5%	100%

4.2 Shopping applications and consumer buying process

Table 8: Shopping Apps and Consumer Buying Behaviour

N ⁰	Step	Never	Sometimes	Quite often	Regularly
1	Information Search	98%	2%	0	0
2	Product comparison	97.5%	2%	0.5%	0
3	Product Ordering	90.5%	9%	0.5%	0
4	Follow up	97%	3%	0	0
5	Brand Communication	98.5%	0	0.5%	1%
6	Post purchase Experience	98%	0	2%	0

4.3 Perceived awareness

Table 9: Perceived Awareness of Shopping Apps in Kigali

N ⁰	STATEMENTS	SD	D	NA/ND	A	SA	TOTAL
PA1	Most of people in Rwanda are not aware of the benefits of using shopping Apps	1%	4%	3%	47%	45%	100%
PA2	Most of people in Rwanda are not willing to use shopping Apps	0	1%	0	60%	39%	100%
PA3	I am not aware of any active locally developed shopping application in Rwanda	2%	0	0	50%	48%	100%
PA4	It will take time for Rwandans to start using shopping applications	0	0	5%	60%	35%	100%
PA5	Most of my friends do not use shopping applications	0	1%	5%	46%	48%	100%
PA6	I often receive recommendations to download international shopping applications like E-bay and Amazon	0	0	1%	62%	37%	100%
PA7	I wish we could start using shopping applications soon in Rwanda	0	0	0	75%	25%	100%

4.4 Perceived technological challenges (PTC)

Table 10: Perceived Technological Challenges in Kigali-Rwanda

N ⁰	STATEMENTS	SD	D	NA/ND	A	SA	TOTAL
PTC1	The IT sector is still developing in Rwanda	0	3%	4%	54%	39%	100%
PTC2	We do not have skilled IT experts to develop shopping applications in Rwanda	0	1%	6%	38%	55%	100%
PTC3	Shopping applications are expensive to develop in Rwanda	0	3%	6%	51%	40%	100%
PTC4	We have a Weak connectivity in Rwanda	0	2%	7%	79%	12%	100%
PTC5	Most of Rwandans are resilient toward new technologies	1%	10%	7%	71%	11%	10%
PTC6	Most of Rwandans do not react fast to new technologies	0	2%	11%	47%	40%	100%

4.5 Perceived general challenges (PGC)

Table 11: Perceived General Challenges

N ⁰	STATEMENTS	SD	D	NA/ND	A	SA	TOTAL
PGC1	It is difficult to shop using shopping apps in Rwanda	0	0	5%	52%	43%	100%
PGC2	I prefer traditional shopping rather than shopping apps or online shopping in Rwanda	0	0	4%	54%	42%	100%
PGC3	There is no efficient Google map address and locations to help in home delivery of purchased products in Rwanda	0	0	6%	60%	34%	100%

PGC4	I do not trust online Shopping and shopping applications	0	0	8%	49%	43%	100%
PGC5	There is very low awareness about the use of online and shopping Apps in Rwanda	0	3%	3%	42%	52%	100%
PGC6	People in Kigali are not willing to learn and use online and shopping applications	0	0	4%	56%	40%	100%

4.6 Perceived technological solutions (PTS)

Table 12: Perceived Technological Solutions

N⁰	STATEMENTS	SD	D	NA/ND	A	SA	TOTAL
PTS1	We need to strengthen technological infrastructures in Rwanda	3%	0	8%	41%	48%	100%
PTS2	Our IT experts have to update their knowledge about recent technologies & mobile Apps development	3%	1%	3%	37%	56%	100%
PTS3	We need to increase innovations in the IT sector	0	0	6%	49%	48%	100%
PTS4	We need to develop new and efficient ways of cashless transactions to be used while using shopping apps	0	2%	2%	49%	47%	100%
PTS5	We need to remove the technological challenges that are limiting us from the use of online shopping and shopping apps	0	0	7%	39%	54%	100%
PTS6	We have to learn from IT progresses in other countries	0	0	11%	47%	42%	100%

4.7 Perceived general solutions (PGS)

Table 13: Perceived General Solutions

N⁰	STATEMENTS	SD	D	NA/ND	A	SA	TOTAL
PGS1	We need to increase awareness about shopping applications in Rwanda	2%	1%	9%	42%	46%	100%
PGS2	We must start applying the knowledge we acquire regarding the use shopping Apps	0	0	10%	55%	35%	100%
PGS3	We can start by using foreign shopping apps while we think of developing our own Shopping Apps	0	0	18%	52%	30%	100%
PGS4	We should get help from other countries about the efficient use of shopping applications	0	1%	9%	56%	34%	100%
PGS5	We must remove the general challenges that block the use of shopping applications in Rwanda	0	1%	5%	62%	32%	100%

5.0 Conclusion

The conducted tests indicated that Rwandans do not use shopping applications for their shopping activities; instead, the retail and wholesale shopping dominate. Online shopping is at the introduction stage, but shopping applications are yet to be introduced to the consumers in Rwanda.

With the recent technological development and promising arising IT entrepreneurs, more solutions will be in place for Ecommerce purposes and to acquire and keep as many clients as possible in different corners of Rwanda, or even on international market.

The conducted research in Kigali-Rwanda indicated that if the technological development continue at this pace, there is no doubt that in the near future, shopping application will be introduced and used efficiently and effectively by many consumers in Rwanda. The findings about the perceived Technological solutions and perceived General solutions shall serve as insights about how Rwandans should solve the technological and general challenges for them to start using shopping applications in the near future.

6.0 Limitations and Recommendations

The researchers conducted under this article are meant to provide insights about the current situations regarding the use of shopping applications in Kigali-Rwanda. Since the issues are pointed out, this article provided some of the possible solutions to put an end to the challenges limiting the introduction and use of shopping applications, but a deep study must be conducted so that clear strategies might be elaborated that show how to proceed forward step by step.

These strategies must identify and underline where to start, how to proceed, what it takes, etc.

Secondly, this article covered only 200 respondents from Kigali Rwanda. For more credible results, this research can be redone again on a large scale, covering as many people as possible in different corners of Rwanda. By doing so, more information will be accessed and the possible solutions with a clear strategy of how to proceed will be developed. This will guarantee the implementation of developed strategies with success so that in the near future, Rwandans could also start using shopping applications for their shopping activities as other consumers do in technological and commerce advanced nations.

References

1. Cambridge dictionary (2019), "Mobile applications" Retrieved from <https://dictionary.cambridge.org/dictionary/english/mobile-application>, Accessed on 2 march 2019.
2. Clark, J. F. (2019). "History of mobile applications". Retrieved from <http://www.uky.edu/~jclark/mas490apps/History%20of%20Mobile%20Apps.pdf>, accessed on 3rd March 2019.
3. Mopub.com (2017). "Digital Demystified: the Evolution of Mobile Apps", https://media.mopub.com/media/filer_public/b9/bc/b9bc3b57-e0eb-4909-bda6-c65979e841d8/mopub_evolution_of_mobile_apps.pdf, accessed on 3rd may 2019.
4. Davis, F. D.; et al (1989), "User acceptance of computer technology: A comparison of two theoretical models", *Management Science*, 35 (8): 982–1003.
5. statista.com (2019), "Most Apple Store Apps categories by September 2018" <https://www.statista.com/statistics/270291/popular-categories-in-the-app-store/> Accessed on 15 March 2019.
6. Statista.com (2019) "Most Popular Google Play App categories as of 1st Quarter 2018" <https://www.statista.com/statistics/279286/google-play-android-app-categories/>, accessed on 12 March 2019

APPENDIX

Variables statements:

Perceived Awareness (PA)

- Most of people in Rwanda are not aware of the benefits of using shopping Apps
- Most of people in Rwanda are not willing to use shopping Apps
- In Rwanda, online shopping is starting to be used while shopping applications are yet to be introduced
- I am not aware of any active locally developed shopping application in Rwanda
- Shopping apps might be useful in the future for Rwandans
- It will take time for Rwandans to start using shopping applications
- Most of my friends do not use shopping applications
- I often receive recommendations to download international shopping applications like Ebay and Amazon
- I wish we could start using shopping applications soon in Rwanda

Perceived Technological Challenges variable (PTC)

- The IT sector is still developing in Rwanda
- We do not have IT experts to develop shopping applications in Rwanda.
- Shopping applications are expensive to develop in Rwanda
- We have a Weak connectivity in Rwanda
- Most of Rwandans are resilient toward new technologies
- Most of Rwandans do not react fast to new technologies

Perceived General Challenges (PGC)

- It is difficult to shop using shopping apps in Rwanda
- I prefer traditional shopping rather than shopping apps or online shopping in Rwanda
- There is no efficient Google map address and locations to help in home delivery of purchased products in Rwanda
- I do not trust online Shopping and shopping applications
- There is very low awareness about the use of online and shopping Apps in Rwanda
- People in Kigali are not willing to learn and use online and shopping apps

Perceived Technological Solutions (PTS)

- We need to strengthen technological infrastructures in Rwanda
- We need to remove the technological challenges that are limiting us from the use of online shopping and shopping apps
- Our IT experts have to update their knowledge about recent technologies & mobile Apps Era
- We need to increase innovations in the IT sector
- We have to learn from IT progresses in other countries
- We need to develop new and efficient ways of cashless transactions to be used while using shopping apps

Perceived General Solutions (PGS)

- We need to increase awareness about shopping applications in Rwanda
- We should learn from other countries about the efficient use of shopping applications
- We must start applying the knowledge we acquire regarding the use shopping Apps
- We can start by using foreign shopping apps while we think of developing our own Shopping Apps
- We must remove the general challenges that blocks the use of shopping applications in Rwanda

The Modern Banking Technology in and around India: Benefits and Challenges

*Tejal Shah**

ABSTRACT

Online banking, a little known concept so far has soon taken centre stage. So, it's imperative for us to understand that online banking is all about doing banking transactions over the NET. E- Banking is a concept which will enable anyone to conduct business with a bank from the comforts of the home or office. Indian Banks are still in the process of exploring the potentials of the internet as a medium for the banking as the technology heading towards more business, there are potential prospects of internet banking. As the world becomes increasingly more digital, the number of passwords people have to manage is becoming a serious problem. Financial institutions need to investigate acceptable biometric alternatives for authenticating mobile banking users that balance both security and simplicity. So, this paper throws light on new innovations in banking sector. The main factors limiting consumer adoption of mobile banking and payments were a preference for using other methods for banking or making payments and security concerns.

Keywords: *Online banking; Technology; Biometric mobile banking.*

1.0 Objectives of the Research Paper

- To appreciate the various innovative banking products/services being offered by the banks across the globe.
- To examine the various technologies that can help banks in offering various innovative banking products/services in the future
- To find out the leaders in banking innovations among public sector banks and private sector banks in India
- To understand what are the challenges of implementing digital banking

2.0 Research Methodology

The research is mainly based on secondary data. Data has been collected from different sources like annual reports of selected banks, scholarly articles, newsletters, and various web sites.

3.0 Literature Review

As per the “Consumers and Mobile Financial Services 2016” survey report, Use of mobile banking continues to rise. Forty three percent of all mobile phone owners with a bank account had used mobile banking in the 12 months prior to the survey, up from 39 percent in 2014 and 33 percent in 2013.

** Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: tejal.shah@paruluniversity.ac.in)*

Among those with a mobile phone, 42 percent think that people's personal information is "very unsafe" or "somewhat unsafe" when they use mobile banking and an additional 15 percent "don't know" how safe these activities are.

The main factors limiting consumer adoption of mobile banking and payments were a preference for using other methods for banking or making payments and security concerns.

A Paper published in "The Wall street Journal" by Paul Lee, partner and head of global technology, media, and telecommunications (TMT) research, Deloitte Touche Tohmatsu Limited, said that by 2020, smart-phone users across the world would have 200 online accounts and would be very difficult to remember strong & complex password. In his paper Paul Lee quoted that Deloitte Global expects fingerprint readers to become as ubiquitous in Smartphone's as front-facing cameras and to be a common part of other devices as well, ranging from laptop computers to remote control devices and will replace password readers.

Gareth W. Peters & Efstathios Panayi (November, 2015) in their research paper "Understanding Modern Banking Ledgers through Blockchain Technologies: Future of Transaction Processing and Smart Contracts on the Internet of Money", the block chain technology has potential to disrupt the world of banking through facilitating global money remittance, smart contracts, automated banking ledgers and digital assets. They said that a number of features that are vital from a financial application perspective, including permissioning, data integrity, data security and data authenticity as well as important regulatory requirements relating to account provisioning for financial asset reporting, and the blockchain aspects that can help adhere to these.

A white paper published by Banking Expert survey 2017 concluded few findings:

- Large banks of developed countries like USA, UK, Germany, and Switzerland, digital transformation strategy was already implemented or in development.
- Main driver for the strategy is to meet customer expectations followed by financial aspects in terms of revenue increases and reduction of operational costs
- Main challenges of an implementation are perceived in the integration of legacy systems, security & privacy implications and lack of internal expertis.

Meenu Gupta, in her research article – Indian Banking System – Journey from Traditional to Digital talked about the digital innovation in India like Electronic Fund Transfer, Net Electronic Funds Transfer, Real time Gross Settlement, Immediate Payment Interface, Unstructured Supplementary Service Data, Mobile Banking, Mobile Wallets, etc. She argued in her research paper that it is critical opportunity for the banking sector to compete with emerging banks by implementing innovative technology.

Sreelatha, T and Sekhar C (2012) observed in their study that the banks were quickly responded to the changes in the industry; especially the new generation banks. The continuance of the trend has re-defined and re-engineered the banking operations as whole with more customization through leveraging technology. As technology makes banking convenient, customers can access banking services and do banking transactions any time and from any ware.

Harish V (2014) in his study argues that Information Technology (IT) has revolutionized the entire banking business spectrum and banking is no exception .IT can be suitably used in brick/mortal as well as virtual set up. IT has in short become the lifeline of banking.

4.0 Advantages of Modern Banking Technology

The recent liberalization trend and globalization has brought many changes in business practices and economic systems in the world. Consequently, the banking sector and other financial institutions are also affected by new realities following globalization. This is the age of internet

banking. Indian banks have already started offering web- based banking services to the account holders. Online banking has proved successful in the international banking sector in other countries and has revolutionized the E-commerce industry Innovative Banking Technology Across the globe:

4.1 Advantage of modern banking technology

4.1.1 To the bankers

- Bankers can provide customer friendly services to customer almost 24x7
- Banks are going bigger; they can increase their scale as physical presence may not be important.
- Deposits can be sent through the mail and withdrawals can be made via competing bank ATMs, with the possibility of having certain ATM fees waived. Since they don't have to maintain physical branches or hire as many employees, online banks can keep costs incredibly low and pass certain savings on to customers
- Technological progress may also affect industry structure, facilitating consolidation by making it more efficient or less inefficient at the margin for banks to be larger, more geographically dispersed, and/or to engage in M&A activity.
- Geographical expansion of banking industry

4.1.2 To the customers

- You can check your account balance, review recent transaction, transfer funds, pay bills, locate ATMs, deposit cheques, manage investments, etc. Mobile banking is available round the clock 24/7/365, it is easy and convenient and an ideal choice for accessing financial services for most mobile phone owners in the rural areas.
- Time saving: Instead of allocating time to walk into a bank, you can check account balances, schedule and receive payments, transfer money and organize your accounts when you're on the go.
- Convenient: The ability to access bank accounts, make payments, and even track investments regardless of where you are can Convenient: The ability to access bank accounts, make payments, and even track investments regardless of where you are can

5.0 Emerging Banking Technology across the Globe

5.1 Biometrics technology

As the world becomes increasingly more digital, the number of passwords people have to manage is becoming a serious problem. Financial institutions need to investigate acceptable biometric alternatives for authenticating mobile banking users that balance both security and simplicity.

Biometric technology is any means by which a person can be uniquely identified by evaluating one or more distinguishing biological traits. Biometric authentication includes fingerprints; DNA, face, hand, retina and ear features. Biometrics systems could end the need of password and PIN code. According to the BBC, Hongkong and Shanghai Banking Corporation (HSBC) is launching voice and touch recognition security services in the UK. British banking firm Barclays also upped security in 2014 – offering finger vein scanning for authentication of large transactions. HSBC bank has adapted facial recognition technology.

Biometric authentication systems are not 100% accurate. There are two types of errors in a typical biometric system. A false reject (FR) error is the rejection of an authorized person trying to access the system. A false accept (FA) error is the acceptance of a person who is not in fact who he or she claims to be. These two types of errors are inversely proportional and in general can be controlled

by a confidence threshold. To increase the security of the system, the threshold can be increased, which decreases FA errors and increases FR errors.

5.1.1 Advantages of biometric systems

- Improved security
- Improved customer experience
- Cannot be forgotten or lost
- Reduced operational costs

5.1.2 Disadvantages of biometric systems

- Environment and usage can affect measurements
- Systems are not 100% accurate
- Require integration and/or additional hardware
- Cannot be reset once compromised

Few banks in India have also started implementing biometrics devices for their customers:

- CB Bank has set up ATMs that require your fingerprints to withdraw money. The ATM operates using Aadhaar card data and links a customer's fingerprint data with his Aadhaar biometric details. These biometric ATMs are available in Bengaluru, Mumbai and Chennai. However, this service can only be availed by DCB Bank customers.
- HDFC Bank is reaching out to rural areas which don't have ATMs through a hand-held device or a micro ATM with biometric verification. It uses Aadhaar card and fingerprints for biometric verification for instant KYC (know your customer) check. HDFC has tied up with Gramin Banking Officers (GBO) to provide this facility in Punjab.
- SBI uses a biometrics authentication application that incorporates fingerprints and biometric matching software to verify bank employee credentials before they access its core banking system. The bank will install this system across 21,000 locations.

5.2 Wearable technology

While the world is still embracing mobile innovation and determining additional use cases for adoption, wearable technology is building upon this foundation to directly embed the power of the Smartphone on a person. Despite the various form factors that wearables can have—from smart watches to augmented-reality glasses to clothing—they provide a less distracting layer that gives a user constant intelligence about the world around them before they may even know they need it. It can also help businesses engage with customers, perhaps better than ever before.

In a survey of McKinsey, Wearable technology can create economic impact of up to US\$6.2 trillion annually by 2025. Traditional uses of wearable technologies are for mobile industrial inspection, maintenance and the military. Consumer uses include display peripherals, computer-ready clothing and smart fabrics. And banks are starting to take note.

5.2.1 Google glass technology

Banco Sabadell in Spain became one of the first banks to create retail Google app that allowed users to locate the nearest ATM, check account balances, and use video conferencing for technical support. Spanish financial firm, Caixa Bank has also already developed a Google Glass app. It works by superimposing directions to the nearest branch onto the Glass screen, providing information such as distance and phone number of the nearest branch, all of which is accessed through the voice recognition system.

5.2.2 Augmented reality(AR) apps

Augmented Reality (AR) is a method of enhancing and improving your view of the real world using different technologies. It is the integration of digital information with the user's environment in real time. Australian Bank Westpac announced the release of an augmented reality app for mobile devices. Commonwealth Bank of Australia and St George Bank Australia also adopted this technology.

5.2.3 Scenario of wearable technology in India

- HDFC bank has leveraged the popularity of wearable devices in the country and has launched 'watch banking' with its Apple watch. The bank will provide all its banking services through all wearable devices across platforms like iOS and Android. "HDFC Bank will provide a total of 10 banking transactions in the current launch phase. Some of them being View Account Information, Bill Payments, Recharges, hot listing facilities, locate nearest branch, ATM, offer, request statement and chequebook among other," said the bank in a statement.
- ICICI Bank had launched iWear in year 2015, an application for smart watches. This is available for Android watch users and can be downloaded from the Google Playstore. ICICI Bank introduced voice recognition for its customers to transact smoothly through the bank's call centre. Customers are no longer required to enter their PIN and card number as their voice will act as the password now. The voice recognition technology authenticates based on speed, accent and pronunciation, which are unique to every individual.

5.3 Branchless banking

According to BCG report, the number of internet users is set to increase from estimated 350 million now to 500 million by 2018. Moreover, 60 percent of internet users are moving to vernacular language in small towns/villages using their mobiles to transact. Nowadays, for customers of the banks, banking is important – not physical banking. The proliferation of banking touch points driven by technology as a part of outreach has been gaining traction.

The benefits of this strategic change in banking about the physical presence of banks with a view to

- Extend smart digital outreach -24/7
- Reduce operational costs more particularly when net interest margins are coming down
- Redeploy these spared off staff to more profitable location
- Fear up to serve next generation customers in the way they need to be served
- Align branch network policy with global development

5.4 In-car apps

Spanish financial institution Caixa Bank has created the first mobile banking app that can be accessed while driving, using voice control functionality. Drivers can make balance enquiries and transfers, as well as locate nearby branches and ATMs, by speaking into their Android device. Many car manufacturers like Genreal Motors, Jaguar, Honda, Shell, etc have made started research on in car application as part of IoT (BoT).

5.5 Beacon technology

Beacon devices transmit information in the form of Bluetooth low-energy (BLE) signals to the nearby Bluetooth enabled smart devices like iPhone, Android phones, iPad, phablets, tablets and more. Beacon transactions consist of only three values namely UUID, a major and a minor value. For example, consider a user entering in to a store or a retail shop with a beacon app installed on their

smart-phone. Whenever they come across a broadcaster (beacon device), it detects the small packet of data transferred from the broadcaster. Triggered information can be of anything like offers, details about the product, deals and coupons and more.

Bluetooth Beacons installed at banks to integrate physical and mobile channels, to create a new type of interaction and effective commercial communication and to deliver to the customers a positive and personal experience. Barclays is one of the first bank to use this technology. Other banks which were interested in Beacon Technology were Citi Bank, US Bank, St. George Bank (Australia), DenizBank (Istanbul), etc.

Bluetooth Beacon hardware, mobile middleware for iOS and Android and a very powerful cloud platform, is able to monitor and manage the content and the interactions, to gather analytics and measure results, and to efficiently administrate the hardware infrastructure.

Beacon Technology can provide services like Presence Detection, Customer ID Recognition, Welcome Interaction, Desk and Clerk Allocation, Notifying Account Managers, Tailored Financial Offers, Up-Selling and Education, Cross-selling and New Income, Branch Analytics, Satisfaction Surveys, Mobile Payments and Contextual Advertising.

5.6 Artificial intelligence (AI)

Artificial intelligence is an area of computer science that emphasizes the creation of intelligent machines that work and reacts like humans. Computers can perform activities like speech recognition, Learning, Planning and Problem solving with AI.

As per the prediction of Accenture, AI will become the primary way banks interact with their customers within the next three years from the bankers' survey performed by consultancy Accenture.

The use of intelligent digital assistants is now common in some of the more developed banking markets like US, Japan and Hongkong. The self-learning capabilities of these programs help them get better with every subsequent interaction.

5.6.1 Scenario of AI in banking sector in India

- Several Indian banks have started exploring adoption of artificial intelligence (AI) and machine learning (ML) in their operational processes. Like, SBI, ICICI, HDFC, Yes Bank has started using AI.
- Banking operations are highly process oriented and data intensive. Hence, AI can help to carry out process for bankers and analyze huge volumes of information about a client's behaviour to offer them detailed, personalised in format. For example, YES BANK is betting **on AI powered BOTS, Technology to usher 'Digital Transformation of Retail loans'**. YES BANK, through these transformative digitization initiatives, is ensuring seamless integration of digital utilities with core retail loan processing systems, thereby enabling a digitized workflow for Retail Assets product offerings and eliminating paperwork.

