



Vol. 28    Issue 1    March 2021

ISSN 0974 - 1119

# Aweshkar

A Peer Reviewed Research Journal

# VISION

**we school**  
S. P. MANDAL'S  
Welingkar Education

To nurture thought leaders and practitioners through inventive education.



# MISSION

**we school**  
S. P. MANDAL'S  
Welingkar Education

Focus on inventive education by offering practical, innovative and technology driven programs.

Provide managerial talent with risk managing ability, passion for learning and creative thinking and values in rapidly evolving economic and social environment.

Contribute significantly to Indian corporate world by preparing management graduates with global mindset.

Build intellectual capital through faculty development, research, consultancy and publications.

Develop alumni network of mutual benefit and keep alumni updated through continuous learning and meeting.



## **Prin. L. N. Welingkar Institute of Management Development & Research**

Lakhamshi Napoo Road, Near Matunga (Central Rly.), Mumbai - 400 019. Maharashtra,  
India. Tel.: +91-22-2419 8300 Extn.: 8370 / 8294

Email : [aweshkar.journal@welingkarmail.org](mailto:aweshkar.journal@welingkarmail.org) Website : [www.welingkar.org](http://www.welingkar.org)

To subscribe, please write to Welingkar Institute at the above address.

**aWeshkar is included in the EBSCO database. You can access the EBSCO website if your institution is a member.**

This Journal or any part thereof may not be reproduced in any form without the written permission of the Publisher, Welingkar Institute. All data, views, opinions, etc., that are published in this journal are the sole responsibility of the individual authors. Neither the Publisher nor the Editor is in any way responsible for them.

# **aWEshkar**

A Peer Reviewed Research Journal

Prin. L. N. Welingkar Institute of Management Development & Research

Vol. 28 Issue 1

March 2021

Executive Editors

**Dr. D. N. Murthy**

**Prof. Bharath Rajan**

**Editor in Chief**  
Prof. Dr. Uday Salunkhe

**Executive Editors**  
Dr. D. N. Murthy  
Prof. Bharath Rajan

### Editorial Advisory Board

**Prof. Ashish Chandra, Ph.D.**  
Professor of Healthcare Administration,  
College of Business, University of Houston-  
Clearlake, USA  
Email: chandra@uhcl.edu

**Prof. Narendra K. Rustagi, Ph.D.**  
Professor  
Information Systems & Supply Chain Management  
Howard University  
Washington, DC 20059, USA  
Email: BusinessDean@howard.edu

**Prof. David Wyant**  
Assistant Professor of Management,  
The Jack C. Massey Graduate School of  
Business, Belmont University, 1900  
Belmont Boulevard, Nashville, USA.  
Email: david.wyant@belmont.edu

**Prof. Bill Stroube**  
Professor of Health Services Administration/  
School of Health Sciences  
University of Evansville, USA  
Email: bs52@evansville.edu

**Prof. Dr. Adnan Kisa**  
Head of Health Sciences Institute  
Kristiania University College  
Oslo, Norway  
Email: Adnan.Kisa@kristiania.no

**Prof. Arturo Villanueva González,**  
Full time professor,  
University/ UPAEP University, México.  
Department of Education.  
Puebla, Pue. México  
Email: arturo.villanueva@upaep.mx

**Prof. Hanadi (Hana) Hamadi,**  
Associate Professor  
Department of Health Administration  
Brooks College of Health  
University of North Florida  
Jacksonville, FL, USA  
Email: H.hamadi@unf.edu

**Prof. Karen Woods**  
Professor,  
School of Business and Automotive Business School  
Barrie, ON, Canada  
Email: karen.woods@georgiancollege.ca

---

Printed by Sugam Mudran, 110, Prospect Chambers, Dr. D. N. Road, Mumbai - 400 001, Maharashtra, India.

---

A refereed research journal with an eminent advisory board comprising eminent international academicians as members, and edited by Dr. D.N.Murthy, Dean (Research). aWeshkar is a biannual journal. WE stands for Welinkar Education and Aweshkar stands for searching new knowledge for the benefit of society.

aWeshkar (अविष्कार) in hindi means Invention. The journal publishes Research Papers, Research Articles, Case Studies, India Focused Research, Management Ideas, Management Games, Book Reviews and Poems.

aWeshkar is included in:

- EBSCO Database, USA.
- Ulrich' Directory of Periodicals, USA.

It has been reflected in many International University Libraries:

- UNiSA - University of South Australia.
- Universitätsbibliothek Leipzig, Germany.
- Bibliothekssystem Universität Hamburg, Germany.

# Contents

## EDITORIAL

Page No.