5.7 Oculus rift

Rift is advanced display technology combined with its precise; low-latency constellation tracking system enables the sensation of presence. The US bank has been testing the use of Oculus Rift virtual reality headsets at its Digital Labs in San Francisco, offering customers the ability to virtually 'enter a branch and speak to a teller face to face.

5.8 Block chain technology

"A Blockchain is a digital, immutable, distributed ledger that chronologically records transactions in near real time. The prerequisite for each subsequent transaction to be added to the

ledger is the respective consensus of the network participants (called nodes), thereby creating a continuous mechanism of control regarding manipulation, errors, and data quality.

5.8.1 Key characteristics of the Blockchain

- All the information on Blockchain is digitized, eliminating the need for manual documentation.
- Blockchain, as the name suggests is a chain of blocks – each being a repository that stores information pertaining to a transaction and also links to the previous block in the same transaction. These connected blocks form a chronological chain providing a trail of the underlying transaction.
- Blocks created are cryptographically sealed in the chain. This means that it become impossible to delete, edit or copy already created blocks and put it on network, thereby creating true digital assets and ensuring a high level of robustness and trust.
- Furthermore, the decentralized storage in a Blockchain is known to be very failure-resistant. Even in the event of the failure of a large number of network participants, the Blockchain remains available, eliminating the single point of failure. Data stored in a Blockchain is immutable.
- A transaction on Blockchain can be executed only if all the parties on the network unanimously approve it. However, consensus based rules can be altered to suit various circumstances.
- Indistinguishable copies of all information are shared on the Blockchain. Participants independently validate information without a centralized authority.
- Even if one node fails, the remaining nodes continue to operate, ensuring no disruption

5.8.2 Block Chain in Banking

The Indian banking industry today is faced with issues such as rising costs of operations, increasing susceptibility to fraudulent attacks on centralized servers and challenges in ensuring transparency. All this, primarily because most of the banking transactions – from opening customer accounts to making global payments – may require intensive manual processing and documentation, involve costly intermediaries and is time consuming as these transactions need

5.8.3 What are banks looking for?

Banks are continuously exploring new ways to perform transactions quicker for an enhanced customer service, while ensuring cost efficiency in its operations and assuring transparency to customers and regulators.

For this, Blockchain potentially provides a solution for banks as it inherently helps eliminate intermediaries, maintain immutable log of transactions and also facilitates real-time execution of transactions. This could potentially reduce the TAT for banking transaction, reducing costs of manual work, and leading to enhanced customer service and satisfaction. Like any other industry, choosing the right ‘use case’ is the key for Banks to leverage full value of Block-chain.

5.8.4 Circumstances or types of transaction where BCT can be used

- Too much manual paper work is involved
- Transaction should be performed on real time basis
- Intermediaries are charging heavily
- Multiple parties are involved in the transaction
- Data are being stored in multiple locations and data consistency issues are there

5.8.5 In banking various transaction having all the features

- Vendor Financing

- Customer Loyalty Program
- Syndicated Loans

6.0 Issues in Implementation of Modern Banking Technology

Banking sector is facing major competition from non-bank players in P2P payments, real-time payments, and other growing sectors. Consumers expect all businesses to adapt to their changing needs with the same speed and agility as they have come to expect from the tech industry, leaving banks to play a complicated game of catch-up with more nimble technology pioneers. Hence, banking sector is facing tremendous pressure in recent time.

6.1 The payment challenge

One of the key challenges facing banks is the impact of disruptive new technologies on their retail payments business – the so-called “rise of the FinTech”. Such competition from non-banks in retail payments services is of course not new. Western Union and Moneygram, for example, are well-established non-bank providers. But what is different now is that various factors are coinciding which look set to fundamentally change the landscape of the retail payments market, and in ways that threaten banks’ dominant market position.

6.2 The replacement of legacy

Replacing legacy systems, however, is a costly and risky undertaking that involves a lot of cooperation across multiple divisions, departments, and sometimes even countries. One strategy being explored by some to address large infrastructure issues is to implement small-scale solutions to improve data sharing and communication between existing systems. While such solutions may work in certain situations, they commonly create an environment of even greater technological complication, especially when targeted solutions are designed and implemented by disparate third-party providers.

6.3 Security issues

Continuous growth of data breaches remains a major threat to the banking firms as aggressiveness of the cyber-attack have increased from malware to ransom ware and banking Trojan.

The wake-up call, though, has been the attempted heist in the Bangladeshi central bank. In February 2016, cyber thieves had issued instructions to transfer \$951 million out of Bangladesh Bank’s account at the New York Federal Reserve. While most were declined, an amount of \$81 million was transferred to a bank in the Philippines, never to be traced again. The theft sent shock waves through the global banking community, both for the amount of money that was swindled and how the heist leveraged the Society for Worldwide Interbank Financial Telecommunication (Swift) system, the backbone of international finance.

There are many threats related to payment services, from malware to social engineering related threats. Few threats and mitigating controls has been listed.

6.3.1 Denial of service

Denial-of-Service (DoS) attack is an attempt to make a system / application or network resource unavailable to its users for their intended purposes, such as to interrupt or suspend services of a host connected to the Internet.

It usually consists of a concerted effort by one or multiple persons / systems to prevent an Internet site or service from functioning normally. Recent developments show that Internet of Things

(IoT) devices are often not sufficiently secured and can well be infected by criminal organisations in order to “participate” in a Distributed DoS attack.

6.3.2 Social engineering

Social engineering is a primarily non-technical method of intrusion used by attackers to target users to provide access and information rather than the attacker directly attacking the system.

Social engineering attacks range from mass email attempts that can be relatively easy to identify as an attempt to defraud a customer, through to attacks that target one or two individuals in an organisation and impersonate senior employees within that organisation, an attack known as CEO Fraud or Business Email Compromise (BEC).

6.3.3 Malware

Malware comes in a wide range of flavours, such as virus, worms, remote access tools, rootkits, Trojans, spyware and adware. The latest addition to the malware family is ransomware, also known as cryptoware. Malware exploits software vulnerabilities in browsers, third party software and operating systems to gain access to the device and its information and resources.

6.3.4 Mobile device related attacks

The use of mobile devices for both online banking and the purchase of goods and services (both online and in person) is still increasing. With this increase in usage there is a corresponding increase in the threats affecting these payments.

Main threats include:

- Malicious apps purporting to be banking apps;
- SIM swap based attacks;
- To exploit new contactless payment methods in which a traditional payment mechanism, e.g. a credit card, is stored on a mobile device for contactless transactions
- Phishing attacks specifically targeting the mobile device;
- Malware infecting the mobile device, compromising the legitimate use of the device and stealing credentials etc.;

Many other threats weaken the security of the banking payment system. Indian Banking industry should take stringent steps to stop these threats. Banks should form security control framework. Framework would identify major threats; the risk related to the particular threat and also should mention about mitigating control of that threat.

Banks should also increase awareness among the customers related to the threats and should give them guidelines on how to safeguard their mobile devices, IoT devices, online banking transactions, etc.

6.4 Lack of technology experts

For an industry that depends on security more than any other industry in the world, financial services companies are lacking when it comes to understanding technology in banking. A recent document put out by Accenture.com states that among 109 of the largest banks in the world, 43% don't have any board members with professional technology backgrounds and only 3% of their CEO's have a background in technology. When it comes to understanding security concerns and implementing truly impactful strategies to evolve and adapt to the ever-changing landscape of technology in banking, these numbers are quite alarming to us.

Financial Services IT consulting services are definitely needed in the banking industry to help key decision makers improve digital processes and understand their risks.

7.0 Conclusion

Indian banks have adopted innovative & modern banking technology at fast pace. Both public sector and private sector banks have already implemented the e-banking facilities. These technology driven services are going to make jobs easy for bankers as well as customers. But adoption of this technology by customer is still questionable. This hesitance in adoption of new technology may be due to trust factors, security and privacy risk and also because of less awareness among customers. Banking sector along with Government is making an effort to make e-banking more safe, secure and reliable. This paper only presents the overview of Modern Banking Technology in Indian Context.

References

1. Technology in Financial Sector: Intelligent Banking to Firewall Online Threats | Business News, The Indian Express.” Accessed October 29, 2018. Retrieved from <https://indianexpress.com/article/business/banking-and-finance/technology-in-financial-sector-intelligent-banking-to-firewall-online-threats-3033359/>.
2. Dr K Srinivasa Rao, Branchless Banking: A Global Phenomenon, The Indian Banker, Volume III, Issue – July, 2012, Published by Indian Banks’ Association
3. Will the ‘Branch of the Future’ Mean No Branch at All? | Bank Innovation | Bank Innovation.” Accessed September 19, 2018. <https://bankinnovation.net/2018/06/will-the-branch-of-the-future-mean-no-branch-at-all/>.
4. Rajesh Tiwari, Cfa, Rakesh Kumar, “Information Technology In Banking Sector”, Asia Pacific Journal Of Marketing And Management Review, Vol.1 Issue 1, September 2012, ISSN Tiwari, R., & Kumar, R. (2012). Information technology in banking sector. Asia Pacific Journal of Marketing and Management Review, 1(1), 25-33.
5. Peters, G. W., & Panayi, E. (2016). Understanding modern banking ledgers through blockchain technologies: Future of transaction processing and smart contracts on the internet of money. In Banking Beyond Banks and Money (pp. 239-278). Springer, Cham.
6. Chauhan, V., & Choudhary, V. (2015). Internet banking: Challenges and opportunities in Indian context. Apeejay-Journal of Management Sciences and Technology, 2(3), 29-40.
7. Lode Snykers. “Challenges Faced by Banks with Changes in Technology and Increased Regulation.” Accessed July 9, 2018. <https://internationalbanker.com/banking/challenges-faced-by-banks-with-changes-in-technology-and-increased-regulation/>.
8. We are responding swiftly to evolving technologies“, Business Standard, 27th July, 2017
9. Sontakke, R., & Gajbhiye, A. V. (2013). A Critical Study on Recent Advantages of Technology in Banking Industries.
10. Voth, D. (2003). Face recognition technology. IEEE Intelligent Systems, 18(3), 4-7.
11. Biometric Authentication for UID-based Smart and Ubiquitous Services in India, Parag Chatterjee, Ashok Nath, IEEE- Communication Systems and Network Technologies (CSNT), 2015 Fifth International Conference on
12. Eric C. Breitenstein, and John M. McGee. “Brick-and-Mortar Banking Remains Prevalent in an Increasingly Virtual World.” Accessed August 2, 2018. <https://www.fdic.gov/bank/analytical/quarterly/2015-vol9-1/fdic-4q2014-v9n1-brickandmortar.pdf>.
13. Deloitte Review, Issue 17, 2015, “The more things change: Value creation, value capture, and the Internet of Things,” Raynor, Michael E., and Cotteleer, Mark J. <http://dupress.com/articles/value-creation-value-capture-internet-of-things/>

14. Market Wired, August 11, 2015, “Nymi, TD and MasterCard Announce World’s First Biometrically Authenticated Wearable Payment Using Your Heartbeat,” <http://www.marketwired.com/press-release/nyse-ma-2046600.htm>
15. Deloitte, “Digital Transaction Banking—Opportunities and Challenges” Retrieved from <http://www2.deloitte.com/au/en/pages/financial-services/articles/digital-transaction-banking-opportunitieschallenges.html>
16. Shroff, F. T. (2007). *Modern banking technology*. Northern Book Centre.
17. InformationWeek, “Top Challenges Facing Bank CIOs Over the Next Year” Retrieved from <http://www.banktech.com/channels/top-challenges-facing-bank-cios-over-the-next-year/d/d>
18. Deloitte, “Did you wear your bank today?” Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-cons-wearables-in-banking.pdf>
19. The rise of wearable banking, 2014-05-06-EFMA-Journal-244-Francisco-alvarez.pdf,
20. <http://www.sestek.com/2016/11/advantages-disadvantages-biometric-authentication/>
21. InformationWeek, “Top Challenges Facing Bank CIOs Over the Next Year” <http://www.banktech.com/channels/top-challenges-facing-bank-cios-over-the-next-year/d/d-id/1296624>
22. Top Ten trends in Payment- 2017, Annual Publication of Capgemini; Retrieved from https://www.capgemini.com/wp-content/uploads/2017/12/payments-trends_2018.pdf
23. “IT in the Financial Services Industry: Challenges from Technology & How to Overcome Them.” Accessed December 29, 2018. <https://www.throttlenet.com/efinance/it-in-the-financial-services-industry-challenges-from-technology-how-to-overcome-them/>.
24. “Biometric Security Comes of Age”, A Paper published in “The Wall street Journal” by by Paul Lee, partner and head of global technology, media, and telecommunications (TMT) research, Deloitte Touche Tohmatsu Limited
25. Thierer, A. D. (2015). The internet of things and wearable technology: Addressing privacy and security concerns without derailing innovation.
26. Chang, Y. T. (2003). Dynamics of banking technology adoption: An application to Internet banking. Warwick economic research papers.

Using Corporate Social Responsibility for Improving Goodwill and Ensure Smooth Operations: A Case Study of Cambay Asset, ONGC

A. Srinivasa Rao*

ABSTRACT

Cambay Asset is one of Oil and Natural Gas Corporation's Hydrocarbon producing Assets which contributes to nearly 0. 215 MMT of Oil and 8 MMSCM of Gas yearly. It has a net profit of nearly Rs. 200 Crores per annum and having a total manpower of nearly 800. In the present Case the impact of CSR activities which is a mandatory requirement under the Company's Act has led to generation of goodwill and also in the process indirectly led to the increase in production of oil. Through this paper we will get to know many new conclusions. Corporate Social Responsibility is defined as the company's responsibility towards the community and environment (both ecological and social) in which it operates. Companies can fulfill these responsibilities through various means like conducting education programs, pollution reduction, waste management, infrastructure development in rural areas, health management etc. Further we will study more in the paper below.

Keywords: CSR corporate social responsibility; Panday assests; PMT act.

1.0 Brief Background

Cambay Asset is one of Oil and Natural Gas Corporation's Hydrocarbon producing Assets which contributes to nearly 0. 215 MMT of Oil and 8 MMSCM of Gas yearly. It has a net profit of nearly Rs. 200 Crores per annum and having a total manpower of nearly 800.

2.0 Introduction to CSR

Corporate Social Responsibility is defined as the company's responsibility towards the community and environment (both ecological and social) in which it operates. Companies can fulfill these responsibilities through various means like conducting education programs, pollution reduction, waste management, infrastructure development in rural areas, health management etc.

CSR is not charity or donation but a means of conducting business by which corporate entities contribute to the development of society. Many companies use CSR as a strategic tool for banding and visibility in their areas of operations, which help in maintaining good relations with the locals so that there are no industrial relations problems.

"The Companies Act 2013 has formulated Section 135, Companies (Corporate Social Responsibility) Rules, 2014 and Schedule VII which prescribes mandatory provisions for Companies to fulfill their CSR. The new Indian Company Law that received the President's Assent in August 2013 includes a novel provision which mandates that companies spend 2% of their profits on "Corporate Social Responsibility".

3.0 Applicability of CSR Provisions

On every Company including its holding or subsidiary having:

*Research Scholar, Faculty of Management studies, Parul University, Vadodara, Gujarat, India (E-mail: rao_as1@ongc.co.in)

Net worth of Rs 500 crore, or more, or
Turnover of Rs 1000 crore, or more, or
Net profit of Rs 5 crore, or more
During the immediately preceding financial year.

However, if a company ceases to meet the above criteria for three consecutive financial years then it is not required to comply with the CSR provisions till such time it meets the specified criteria.

4.0 Schedule VII

Activities which may be included in the companies in their Corporate Social Responsibility may be related to:

- Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation. Contributing in the Swach Bharat Mission for promotion of sanitation and making safe drinking water available to all.
- Promoting education, including special education and employment generating vocational skills especially among children, elderly, differently abled, livelihood enhancement projects etc.
- Promoting gender equality, empowering women, setting up homes and hostels for women and orphans, setting up old age homes, day care centres and other facilities for the old people, senior citizens and provide facilities for the socially and economically backward groups etc.
- Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining the quality of air, soil and water, contribution to the Clean Ganga Fund etc.
- Protection of national heritage, art and culture including restoration of buildings and sites of historical significance and works of art, setting up public libraries, promotion and development of traditional arts and handicrafts
- Measures for the benefit of armed forces veterans and their dependents and war, widows etc.
- Training to promote rural sports, nationally recognised sports, Paralympic sports and Olympic sports etc.
- Contribution to the Prime Minister's national relief fund or any other fund set up by the Central Government for socio economic development and relief and welfare of the Scheduled Caste, Scheduled Tribes, Other Backward Classes and Minorities and Women etc.
- Contribution or funds to technology incubators located within academic institutions approved by the Central Government
- Rural development projects
- Slum area development “

5.0 Case Study Details

The Cambay Asset situated in Western India in the state of Gujarat and 14 oilfields , the major producing fields in the above being Padra, Akholjuni, Anklav and Kathana.

The first oil find in the country by ONGC was in the well Lunej #1 in 1958 which is about 6 km from Cambay town. In a manner of speaking Cambay is the mother project of ONGC and the above well has now been converted into a Museum.

The process of Oil exploration and exploitation involves drilling into the earth using highly sophisticated oil drilling rigs. In this process the initial process of exploration involves carrying out geological rock analysis, seismic analysis and then interpretation of the data and finally the locations for carrying out the drilling are released.

After this phase the important activity of land acquisition begins. The land acquisition is carried out under the Land Acquisition Act, PMP Act (Petroleum and Mining Pipeline Act) etc. The entire process involves delicate negotiations with the various land owners regarding, damage compensation, payment of rentals etc. Based on the results, the acquisition carried out is of a temporary or permanent nature. In case there is a potential for good oil then the permanent acquisition is recommended otherwise the temporary acquisition with yearly payment of rental is recommended.

In the Padra area of the Cambay Asset, there a total of no. of 136 wells. Out of these 58 are flowing and 28 are non-flowing.

In a place where there has been a sudden spike in real estate prices, the builder lobby has captured huge tracts of land with the help of local officials. One such well Padra #51 Well had been closed for a period of 12 years due to various encroachments of the approach road. This was a classic case of improper documentation and lack of accountability. The Padra area was under the Ankleshwar asset till 2015 when they were handed over to Cambay after it was converted into a full-fledged Asset. In the handing over and taking over of documents it was observed that the erstwhile land acquisition department had not acquired all the documents related to the approach to the well, as a result the well had to be closed for a long period of time.

The Management at Cambay decided to pursue negotiation and visited the site to discuss the issue with village seniors. The Management put across the point of importance of oil production for the nation's energy requirements and also the various requirements of the villagers w.r.t roads, infrastructure, requirement in schools, medical etc. were discussed.

After a series of discussions and deliberations there was no progress and no solution could be found. In the meantime, regardless of the outcome of the talks, the ONGC like a responsible corporate continued its various CSR activities in the area some of which include:

- CT Scan machine at Cardiac Care Hospital, Cambay
- CC road towards the cremation ground in Gudel village
- Distribution of nearly 6200 sweaters in 42 schools in and around Khambhat
- Construction of 6 nos. of community toilets in Khambhat
- Implementation of organic farming techniques among the farmers of the nearby villages of Sokhda

The news of the various CSR activities in and around Khambhat reached the villagers and they themselves came to the negotiating table and suggested an alternative approach road, which would help the movement of machinery to be put in place to get the well on production. The alternative route did not create any disturbance to the villagers and was helpful in putting the well back on production after more than a decade.

On its part in the first phase ONGC provided a CSR aid of Rs. 4,51,440/- which included a new garbage collection van to the Sangma Gram Panchayat with a promise of more to follow.

5.1 Benefits accrued

The total well production per day from the well comes to 7 m³ per day which is 5 tonnes per day. The annual production from this well comes to $5 \times 365 = 1825$ tonnes of oil. In terms of barrels per day it comes to $1825 \times 6.7 = 12,227.50$

6.0 Conclusion

This leads us to the conclusion that implementation of CSR schemes can lead to a huge amount of increase in goodwill and ensures smooth operations for the Company.

References

1. Corporate Social Responsibility and Sanitation: Case studies from India INC (2015)
2. Handbook on Corporate Social responsibility in India – Confederation of Indian Industry by pwc.in

Value Chain Analysis of Makhana in Madhubani District, Bihar

Sugandha R. Sinha*

ABSTRACT

The title of the project is Agriculture Value chain Analysis of Makhana in Madhubani District of Bihar. The Host organization is Bihar Rural Livelihood Project (Jeevika), Patna. Shakti Sudha Industries is a processor and exporter of Makhana providing technical support to the beneficiaries, particularly producers in this project. A comprehensive business analysis considering both financial and operational aspect of different activities involved in value chain was carried out to understand the various perspectives for the initiative taken by BRLPS (Bihar Rural Livelihood Promotion Society or JEEVIKA) with the support of World Bank and Government of Bihar. In order to identify the different challenges in scaling up of Makhana crop; as it is an unrecognized crop, different tools and concepts were identified. The period of the study was from the 29th October 2009 to 15th January 2010. Bihar is one of the major Makhana producing state which contributes up to 80% of total Makhana production happening in India.

Keywords: Value chain; Market margin; Marketing in Makhana.

1.0 Introduction

Agriculture is the key to the overall development of the State economy. Agriculture is the backbone of Bihar's economy. The population employed in agriculture production system in Bihar is estimated to be 81%, which is much higher than the national average. Nearly 42 per cent of GDP of the state (2004-05) has been from agriculture sector (including forestry and fishing).

Bihar has a total geographical area of about 93.60 lakh hectare, out of which only 56.03 lakh hectares is the net cultivated area and gross cultivated area being 79.46 lakh hectares. The principal crops are paddy, wheat, pulses, maize, potato, sugarcane, oil seeds, tobacco and jute. Rice, wheat and maize are the major crops. Although, Horticulture (Fruits, vegetables, spices, honey, medicinal and aromatic plants) occupies 15 percent of land area but income generated from horticulture is much higher. The state has a monopoly in production of litchi and Makhana and continues to grow various fruits, vegetables, spices and floriculture is catching the imagination of people, reflected in their growing interest, across the state, in diversification of horticulture.

Although Makhana is not a major crop but its cultivation is one of the significant livelihood activities of a sizable section of population in the Districts of Bihar. Despite having not attracted much attention of the Agro-Economist or Government it has great domestic and export market potential. Looking at it as a potential activity BRLP's (World Bank funded) has undertaken a project to explore the livelihood promotion opportunities through Makhana value chain. It has been one of the main secondary occupations, however never thought of as an important income generating activity by the local people. The role of BRLPs is to unite the Makhana producers so as to get the economies of scale and finally the execution of various processing and collective marketing of the produce.

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: sugandha.sinha24159@paruluniversity.ac.in)

2.0 Research Objectives and Methodology

2.1 Objectives of the study

This study deals with

- Assess production conditions and trends.
- Understand the structure, performance and competitiveness of Makhana market.
- Map the value chains and identify factors that affect the competitiveness of Makhana.

2.2 Methodology

The study entailed a detailed review of literature together with collection and analysis of primary and secondary data. Sample design acknowledges sample collection, both primary and secondary data and deciding tools for data collection and FGD to identify bottlenecks and leverage Points.

2.3 Research design

Madhubani District of Bihar was selected for an exhaustive exploratory and qualitative as well as quantitative research study. The reason for the selection is that, Madhubani District has great inventory of Government and Private Ponds and contributes 40% of total Makhana production in Bihar.

2.4 Sample design

2.4.1 Sampling method and sample size

As the number of target population was very vast we have decided to go for random sampling. The sample population includes Farmers, middleman, Traders, Retailers, Processing units and exporters. The sample size is taken as 200 Farmers, 6 Middlemen, 4 Traders, 10 Retailers and 100 Consumers.

3.0 Literature Review

The central government has given its final nod to the Bihar government's plan for Makhana Processing Plants in Darbhanga and Madhubani. Last year, the Bihar government had also commissioned IL&FS to prepare a blue print of the action plan to facilitate processing and packaging centers for Makhana (Gorgon nut).

"Makhana's potential to make inroads into foreign markets as well as into the domestic snack market, which alone must be worth Rs 20,000 crores a year, has remained untapped so far," said Mr. T.N. Jha of National Bank for Agriculture and Rural Development (NABARD).

In 2007, a project report on export promotion of Makhana from Bihar was compiled by Mr. AK Garg. The report underlines the need "to introduce mechanized processing to standardize processed products in order to boost export demand."

Under the plan several Common Facility Centre (CFC) would be setup. The CFC would facilitate procurement, storage, grading, processing, value addition and packaging. A website will also be setup to provide market linkages and comprehensive information on Makhana. The Makhana Cluster Plan also envisages digging and construction of ponds in at least 2000 acres of land. (Ajit Kumar- January 16, 2009)

Makhana growing water bodies are ideal reservoirs for air-breathing fishes like Singhi, Magur, Kawai etc., which derive their nutrition from the heavy organic detritus in the pond bottom. Leathery leaves during the peak growth period of the plants (between April to July) hardly leave any

open surface to facilitate the dissolution of atmospheric oxygen to the pond water. Dearth of dissolved oxygen in the arched water surface makes it unsuitable for the growth of carp fishes.

A major share of the profit in Makhana industry is usurped by the middle men. The producer's share in the consumer price is only 53 percent and the remaining 47 per cent is absorbed in different marketing functions (Prakash and Choudhary 1994).

4.0 Makhana Production & Its Economic Analysis

4.1 Demographic and socio-institutional setting of makhana cultivators

The Makhana growers in the district are from the mallah /machhuara/ keot caste with fishing and Makhana cultivation as their major economic activity. Generally, they will not do the menial job on Makhana ponds. On the other hand, Chaabh and Koal sub-caste groups have the dominant demographic presence, and are most resource poor and illiterates. They are the actual divers and guri harvesters. The group generally harvests the seeds in 2-3 lots on contract basis either on share of seeds or cash amount. They having low literacy also possess the unique and the exclusive skill in Makhana pop processing.

The whole family is indulge in Makhana cultivation and popping of Makhana or work as laborers. Cultivating Makhana crop which included sowing (if required) transplanting and harvesting guris.

Although the mallah community is the traditional grower of Makhana other castes have also moved into the business of Makhana cultivation and created their own niches in this market. They cultivate Makhana either on their own ponds or sub leased government ponds by engaging the services of mallah as wage earner.

4.2 Lease system of government ponds

Government ponds, earmarked for Makhana cultivation are leased at prescribed rates with preference of Fishermen Co-operative Societies which in turn lease it to its members. These societies are registered under the Bihar Co-operative Societies Act 1935. The ponds are leased in the name of the Secretary of the society who sub-lets the government ponds to the members. In some villages, it was seen that the entire community in the village jointly cultivated Makhana ponds with equal sharing in the output as well as labour and other inputs. The secretaries are elected by the members and these societies are governed by the rules under the 1935 co-operative act. The government pond is given on lease to Secretary Fishermen's Co-operative Society by the district administration at prescribe rates. As per Government rules rental value of the pond is calculated by measuring the area of the pond. According to area and condition of the pond Government officials predict the production and calculate the market value of the produce (Guri) by assuming a constant price for a year (18 Rs./Kg for 2009). The rental value of the pond is 10% of the total market value of the produce. But the Leasing takes place by open bidding system which increases the cost of the pond drastically.

The Secretary in turn would sub-lease the pond to its members either in group or individually for one year at higher rates. However the third party lease of ponds by members of the Fishermen's Co-operative Society was common. Instance of government ponds not being leased on account of being declared idle was also observed in certain cases.

4.3 Credit availability

In absence of institutional credit facility they are dependent on moneylenders. For that credit support moneylenders charges 60%-120% interest per annum. In addition to pay high interest rates, sometimes growers have to sell their produce to that trader only.

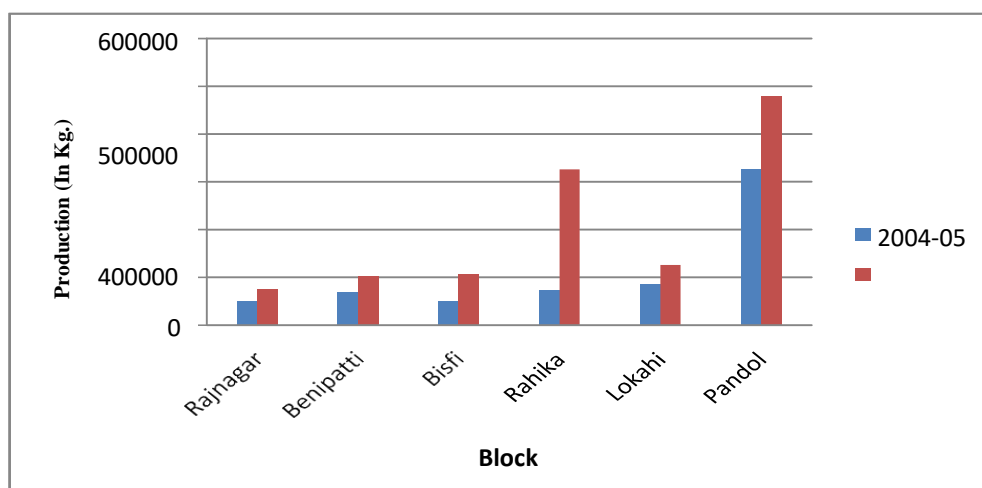
4.4 Makhana production trend in Madhubani

The District has 21 Blocks. The District is a hub of water resources with an average rainfall of 1273.2mm. Flood cycle repeats itself almost every year. This District has a total of 5183 ponds, out of which number of government ponds 3430 with an aggregate water spread area of 2051.50 ha. Madhubani is one of the major producing district of Bihar. It contributes 40% of total Makhana production of the state.

Government ponds, with a share in number of ponds and area were higher for government ponds) than private ponds Makhana seed/guri is cultivated in only 41.5% of water pond tank area in the district. Besides the large low lying chaur land (approximately 10 thousand ha) also offers technical potential for Makhana guri cultivation in the district as has been the experience in Madhubani district.

4.5 Production trends in six major Makhana producing blocks of Madhubani district

Figure 3: Production Trend in Madhubani

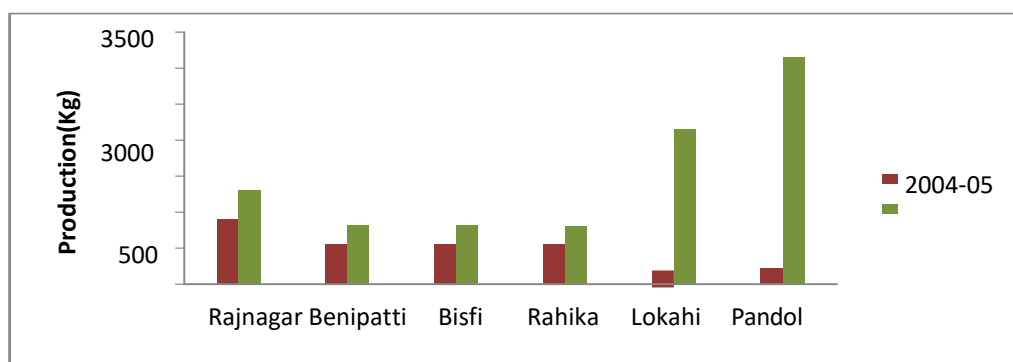


Source: District Fisheries Office

The graph shows the cumulative production of six blocks viz. Rajnagar, Benipatti, Bisfi, Rahika, Lokahi and Pandol. As seen from the graph, the total production is significantly increasing from 2004-05 to 2008-09. This can be ascribed to better cultivation practices, increase in cultivation area and use of low land (chaur land) as pond for Makhana cultivation.

4.6 Yield trend in six major Makhana producing blocks of Madhubani district

Figure 4: Yield Trend in Madhubani



As seen from the graph yield (Kg/ha.) is continuously increasing due to improved cultivation practices like proper maintenance of spacing, use of fertilizers (if required) and use of fungicides. As shown in the graph yield of Lokahi and Pandol has increased significantly. This is due to pond conditions of these two blocks are good.

4.7 Economics of Makhana cultivation

Economics of Makhana Cultivation on Own Pond (Private Pond)/Acres

Sr. No.	Particulars	Amount
A.	Revenue	34125
B.	Cost incurred	
1.	Material cost	584
2.	Operational cost	
i.	Water filling	2000
ii.	Labour cost	11400
	Total cost incurred	13984
	Profit	20141
	B:C*	1.5:1

Source: Field Survey, 2009

Economic Analysis of Makhana/Guri Cultivation on Leased Pond/Acre

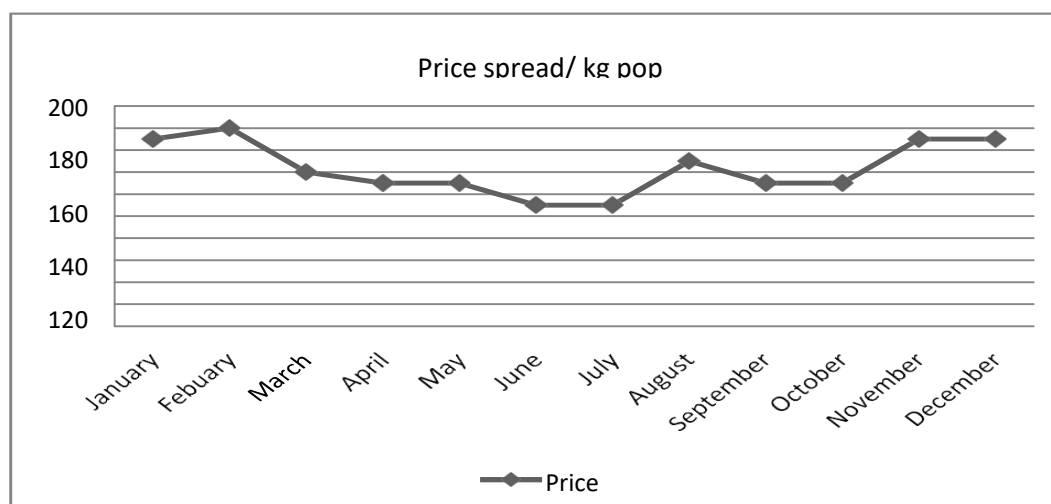
Sr. No.	Particulars	Amount
A.	Revenue	30712
B.	Cost incurred	
a.	Pond leasing cost	1843
b.	Material cost	884
c.	Interest on Borrowed capital	663
d.	Operational cost	
i)	Water filling	2000
ii)	Labour cost	---
	Total cost incurred	5390
	Profit	25322
	B:C*	4.7:1

Source: Field Survey, 2009

4.8 Price spread

Price of guri as well as popped Makhana varied widely across seasons and regional locations. For guri in August when arrivals starts in market price increases. But at peak arrivals when 95% of guri concentrating during September-October its prices remained low in the range of 18-22 Rs/kgs and it reaches up to 30 Rs/kg by December. Prices of guri is also fluctuate by the fluctuation in prices of popped Makhana which is by and large determined by the wholesale in Kanpur, Varanasi and Delhi, it was those traders who commanded and absorbed most of the demand for Makhana pop.

Prices of Makhana pop are also showed seasonal fluctuation. Both wholesale and retail prices were low at peak arrival and while higher in month of January- February. It also go up during seasons of festival and marriages.

Figure 5: Price Spread of Pop Makhana/Kg

Source: Market survey 2009

4.9 Makhana international trade

India is one of the major exporters of Makhana. Makhana sector is highly unorganized and this crop is unexploited and unrecognized by GOI. Its presence in export market is virtually absent as it exports under the name of “Other commodities”, therefore export data is not available. Makhana is essentially an original product with good dietary and medicinal properties to generate adequate export demand particularly in the European and American Countries. India export Popped Makhana to Gulf countries in large quantity. Popped Makhana has great potential of export as popping is done exclusively in India.

5.0 Makhana Processing System, Grading, Quality and Market

5.1 Makhana processing (value addition)

Processing of Makhana seed is labor intensive, tedious and time consuming which is done manually and cause injury to processors hand. Processing of Makhana involves following steps.

- Sun drying and storage
- Sun drying and size grading
- Preheating and Tempering
- Roasting and Popping

6.0 Conclusion and Recommendations

Makhana sector is highly unorganized and unrecognized crop by Government. But it has great potential of export as it has negligible fat content and high nutritious value. To take advantage of increasing demand and export potential, production needs to be increase with quality improvement and reduction in marketing cost. Farmers are in great need of credit facility as they are asset less. There is wide information gap between market and farmers. Due to lack of information accessibility and proper market linkage maximum profit is got by large traders and exporters of other state who are on the top of supply chain. Large traders and exporters of other states they make profit because of their knowledge about terminal markets and their own infrastructure like processing units and storage house etc.

7.0 Recommendations

7.1 Market linkage

Poor infrastructure and lack of market information accessibility remains the major reason for high marketing cost. Transaction and marketing cost can be lowered by shortening the length of the marketing chain. Reduction in marketing cost will help in improving the farmers share in final price and also lower the domestic price of Makhana. Another point of consideration is increasing the collaboration between growers to initiate the collective selling which helps in negotiate with the traders and other market players.

Promotion and support of “Contract farming” is another way of minimizing the marketing cost and increasing the farmers share in final price. The international market of Makhana is dominated by demand for popped Makhana. There is need to capture the international market. This can be captured by adopting integrated marketing for Makhana.

7.2 Processing (value addition) technologies

Makhana processing industry is completely dependent on manual power as till now there is no successful invention for harvesting and processing of Makhana. There is a great need for develop new technology for harvesting and processing of Makhana. It will also reduce the domestic price as well.

7.3 Credit and storage facility

Farmers need to support by providing timely credit at low interest rate to come out form the vicious debt cycle. At the farmers level the guri is stored in an indigenous manner with construction of temporary structure in their home. In absence of proper storage facility farmers sell their produce while there is glut in the market and prices are low. There is need to develop storage structure so farmers can fetch better price by selling their produce at the time when prices are high.

References

1. Export Promotion of Makhana from Bihar
2. Integrated Management of Water Quality and Quantity with Ecosystem Approach, Session
3. -12 and Sustainable management of Biotic Resources in the wetlands of north Bihar, India (Paper-5) By Vidyanath Jha
4. Agri Export advantage. Export Import Bank of india, January 2005, vol. IV, Issue I
5. Indian food industry, Jan-Feb 09
6. www.icarr.org.in
7. <http://www.icar.org.in/cari/product.html>: <http://www.icar.org.in>
8. Integrated Management of Water Quality and Quantity with Ecosystem Approach.htm
9. Shakti Sudha Industries.
10. www.makhana.com
11. <http://www.dgft.delhi.nic.in>
12. http://www.ces.iisc.ernet.in/energy/lake2002/proceedings/12_5.html

Workplace Spirituality and Work-life Balance: An Empirical Introspection in Manufacturing Industry at Vadodara

Sapna Chauhan* and Param Saraswat**

ABSTRACT

With the wake of 21st century harmonizing one's personal and professional life is not simplest difficult, however additionally notably critical to steer a happier and fulfilling existence. In this know-how and records age, the present work force is in non-stop look for exploring meaning of their non-public and professional life and mainly they may be constantly looking for task profile which could offer a feel of motivation to them. Therefore, the latest recognition of Management is to realise "work-existence balance" in their corporate tradition whilst safeguarding the "spiritual competence" of a person professional. In this paper, the author have tried to research the empirical dating among work area spirituality and job-lifestyles balance among employees and managers of Manufacturing public sector Industry in Vadodara . The usage of purposive random sampling 50 employees and executives are being selected as the pattern for this pilot study. The researchers have found a moderately full-size relationship between religious competences with work life stability irrespective of demographic profile. The findings have counselled revitalizing each the aspects collectively for setting up an effective behavioural intervention in an organizational installation.

Keywords: Spirituality; Spiritual competence; Workplace spirituality; Work-life balance.

1.0 Introduction

The "delusion of separate worlds" where organisations and life are kept as separate bordered entities no longer reigns to be proper, as a result, the ability to carry one's entire-self or one's spirituality to the place of work has step by step ascended as a topic of challenge amongst researchers. Nowadays organisation seeks more stages of commitment, manufacturing, and performance from employees, at the same time its miles anticipated that they need to start to care for the complete man or woman. Its miles stated that once an employer cultivates surroundings of meaningfulness, situation & popularity in its organisations profile, the worker concerned will experience extra engaged and devoted. Therefore the development and integration of HR projects aiming to have interaction specialists is a potential region for fostering meaningful place of business if you want to potentially address to realise the issues touching on work-lifestyles stability. Many scholastic findings in this connection have encouraged those worker professionals who're furnished to organisations in a significant activity profile use to have a more feel of obligation, possession and manipulate in their running existence, predominantly, expert individuals are located to be greater interested in businesses providing flexible and meaningful profession paths irrespective of whether the salient identities focused on different welfare amenities prolonged by using conventional agencies on the equal time, research findings in this region has additionally indicated that because of downsizing, re-engineering and lay-offs which have took place in last couple of decades employees are experiencing non secular disorientation which is developing a weather of uncertainty, chaos, and fear in conjunction with function battle in their professional profile.

*Corresponding author; Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: sapna.chauhan6030@paruluniversity.ac.in)

**Research Scholar, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: param.saraswat@gmail.com)

One of the predominant problems explored in this region is the issue of compatibility as for a few company way of life it may be a project to include spirituality into the place of job while addressing the balance in work-existence. In this context, Mitroff and Denton (1999a) has argued that today's agencies are tormented by a deep religious emptiness and lots of work related problems in agencies are potentially due to this non secular impoverishment.

There are two crucial factors which are riding the work/existence stability discourse; one is globalization and the other one is ready massive technological change, both the elements have delivered extended competition amongst organizations, with a concomitant rise in operating hours and depth of competition amongst experts disturbing their work-existence. Curiously amidst technological alternate empirical studies has explored that the agencies with extra place of business spirituality outperformed companies with little or no workplace spirituality by means of 86 percentage (Lloyd 1990). Therefore, spiritual orientation at organisations place is a win-win characteristic which includes elements which could act as a stimulus for generating pleasure from a man or woman in the direction of his or her life or task where as if those factors are constrained then they will bring about dissatisfaction and in some case it could impact dissatisfaction towards their existence. Even though the literature and interest on spirituality at work is developing rapidly; there may be confusion round how spirituality can have an effect on work life stability of an expert and at the same time the fuzziness, abstruseness and the complexity of the construct making spirituality at administrative centre stands as a difficult topic to research. Particularly the studies on organisations-lifestyles stability is narrowly conceived and regarded specifically to girl's workforce, who are in company employment and feature circle of relative's obligations (Parasuraman and simmers, 2001), in the different hand, Allen (2001) has said that there is not an awful lot of studies finished to set up readability between organisational policy mechanisms by which the supply of work-existence practices is affecting man or woman behaviour and organizational performance regardless of gender. There is also scarcity of studies on systematic policy assessment and satisfaction survey to address the query of whether work-existence practices are achieving their meant targets (McDonald et al., 2005), on this connection, researchers have felt that the pooled functions of each religious competences in conjunction with organisations-lifestyles balance in an organizational context want to be explored, and an empirical inspection is needed a few manner of operationalizing the belief in their collective lifestyles. Consequently, the motive of this empirical take a look at is to slim the gap and severely assessment work vicinity spirituality inside the shape of religious competence with that of the construct on work-lifestyles stability. More mainly, the focal point is to check the feasible methods to foster work existence stability while making use of one's potential to discover meaningful organisations and interconnectedness. It is anticipated that integrating the literature and findings of each the assemble might also offer new insights regarding ability moderators and mediators of the link between work-lifestyles stability and religious competence, and suggesting new studies questions which could further enhance the know-how of the way (or if) this hyperlink operates.

2.0 Work-life Balance vis-à-vis Workplace Spirituality

With the appearance of human members of the family motion place of work has turned out to be the fountainhead of community for plenty human beings. But, together with the growing significance and centrality of work in human's life, related problems additionally have multiplied inclusive of strain, burnout and organisations holism. Setting apart organisations, existence, family, and spirit into cubicles has doubtlessly ripped authenticity off personnel; leaving them feeling unfulfilled, pressured and alienated but, in an organizational purview, personal and expert lifestyles balance is largely a shared assumptions, ideals, and values concerning the extent to which an corporation supports towards integrating personnel" work and own family lives (Thompson, Beauvais

and Lyness, 1999). It has been argued that insights of labor-own family balance are greater willing by means of mental factors consisting of process pride which may be greater applicable to personnel in professional jobs. Precisely, organisations-life stability refers back to the capacity of people no matter age or gender, to explore a rhythm so one can allow them to combine their organisations with their non-organisations responsibilities, activities and aspirations. In today's organization, professionals do not forget having significant work, accurate operating situations or work itself, incomes, and supportive friends because the most influential element for his or her stability and professional growth. Hungelmann (1985) has said that the assimilation of work life stability and work place spirituality predominantly helps the proposition of transpersonal (relationship with god), interpersonal (dating with friends and own family and so forth.), and intrapersonal (dating with one's internal self). In this context, work lifestyles stability precisely engulfs the diploma to which a character is capable of simultaneously stability the temporal, emotional, spiritual and behavioural demands of each paid work and family responsibilities. Consequently, whilst an man or woman irrespective in place of business or in private existence if is capable of recognize that their existence, fulfilment, and well-being at life/work relies upon on their mutual dependence with one's inner self, relationships with close to and expensive ones and exceptionally God, they may thoroughly flow closer to greater harmony and effectiveness in the direction of their work-existence. The attainment of affiliation in the context of administrative centre articulates that, "spirituality within the place of business is an experience of interconnectedness amongst those involved within the work method, initiated through authenticity, reciprocity, and private goodwill engendered by using a deep sense of meaning within the corporation's work; and ensuing in greater motivation and organizational excellence.

In organizational attitude with the congruence to work-lifestyles balance and work region spirituality, it is emphasised that the business enterprise must provide an environment and possibility to let the man or woman's explicit distinct aspects of ones' being at work (Ashmos and Duchon 2000) and mainly the position of HR functionaries is to discover the approaches with which an character is probably to locate which means from any organisations that he/she does. subsequent to this findings, there is an remark made by Thompson (2001) on job seekers impressing that present days information workers put the compensation and benefits second to running in a spirited place of job-a place where they're treated with appreciate, not simplest for what they know and may do, but additionally as people as they need to be listened to and develop, to be pleased with a control team that operates with integrity, and to stability their organisations life with their personal lifestyles. The supply of such practices augments positive task-associated attitudes, organisations effort and contextual behaviours by using improving social alternate procedures; as symbols of organizational concern for personnel, organisations-existence practices selling employee hobby in and obligation to the organisation (Pfeffer, 1981). To aid up this findings it's been asserted that these days' agencies need to begin to care for the whole employee a good way to increase dedication stages, production rates and efficiencies. Therefore it can be summed up that, nurturing organizational spirituality is vital for a dynamic established order, as it's far a fundamental mechanism in the direction of aligning, educating and motivating experts toward values, objective and project of an business enterprise and enhancing commitment in them.