*Prof. Dr. Uday Salunkhe*

4

## RESEARCH PAPERS

**Management Education And Practices: A Literature Review**

7

*Dr. M. K. Sridhar, Dr. L. B. Muralidhar, Mrs. Latha N*

**Factors Affecting The Usage Of Banking Services:  
A Religion-based Study In Malda District Of West Bengal**

27

*Mr. Wakil Hossain, Dr. Abhijit Sinha, Prof. Tagar Lal Khan*

**An Assessment On The Performance Of The Scheduled Commercial  
Banks During The Covid-19 Pandemic Scenario**

43

*Dr. Abhigyan Bhattacharjee, Dipankar Das, Dr. Irala Reddy*

**Freelancers Of The Street Economy: Exploring  
Informal Partnerships For Waste Management In India**

50

*Ms Muskan Soni, Dr. Padmini Ram*

**Re-configurable Manufacturing Systems: Research Trends**

63

*Ms. Ria Bhattacharjee, Mr. Kartik Kulkarni, Mr. Vaibhav Narwane*

**Does Bancassurance Pay Off?  
A Study Of Bancassurance Performance In India**

77

*Dr. P. Srilatha & Dr. Irala Lokanandha Reddy*

**VUCA Impact Of Covid-19 On Marketing Of Two-wheeler  
In Rural And Urban Markets Of India**

91

*Dr. Anil Jain, Dr. Nirmala Joshi & Anand J. Mayee*

**Pandemic An Opportunity For Kiranas  
Management Skills & Growth Strategies To Think**

110

*Dr. Sumanth K Nayak*

**Re-boosting Rural Economy To Address Worker Migration In The Covid 19  
Pandemic Era: A Case Study Of Sualkuchi Handloom Town Of Assam**

117

*Ms. Sangita Sharma*

**A Study Of Managerial Skills On Digital Transformation  
To Lead Change In 21st Century**

129

*Vikram R. Hande, Dr. Chandrahans R. Chavan*

## Editorial

The COVID-19 pandemic continues to demonstrate that maintaining balance and poise is critical for the continued existence of any ecosystem. This pertains to how changes in the ecosystem (from within or from outside) are adequately responded to by the constituents of the ecosystem. While too little attention to the changes may yield sub-optimal results, over addressing the changes may result in new challenges. In responding to such changes in the ecosystem, a vital tool in our collective toolkits is the power of knowledge. And the power of knowledge has never been as critical as observed during the ongoing pandemic.

Even from the start of the pandemic, we saw how the power of knowledge played out in terms of identifying the origin of the virus, the form of spread, the contagion characteristics, the safety precautions, the gradual progression of identifying treatment options, and so on. In this, the role of academic research and the tireless efforts of academicians stood out the most. The efforts were two-fold – (1) how to better understand the virus, and (2) how to advise policymakers, caregivers, and individuals in navigating this pandemic. Within a year since the onset of COVID-19 if we can develop a vaccine for this virus, then the power of knowledge is what we must thank. And the contribution from academic research stands at the core of this remarkable achievement.

Along with the negative impact on human lives, we also continue to see the negative impact of the pandemic on businesses. While some businesses have survived the pandemic remarkably well, some have suffered irreparable losses. In essence, as businesses evolve, our understanding of them also continues to evolve, especially in this pandemic. Here too, a critical aspect that makes the difference is the impact of ongoing meaningful management research. The significant evidence-based knowledge created through academic research in management and related fields has demonstrated to organizations valuable insights for managing their businesses in these tumultuous times.

However, even a cursory glance at the changed business conditions reveals a stark reality. Consider the business world at the beginning of the 20th century – it was a world dominated by manufacturing, where businesses existed to manage hard assets such as factories and company infrastructure. As decades passed, the increasing prominence of services and intellectual property defined how businesses thrived – that was a world where the management of intangible assets has become crucial for the efficient functioning and development of businesses. More recently, customers and brands have emerged as the ultimate intangible assets with companies redefining themselves and their business approaches to cater to customer needs. Such business transformations have gained even more significance in this pandemic environment and how businesses plan their future – now is a world where how you engage with your stakeholders matters the most. And organizations are realizing this more than ever.

I think we are in the most interesting of times, in more ways than one. From the standpoint of management education and management research, we continue to see inspiring research that continues to uncover various insights for academicians and practitioners. In this edition, I am pleased to present a collection of studies that portray a good mix of study contexts set in the pandemic and non-pandemic settings. I hope you enjoy these studies as I have.

Happy Reading!