3.0 Interrelationship of Construct of Spiritual Competence and Work-life Balance

Nurturing spiritual competence is getting growing consciousness of attention amongst company practitioners and academic researchers. On this context, social alternate idea states that if the personnel are dealt with favourably by the agency, then in response personnel will experience obliged to reply in type, through tremendous attitudes or behaviours towards the source of the treatment which can be in the form of improved commitment and citizenship behaviour However the essential

objective of management is to incessantly get the work done via its human assets to be able to meet the need of the stakeholders. The status quo encompassing stakeholders contains of clients, shareholders, and personnel, but it's miles generally observed that employee specialists regularly have least have an effect on in the boardroom even nevertheless there's an appreciation of the truth that without engaged employees, neither shareholder nor patron might be glad. on this context, lengthy hours of traumatic work environment stands to emerge as unhealthy and dissatisfying for personnel as they confuse to get the meaning in the back of their purpose of labor and that they just cost their really worth only for outside rewards, advertising, striving for mastery .The empirical studies locating advocates that intrusion of work needs into personal lifestyles (e.g. running during the week-give up) become related with reviews of heightened strain and emotional exhaustion for employees affecting the health of a professional individual .In a time of rising emphasis on enterprise ethics and work lifestyles stability; companies are forced to respond to the employee want for growing which means at organisations this ascends a debatable trouble on how should we determine the significance to which groups are searching for validity instead of simply airing their candid commitment closer to propagating genuine spirituality, that's in literature useful to each employees and itself. Its miles argued that even without an actual dedication to gain the exercise for undertaking spiritual competence, using fostering work lifestyles balance raises authentic concerns about its use to in addition financial desires of organizations", and consequently, has the capability of becoming but some other management fad (Fernando, 2005). Though a few research works have tried to explore the subjects including description of place of job spirituality, sources of place of work spirituality or features of an enterprise facilitating place of business spirituality (Milliman. J, 1999; Pfeffer J, 2003; marques j, et.al, 2005). But the studies were lacking sound theoretical and empirical base in the methods of expediting the underlying reason behind it (Giacalone and Jurkiewicz, 2007) and one possibility felt is to address the demanding situations of labor-life balance.

4.0 Purpose and Significance of the Study

Maintaining the studies gap into attitude with its expected effective end result, the reason of this take a look at is to take a look at the correlation some of the elements influencing spiritual competence inside the context of labor area spirituality and organisations-existence stability. As obvious from the extant literature findings, these observe is big because there is nevertheless so much divergence, even controversy, in perceptions approximately the resultant phenomenon of work existence stability whilst fostering spirituality in the place of job. therefore, this empirical research might be a tremendous contribution to investigate on studying the variables of both the standards collectively as almost no studies exist on this location of studies and the approaches which it affects management, human sources and the corporate organization as an entire.

Subsequently, the eventual goal felt is to use the set up assumptions of both the constructs through ascertaining its sensible implications for building a positive place of work environment. it is anticipated that this could provide an insight to human resource specialists to plot sound rules and practices that can cause multiplied activity overall performance, decrease turnover charges; long term worker satisfaction and worker retention.

5.0 Research Design of Spiritual Competence and Work-life Balance

As said earlier, there is no single measure within the literature for those constructs; therefore, the existing study can be considered as exploratory as well as descriptive. It's understood that exploratory designs are predominantly used for discovering new ideas/facts and hence an exploration via literature overview is completed to get a perception and information on building the relationship

among spiritual competence and corresponding work-lifestyles stability. Then again, this sort of look at is of descriptive in nature as a detailed and in-depth understanding of its related variables has become empirically examined.

5.1 Studies questions and instruments used

The study will try to address the following studies question:

Is there a correlation among spiritual competence and organisations life balance?

For the purpose of survey, we have used spiritual competence scale proposed by Singh and Premrajan, (2007) composing of (22 items) measuring the factors on service towards human being, feeling of inner peace and calm, being vision and value led, interconnectedness, respect for others, self-awareness. The internal consistency reliability is found to be .69 (service towards human kind), .73 (feeling of inner peace) and calm, .67 (being vision and value led), .62 (interconnectedness), .66 (respect for others) and .50 (self-awareness).

Work-life (W-L) balance scale proposed by Pareek and Joshi, (2010) constituting of 36 items have been used for measuring the areas of personal needs, social needs, time management, team work, compensation and work itself. The internal consistency reliability through this pilot study has found to be .72 (social needs), .63 (personal needs), .69 (time management), .77 (team work), .71 (compensation and benefits), .79 (work).

The reason for choosing these scales is that they capture the seminal definition of work life balance index and spiritual competence of an individual professional which probably may develop interventions for improving the perspectives involved in it.

5.2 Descriptions of the sample

The pattern frame/or population and the scale are drawn through comfort sampling through travelling the Public Sector Manufacturing enterprises in Vadodara and drawing near the executives through HR and their respective departmental heads to adopt the survey. 100 questionnaires had been disbursed to respondents who're operating full time as employees and managers of their present agency. 100 questionnaires were returned, with a response rate of 91.36%. The pool of respondent contains employees and executives had worked for more than 10 years in their present establishments.

5.3 Data analysis and findings

All the statistical analyses to test the following hypotheses below:

H1: There is a substantial correlation between spiritual competence and work-life balance.

H2: There is an enormous correlation between spiritual competence and work-life balance by experience.

The analysis for H1 indicates a mild superb linkage among spiritual competence and work existence balance. The results have confirmed that increased spirituality was positively associated with increased well-being, increased sense of meaning and purpose in life found in an empirical study with medically based life style program.

Varied work experience at H2 when being correlated between spiritual competence and workplace spirituality have shown the similar statistical traits with 10 Years or more experience getting a significant relationship; whereas people with less than 1 years of experience with the same organization shows a differential perception .

6.0 Summary of Findings and Suggestion

To summarize, it could be mentioned that there's an unchecked use of the assemble of place of business spirituality in organizational HR practices, and examining the popularity of the construct it

isn't illogical to count on the illusion with work-lifestyles balance. Consequently, a new course is advanced showing the long way growing relevance of non-secular competence into organisations lifestyles balance. Area of expertise of the prevailing study became the empirical findings which has supported non secular intelligence because the predictor for predicted practical styles in organizational HR practices to foster work life balance. Hence the final results of correlational studies have counselled that non-secular competence provides a legitimate and beneficial public domain on organisations-lifestyles balance measures. Although the following look at shows a moderate significance, however extra organisation is needed in this location to permit it to validate with confidence for the assessment of labor-lifestyles stability sub additives.

Therefore, this evaluate has sought to draw new insights and research instructions from the extant literature on organisations location spirituality and its courting to organizational overall performance. an crucial problem of the examine can be that the existing study has used the questionnaire survey to measure the religious competence and organisations-life stability index of personnel and executives on an exceedingly smaller sample of 100 personnel from production PSU industries of Vadodara . The findings of this have a look at can be used to make a complete quantitative and qualitative have a look at throughout enterprise sectors consequently; future studies have to cognizance on a much wider sample to get greater generalized consequences.

In a brand new world of businesses", spiritual competence and abilities of a man or woman professional may play greater vital role to decorate one's pride, health, commitment, self-assurance and particularly preserving work-lifestyles stability in a professional set up. in advance research have observed that the extra supportive" groups form an implicit psychological contract between the business enterprise vis-à-vis person and non-secular agencies are involved with supporting personnel broaden and attain their potentials at the same time as addressing issues created by way of organisations existence conflicts (Rama Rao, 2010). hence, it may be cautioned that employer's need to offer emphasis upon their HR strategies in particular worker centric welfare techniques toward deriving accelerated effectiveness in face of ever changing environment and mounting outside pressure as careful coping with of issues like non-secular competence and organisations lifestyles balance is predicted to provide an powerful buffer for dealing with destiny challenges. in this context, with the paradigm shift happening in 21st century, it's far witnessed that businesses and managers are continuously discovering and experimenting with new approaches and techniques to assist employees balance work and family, such as bendy work arrangements (Gottlieb, Kelloway, and Barham, 1998) and telecommuting (Kugelmass, 1995). A few types of reinforcement of spirituality in the place of work include organizing optional morning prayers or yoga sessions; designing multi-religion prayer spaces; for employees (Krishnakumar and neck, 2002; Mitroff and Denton, 1999b).

7.0 Scope for Future Research

In present instances, place of work spirituality occupies a prominent function within the discipline of organizational behavior and human resource control and even in other regions of control studies as the sector has spread its wing from enterprise to instructional research to show its significance and nurturance. On this connection, while exploring a number of the related regions the researchers have sensed that the manner forward for studies with spiritual competence/spirituality in organizational putting appears most promising if it has a strong conceptual and theoretical grounding for developing valid measures of the construct. consequently, to useful resource the present examine it's miles proposed that the utility of religious competence and organisations-existence balance should be performed with a good deal greater attention to the studies literature, be grounded in excellent idea and ought to reject eccentric claims. the present look at contributes to the existing expertise of labor region spirituality vis-à-vis work life balance by including findings in production industries of Indian

context which may additionally probably help to recognize the relationship of these constructs in different organizations" and cultures.

References

1. Ashmos, D.P. & Duchon, D. (2000). Spirituality at work: A conceptualization and measure, *Journal of Management Inquiry*; Thousand Oaks, 9(2), 134-145.
2. Bell, E., and Taylor, S. (2001). A Rumor of Angels: Researching Spirituality and Work Organizations. *Academy of Management Proceedings*.
3. Cacioppe, R. (2000), Creating spirit at work: Re-visioning organization development and leadership - Part II Leadership & Organization Development Journal. Bradford: Vol. 21.
4. Cavanagh, G. (1999), Spirituality for managers: context and critique. *Journal of Organizational Change Management*. 12(3), 186.
5. Cavanagh, G., Hanson, B., Hanson, K., and Hinojoso, J.: (2001), Toward Spirituality for the Contemporary Organization: Implications for Work, Family and Society, in Champoux, J.E. (2000). *Organizational behavior: Essential tenets for a new millennium*. South-Western College Publishing, Cincinnati.
6. Conger, J.(1994), *Spirit at work: Discovering the spirituality in leadership*. Jossey-Bass, San Francisco.
7. Fairholm, G. W. (1996), Spiritual leadership: fulfilling whole-self needs at work. *Leadership and Organization Development Journal*. Vol. 17 (5); pp. 11–17.
8. Fernando, M, Workplace spirituality: Another management fad?, in M. Adams and A.Alkhafaji (2005), *Business Research Yearbook: Global Business Perspectives*, Volume XII, No. 2, International Academy of Business Disciplines.
9. Giacalone and Jurkiewicz C. L. (2007). *Handbook of Workplace Spirituality and Organizational Performance*. M.E. Sharpe. New York, 93-107.
10. Gull, G. A., and Doh, J. (2004), The "Transmutation" of the Organization: Toward a More Spiritual Workplace. *Journal of Management Inquiry*. 13(2), 128.
11. Hungelmann, J. (1985). Spiritual well-being in older adults: Harmonious interconnectedness, *Journal of Religion and Health*, 24(2), 147–153.
12. Hyman, J. and summers, J. (2004), "Lacking balance? Work-life employment practices in the modern economy", *Personnel Review*, Vol. 33, pp. 418-29.
13. Jain, Dipak. (2011). Presentation to attendees of the Sivananda Ashram workshop on January 2, 2011, Nassau, Bahamas. Note: Dr. Dipak Jain is the former Dean of the Kellogg School at Northwestern University, Evanston, Illinois.
14. James E. Kennedy et al (2003), „Changes in Spirituality and Well-Being in a Medically Based Lifestyle Program“. <http://jeksite.org/research/riceup.pdf>.
15. Kanter, R. M. (1977). *Work and family in the United States: A critical review and agenda for research and policy*. New York, NY: Russell Sage Foundation.
16. Kinjerski, V., and Skrypnek, B. (2004). Defining Spirit at Work: Finding common grounds. *Journal of Organisational Change Management*, 17 (1), 26-42.
17. Kennedy, H. K. (2001), Spirituality in the workplace: An empirical study of this phenomenon among adult graduates of a college degree completion program. A dissertation submitted to Nova Southeastern University.
18. Krishnakumar, S. and Neck, C. P. (2002), The "what", "why" and "how" of spirituality in the workplace. *Journal of Managerial Psychology*. Vol. 17 (3), 153-164.
19. Marques J. Dhiman S. and King R (2005). 'Spirituality in the Workplace: Developing and Integral Model and a Comprehensive Definition". *The Journal of American Academy of Business*.

20. Marques, Joan F., Eugene Allevato, and Svetiana Holt. (2008) Linking quality management and emotional intelligence to workplace spirituality. *Organization Development Journal*, 26(4), 81-88.
21. Mitroff, I. I., and Denton, E. A.: (1999a), A study of spirituality in the workplace. *Sloan Management Review*, Vol. 40; p. 83-92.
22. Mitroff, I. I., & Denton, E. A. (1999b). A spiritual audit of corporate America. San Francisco: Jossey-Bass Inc.
23. Mirvis, P. H. (1997), "Soul Work" in Organizations. *Organization Science*, Vol. 8, No. 2, pp. 193-206.
24. Udai Pareek and Surabhi Purohit (2010) Work life balance scale by Pareek and Joshi, Tata Mc Graw Hill Publications
25. Pfeffer J. (2003), 'Business and the Spirit: Management Practice that Sustain 'Values', in Giacalone R. A. and Jurkiewicz C. L. (eds.). *Handbook of Workplace Spirituality and Organizational Performance*, M.E. Sharpe. New York.
26. Rama Rao (2010). What is Workplace Spirituality? *Research in organizational behavior*, vol. 3 (pp. 1-52). Greenwich, CT: JAI Press.
27. Singh, Tripti and Premarajan, R.K., Individual Spiritual Orientation at Work: A Conceptualization and Measure (July 30, 2007). IIM Bangalore Research Paper.
28. Thompson, W. (2001). Spirituality at Work, *Executive Excellence*, 18(9), 10.

ZOMATO: A Sustainable Business Model

Jayprakash Lamoria*

ABSTRACT

India's online food delivery market is expected to grow up to \$5 billion in 2019 and touch \$15 billion. Indian online food delivery market has players like Zoomato, Swiggy along with Food Panda, Uber Eats, Dominos, etc. Sustainability is an issue of the day for the organizations in ever changing environment. This paper looks into the business model and strategies of Zomato in the backdrop of Five Forces Model to remain relevant in the market place for the long term.

Keywords: *India's food delivery market; Zomato; Sustainability; Five forces model; Business model; Strategies.*

1.0 Introduction

India's food delivery market is expected to grow up to \$5 billion in 2019 and touch \$15 billion. Indian online food delivery market has players like Zoomato, Swiggy, Food Panda, Uber Eats, Dominos, etc. They are present largely in urban territories Bangalore, Delhi, Mumbai, etc.¹

As such this upcoming industry, infested with number of players; meeting needs and wants of the consumers, face several challenges though having favourable indications on disposable incomes, urbanization, consumer lifestyles, penetration of smart phones and internet, Indian women in the workforce and large young population.

Launched in Delhi 11 years ago, Zomato has grown from a home project to one of the largest food aggregators in the world.² Today, Zomato is present in over 10,000 cities across the globe with over 1.4million active restaurants on the platform. It is the market leaders in restaurant search/discovery in 19 of the 24 countries it is in, and has 70million monthly active users on the platform. It has 5million new user registrations and 11million app installations (Android + iOS), every month. Its user engagement has grown very well; it received 16million user reviews and photos in 2017-18, compared to 4.5million in 2018-19.³ It not only connects people to food in every context but work closely with restaurants to enable a sustainable ecosystem.⁴

Sustainability is a burning issue for the organizations in ever changing environment. Challenges push them towards minor or major innovative initiatives either to grab the opportunities or ward off the threats. So need of the hour for them to remain relevant in the market place.

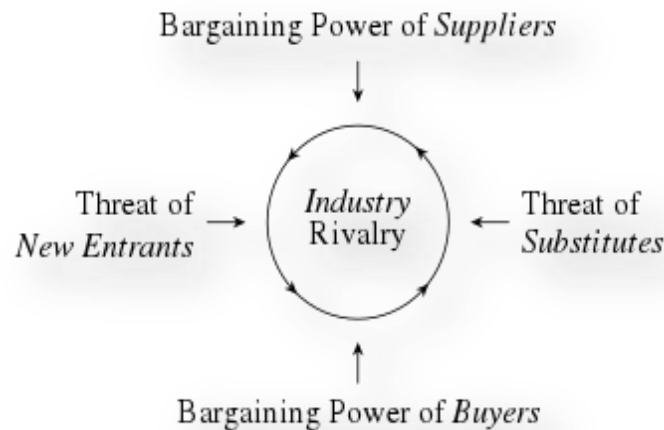
2.0 Methodology

This paper is purely analytical based on the available secondary data to explain the sustainability of Zomato in the 'Digital Food delivery' market in India. Research paper flows through examining the five forces model, environmental indicators, business model, and strategies with concluding notes.

*Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: Jayprakash.lamoria@paruluniversity.ac.in)

3.0 Five Forces Model⁵

Issues based on Porter's five forces model are suppliers, buyers, industry rivalries, new entrants and substitutes are presenting a scope of innovations for the organisations to deal better in the market place.



Source: <https://www.youtube.com/watch?v=26hfUDZG2f0&list=PLgDvk1zOmKuMYNujtjfA4ICkBBfpmw1hE&index=36>

3.1 Suppliers

Suppliers are those at the back end are associated with the players in terms of human resources, finance availability, technological support, etc.

So far as delivery is a key to the success of the online food delivery firms as it is closely linked with customers needs and wants. Human resources are to play an important role. Adequate knowledge of handling app, driving vehicles, and soft skills to deal with restaurants and food consumers would make efficient force at online food delivery market.

The most challenging one is soft skills to deal with restaurants and consumers. A direct interaction makes a huge difference on the service providers and gives edge if properly taken care of it in the market.

3.2 Buyers

Buyers with respect to online food delivery industry comprises restaurants (food suppliers) as well as eaters (food consumers).

In the back ground of youth and working women with increasing disposable income, a large customer base is available. But to satisfy their diverse taste, quality of food (hot-cold, hygienic-un hygienic), delivery time and charges remain crucial to them.

Organisations with adequate numbers of restaurants with diverse menu on their list and efficient logistics would serve better in the market.

A huge number of food consumers and food suppliers implies their significant bargaining power.

3.3 New entrants⁶

Here is a detail how food delivery start-up works at a unit level

If one is looking to start an online food delivery business in his city, one needs to do research

- Which locality do you want to start it?
- What is the delivery radius?
- How many different restaurants are available?

- How many people order from home or use internet and mobile phones?

Once done **you need a few things to launch ...**

- Online Food Ordering website with App to host your products (expense Rs 2 Lacs to Rs 3 lacs) will take 2 months to roll out by a professional developer team.
- A small team of 2 people can work to manage the orders on web. *(this can be you and your co-founder)*
- 2 delivery boys with 2 scooters initially get the 2nd hand to workout. *(monthly cost of Rs 20k, as delivery boy salary, fuel, and scooter maintenance will be Rs 10k each)*
- Digital Marketing +SMS Blasting in your city where you wish to start. *(Rs 5–10 k a month for initial 3 months)*
- Total of 35 k a month operation cost to run, so Rs 35 k X 6 Months = 2.1 lacs
- You need to get at least 20–30 orders a day min of Rs 300/- to make up the operating cost. say with a commission of 20% that is you need to get Rs 60/- per order. $(30 \times 60 = 1800/\text{day} = \text{around } 54\text{k/month (total revenue in commissions)})$
- Profit = Total Revenue - Operation Cost = Rs 35 k - 54 k = Rs 19,000/month *(now after few months start scaling it to other areas by increasing restaurants and delivery boys)*

This suggests that at least entry is rather not difficult, however it signals the high potential to intensify the competition.

3.4 Substitutes

So far as substitutes are concerned, if restaurants develop their own web sites / make apps and provide the services efficiently, then application based on line food suppliers would lose the business. Restaurants have to develop the capability to handle seemingly another business which may distract their focus from their own core business.

Customers themselves would go and buy from the restaurants if current app online food suppliers fail to deliver value in terms of reliability, responsiveness, empathy, assurance and tangibles.

3.5 Industry rivalry

Zoomato, Swiggy along with Food Panda, Uber Eats, Dominos, etc. They are present largely in urban territories Bangalore, Delhi, Mumbai, etc.

Table 1: Annual revenue of online food service industry in India.⁷

Year	Zomato (Crore) INR	Growth Rate (%)	Swiggy (Crore) INR	Growth Rate (%)	Food Panda (Crore) INR	Growth Rate (%)	Fassos (Crore) INR	Growth Rate (%)
2016	590	-	333.2	-	37.81	-	51	-
2017	389	-34.06	397	19.14	62.16	64.4	66.21	15.21
2018	466	19.79	442	11.33	72.18	16.08	82	15.79

Source: Annual Report of online food service Industry in India (2016, 2017, 2018)

In 2016 Zomato had a market revenue 590 crore rupees, in 2017 the same was 389 crore rupees and in 2018 the revenue was 466 crore showing a negative growth rate of - 34.06% crore. This decrease was because of facing tough competition from newer companies. However, decreasing discounts are already a part of food ordering nowadays as the miniscule discounts transform into restaurant handling charges, taxes and delivery charges. At the same time, on the business front,

Zomato had said that it lost INR 25 per delivery which has led to the decline in the annual revenue of Zomato in India.

4.0 Environmental Indicators

4.1 Large share of young population

With a population of 1.3 billion, India is one of the largest consumer markets globally. Demographically, it is also one of the youngest markets with more than 45 per cent of population below the age of 25 years.⁸

4.2 Increasing disposable income levels

The growing Indian economy has resulted in rising income levels, thus leading to an increase in disposable income. The country's household income and consumer spending are also expected to increase over the next five years, driving the food service industry and presenting a lucrative opportunity to the companies operating in the segment.

According to the Economist Intelligence Unit (EIU) data⁹ India's personal disposable income is expected to increase from INR86.5 trillion in 2015 to INR142.1 trillion by 2020, growing at a CAGR of approximately 10.5 per cent during 2015–20.

4.3 Changing consumer lifestyle

A rapidly growing young population, rising income levels, increasing use of technology in consumer space, urbanisation, brand and style awareness, health consciousness, increased social media activity, hectic life routines, etc., have led to a shift in consumers' food buying habits.¹⁰

4.4 India's urban female workforce

Although India's urban female Workforce Participation Rate (WPR) of 15 per cent is lower, in comparison to global/other countries, the trend is steadily changing as the rate is increasing 5.6 per cent annually since 1991. It is growing at a faster pace as compared with 2 per cent for rural females and 3 per cent for urban males.¹¹

According to 2011 Census carried out by the Indian government, the number of women working and seeking work grew 14.4 per cent between 1991 and 2011, compared with the urban women population growth of 4.5 per cent during the same period.¹²

4.5 Liberal reforms.¹³

The country's economic liberalization has opened the gates for many major global food business operators, by minimizing the barriers to doing business in the country. The onset of foreign majors, in turn, led to the modernisation of the industry with global best practices and pushed the industry toward organized market. Such reforms also attracted private equities and venture capitalists to invest in the food service sector.

Reforms like Hundred per cent FDI permit on trade of food, produced and marketed in India, Hundred per cent FDI permit on Single Brand Retail Trading (SBRT), Hundred per cent FDI permit on Business to Business (B2B) e-commerce and marketplace model, Implementation of simpler subsuming tax structure — Goods and Services Tax (GST) boost the food service industry.

4.6 Technology and emerging retail formats

Emanating from rapidly evolving technologies, new and disruptive retail formats are emerging at a fast pace. Application-based online aggregators and development of third-party logistics service providers have introduced a whole new dimension to food service business in the

country. Dedicated food courts and food malls, and new retail avenues (such as airports, railway and metro stations, highways, amusement parks, hospitals, etc.) are driving consumers towards food services.

The Indian hyper local market grew at 41 per cent year-on-year (Y-o-Y) in terms of revenues to reach a value of INR1.65 billion in 2015.²⁸ Food delivery is one of the major segments driving the hyper local market in India. It constitutes about 60 per cent of the total hyper local market in India, valued at approximately INR1 billion.¹⁴

4.7 Increasing travel and variety of cuisines

There has been a consistent increase in Foreign Tourist Arrivals (FTAs) in the country, obviating the growth of food service industry, specifically in the form of global cuisines. At the same time, domestic tourism is also increasing, leading to the popularity of authentic regional cuisines and driving overall food service demand in the nation.

The number of FTAs: 8.03 million.¹⁵ The number of domestic tourist visits to all states and union territories: 1,432 million.¹⁶

4.8 Increasing internet / smart phone penetration

India has seen exponential growth in number of mobile phone users. Equally impressive has been the growth in internet access. Although mobile phones allow us to stay connected, it is the convergence of internet access and smart phones that has caused significant shifts in consumer awareness, outlook and behaviour. Smart phones have quickly transformed from just a hand-held telecommunication device to a window to the world. They are now a means of expressing one's opinion and individuality.

Table 2: Internet Users and their Penetration in India¹⁷

Particulars	2014	2016	2018
Users (in millions)	226.3	321.8	411.1
Penetration	18.30%	25.40%	31.70%

Source: eMarketer, July 2015; Individuals of any age who use the internet from any location via any device at least once a month

Table 3: Internet Users and their Penetration in India¹⁸

Particulars	2014	2016	2018
Users (in millions)	123.3	204.1	279.2
Penetration	21.20%	29.80%	36.00%

Source: eMarketer, July 2015

Under the above circumstances, Zomato has used the following model to attain the goals with appropriate strategies for sustainability

Goal¹⁹ Though revenue in 2017-18 was \$68 million, it set target high at \$180 million for 2018-19. *The company achieved this seemingly impossible target with reverse mechanism.*

QAAA Model²⁰

4.9 Quality

Policy to keep the restaurants accountable to their users has an impact the quality of food that they serve. It is a de-facto restaurant review and food discovery platform in 19 countries. In each of

these, users check restaurant ratings and reviews on Zomato before they choose a place to eat out or get delivery from. A high rating on Zomato not only reflects the great experience a restaurant offers, it also drives further growth through footfalls and higher spends. In several markets, It now works with restaurants to organize third-party quality audits, leveraging the brand to endorse and showcase establishments that adhere to higher quality standards.

Hyper pure was launched in August 2018 to supply fresh, clean ingredients to restaurants. This first-of-its-kind initiative uses an end-to-end technology-driven platform custom-built to provide online access to fresh and clean food ingredients to restaurants. In February 2019, a 30,000 sq. ft warehouse, built to serve 4,000 metric ton capacity per month, was launched in Bengaluru to cater to 2500 restaurants every day. An even larger 40,000 sq. ft warehouse in Delhi was launched in March'19.

Restaurants buying ingredients through Hyperpure are recognized through a 'Hyperpure Inside' tag on Zomato, allowing users to trust that the food they are eating is made using fully-traceable, high quality ingredients.

4.10 Accessibility

Accessibility in terms of getting regarding the information of core services as well as financial performances for its stake holders.

- It improves accessibility by providing instant information. The food delivery service is also constantly looking to deliver better food to more people from more restaurants, faster than ever before.
- It is active on Instagram, Facebook, Youtube, LinkedIn and Twitter. As of July 2019, it has 154k followers on Instagram, 1,899,405 followers and 1.42 Million followers on Twitter.²¹

Though Zomato is a private company, it publishes annual reports right after the end of the financial year, unlike listed companies. It published two Annual reports in order to curb negative noise around it. Main objective was to address the perception–reality gap by sharing more information as it thought they were doing well, contrary the external narrative did not reflect that reality.

The CEO said, “The external narrative used to hurt our team’s morale. But this year, we have been attracting extremely talented people, who are being given the independence and mentorship to become successful at Zomato. Our people are the happiest ever, and have been working their hardest ever as well — all a testimony to the incredible progress we have made over the last year to sow the seeds for building the new world food order that we obsess about.”

- Zomato published an annual report for the year 2018-19 for following reasons:
- To make a recruitment pitch for readers who might identify with our mission — better food for more people.
- To set a precedent before going to public.
- To demystify the food–tech ecosystem.

4.11 Affordability

It improves affordability by making it a level playing ground for everyone. By democratizing information it makes sure users can make informed choices; and in that way it democratizes competition. Given restaurants now operate and grow their business from an easily accessible and transparent platform, they must innovate and cut costs in order to win. Zomato Gold also significantly improves affordability for users, while helping restaurants fill their tables and increase their net profit.

4.12 Assortment

Humans crave choice, Zomato drives assortment by helping users discover new tastes and

experiences across the world. It showcases ‘what’s new and fresh’ to the users, and tells them what other users liked. Thus, it encourages restaurants to innovate, and give them a chance to act on live, objective feedback

As it have over 100,000 restaurant listings in India. In March 2019.it is able to provide deep assortments to the customers .²²

5.0 Strategic Moves Leading to Sustainability

5.1 Strategies

5.1.1 Business realignment²³

Today, Zomato’s business is largely dependent upon transactional revenue i.e.85% of revenue in 2019.Earlier it had been dependent largely upon revenue through advertising. A huge jump in transactions has forced it to consider advertising revenue model in conjunction with transaction based revenue model.

5.1.2 Business policy²⁴

People often asked Zomato that it should open its own branded chain of dark kitchens; so that it can ‘exploit’ its demand pipeline and improve the margins of our food delivery business. Zomato reacts to such statements with — “is that a question, or an answer?” It would rather ask itself a question — “how can margins of food delivery business be improved”?

CEO Deepinder Goyal: “After thinking of various possibilities and scenarios, we concluded that there are far better ways to improve the margin profile of our food delivery business than taking the irreversible step of competing with our own partners (restaurant owners). Some of these initiatives are already underway and are showing great results. In the long term, we stay committed to not competing with restaurants — and we will help the best food operators build larger businesses in every way we can. But at no point will we compromise our neutrality as a platform.”

5.2 Market development²⁵

Before entering to the new market, the company did a Pilot Test at small town with a mere 1,50,000 population. Astonishing outcomes have belied the thinking that the food delivery is niche for Tier-1 cities only, so company mulls over launching in 1,000 cities in India.

5.2.1 First mover advantage

Food delivery in India is creating an entirely new market; 70% of the app users in Kolhapur had never tried food delivery in their life (even over a phone call), and Zomato was the first food delivery experience of their lives. All the marketing investment we made in FY19 will bear fruit in FY20 and beyond — when it realizes the LTV (Lifetime Value) of the acquired users.

Most of the losses (\$294m) are on account of the food delivery business in India. It has earned tremendous growth aided by promotional marketing spent to acquire new users and to be the first mover in many cities in India.

5.3 Product development²⁶

- The company has launched Gold, the basic idea was just to provide Terms and Conditions free product easily understandable to both for users as well as restaurants.
- A digitised platform *food@work* by Zomato in seven cities serves 125,000 meals a day, partners with 300 caterers and serves 70 companies. It has also partnered with Tier–1 caterers like Elior and Voila to the cash-and-carry segment providing better compliance and food safety.It has revolutionised cafeteria management by simplifying the purchase process for employees.

- It also facilitates people to book tables online in eight countries across 16,000+ restaurants. In India; over 1000000 diners reserve tables on Zomato every month.

5.4 Customer relationship management²⁷

- **Financial bond**

1. It introduced Zomato Gold which collaborated with over 10,000 restaurants worldwide to offer either 1+1 on food, or 2+2 on beverages, allowing app users to get more for their penny each time they dine out. Zomato Gold has over 1000000 active subscribers in 2018-19 over 17000 in 2017-18. Zomato Gold received overwhelming response from Jakarta, Manila, Auckland, and Beirut as The number of subscribers from these cities exceeded than that of Bengaluru in the first 15 days.
2. With Piggybank, our loyalty program for food delivery, users save up to 10% of their total amount. 2m+ users across 17 cities in India have collectively saved a staggering Rs 260m+

- **Social bond**

1. *Zomaland* — a food carnival, a first-of-its-kind across the world, had been organised in Delhi, Bengaluru and Pune to offer an opportunity for people to discover new culinary delights and enjoy some of their old favourites. Zomaland hosted larger-than-life attractions, street performances, a stellar line-up of music artists and DJs, along with a dedicated zone for the little ones It had attracted 120000 people collectively with over 200 of the best restaurants.
2. Zomato under the program of Feeding india has served 20 million meals with its 5 key programs including 8,500+ volunteers working in 71 cities, 50+ community fridges, and 21 food recovery vans. It ensures all excess food from various restaurants and venues to be donated to people in need otherwise it would go as waste.

5.5 Integrative growth

- **Horizontal growth**

Zomato has acquired Uber Eats business which entered India in 2017, has about 26,000 restaurants listed on its platform from 41 cities. This transaction will add to a total of over 50 million orders per month on its platform, giving it around 55 per cent market share.²⁸

Table 4: Comparative Performance Indicating Sustainability²⁹

Particulars	2017-18	2018-19
Revenue	\$38 Million	\$155 Million
Cities	15	200+
Loss/Delivery	Rs.44	Rs.25
Last Mile Cost/Delivery	Rs.86	Rs.65
Number of Deliveries per Rider per Hour	0.9	1.4

Source: Adapted from zomato annual-report-19

Zomato registered delivery revenue in 2018-19 is \$155millions where as it was \$38 million in 2017-18. It now contributed approximately 75% to total revenue. It is 55% more than what it was in 2017-18. It had operations in over 200 cities in India in 2018-19 whereas the same was in 15 cities in 2017-18.

Unit economics of the food delivery business has improves as it lost Rs 25 per delivery in 2018-19, compared to Rs 44 per delivery in 2017-18. The last mile cost per delivery went down to Rs 65 in 2018-19, compared to Rs 86 in 2018-19. The key driver metric of unit economics — number of deliveries per rider per hour had gone up to 1.4 from 0.9 in 2018-19.

It made nearly 33 million deliveries in 2018-19. Over 100,000 restaurants are listed in India, generating an annual run rate GMV of over \$1.5 billion. Approximately 94% of these deliveries are fulfilled by around 1,80,000 strong active delivery boys in fleet.

6.0 Concluding

Sustainability of the organisation depends on the model and the strategies adopted by the organisation in ever changing scenario in the market place.

Five Forces Model indicates that online food delivery business has to meet the expectations of restaurants and food consumers to keep the business viable in long term in competitive environment.

Zomato has followed the model of QAAA (Quality, Accessibility, Affordability and Assortment) to be relevant to buyers i.e. restaurants and food consumers. It has not only realigned the business model but also executed the business policy through the strategies of integrative growth, product development, market development, and customer relationship management (CRM) to meet the goals effectively and efficiently.

It has turned the gloomy looking business situation of 2017-18 into bright looking ongoing endeavour in 2018-19.

References

1. <https://www.moneycontrol.com/news/business/companies/foodtech-whats-cooking-inside-the-indian-food-delivery-market-4357231.html>
2. <https://www.zomato.com/about>
3. <https://www.fortuneindia.com/enterprise/zomato-revenue-triples-to-206-mln-in-y19/103107>
4. <https://www.zomato.com/about>
5. <https://www.youtube.com/watch?v=26hfUDZG2f0&list=PLgDvk1zOmKuMYNujtvmfA4ICkBBfpmw1hE&index=36>
6. <https://www.quora.com/Which-are-the-best-online-food-ordering-apps-in-india>
7. Annual Report of online food service Industry in India (2016, 2017, 2018)
8. The World Factbook, CIA, 8/10/2016
9. Economy: Market opportunities, EIU research, 24/08/2016
10. <https://assets.kpmg/content/dam/kpmg/in/pdf/2016/11/Indias-food-service.pdf>
11. Urban India and its Female Demographic Dividend, India Spend website, 30/07/2015
12. Women In The Workforce: India, Catalyst, 17/11/2015
13. <https://assets.kpmg/content/dam/kpmg/in/pdf/2016/11/Indias-food-service.pdf>
14. Hyperlocal market in India, Thomson Research, June 2016
15. India Tourism Statistics at a glance 2015, Ministry of Tourism, GoI, 30/08/2016
16. India Tourism Statistics at a glance 2015, Ministry of Tourism, GoI, 30/08/2016
17. eMarketer, July 2015; Individuals of any age who use the internet from any location via any device at least once a month
18. eMarketer, July 2015
19. <https://www.zomato.com/blog/annual-report-19>
20. Ibid.
21. <https://iide.co/case-studies/zomato-digital-marketing-strategy/>
22. The Economic Times dated 10th April 2019
23. Ibid.
24. Ibid.

25. Ibid.
26. Ibid.
27. Ibid.
28. <https://www.financialexpress.com/industry/zomato-acquires-uber-eats-business-in-india/1829900/>
29. zomato annual-report-19

Block Chain Technology for Revolutionizing Indian Agriculture Value Chain

Priyanka Maity* and Swati Sharma**

ABSTRACT

India is an agrarian economy with 55 per cent of population directly or indirectly dependent on agriculture sector for livelihood. At present Indian agriculture sector is facing many challenges like low price realization by farmers, low productivity, lack of infrastructure etc. In this regard to overcome the issues Blockchain technology can be great solution in strengthening the value chain of coffee leading to transparency, low cost production and profitability to different stakeholders. As Blockchain technology allows immediate transfer of digital assets and reduces or eliminates the need for intermediaries in value chain. As of now, in terms of agricultural output, India is ranked second in the world. And currently India is the third-largest producer and exporter of coffee in Asia, the country accounts for 3.30 per cent (2017-18) of the global coffee production. India has emerged as the seventh largest coffee producer globally; after Brazil, Vietnam, Columbia, Indonesia, Ethiopia and Honduras. Coffee accounted for 3.3 per cent of production and 5.4 per cent of global exports in 2017-18. But at present the Indian coffee Industry is facing many issues in value chain management of coffee which need to be addressed. In this concern the Coffee Board of India has launched a pilot Blockchain based e-marketplace in order to integrate coffee farmers with markets. The present paper discusses the present scenario of Indian coffee industry and issues faced in effective coffee value chain management. The paper throws light on importance, benefits and applications of Blockchain technology in effective agricultural value chain. The paper addresses the role of Blockchain in strengthening coffee value chain enabling trustworthy provenance and traceability from farmer to consumer.

Keywords: Agriculture; Blockchain, Benefits, Applications, Challenges.

1.0 Introduction

India is an agrarian economy with 55 per cent of population directly or indirectly dependent on agriculture sector for livelihood. At present India is ranked second in the world in terms of agricultural production. But presently, Indian Agriculture is witnessing a phase of diversification. The current value chain of agriculture is afflicted by visible distortions. On the value side, farmers are not getting adequate remuneration for their produce. On the demand side inflationary food prices makes it difficult for the consumers to afford healthy food for consumption. In this regard there is urgent need to implement some technology to overcome the value and demand side issues.

The Block chain technology could be the technology that would allow the farmers to negotiate better prices while at the same time allowing the consumers to develop confidence in the quality of the product they consume.

*Corresponding author; Research Scholar, Navsari Agricultural University, Navsari, Gujarat, India (E-mail: priyankamaity601@gmail.com)

**Assistant Professor, Navsari Agricultural University, Navsari, Gujarat, India

The primary advantage of block chain technology is to directly connect farmer with the retailer or consumer situated at the last stage of the value chain. This would not only allow the farmers to maximize their profits by bypassing middlemen, but will also help normalize the inflationary tendencies for the consumer. As the block chain can act as a connecting treat for farmers across the globe. The real-time information would allow the farmers to gauge the right prices for their produce based on global trends.

This would also harmonize negotiation between farmers and the consumers and reduce the burden on the pockets of the consumers who face skewed prices of necessary agricultural consumables due to distortionary value chains. Block chain, thus, could give a big-push to the agricultural growth across the world and more importantly in developing countries like India which are even today largely dependent on agriculture for their economic growth.

2.0 What is Blockchain Technology?

The blockchain is a technology that allows the users to transfer value or assets between each other without trusted intermediary. It is analogous to triple entry accounting. It reduces the cost of verification by eliminating the trusted intermediary. Also it reduces the cost of networking by being accessible. It is a method of documenting data via a digital ledger that records and verifies transactions, agreements and contracts. The technology allows immediate transfer of digital assets and reduces or completely eliminates the need for intermediaries, like banks and other financial service providers. With this decentralised approach, Blockchain helps stakeholders involved in a value chain network from the farmer, the wholesaler, the financial service provider, to the supermarket to trade more quickly and in a more transparent manner leading to more prize realization by the stakeholders. In India several Blockchain applications in the agri-food sector include value chain management, food safety, trade finance, agricultural financial services, market information, land registries and international agreements related to agriculture etc.

3.0 Importance of Blockchain Technology in Agriculture

- **Improve transparency in the value chain and Traceability for consumers:** The Blockchain technology can provide certification and regulations for clean food. The open and shared ledger system will trace product origin with immutable provenance data from farm to table. Also retailers can verify easily that the product they are receiving is exactly what they demanded.
- **Expand financial options for farmers:** Farmers, particularly in developing economies, have limited access to financial resources in this regard lending institutions perceive agricultural industry as risky and are hesitant to provide funding to small farmers as they cannot prove their ability to repay debt. In this regards Blockchain technology provides farmers with the ability to show what they have harvested, farmers could use the verification for funding or purchasing crop insurance. It provides quicker access to funding resources and makes farmers financially inclusive
- **Provide immediate payment on delivery:** Blockchain technology enable real-time payment on delivery and improve settlement process for farmers. The farmers get paid immediately without delay and Blockchain adds transparency, trust, and inefficiency to settlement which can decrease risk and unlock new financing mechanisms for financial institutions.
- **Provides direct access of suppliers and transparent transaction information to the farmers-** The blockchain provides farmers with access to information on transactions, stock price of goods, and complete information of buyers etc.
- **Farmers has direct access to suppliers and market information-** Farmers are able to determine what their harvest is currently worth and sell at a price that reflects global market conditions. The

information sharing will increase industrial competition, and price will become higher and increased price realization by farmers.

4.0 Benefits of Implementation of Blockchain in Agriculture Sector

- **Cost-effectiveness:** The Blockchain provides a way of combining many processes and systems together. The blockchain technology increases the efficiency through distributed processing and leads to reduction in long-term costs, such as a reduction in manpower of the concerned department etc.
- **Increased Efficiency:** The use of smartphones will significantly reduce the inefficiency of the current system. It will drastically cut down the number of intermediaries that surge the current title regime. The Blockchain also helps in reducing the level of corruption at different levels of value chain.
- **Increased Transparency:** Registration on the Blockchain would mean that the information is completely available to the public domain. The tampering of information at any point is not at all possible.
- **Simplification of administrative burden:** The blockchain technology will lead to robust land title system which will lead to a decrease in the number of land-related disputes in the country.

5.0 Application of Blockchain in Strengthening Indian Agriculture Value Chain

- **Food safety:** Consumers have grown suspicious of the food they are consuming. Food fraud costs the global food industry an estimated US\$ 30-40 billion annually. So, big food chains will have no choice but to use Blockchain for ensuring accountability, traceability and quality of the food. Blockchain will become a competitive edge for brands competing in the competitive FMCG space.
- **Food value chain:** Farmers and all members of the value chain can access all the information throughout the chain. This will make the entire value chain more democratic and efficient resulting in lesser food wastage and higher remuneration being paid to the stakeholder adding the greater amount of value.
- **Agri inputs:** Blockchain application will solve the problem of fake inputs and huge losses of companies by increasing the traceability of each product sold from manufacturer to end buyer. Retailers and farmers can simply scan the Blockchain barcode on each product via their smartphone and get to know about the authenticity and source of the products they are buying.
- **Land title registration:** The Government of Andhra Pradesh was the first mover in this space and have partnered with Swedish Startup Chroma Way to build Blockchain solution for land registration and recordkeeping.
- **Disbursement of subsidies:** Across the globe, farm sector is heavily dependent on government subsidies. For example in India 2017-18 budget, US\$ 4.9 billion was allocated for agri-related subsidies to farmers. The major issue is that how much of this amount actually reaches the farmers. The Blockchain will lead to efficient distribution and delivery of subsidies in more transparent manner resulting in targeted disbursement of subsidies avoiding leakages in the existing system.
- **Procurement Tracking:** The involvement of multiple agents adds high costs to the system and makes the entire process time-consuming. With the Blockchain, the whole process can be simplified to a single distributed ledger. It will reduce the need of intermediaries as with the features like traceability and auditability, farmers can directly sell crops or food to the restaurant or individuals.

- **Crop and Food Production:** With the help of smart farming, IoT sensors could fetch important information like the temperature of the soil, water level, fertilizer details and more and send it to the Blockchain. The blockchain will help in enhancing the quality of the farming process as well as produced crops.
- **Weather crisis control:** Due to excessive rains, it becomes difficult for grown crops to tolerate flooding. But with blockchain technology it will be possible to trace the weather, also farmers can quickly request and receive insurance claim through smart contracts.
- **Managing agricultural finance:** With Blockchain, the agricultural finance process becomes more transparent and fair. The agriculture industry needs to do a lot of work to maintain and build consumer trust when it comes to the food quality check.

6.0 Current Scenario of Coffee Industry in India

In India, coffee has a place of pride among plantation crops grown and is traditionally cultivated on the south-western hill slopes under monsoon rainfall conditions, is also termed as “Indian monsoon coffee” since 150 years. Indian coffee is said to be the finest coffee grown in the shade rather than direct sunlight anywhere in the world. The two well-known species of coffee grown are the Arabica and Robusta. India has emerged as the seventh largest coffee producer globally; after Brazil, Vietnam, Columbia, Indonesia, Ethiopia and Honduras. The Table 1 depicts the major 10 Coffee producing countries in world. It accounted for 3.3 per cent of production and 5.4 per cent of global exports in 2017-18. Arabica coffee is also well received in the international market. In short Indian coffee is well known for its quality and is much in demand in the international market.

Table 1: Major 10 Coffee Producing Countries in World

Country	Production (in 100060kg bags)
Brazil	61700
Vietnam	29500
Colombia	14200
Indonesia	10200
Ethiopia	7500
Honduras	7450
India	5200
Uganda	4900
Mexico	4500
Peru	4300

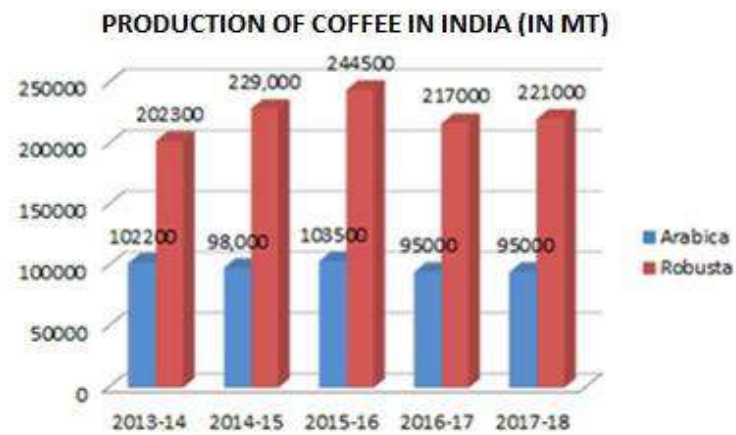
Source: Statista.com

Therefore, India exports coffee to a large number of countries including U.K., the U.S.A., Russia, Australia, Iraq and a large number of countries of continental Europe. Table 2 depicts the export of coffee from India to top ten countries. Export earnings have increased from Rs. 2070.68 crore in 2009-10 to Rs. 6210.23 crores in 2017-18. Italy was the largest export market for Indian coffee, importing 80,099 MT (20.28% of India’s total exports) in 2017-18. Coffee research and development efforts are well organised in India through its Coffee Research Institute, which is considered the premier research station in South East Asia. It is under the control of the Coffee Board of India, an autonomous body, under the Ministry of Commerce and Industry, Government of India. At present there are many problems in Indian coffee production and distribution; therefore coffee industry needs more suitable government policy measures, research, development and extension activities to augment coffee production, distribution and export as well as making coffee cultivators more aware on effective coffee cultivation.