**Prof. (Dr). Uday Salunkhe**  
Editor in Chief

S .P. Mandali's  
Prin.L.N.Welingkar Institute of Management Development and Research  
**aWeshkar - Research Journal (ISSN 0974–1119)**

Call For Research Papers  
From Faculty / Research Scholars / Industry Professionals  
<https://www.welingkar.org/we-research-mumbai>

aWeshkar is a bi-annual, double blind peer-reviewed Journal of Welingkar Institute of Management Development and Research. “WE” stands for Welingkar Education and 'aWeshkar' stands for creating new knowledge for the benefit of the academic & corporate community. “Aweshkar” in hindi means Invention. aWeshkar is included in EBSCO Database, USA and Ulrich' Directory of Periodicals, USA.

It gives us immense pleasure to invite you to contribute Research Papers / Case Studies (We accept empirical and conceptual papers) to “aWeshkar”. The aim of journal is to provide a platform for researchers, practitioners, academicians and professionals in all areas of Business and Management to share innovative research achievements & practical experiences and to stimulate scholarly debate in the development of Management Science, Decision Making and Related areas.

This Journal is dedicated to publish high quality research papers in following areas...

- Economics
- Innovation and Entrepreneurship
- Finance
- International Trade
- Strategic Management
- Technology Management
- Operations Management
- Operations Research
- Supply Chain and Logistics
- Project Management
- Marketing
- Consumer Behaviour
- Knowledge Based Systems
- Human Resource Management
- Organizational Behaviour
- Business Design
- Communication
- Sustainable Development/Sustainability
- Rural Management
- Health care Management
- Media & Entertainment Management
- Social Sciences

The above is just an indicative list and by no means exhaustive- any other subject/topic not covered and falling in the domain of Business, Management, Economics and related areas will also be considered for Publication.

We invite you and your esteemed colleagues and research scholars to contribute papers to the journal.

**Feedback on the reviewed paper will be sent across within a month of submission.**

### **Manuscript Guidelines**

1. The Manuscripts should be in MS-Word format, 1.5 line spacing, with 1-inch margins “Times New Roman, Font Size 12, black”.

2. Two panels consisting of two or more referees review all contributions by following the double blind system - that is, with the author's/ authors' name and credentials camouflaged, so that the reviewers don't know who is authoring the work. It is mandatory to mention a valid email address with content submitted online.
3. In the first page of the paper (cover page), please provide full names (first, middle and last names) and full addresses (institute's address along with designation and correspondence address) along with email address of the author(s). The author's name or affiliations should not appear anywhere else in the body of the manuscript, because our peer-review process is blind.
4. The actual paper should commence from the second page containing the title followed by the abstract, keywords and the main paper. The author's/authors' name should not be mentioned anywhere except in the first page (cover page).
5. The Manuscripts should not be more than 6000 - 6500 words.
6. The abstract, followed by relevant keywords should not be more than 250 words and should adequately describe the work and highlight its significance. The abstract should only include text. Avoid the use of abbreviations and references in the abstract.
7. Every manuscript should be labelled as being :
  - A Research Paper
  - A Case Study
 (We accept empirical and conceptual papers)
8. Tables should be numbered consecutively. The title of the table should be placed above the table. The source should be indicated at the bottom.
9. Figures should be numbered consecutively. Wherever necessary, the source should be indicated at the bottom. The figures should also be given relevant titles.
10. All tables, charts, graphs, diagrams should be black and not in colour. The images should be of high resolution and in black and white only. Number and complexity of such exhibits should be as low as possible. All charts and graphs should be drawn legibly and figures should be indicated in millions and billions.
11. References strictly in APA Format should be included at the end of the paper.
12. Footnotes, italics, and quotation marks should be kept to the minimum.
13. The primary heading should be in capitalized form (Uppercase), boldface with 14 font size. The sub-headings should be in title- case capitalization (first letter of each word in capital) and in bold.
14. All submissions for aWEshkar to be sent to: aweshkar.journal@welingkarmail.org

aWEshkar,

Prin. L.N. Welingkar Institute of Management Development & Research,

L. Napoo Road, Matunga (Central Railway), Mumbai- 400 019, Maharashtra, India.

Telephone- 24198300-8370/8294



## RESEARCH

### Management Education And Practices: A Literature Review

**Dr. M. K. Sridhar\* Dr. L. B. Muralidhar\* Mrs. Latha N\***

---

#### **ABSTRACT**

*Management education and the practices have come to stay all over. No country, field or sector is an exception. It is more than five decades old in India also. There are many individuals, institutions and bodies have contributed to their evolution, growth and sustenance. It is appropriate to undertake a review of literature as reorientation of the education from practices as well as the practices evolving from education could be achieved. The literature review is undertaken to elicit the themes of management education and management practices. 105 articles have been sourced from JSTOR, EBSCO, SSRN and other databases. Many themes have been emerged after undertaking the content analysis of the findings. The themes are broadly classified into Management Education and Management Practices. The themes which are relevant to management education are “Suggestive of Changes”, “Trends”, “Gaps”, “India-Specific Knowledge”, “Eastern Vs Western Comparison” and “Program / Syllabus / Curriculum / Pedagogy”. The themes which are relevant to management practices are “Influence of Culture”, “Convergence of organizational culture with local culture”, “India-specific practices”, and “Comparison Between Eastern and Western practices”.*

**KEYWORDS:** Management Education, Management Practices, Suggestive of Changes, Trends, Gaps, India-Specific Knowledge, Eastern Vs Western Comparison, Program / Syllabus / Curriculum / Pedagogy, Program / Syllabus / Curriculum / Pedagogy, Influence of Culture, Convergence of organizational culture with local culture, India-specific practices, Comparison Between Eastern and Western practices.