Table 2: Export of Coffee from India to Top Ten Countries

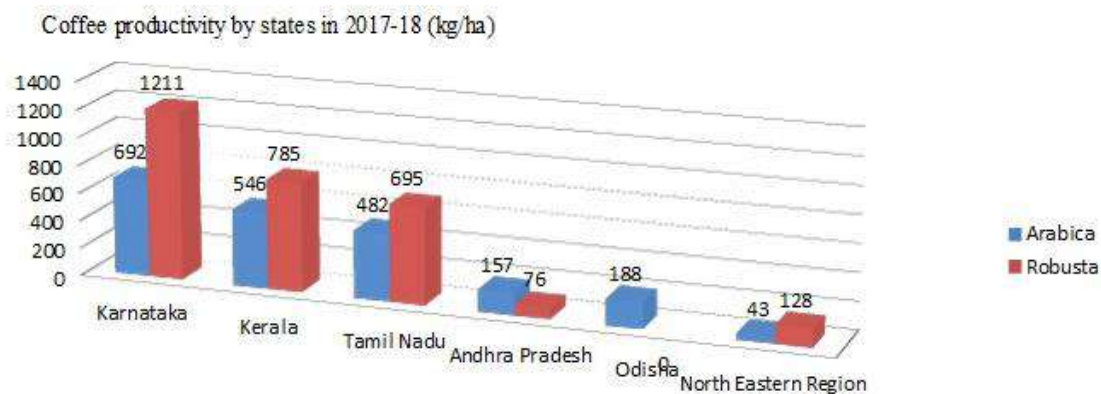
Destination	Quantity	Unit Value in Rs/tonne
Italy	80099	141547
Germany	39233	161354
Russian Federation	26418	171756
Belgium	18126	205908
Turkey	15951	170688
Poland	13709	158771
USA	13405	104981
Indonesia	12344	137953
Jordan	11162	175108
Libya	10545	144861

Source: Coffee Board, 2018

Figure 1: Production of Coffee in India

Source: Coffee Board, 2018

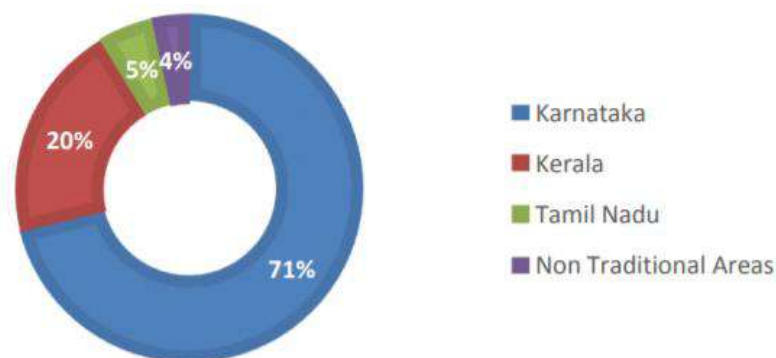
Currently India is the third-largest producer and exporter of coffee in Asia, the country accounts for 3.30 per cent (2017-18) of the global coffee production. The Fig. 1 depicts the Coffee Production in India highlighting the Production of Arabica and Robusta. The coffee production in the year 2018 stood at 316,000 MT and coffee exports from India stood at 395,014 MT valued at US\$ 963.28 million.

Figure 2: Coffee Productivity by States

Source: Coffee Board, 2018

Fig. 2 depicts the coffee productivity by states where major states with high productivity are Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odhisa, North East etc. Fig. 3 depicts the coffee production in different States in India. The top three importers of Indian coffee during 2017-18 were Italy (25.16 per cent), Germany (10.51 per cent) and Belgium (5.97 per cent). Out of the total coffee produced in India nearly 70 per cent is exported and nearly 30 per cent is consumed domestically. India's **per capita coffee consumption stands at 0.03 kg. Revenue** in the Coffee segment is forecast to be around US \$423m in 2019 with a market that is expected to **grow annually by 7.7%** (CAGR 2019-2023). In India the Coffee consumption is mostly concentrated in the **southern states of Tamil Nadu (60%) and Karnataka (25 %)**.

Figure 3: Coffee Production in Different States in India



Source: Coffee Board, 2018

The key Issues in present Value Chain Management of Coffee in India

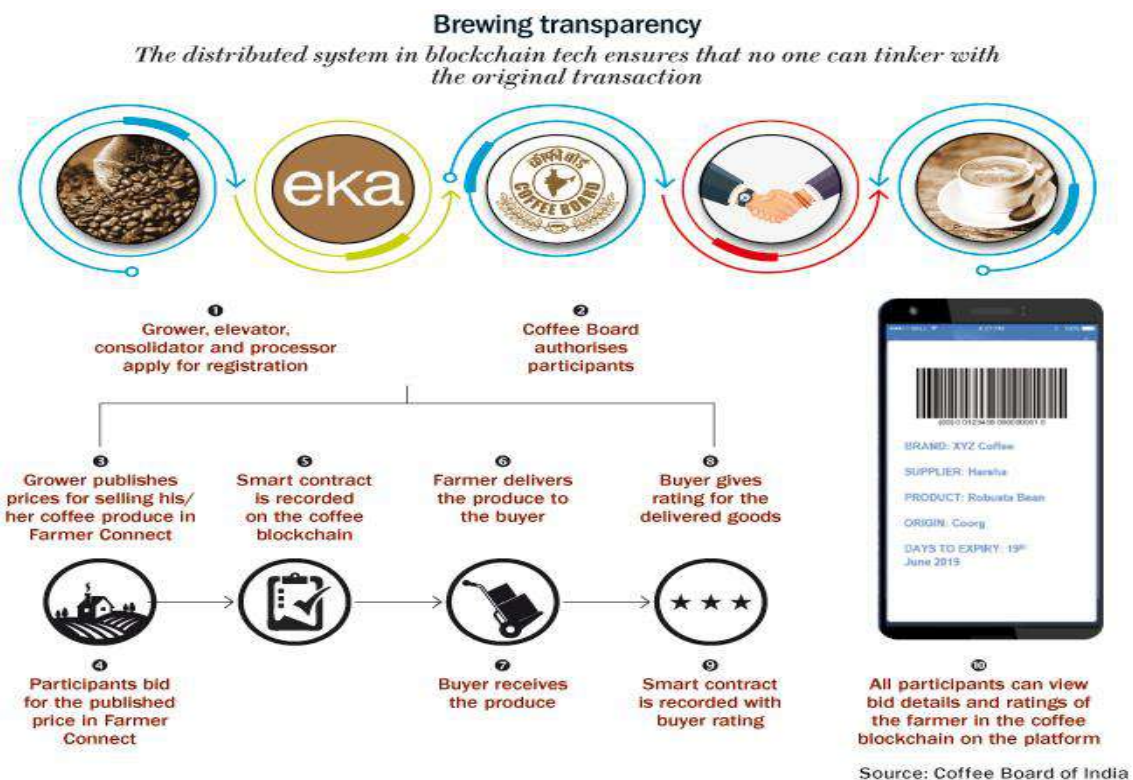
Value Chain elements	key Issues
Social	Food Insecurity, Malnutrition
	Poor access to education and healthcare, labour rights
	Gender Inequality
	Ageing grower communities
	Migration of young growers
	Dispersed actors- poor bargaining power
Economic	Green bean Price Volatility
	Long term Decreasing Real Coffee Prices
	Lack of Market Information
	Lack of Product Information
	Rising Living costs
	Access of Finance
	Ageing Coffee Plants
	Limited access to insurance and hedging instruments
	Poor services through local, co-operative grower organisation
Environmental	Shortage of labour
	Evolving pest and disease
	Loss of diversity
	Soil erosion and degradation
	Inappropriate use of agrochemicals
	Depletion of water value
	Limited of waste water management
	Climate change and volatility
Infrastructure	Erratic power value
	Limited number of certified curers

Source: Modified based on Sampel et al (2017)

7.0 Role of Blockchain Technology in Strengthening Coffee Value chain

Indian coffee is highly valued and famous in the world market and sold as premium coffees. The share of farmers in the final returns from coffee is very exiguous. A pilot Blockchain based e-marketplace has been launched by the Coffee Board of India which aims to integrate coffee farmers with markets. The development was announced by Indian Ministry of Commerce and Industry on March 28, 2019. The Coffee Board is an organization backed by the Indian Ministry of Commerce and Industry which promotes coffee production in India and has also rolled out an e-marketplace for coffee producers in order to reduce the number of intermediaries between coffee growers and buyers. The product will reportedly be delivered in the form of an application and aims to improve transparency and traceability of coffee produced in India. To implement the project, the Coffee Board collaborated with M/s Eka Plus, a digital commodity management platforms for agriculture development. By creating “bean to cup” traceability, the Blockchain marketplace promises to reduce the middlemen in coffee trading, thereby increasing profitability for the farmers. As information on the Blockchain is immutable, use of the marketplace can build trust between suppliers and traders. The Figure 5 depicts the Implementation Model of Blockchain Technology in Indian Coffee Industry. The Blockchain application was initially launched in a pilot phase with a limited number of growers. After the pilot phase it will be expanded to all growers in the country, as there are over 350,000 coffee growers in India. This initiative taken by the board will help in creating a brand image for Indian Coffee through traceability by reducing growers dependency and intermediaries by having a direct access to buyers for a fair price for their produce, in finding right coffee suppliers for the exporters and within the given stipulated time for meeting the growing demands and for building a better trust and long term relationship which is due to increased visibility towards the traceability and transparency of the produce.

Figure 5: Implementation Model of Blockchain Technology in Indian Coffee Industry



8.0 Challenges in Implementation of Blockchain Technology in Indian Agriculture Sector

- The major issue is lack of regulation and compliance. Once the Indian government implements the clearly defined regulation on Blockchain and distributed Ledger Technology, the adoption will become faster.
- The testing and adoption of Blockchain applications are still restricted to cryptocurrency. For successful execution at large scale, the banks need to hire Blockchain experts and the cost of hiring such experts are much higher making its adoption costly.
- Many public Blockchainbased applications is still not clear who incurs the cost of network maintenance as well as validation of transactions.
- There is restriction in creation of enough opportunity for Blockchain developers due to lack of robust regulatory framework in India.
- Many vendors in the value chain not being ready to adopt the new technology because of the trust issues and lack of awareness about the technology is also a major issue. Therefore for the accelerated adoption of Blockchain more digitization and awareness is required.
- Blockchain in agriculture is also a challenge which comes from the number of operations that needs to be connected and the lack of funds available to implement this advanced technology.
- The global agriculture value chain is long and complicated. It is difficult to connect millions of small and medium-sized farms to provide the traceability and safety.
- For the small and marginal farmers it is difficult to afford the costs of adopting this technology, even if the technology brings benefits to them.
- The biggest challenge inBlockchain adoption is that the regulatory treatment is not clear for many uses with Blockchain and about virtual currency technology.

9.0 Conclusion

The Indian coffee sector is at an important point of transition, wedged between quality and value segments of the market. Traditional means of marketing and production are increasingly under threat from market pressures and there is need for new strategies for effective value chain management. So, Blockchain technology can be great solution in strengthening the value chain of Indian agriculture sector. The major benefits of block chain to agriculture are cost-effectiveness in production and processing, efficiency in management, transparency and easing administrative burden etc. At present the India coffee industry is facing many challenges like green bean price volatility, long term decreasing real coffee prices, lack of market information, lack of product information, rising living costs, ageing coffee plants, limited access to insurance and hedging instruments, evolving pest and disease, lack of infrastructure etc. So in order to address the challenges of coffee industry in India the Coffee Board of India has launched a pilot Blockchain based e-marketplace in order to integrate coffee farmers with markets. The major benefits of block chain to agriculture are cost-effectiveness in production and processing, efficiency in management, transparency and easing administrative burden etc. So in this regard the Blockchain technology can be used to increase transparency, reduce complexity and cost in food-based value chains by enabling trustworthy provenance and traceability from farmer to consumer.

References

1. Chengappa, P.G., Devika, C.M. and Manjunatha, A.V. (2018). Coffee Value Chains in India: Exploring Sustainability Oriented Markets, Conference, July 28-August 2, 2018, Vancouver, British Columbia, International Association of Agricultural Economists.

2. F. Lv, S. Chen (2016). Research on Establishing a Traceability System of Quality and Safety of Agricultural Products Based on Blockchain Technology. *Rural Finance Research*, 12: 22-26.
3. HussamJuma, KhaledShaalán, Ibrahim Kamel (2019). A Survey on Using Blockchain in Trade Supply Chain Solutions. *Access IEEE*, 7:184115-184132.
4. K. Kroll, Spilling the Beans on the Coffee Supply Chain. *Inbound Logistics*. Retrieved from <http://www.inboundlogistics.com/cms/article/spilling-the-beans-on-the-coffee-supply-chain/>
5. Kumar, M. V., &Iyengar, N. C. S. (2017). A Framework for Blockchain Technology in Rice Supply Chain Management. *Advanced Science Technology Letters*, 146:125–130.
6. L. Samper and X. Quinones-Ruiz (2017). Towards a Balanced Sustainability Vision for the Coffee Industry. *Resources*, 6:1-28.
7. Raynolds, L. T. (2002). Consumer/Producer Links in Fair Trade Coffee Networks. *SociologiaRuralis*, 42: 404–424.
8. Raynolds, L. T. (2009). Mainstreaming fair trade coffee: From partnership to traceability. *World Development*, 37, 1083-1093.
9. Samper, L. F., and Quiñones-Ruiz, X. F. (2017). Towards a Balanced Sustainability Vision for the Coffee Industry. *Resources*, 6(2), 17.
10. Verbeke, W. (2005). Agriculture and the food industry in the information age. *Social Science Electronic Publishing*, 32: 347–368.
11. Y. Yang, Z. Jia (2017). Application and Challenge of Blockchain Technology in the Field of Agricultural Internet of Things. *Information Technology*, 258: 24-26.
12. Zhao, G., Liu, S., Lopez, C., Lu, H., Elgueta, S., Chen, H., et al. (2019). Blockchain Technology in Agri-food Value Chain Management: A synthesis of Applications, Challenges and Future Research Directions. *Computers in Industry*, 109, 83–99.

13. Web Portals

14. <https://www.indiaeducation.net/agriculture/indian-scenario.aspx>
15. www.indiacoffee.org
16. Securing Property Rights in India through Distributed Ledger Technology, ORF Occasional Paper retrieved on 9th Jan 2020.
17. http://cf.orfonline.org/wpcontent/uploads/2017/01/ORF_OccasionalPaper_105_Blockchain
18. <https://hackernoon.com/how-will-Blockchain-agriculture-revolutionize-the-food-value-from-farm-to-plate> retrieved on 5th Jan 2020
19. cointelegraph.in
20. <https://www.ledgerinsights.com/Blockchain-coffee-food-traceability-india>
21. <https://www.perfectdailygrind.com/2017/05/main-challenges-faced-coffee-producers>
22. <https://www.theguardian.com/sustainablebusiness/2016/sep/27/coffee-climate-change-value-chain-risksmallholders-fairtrade-tech>
23. <https://www.logisticsbureau.com/valuechains-Blockchain-part-2-making-it-work>

Technology Addiction among Children and Youth: A Study of Related Behavioural Impact

Chintan Prajapati* and Sonalee Telang**

ABSTRACT

Children and youth in the 21st century are avid users of technology - more so than generations past. This rise in use has led to much attention on the consequences of technology use, and how this impacts children's and youth's brains and their socio-emotional, cognitive and physical development. The last decade has witnessed a large increase in research on the newly emerging mental health problem of technology addiction. Rather than looking at technology addiction per se, this study focused on particular activities on the Internet, smart phones that might be potentially addictive and linked them to personality traits that might predispose individuals to technology addiction. Fortunately, the nature of digital media can also help the hosting of methods and mechanics to combat digital and technological addiction, e.g. in the monitoring of online usage and enabling individuals to stay in control of it. Frequent usage of online shopping and social online activities, high neuroticism and low agreeableness significantly increased the chances of being addicted to the Internet. The current study aimed to examine children's and youth's experiences of using technology within the home.

Keywords: Technology addiction; Internet; Smartphones; Social media; Digital media.

1.0 Introduction

What is technology addiction (internet addiction)?

The frequent and obsessive tech-related behaviour increasingly practiced by an individual in spite of the negative consequences they experience. It encircles addiction to the internet, social media or video/computer games.

It is an impulse control disorder that involves the obsessive use of mobile devices, the internet or video games. The disorder may also be referred to as digital addiction or internet addiction.

Continuous technology use is destroying children's capability to interact with other people. Almost three quarters of 16-to-24-year-olds "prefer texting to talking." Adults are addicted. The Telegraph found that on average, people check their phones around 200 times a day. This addiction even affects people's sleeping habits.

Not all technology stories are unattractive. It is unavoidably clear that technology addiction has a deeply harmful effect on young people. The more time teenagers spend online, the more likely they are to suffer from mental health issues and emotional problems. Instead of making their lives better, technology addiction is destroying their childhood.

Many experts blame social media platforms for encouraging addiction. Dr. Richard Graham, a specialist in technology addiction, told the Telegraph that for tech companies, "It's a race to the bottom: how can we keep you online magnetically for as long as possible?"

*Corresponding author; Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: chintanprajapati7@gmail.com)

**Assistant Professor, Department of Management, ITM Universe, Vadodara, Gujarat, India (E-mail: sonalee.telang70@gmail.com)

These companies use behavioural psychology and addiction studies to make their apps and devices irresistible. Once they have users addicted, the goal is to keep them using the devices.

Technology is a strong poisonous drug. Young people can ruin their lives due to such kind of addiction. The young generation, especially the tender age teenagers can't behave maturely as they don't have such vision where they can decide what is right or what is wrong for their lives. That is why it is crucial that we as parents authoritatively regulate their media usage, depriving them of wrong influences. (thetrumpet)

But there is a difference between reliance on technology and addiction to technology. And if you think children and youth may be in the latter category, the sooner action taken it is the better.

So what are the signs of a technology addiction, in children and youth in particular?

There is very thin line which can differentiate between addiction and reliance. With the help of following few points we can be derived.

1. Lack of interest in other activities.
 - Have they stopped enjoying or seeking out the other things they used to enjoy?
 - Would they always choose screen time over any other leisure activity?
2. Problematic behaviour when unable to access digital devices.
 - Are there excessive tantrums or bad behaviour when they're not able to access their phones or tablets?
 - Do they become aggressive or act out of character?
3. Withdrawal symptoms.
 - Do they seem anxious, distressed or upset when they can't access their devices?
4. Constant distraction by technology.
 - Are you unable to communicate with them or get their attention when they're using digital devices?
 - Are they always anxiously waiting until they can next get online?
5. Constant talking about 'screen time'.
 - On occasions when they're not using screens, are they frequently referring to them, in one way or another? (Such as discussing things they have seen or done online.)

If child or person is exhibiting any or most of these symptoms, an Internet intervention may be in order!

By setting up healthy habits for screen time while he/she is young, kids will be much more likely to transfer these habits into their adulthood, and navigate the digital world in a more mindful and productive way.

The following few points can help parents to reduce addiction amongst their children:

- Don't get them to go sudden withdrawal! This will make the transition seem much more difficult and more like a punishment, rather than working towards their best interests. Work on slowly reducing their screen time, rather than eliminating it.
- Make a hierarchy of priorities. Set guidelines for what must be done before they can have screen time, such as homework, cleaning, preparing for school, and family time.
- If there were no limitations and control before — set some. Such as a daily screen-time limit and 'no screen-time zones' (like during family time or before bed).
- Start by changing the content, rather than usage. Replace pure entertainment or mindless games with apps or programs with some educational grounding.
- Replace screen time with other enjoyable activities. Drawing, reading, playing games, outdoor activities, or even some extra dessert.
- Make a ranking of screen time. Allow communal, interactive screen time before individual screen time, and educational content before simple games.

Overdependence on technology can have serious effects especially for teenagers who are still at an impressionable age. Sure addiction to technology may not sound as bad as other addictions, but it can have serious implications nevertheless.

2.0 The Problems with Technology Addiction

Although it looks harmless on the surface, technology addiction can have adverse effects on a children's and youth's life. Some of the problems include:

Brain damage: Research now shows that technology addiction may actually damage the brain by producing neural pathways changes similar to those caused by drugs and alcohol. This results in damage to the parts of the brain dealing with attention, emotional processing, and decision-making.

Health problems: Due to adopting an increasingly sedentary lifestyle thanks to being glued to their screens.

Higher risk for depression, anxiety, and even suicide: Children and youth who spend a lot of time on social media tend to have lower self-esteem and higher levels of depression than those who don't. This might be because they're exposed to unrealistic standards and expectations for beauty, life, etc. that they just can't match up to.

Poor problem solving: Increasingly using the internet as a way to cope with the disappointments and challenges of life creates inability to manage stress. Unfortunately, such escapism only encourages teens not to find solutions to whatever problems they face in the real world.

Neglect: Neglecting aspects of their lives like their academics, relationships with friends and family and even their health.

Lowered emotional IQ: Deteriorating interpersonal skills are also a result of too much tech.

Safety concerns: Risks of cyber bullying, online predators, and excessive exposure to pornography.

Sleep problems: Sleep disorders as teens opt to stay up all night playing games or chatting online.

Source: <https://internet.addictionblog.org/technology-a-dangerous-addiction-for-teens/>

3.0 Treatment of Technology Addiction

Technology addiction falls into the category of compulsive behaviour that it is difficult or impossible to simply abstain from, like food addictions. Thus, treatment for technology addiction involves educating teens and young adults about what is happening in their brains and bodies, recognizing the consequences of their compulsion, and helping them to set limits and interrupt the compulsive cycle, and find alternatives.

So taking a holistic and comprehensive treatment approach is important in order to help achieve sustainable recovery.

Some of the treatment modalities that include:

- Cognitive Behavioral Therapy (CBT)
- Dialectical Behavior Therapy (DBT)
- Acceptance and Commitment Therapy (ACT)
- Group process

Source: <https://www.sandstonecare.com/resources/substance-abuse/technology-addiction>

4.0 Can Balanced Technology Use be a Positive Thing?

Technology is a tool that, when used appropriately, can have many benefits. Technology can be a great resource for communication, productivity, social connectivity, education, cognitive

enhancement, creativity and expression, digital literacy... etc. These are all very useful when used in a balanced way. Problems can arise, however, when teens misuse or abuse these tools to replace real-world activities and face-to-face interactions, with virtual experiences.

Source: <https://www.councilonrecovery.org/technology-misuse-abuse-addiction-among-teenagers/>

5.0 Objectives of study

- To find how the coming generations are getting addicted to new technology
- To find purpose of internet use
- To find time spending pattern of mobile phone
- To find usage of smart phones, internet and mobile applications
- To find behavioural change in an individual by using smart phones and internet

6.0 Research Methodology

To achieve the objectives of the present study, the primary and secondary sources of information have been utilized.

Research Design: Descriptive Research Design has been used.

Source of Data: Primary Data is collected through structured questionnaire. Secondary Data is collected through various web sites.

Data collection method: Data is collected through structured Google form of questionnaire.

Sampling technique: Non- probability sampling. The reason to take convenience sampling is that there is no kind of particular cluster, region or pattern in sample and the variables are not fixed.

Sample Size: Sample size of 198 has been undertaken in this research.

7.0 Data Analysis and Findings

We have surveyed around 198 people through Google form of questionnaire. Based on answers submitted by these respondents following findings have inferred:

- Out of total 198 respondents, 72 were female and rest were male. Out of these, around 84 respondents fall between the age group of 21-25 while around 35 respondents are in their late teens i.e. aged between 16-20 years
- The total respondents can be further divided as 39 employed and rest as students. All the respondents have access to smart phones.
- The source of internet used by majority respondents is mobile internet. Rest all are divided between data card users, broadband users and Wi-Fi facility.
- Out of total users, 113 students use internet for either educational or for social networking or as in most cases for both. Very few use for gaming and recreational purposes.
- Out of total respondents, 25 were using internet facility for more than 5 hours while almost similar number of people was using it for 1-2 hours. There were 56 people who were using this facility for 2-5 hours and rest respondents were using it for all time.
- Total 39 respondents are using Facebook app through mobile while 72 never used this app through mobile. Majority respondents used Instagram for 1-2 hours on mobile while very few using this app through mobile
- Most of the respondents prefer to use twitter through mobile always while around 59 never used this app through mobile

- Majority users used mobile app of Whats app for 1-2 hours out of total time spent on mobile while most of them prefer not to take help of mobile phones for using emails.
- Messenger was used by very few people. Respondents were not comfortable using LinkedIn through mobile
- Most of the respondents were using their mobile phones to play video games to kill the time. Only 31 respondents never used mobile phones to play video games.
- Around 144 out of total respondents used Youtube for more than 5 hours for entertainment.
- Approximately 173 respondents were sometimes feeling obsessed with their mobile phones. While 177 never felt stressed on not being able to use their phones.
- As many as 169 respondents couldn't control addiction for mobile phones eve after trying hard to control urge.
- Approximately 160 respondents never felt that they have used phones longer than intended.

8.0 Scope of the Further Study

- We can do further research with large number of respondents
- We can do research with more geographical area
- We can apply different tests to check behavioural change in person by using these kind of technologies
- We can add more factors affecting to person's behaviour

9.0 Conclusion

Change is inevitable part of life. It is a sign of progressive and developing society. So adapting oneself to this changing scenario is mandatory. But when, we, especially the younger generation is blindly following this change it is hazardous to the society. Excessive use of technology paralyses society. Balanced use of technical knowledge for barriers free communication, enhanced productivity, smooth social connectivity, education, creativity, digital literacy is always welcomed.

Bibliography

1. <https://www.melbournechildpsychology.com.au/blog/does-your-child-have-a-technology-addiction/>
2. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8002538>
3. <https://scholarspace.manoa.hawaii.edu/bitstream/10125/64488/0602.pdf>
4. <https://www.oecd-ilibrary.org/content/paper/8296464e-en>
5. <https://www.oecd-ilibrary.org/docserver/8296464e-en.pdf?expires=1580101431&id=id&accname=guest&checksum=2C454AFB9EC613C67349A8D10CF5DE58>
6. <https://link.springer.com/article/10.1007/s10639-019-09952-w>
7. https://link.springer.com/chapter/10.1007%2F978-3-030-16187-3_14
8. <https://www.sciencedirect.com/science/article/pii/S0747563212003664?via%3Dihub>
9. https://s3.amazonaws.com/academia.edu.documents/60716768/article_4c2a7862d04f6e9ad7fcdc9a91f4f1c120190926-59746-t0g33l.pdf?response-content-disposition=inline%3B%20filename%3DImpact_of_Internet_Addiction_on_the_Soci.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWOWYYGZ2Y53UL3A%2F20200127%2Fus-east-

- 1%2Fs3%2Faws4_request&X-Amz-Date=20200127T094433Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Signature=3722b3a4302b9dc3091b567caf206429fcf3a424405b9bbaa913e7eb3b71d1f6
10. <https://www.sciencedirect.com/science/article/pii/S0747563218306290>
 11. <https://link.springer.com/article/10.1007/s10826-019-01457-x>
 12. <https://searchcio.techtarget.com/definition/Internet-addiction>
 13. <https://www.thetrumpet.com/17366-technology-the-silent-teenage-addiction>
 14. <https://internet.addictionblog.org/technology-a-dangerous-addiction-for-teens/>
 15. <https://www.sandstonecare.com/resources/substance-abuse/technology-addiction>
 16. <https://www.councilonrecovery.org/technology-misuse-abuse-addiction-among-teenagers/>
 17. <https://www.surveymonkey.com/r/BP2LN6P>
 18. <http://www.indjsp.org/article.asp?issn=0971-9962;year=2017;volume=33;issue=4;spage=305;epage=311;aulast=Gedam>

Annexure

Technology addiction among children and youth- A study of related behavioural impact

Dear Respondents,

We, Prof. Chintan Prajapati & Prof. Sonalee Telang, are doing a research work on “Technology addiction among children and youth- A study of related behavioural impact”. We will be more obliged if you could respond to the below mentioned questionnaire and your given response will be kept confidential. Your response can put more light on our research work and we can come out with realistic findings.

(Note: You can fill up this form on behalf of your child.)

Questionnaire:

1. What is your gender?
 - Male
 - Female
2. What is your age?
 - 1-5
 - 6-10
 - 11-15
 - 16-20
 - 21-25
3. What is your current profile?
 - Student
 - Employed
 - Child
4. Answer as applicable.

	YES	NO
Do you have access to smart phone?		
Do you have internet accessibility on your phone?		
Do you think you can survive without your phone?		

5. What is your source of internet use?
 - Data card
 - Mobile internet
 - Wi-Fi
 - Broadband

6. Purpose for internet use:

- Educational
- Social networking
- Recreational
- Games

7. On a daily basis, about how much time you spend on your mobile phone applications using internet?

- 1-2 hours
- 2-5 hours
- >5 hours
- Every time

8. How much time you approximately spend on these mobile applications daily?

	Never	1-2 Hours	2-5 Hours	>5 Hours	Every time
Facebook					
Instagram					
Whats app					
Twitter					
Hike					
E-mail Apps					
Messenger					
Linkedin					
Video Games					
Youtube					

9. Answer as applicable:

	Never	Sometimes	Often
1. You are obsessed with your phone.			
2. You feel stressed on not being able to use your phone			
3. You have ever tried hard and failed to control your addiction to your phone			
4. You have used your phone longer than intended			
5. Have you ever regretted using your mobile phone for long?			
6. You feel comfortable in the virtual world than the real world			
7. You get impatient when you don't find your mobile showing a notification			
8. Running out of battery in your mobile phone scares you			
9. How often do you find yourself eagerly searching for a Wi-Fi signal around you?			
10. You neglect important activities at work/study place because of overuse of mobile applications?			
11. Have you missed a meal because of over-engagement with mobile applications?			
12. Have you ever experienced sleep deprivation because of these applications?			
13. Do you anticipate about the next online session or rethink about previous online activity often?			

14. You use mobile applications to pass time			
15. Do you send frequent online requests to people to engage in a game or friendship with you?			
16. Do you feel nervous when you don't get likes/ comments on the post you made recently?			
17. Do you feel stressed when your friend posts the pictures of an event you attended before you on internet?			
18. Do you get restless when you are not able to access a notification on your phone?			
19. You ignore the people you are with in order to use your mobile phone.			

A Study on Impact of Social Media on the Buying Choice of the Buyers with Reference to Vadodara City

Bijal M. Shah and Ankita U. Parikh***

ABSTRACT

As customer is the king of the market, similarly a buyer's decision also creates a deep impact towards building brand image for various products in the open market. In today's global era the social media is playing a dynamic role and there is a shift of the ultimate end users say from consumers to buyers. Anyone consumer is the buyer for buying his or her utility products and for this social media plays a very vital role. Buyers develop an emotional bonding with particular brand which, they see on social media sites and thus, social media leaves a deep impact or say a deep impression on the buyer's mind and accordingly buyers make their buying decisions. Objectives of this Research Paper are: i) To study the impact of social media on the minds of the buyers as well as consumers. ii) This research paper emphasis on the Buyer's choices which can be highly influential in regards with various brands and products.iii) Brand imaging plays a vital role to influence buyers for buying decisions.

Keywords: *Social media; Buying behaviour; Impact.*

1.0 Introduction

Social media is a very wide platform nowadays for virtual shopping across the globe. Buying behaviour of the buyers creates quite a huge impact on the buying decisions and patterns respectively. As market is flooded with many commodities, it is the buyer or say consumer who is the end user who will decide what to buy and what not to buy. Online shopping, digital marketing, media, advertisements plays a very vital role in promoting various products. As different buyers have different perception, likewise their choices also differ. In a way, social media is that virtual and digital platform where, buyers and sellers come to gather either to buy or sell their respective products. Google, Myntra, Flip kart, and few more are the portals where buyers and sellers can buy or sell their required products. It is a creative platform in an innovative way. Google, Indeed, Wikipedia and others are the most powerful search engines which supports such online portals by which consumers or buyers can get what they want and also its time saving and cost effective. Through social media platform the buyers or consumers get their desired products at their disposal in less time. Buying behaviour changes according to the buyer's demands and needs. So, personal and environmental factors leave a deep impact on their minds and they actually get influenced by the current market trends. Buyers or consumers in a way also do a "word-of-mouth" publicity regarding their likings or disliking of the particular products through various social media sites.

2.0 Obstacles

As rightly said, where there are advantages, definitely there are disadvantages of social media sites. Likewise, in Social media online marketing sites also one wrong or say fake information can

**Corresponding author; Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: shahbijal1609@gmail.com)*

***Assistant Professor, Faculty of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: parikhanu4852@gmail.com)*

create a wrong impression in the buyers mind. Due to lack of proper information at times it may happen that, buyers or say dissatisfied buyers passes on wrong message to various people regarding their bad experience with some products.

3.0 Remedies

To overcome such discrepancies or say obstacles, the buyers or consumers should take an initiative to change this mindset of different people. They should create their profiles on the online shopping sites and share their ideas and views publically in order to get better results. This is termed as public profile building strategy which also creates a good image in minds of buyers and consumers, so they can see things differently and positively.

4.0 Research Methodology

4.1 Objectives of the research study

- To evaluate the real impact of social media on the buying behaviour of the buyers.
- To know the perception of buyers regarding online shopping.
- To examine the factors are motivated to do online shopping through various social media networking sites

4.2 Scope of the research study

In reference with the objectives of the social media's impact on the buyers mind, this would be a quite effective and suitable approach. In a way, \researcher understands that social media platform helps businesses to gain good profit and credit but on the other hand, the buyers or consumers find it very challenging to identify the right social media platform to fulfil their buying needs. Here the Researcher is trying to intimate the target audience, say the potential readers to upgrade or enhance their decision making process more powerful through the social media sites available at the buyers or consumers disposal.

4.3 Sampling frame

Sample size = 50 respondents

Sampling Area: Vadodara city

Collection method= Primary as well as secondary

Primary data: Using Questionnaire

Secondary: website, books.

Sampling technique: Convenience sampling

Analysis Tool = Statistical tools and Graphical presentation

Statistical tools: Mean, Regression and Correlation

Hypothesis Formulation

H0: There is no significant Impact of social media on buying behaviour of buyers.

5.0 Literature Review

Mangold, W.G. and Faulds, D.J. (2009) conducted a survey during their research on The New Hybrid Element of the Promotion Mix. Journal of Business Horizons in which they concluded that the relationship between telecom consumer by exploring customer switching behaviour and classifying

communication categories to support companies in planning are applicable via communication to thwart the consumer switching and improving consumer loyalty. The research is done with Quantitative research technique in which we carried a survey in which 383 telecom consumers that has experienced the switching process. So from this survey the researchers got findings which uncovers that the telecom consumers selected distinct information methods before making switching decision. Mangold, W.G. and Faulds, D.J. (2009) concluded that, Active consumers prefer newsletter based on quality of service, while passive consumers select newsletter largely based on competitive prices.

Robinson, Jillian E. (2007) conducted a study of social media marketing in North Carolina special libraries described a Web questionnaire through a survey of special librarians in North Carolina who are members of the Special Libraries Association. The survey, based on the theory of the diffusion of innovations, was conducted to determine special librarians' familiarity and knowledge of social media and its possibilities for use in the marketing of special libraries. Their observations also aimed to determine special librarians' professional development activities and their impact on the adoption of social media marketing techniques. The results of this study supported classical diffusion theory. The non-random sample showed user perceptions of relative advantage, compatibility, complexity and observability correlated, in most cases, with the adoption of social media marketing techniques.

Jackson's (2011) explore a research on using social media to build brand loyalty reflected that building and maintaining brand loyalty are one of the central themes of research for marketers for a very long time. Marketers have utilized various means to maintain the brand loyalty of their customers. One of the recent means is the social media marketing. The researcher's aim was to identify the effect of social media marketing on brand loyalty of the consumers, given that the concept is receiving increasing attention from marketing academia and practitioners. The objective of the study consists of customers who follow at least one brand on the social media in Turkey and the data were collected through the administration of a structured questionnaire with a sample of 338 people and tested via stepwise multiple regression analysis. The results of the following study showed that brand loyalty of the customers is positively affected when the brand offers advantageous campaigns, offers relevant content, offers popular contents, appears on various platforms and offers applications on social media; were used by using SPSS 17.0 version. Customers prefer to share music, technological-related, and funny contents on social media platforms. Based on findings and results, this study can be considered as a pioneer in this new area of marketing, and propose several tactics for the practitioners and for upcoming generation too.

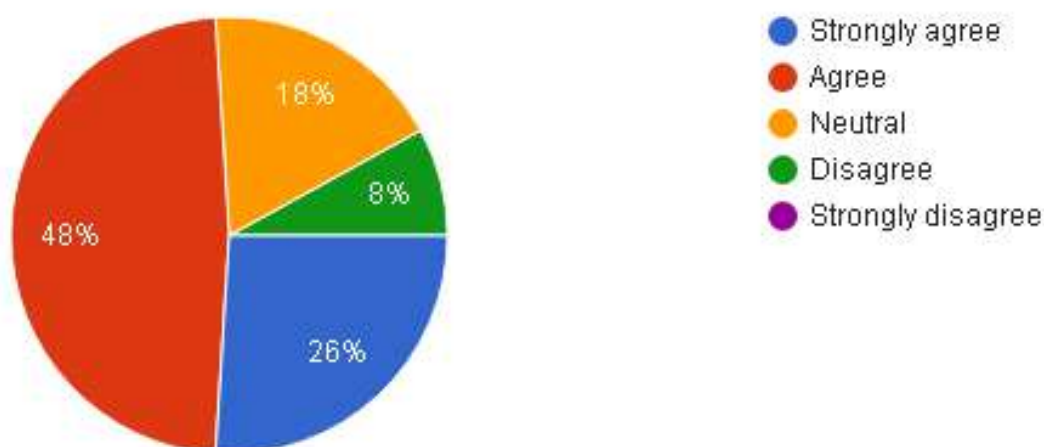
Weinberg (2009) The new community rule: Marketing on the social web a Weinberg's research throws light on the most important topic of the current digitalized market i.e. The New Community Rules goes beyond simply discussing the importance of social media marketing and provides specific details, reviews, and recommendations about blogging software, social networking applications, social media monitoring services, social bookmarking services, social news services, multimedia publishing services, and more. The book also describes the behavioural norms that exist on blogs, social networks, and discussion forums in order to provide the reader with guidelines about how to use the new internet marketing tools. To conclude, the researcher strongly believes that, the combination of both the technical and the behavioural elements associated with social media marketing make this book a great resource for a wide audience of readers interested in learning more about social media marketing.

The findings of the research done by Silverman(2011) on the secret of word of mouth marketing reveals that the main purpose of this research was to dispel the perception that academic libraries do not need to market their services and resources; to acquaint academic librarians to the

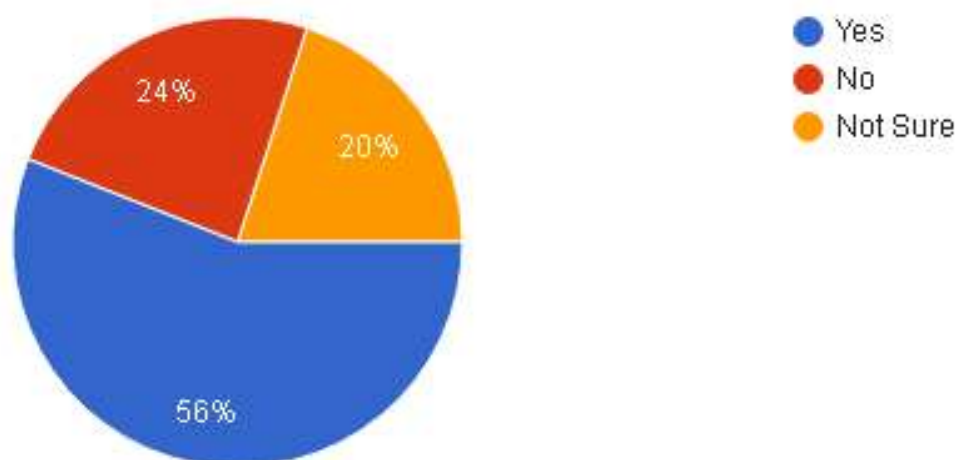
concept of word-of-mouth marketing and its potential for academic libraries; and to share a word-of-mouth marketing academic library success story. The methodology they used to carry out this research Includes, an introduction to the concept of word-of-mouth marketing and its application to academic libraries. Also it indicates how one academic library successfully employed this marketing technique. Moreover it provides an introduction to the word-of-mouth marketing strategy and its usefulness for academic libraries. It reveals the real-life success story of academic library through word-of-mouth marketing. Henceforth, this strategy proved to be useful to serve as an introduction for academic librarians to a specific type of marketing strategy that works well in a college/university setting and provides some successful techniques of word-of-mouth marketing for academic libraries.

6.0 Data Analysis and Interpretation

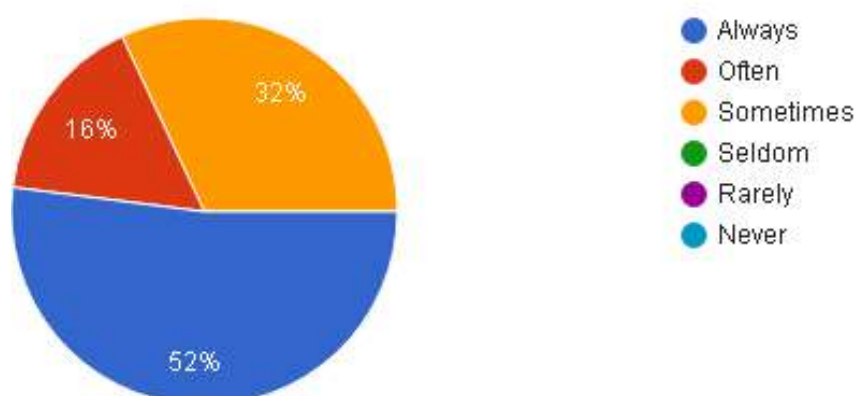
Do you agree that feedbacks on social media affect your purchase



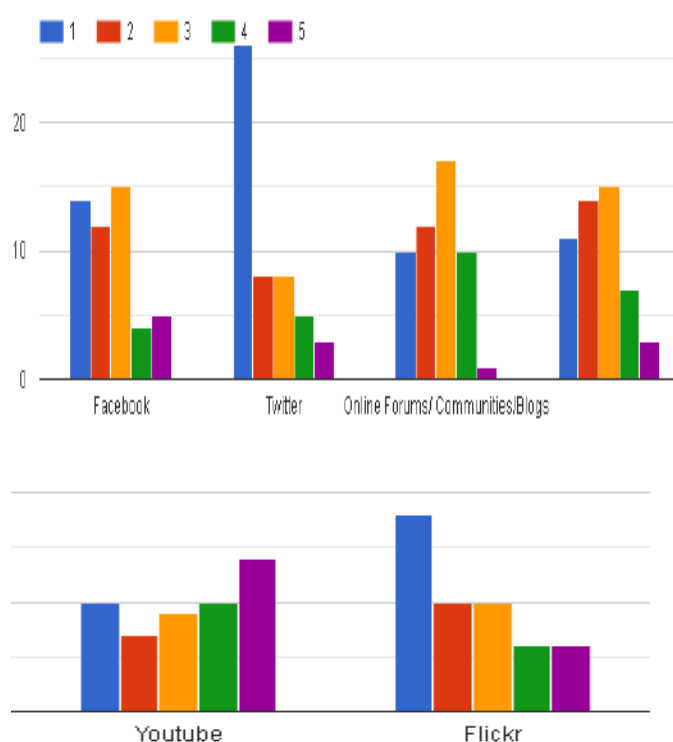
Does social media triggers you to purchase a product/service?



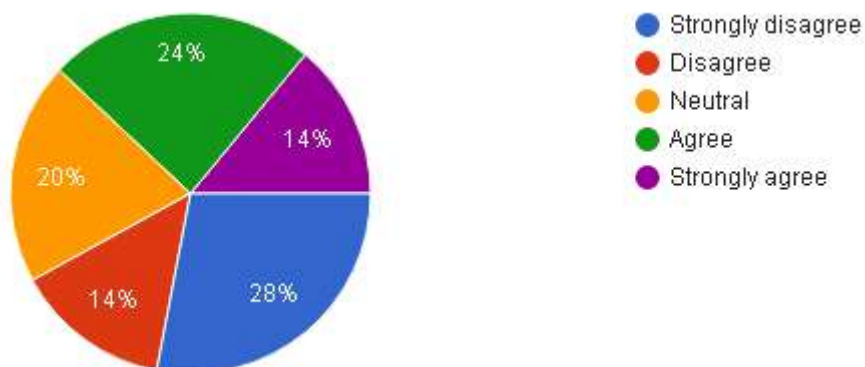
Do you search for related information on social media before a purchase?



Source of information on social media you use before a purchase. 1 being least, 5 being most



Do you agree that social media has provided more effective platforms to new products/services/brands to draw consumers' attention than mass media channels?



7.0 Findings

Majority of the respondents (48%) agree that that feedbacks on social media affect their purchase. 56 % respondents agreed that social media triggers their to purchase a product/service. 52% respondents search for related information on social media before a purchase. Majority of the respondents agreed that Twitter is the Source of information on social media they use before a purchase. 28 % respondents said that social media has provided more effective platforms to new products/services/brands to draw consumers' attention than mass media channels

8.0 Conclusion

In mass media the person who publishes the information will be responsible but in social media everyone have right according to their own perception. It is easy to make a decision with social media. We can use social media 24/7 which mass media don't. It gives information about particular product that one can make decision accordingly!! Social media is more reliable than mass media for the younger generations. Social media is kind a new platform rather than the mass media. social media provide full information about product and Mass media only highlight the information about product so it is a big difference in making a purchase decision between using information from the social media and information from the Mass media. Social media gives wide information for relevant product. Social media tells true picture and mass media doesn't. Social media helps to know about products qualities by the previous customers reviews and ratings. In social media we easily collect the information for particular product and for mass media it takes more time. Using social media we come to know new-new technology available and new product related to new technology available.

References

1. <https://researchleap.com/impact-social-media-consumer-buying-intention/>
2. https://www.dnyanasadhanacollege.org/docs/research/Vinodchandwani_thesis.pdf
3. <https://www.lyfemarketing.com/wp-content/uploads/2015/05/Compressed-PDF.pdf>
4. <https://nairaproject.com/projects/895.html>
5. <https://zenodo.org/record/1285933#.XigM3P4zbZ4>
6. https://www.theseus.fi/bitstream/handle/10024/62367/Lee_Ethel.pdf?sequence=1&isAllowed=y

The Influence of Organizational Culture on Employee Performance: A Glance on Private Higher Institutions in SNNPRS

Sapna Chauhan* and Sintayehu Zeleke**

ABSTRACT

The government of Ethiopia has launched several reform programs to promote effective performance among employees in the private higher institutions, the performance level is still demanding. In general, positive organizational culture such as a good reward and sustained motivation systems would improve the performance of an organization. The major objective this study was to examine the influence of organizational culture on the employee performance in private higher institutions in SNNPRS. The study employed a cross-sectional survey design and the study included 180 (one hundred eighty) respondents from six private higher institutions residing in SNNPRS. As a sampling procedure, stratified random sampling procedure was used. The study disclosed that there is a statistical significant association between organizational culture and employee performance in private higher institutions in SNNPRS and the centrality of the concept of organizational culture in the performance of private higher institutions like Ethiopia. The finding advised that there is a need to develop and implement an efficient and effective organizational culture that encourages and motivates good performance among employees in private higher institutions.

Keywords: Organizational culture; Employees performance; Higher institutions; SNNPRS.

1.0 Introduction

Company cultures have had different effects on performance of employees and levels of motivation and employees many a times work very hard in order to accomplish the goals of the organization if only they regard themselves to being a segment of the corporate culture (Nabukeera & Raja, 2015). In similar vein, the above author stated that good cultures should be compatible with the environment and has to be valuable in order to achieve a competitive advantage. This means that it has to give the firm an opportunity to behave in a manner that would culminate to less costs, huge profits and others that achieve the fiscal performance of the company; it needs to be rare thus should have special features that distinguish the organization from the cultures of a huge number of different other organizations of similar racket; it should be sub standardly imitable in the sense that given that if probable imitators can grasp valuable and rare and corporate cultures, it could still not be viable to copy the cultures (Njugi and Nickson, 2014).

In another interrelated study made by Ogbor (2003) stated that every organization is influenced by the existing culture which varies from organization to organization. Other researchers like Schein (2004) and Alvesson (2003) concluded that the productivity of an organization is greatly affected by its culture. When you walk in different companies, one will experience a certain atmosphere, feeling, style personality, a charm, a feel that is unique to it, this as a result influences the way the employees relate to their clients.

*Corresponding author; Assistant Professor, Department of Management Studies, Parul University, Vadodara, Gujarat, India (E-mail: sapna.chauhan6030@paruluniversity.ac.in)

**Research Scholar, Department of Management, Infolink College, Hawassa, Ethiopia

In similar vein, in organization level, Ajzen and Fishbein (1980) confirmed that culture is regarded as the real driver for superior performance and a definite source of competitive advantage that is very difficult for competitors to emulate. Organizational culture is the main part of development strategy of organization as it includes the concept of production, planning, marketing, controlling, motivation and leading. Each part of the development strategy of organization has a direct or indirect impact on performance which means the quality of organizational culture construction will influence performance of organizations directly or indirectly. Organization is defined as the combination of people or individual effort working together in pursuit of certain purposes called organizational goals (Ajzen and Fishbein, 1980).

When the issue of organizational culture is concerned, it permeates organizational life in such a way as to influence every aspect of the organization. It affects such outcomes as productivity, performance, commitment, self-confidence and ethical behaviour. Implement performance management system by discussing training and planning. Organizational culture will not only get in touch with organizational or employee performance closely but also exerts a great influence on organizational performance (Armstrong and Collopy, 1996).

The business environment that an organization operates within will influence its culture. It will also be affected by the geographical region, which relates to Hofstede's (1991) work on the effects of national culture. This is also an evidence to suggest that different cultural attitudes depend on the social strata that exists within a region. The type of industry that a company is in will similarly have an impact on how a culture develops. In this perspective, management practices and the formal socialization process also have a strong influence over an organization's culture. It is the way in which a company is actually managed will have influence over the behavior and attitudes of its employees. With the understanding of the above issues, the understanding of the relationship between employee's job performance and culture of the organization is the main research subject because it is ascertain by different studies that individuals work performance is crucial for success of organization particularly in the in the case of higher institutions in the context of developing countries.

In a similar study conducted by Pushpakumari (2008) points out that a positive organizational culture would improve the performance of an organization in different ways such as placing constraints on the individual's freedom of choice and providing a source of reward and punishment. Another study conducted by Ahmad (2012), found out that the implementation of a good rewarding system and continuous motivation encourages the employees to do best to target achievements of the organization, instead of giving more focus on structures and policies. Therefore, basing on this background there was a need to investigate influence of organizational culture on employee performance in private higher education in Ethiopia specifically SNNPRS.

2.0 Statement of the Problem

When the issue of organizational culture is concerned, all organizations, everywhere, function within a specific culture, and it is becoming more widely recognized in contemporary discussions of organizational performance that managers and other organizational practitioners have to develop an understanding of their cultural settings if their organizations are to perform effectively. Assessing and improving organizational culture as well as determining when major cultural transformations are necessary is critical to long-term organizational success. Managing differentiated cultures and creating synergies across these cultures is also a critical leadership challenge.

In another interrelated study made by Yilmaz and Ergun (2008), define organizational culture includes beliefs and attitudes of people in performing, organizing, assessing and rewarding their performance when dealing with problems of external adaptations and internal integration, how they think and feel about their organizations (Yilmaz and Ergun, 2008). These beliefs and attitudes are

fruits of the modal of organizational structure within a certain organization.

Organizational culture is characterized by things like incentive system, technological skills, re- structuring of organization structure, vision, mission, core values, training, motivation, recruitment and termination. It happens that these characteristics of organizational culture change from on leadership to another in a given organization. Such changes can be indicated by an increase or decrease of a certain characteristic.

Onyambu (2013) examined organizational culture on organizational performance at Kenya Power and Lighting Company Limited and found out that organizational culture change process was championed by a team of Change Agents or Ambassadors drawn from formal and informal structures of the organization and supported by top management. In this regard, none of the studies reviewed above focused on the influence of organizational culture on the performance of employees at private higher institutions. Studies done on organizational culture have focused on linking employee performance to organizational culture without looking at influences of culture to performance of employees. This research therefore wanted to fill the research gap by answering one research question: What is the influence of organizational culture on employee performance in the private higher institutions in SNNPRS? The major objective of this research is to evaluate how the culture of an organization affect the performance of employees. Keeping in mind the above gaps, the research answered the following questions.

- How culture can affect employee's performance?
- What is the employee's expectation towards organizational performance?

3.0 Objective of the Study

The general objective of the study is to assess the effect of organizational culture on employee performance on private higher institutions in SNNPRS.

The specific objectives are:

- To determine how culture can affect employee's performance
- To examine the employee's expectation towards organizational performance

4.0 Review of Related Literature

This portion of the study aim to show literature important to the study and to provide a theoretical frame work. This chapter also consists of definition, concepts, theoretical literature, empirical evidence and conceptual frame work of the study.

5.0 Organizational Culture

According to Magee (2002) organizational culture is the set of assumptions that members of an organization subscribe to. The assumptions are mainly beliefs and values. Beliefs focus on reality and they come from experience while values are about ideals that are desirable and worth striving for. It is the specific assortment of principles that are shared by everyone in the organization. This in turn controls the way these people intermingle with each other and with outsiders. The sharing of these beliefs and values create a business culture (Azhar, 2003). Robbins (2012) views organizational culture as a homogeneous discernment of the organization based on outstanding uniqueness separating one organization from the other.

Barney (2012) disclosed that, organizational culture has a pervasive effect on an organization because it defines who its relevant employees, customers, suppliers, and competitors are, and how to

interact with these key actors. The culture's intensity or strength, and its adaptiveness are the components that enable organizations to meet the twin demands of internal consistency and external flexibility (Schein, 2011). When employees are made aware of the culture of their company they will appreciate both the organization's past and present system of operation. This gives direction about the way to behave in the future and also promotes the organization's way of life by enhancing shared feelings. Therefore, any organization that has a well stipulated culture often works toward common goals and can achieve efficiency because workers share success oriented ideals (Barney, 2012).

In Hofstede's (2007) view, the actions of an individual at work are often dependent on national, industrial and organizational cultures. Organizations often have their own distinctive cultures, however unlike a society, an organization is defined largely by its purpose and this is a further influence on its culture. In similar vein, Owino and Kibera (2015) the dominance and coherence of culture is an essential feature of an organizational culture. In most cases, cultures often function based on a structure of invisible, theoretical and emotional forms which enable workers to meet their physical and social needs. Besides increasing employee's commitment, organizational culture gives workers a sense of identity, reinforces work based values and serves as a control mechanism for work based ethics (Nelson & Shavitt, 2002). This facilitates acceptable solution to known problems as employees learn to set principles, norms and patterns of behavior that promote work accomplishment (Schein, 2011).

6.0 Organizational Culture and Performance

Some studies have been conducted in relation to organizational culture and employee performance in different organizations. A study by Byrne and Hochwarter (2012) on the factors influencing employees' belief in the care by their organization in Canada reported that employees' felt that their organization cared about their success and this increases their commitment to the organization, help the organization accomplish its goals and make them to be more loyal to their organizations. Hence, the felt organizational culture is seen in job enrichment, organizational rewards, promotions, appreciation and involvement in policy formulation. A study by Noruzy (2013) investigating the link between workplace justice and organizational performance in Pakistan revealed that organizational culture significantly influenced the organizational citizen behavior and had mediating role between organizational justice and organizational citizenship behavior.

However, Eisenberger (2003) meta-analysis revealed a small association between organizational culture and employee work performance. In a study by Zain (2013) on the influence of job satisfaction on employee work performance in commercial banks in India revealed minimal influence of salary on job satisfaction. However, the study exposed a strong link between job satisfaction and happiness in comparison to salaries. This relationship suggested that rank was a stronger predictor of employees' professional achievements. In another study conducted among bank employees in Brazil by Nicanor (2014) established that employees' performance was influenced by income and job satisfaction. A study by Dorman (2010) on the factors influencing employee performance in Britain revealed that organizational culture that embraced job satisfaction often declined with increase in employees' level of education. This suggests that employees' level of education negatively impacted on job satisfaction.

7.0 Research Methodology

The aim of this section is to explain methods used in carrying out this research, how the research will be designed, sampling technique and reasons for the choices. The chapter presents data collection and data analysis methods employed in the research.

7.1 Research design

The research used a descriptive study. A descriptive study aimed to create an accurate profile of persons, events or situations. Another author adds that a descriptive study may means to establish only associations between variables. The reason for this choice centered on the research objective “to examine the effect of organizational culture on employee performance” and on the way in which the research questions will be structured. Also the research used descriptive design since a descriptive study establishes only association between variables on what the researcher will try to do; creating an accurate profile of a situation about the relationship between organizational culture and employee performance. Furthermore, the research followed a cross-sectional study because the research used more than one case in the research and in cross-sectional studies variables of interest in a sample of subjects are tested once and the relationships between them are determined.

7.2 Population and sampling procedures

7.2.1 Study population

The target population of this study would be employees who were working as an employee in private higher institutions of SNNPRS Ethiopia.

7.2.2 Sampling design

The researcher used non-probability sampling specifically convenience sampling to select employees to represent all population of the study. The reason behind this technique is it is easy to analyze and give equal chance for the respondent. This study selects some representative (samples) from the total population to draw valuable conclusion on organizational culture on employee performance. So to keep accuracy of data 182 respondent employees from 6 private higher institutions residing in SNNPRS were selected from all categories.

7.3 Data collection procedures

The study employed both primary and secondary sources for collecting facts and figures relating to the topic under the study. The primary data was collected with the help of questionnaire. Secondary source includes previous reports, procurement trackers, quarter and year end reports and various websites, which provide information for building up the theoretical and conceptual framework of the study. This study used a structured type of questionnaire as its main technique of data collection. The choice of the instrument was based on the fact that the study were quantitative in nature. The questionnaires was developed in search of the study objectives with close-ended questions, designed from literature review.

8.0 Analysis of the Study

8.1 Inferential analysis of the study

This section presents the results on inferential statistical analyses. Pearson correlation analysis was applied to establish the relationship between organizational culture and employee performance in private institutions in SNNPRS. The findings are presented in Table 1.

Table 1: Correlation Analysis between Organization Culture and Employee Performance

		Organization Culture
Employee performance	Pearson Correlation	0.994
	Sig. (2-tailed)	0.001
	N	180

* $\sigma=0.05$ (Correlation is significant at 0.05 level (2-tailed))

Source: Survey result, 2019

As presented in Table 1, there was a strong positive relationship between organizational culture and employee performance ($r=0.994$; $p<0.05$). This suggests that organizational culture positively influenced employee performance in higher institution in SNNPRS. This implies that the issue of the interrelation between organization culture and organizational performance is brought out clearly in this study. The result confirms also that as far as higher private institutions in Ethiopia are concerned, to some significant extent has been felt on such employee performance dimensions as teamwork, employee productivity and financial performance.

Table 2: Regression Model Summary of Organization Culture on Employee Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.871a	0.759	0.753	0.462

a. Predictors: (Constant), Employee Performance

Source: Own survey result, 2019

The above Table 2 depicted that the R^2 value of 0.759. According to this result the independent variables (organizational culture dimensions) have an effect on employee performance accounted 75.9 percent and the other unexplained variables which are not considered in the study accounted 24.10% have affected employee performance, the adjusted R square is 0.753 and standard error of the estimation is 0.462. To sum it up, in accordance with the above result, employee performance in the study area.

Table 3: Regression Model for Coefficients

Model		Unstandardize d Coefficients		Standardized Coefficients		
Model		Beta	Std. Error	Beta	t	Sig.
	Constant	-0.727	0.084			
	Artifacts	0.255	0.041	0.196	6.193	0.01
	Beliefs and values	0.204	0.039	0.161	5.172	0.01
	Rules and Policies	0.321	0.036	0.278	8.813	0.01
	Management behaviors	0.205	0.042	0.144	4.857	0.01

a. Dependent Variable: Employee Performance

Source: Survey 2018/2019

From Table 3 one can observe that the coefficient of artifacts, espoused beliefs and values, rules and policies and management behaviors are positively related to employee performance. From the above analysis it can be said that the organizational culture of NIC bank is positively associated with employee performance.

9.0 Findings

The study determined that strong positive relationship existed between organizations culture with performance of employees as denoted by the high coefficient of 0.995. These findings are supported by Kotter (2012) organizational culture has ability to increase employee job content, sense of assurance about solving problems and performance of employees. In general, the results revealed that all independent variables accounted for 75.9 percent of the variance in employee performance ($R^2 = 0.759$). Thus, 75.9 percent of the variation in employee performance can be affected by the identified cultural dimension factors and other unexplored variables may explain the variation in

employee performance which accounts for about 24.1 percent (Table 2).

10.0 Recommendations

The study results have important implications for the management of higher private institutions. Based on the results of the study, the management needs to know the importance of organizational culture to the growth and success of the firm. They should develop a clear understanding of the organizational culture concepts then build a stronger organizational culture which later will create a competitive advantage for the organizations and improve employee performance. The following recommendations should be considered.

Private higher institutions should put emphasis on embracing and adopting great organizational culture. This is because organizational culture positively influences strategies and policies implemented thus creating sustainable competitive advantage. Additionally, firms should ensure they align their strategies and organizational culture if they intend to benefit from good organizational customs.

The research findings revealed that organizational culture has influence on performance of employees in higher private institutions. The study therefore recommends that management should define organizational cultures that are self-sustaining and practical because if there is a conflict between personal agendas and organizational culture then the system designed would fail to reach the success desired. Top management ought to oversee the successful cultivation of practical and suitable organization cultures. Generally, higher private institutions should work on all the stated culture dimensions especially which affected employee performance highly as stated in the finding part of the study it accounts 75.90 percent (Table 3).

References

1. Ahmad, Shalik M. (2012). Impact of Organizational Culture on Performance Management Practice in Pakistan, *Business Intelligence Journal*, 5 (1): 50-55.
2. Ajzen, I. and M. Fishbein. (1980). "Understanding Attitudes and Predicting Social Behaviour", Prentice- Hall Inc., Englewood Cliffs, NJ.
3. Armstrong, J.S. and F. Collopy. (1996). "Competitor Orientation: Effects of Objectives and Information on Managerial Decision and Profitability", *Journal of Marketing Research*, XXXIII (May).
4. Azhar, K. (2003). *Business Policy and Strategic Management*, New Delhi: Tata McGraw-Hill.
5. Barney, S. A. (2012). *Success Factor Corporate Culture: Developing a Corporate Culture for High Performance and Long term Competitiveness*, Six Best Practices. Kindle Edition.
6. Byrne, K., & Hochwarter, W. (2012). *Diagnosing and changing organizational culture: Based on the competing values framework*. Reading, MA: Addison-Wesley.
7. Eisenberger, R. (2003). Perceived Organizational culture and Psychological Contracts: A Theoretical Integration, *Journal of Organizational Behavior*, 24: 491-509.
8. Magee, K. (2002). Relationship between Organizational Culture and Performance Management in Pakistan University. *Journal of Competitiveness*, 5(1) 67-71.
9. Nabukeera, M., Ali, B., & Raja. N. (2015). Performance evaluation of public service institutions (CQS) framework. *World Journal of Social Science*, 2 (1), 1-25.
10. Nelson, M. R., & Shavitt, S. (2002). Horizontal and vertical individualism and achievement values: A multimethod examination of Denmark and the United States. *Journal of Cross Cultural Psychology*, 33(1), 439-458.

11. Njugi, A. & Nickson, L. (2014). Effects of organizational culture on employee performance in non-governmental organizations. *International journal of scientific and research publications*, 4(11), 1-12.
12. Noruzy, F. (2013). Employee Organizational commitment: the influence of cultural and organizational factors in the Pakistan Banking industry. *The International Journal of Human Resource Management*, 20, 2494–2516.
13. Owino, A. and Kibera, F. (2015). The influence of organizational culture and market orientation on performance of microfinance institutions in Kenya, *Journal of Business Administration*, 2, 132-138.
14. Onyambu, S. G. (2013). Organizational culture change At Kenya Power And Lighting Company Limited. Unpublished University Thesis, University Of Nairobi.
15. Pushpakumari, D.M. (2008). The Influence of Leadership, Organizational Culture, and Individual Factor to Work Behavior and Organizational Performance of National Banks in Bali. Dissertation. Airlangga University. Surabaya.
16. Robbins, K. (2012). Organizational culture: An examination of its effect on the initialization process. *Southern Business Review*, 25, 1-13.
17. Schein, E. (2004). *Organizational culture and Leadership*, 3rd (ed.). San Francisco: Wiley Imprint.
18. Schein, E. H. (2011). *Organizational Culture and Leadership*. San-Francisco: Jossey-Bass.
18. Yilmaz, C. & Ergun, E. (2008). Organizational culture and firm effectiveness: An examination of relative effects of culture traits and the balanced culture hypothesis in an emerging economy. *Journal of World Business*, 43, 290–306.
19. Zain, Z. M. (2013). The Influence of Corporate Culture on Organizational Commitment: A Study on a Malaysian Listed Company, *European Journal of Economics, Finance and Administrative Sciences* 17, 16-26.

About Editors



Dr. Bijal Zaveri
Dean & Director
Faculty of Management Studies

Dr. Bijal Zaveri is Dean and Director of Faculty of Management Studies at Parul University. She has 14 years of teaching and 1 year of industry experience. She currently teaches Marketing Management programmes at Faculty of Management (MBA Programme). She has done a Ph.D. at M. S. University Baroda in the area of online marketing and completed PG diploma in Cyber Law from Asian School of Cyber Law Mumbai. Her research interest includes marketing, advertisement, communication and e-commerce. She has published her various papers in national journals (viz. IIM Indore, NITIE Bombay, Symbiosis) and in international journals (viz. MICA and IGI Global) and in the form of book proceeding / edited book, viz. Tata McGraw Hill, Excel, McMillan Publishers. She has presented numerous papers in 40 international and national conferences and attended 14 workshops and FDPs. She won national level case writing competition at Shri Ram Group of Colleges at New Delhi, 2nd Rank for paper presentation at IPE Hyderabad and 2nd Rank- Ph.D. thesis competition at Prestige Institute of Management Gwalior. She was awarded for Best Paper presentation at IPE, Hyderabad and B. K. School of Management. She is Ph.D. register guide at Parul University and currently Indian and foreign research scholars are pursuing Ph.D. under her guidance in the area of Marketing Management. She has published a book on E-Marketing in the year 2012. She is one of the members of the Editorial Board of IGI Global International Journal of Marketing. She has worked as review committee member and session chair expert for various conferences. She has published papers in UGC listed journal, Scopus indexed journal and 8 Ph. D. scholars are pursuing Ph.D. under her guidance.



Dr. Sapna Chauhan
Parul Institute of Engineering
and Technology - MBA

Dr. Sapna Chauhan is an Assistant Professor at Parul Institute of Engineering and Technology (PIET) for MBA Program, Faculty of Management Studies, Parul University in Vadodara. She has got around 9 year of diverse experience in industry and academics. She had work exposure in cities of Bangalore, Delhi, and Kolkata. She is a certified AMT (Accredited Management Teacher) by AIMA (All India Management Association). She has recently been given a recognition for Ph.D. Guideship and is currently guiding scholars from India and Ethiopia. She has conducted 'Cross Cultural Communication' classes for the students from Humber University, Canada. In the past she has worked in capacity of 'Manager HR (Generalist)' in corporate endeavour along with the role of HR executive, HR recruiter, Employee engagement executive, etc. in varied companies. She is a Doctorate in Management and holds degrees of MBA (HR), MCS and PGDCA. Currently she also handles the portfolio in Women Development Cell and in the past for International Relation Cell. She had published research papers in national and international journals and had attended conferences and FDPs across country. Her research interest is in the areas of learning & development, emotional intelligence, psychology, work-life balance.



Ms. Aashka Thakkar
Parul Institute of Engineering
and Technology - MBA

Ms. Aashka Thakkar is an assistant professor at Parul Institute of Engineering and Technology – MBA Department, Faculty of Management Studies, Parul University, Vadodara has 10 years of teaching experience. She has completed her Masters in Commerce and Masters in Philosophy from the esteemed Sardar Patel University. Her research interest area is Accounting, Corporate Governance, Financial Services, Digital Accounting and Taxation. She is also pursuing her Ph.D. from Parul University. She has published papers in international and national journal and also presented paper in various national and international conferences. She is a recipient of Best Teacher Award from Vice Chancellor of Parul University for excellence in academics. She has attended several workshops and FDPs. She is essaying the role of IQAC Coordinator, MIS Coordinator and also is a member of Indian Accounting Association.



JOURNAL PRESS INDIA

Publishing & Conference Solutions

www.journalpressindia.com

Regd. Office

4800/24, 1st Floor, Bharat Ram Road, Ansari Road, Daryaganj, New Delhi-110 002

Editorial Office

355, 3rd Floor, Aggarwal Plaza, Prashant Vihar, Sec.- 14, Rohini, New Delhi -110 085

Mob.: +91-11-4759 0293, 4358 7398, Ph.: +91-98734 34091, 88266 23730

E-mail: info@journalpressindia.com; editorial@journalpressindia.com