---

**\*Dr. M. K. Sridhar**, Bangalore University, ICSSR Senior Fellow, Institute for Social and Economic Change, Bengaluru. **Email:** bharathwaasi@gmail.com

**\*Dr. L. B. Muralidhar**, School of Commerce, Jain (Deemed to be University), Bengaluru.  
**Email:** muraliganesh2001@gmail.com

**\*Mrs. Latha N**, Institute for Social and Economic Change, Bengaluru. **Email:** lathanagesh66@gmail.com

**INTRODUCTION:**

The kind of Management education imparted is generally related to the type of practices pursued by Individuals and Institutions in a society. Whether education influence practices or practices influence education is a kind of 'chicken and egg' issue. But, all said and done, Management education and Management practices are very much related to each other. The students who join various management courses would be taught a certain kind of management education which they will start practicing once they enter various organizations for employment purposes. Even those who take recourse to entrepreneurship also apply management education they have learnt in their management institutions. Hence, the kind of education imparted would influence the type of practices pursued in a society.

On the other hand, management practices pursued by people in society would become the basis for developing the content of management education. This is more so in case of management education because of case study-based pedagogy implemented in various B schools of the country. These practices also set the needs, requirements and the expectations of management graduates.

This results in an unending cycle of education to practice and practice to education indefinitely.

The Management practices of people in the society may not necessarily be pursued by large organizations alone. But, they can also be practiced by small enterprises in a non-formal way, social institutions and individuals for carrying out various economic and non-economic activities in their day to day living. In this regard, the practices are also influenced by the culture, tradition, heritage and values cherished in the community. In case of management education also, many non-formal aspects carried out by small institutions matter. Hence, the relationship between management education and management practices is not necessarily restricted to the present context but reflected in the past traditions and culture.

**METHODOLOGY:**

105 articles have been sourced from JSTOR, EBSCO, SSRN and other databases. The authors have used the key terms like “Management Education”, “Business Education”, “Management Practices” and “Business Practices” to source the articles.

**MANAGEMENT EDUCATION:**

SI No	Focus of the Management Education	No of articles	%
1	Suggestive of Changes	24	30%
2	Trends	23	29%
3	Gaps	22	28%
4	India-Specific Knowledge	04	4.5%
5	Eastern vs Western Comparison	03	4%
6	Program / Syllabus / Curriculum / Pedagogy	04	4.5%
<b>TOTAL</b>		80	100%

24 articles have suggested some kind of changes in the management education. While 23 articles have focused on trends in management education, 22 articles have captured gaps in the management education. 4 articles have focused on the India-specific knowledge. 3 articles have focused on eastern vs western comparison. 4 articles have focused on programs / pedagogy / syllabus of management education.

#### **GAPS IN CURRENT MANAGEMENT EDUCATION:**

The business students do not present a comprehensive knowledge of societal principles, in the field of research (**Jr Louis F Jorden et al, 2000**). The management programmes offered in India do not give the participants sufficient practical exposure and lack industry focus, which might threaten their credibility (**Kumar K Ashok et al, 2013 and Sarita Chaudhury, 2011**). There is an imbalance between theory and practice in both management research and management teaching. The management research in Business schools is of limited relevance to management practice (**Thomas, 2010**). The examination procedure, followed in Business Schools, where most of the questions are theory-based questions and by answering this question the candidate can get a satisfactory mark but may not have any practical knowledge at all. The teaching-learning and examination procedure should be strictly tied up with the related practical sector which may be industry or agro or service sectors (**Arabinda Debanath, 2015**). The management education has not become driver of entrepreneurial attitudes (**Gupta, 1992**).

Most of the MBA students have perception that, MBA is to get better job and high pay. But, they are not focused on their

development of skills required or expected by the industries. Most of students are lacking in communication skills, computer proficiency, and skilled faculties at their institutes. There is a gap among students between their knowledge and communication which leads to their dip in confidence level and this gap has to be filled by all faculties and professors of institutes (**Asifulla, 2013**). It becomes difficult for industry professional to recruit them for a live project. As the focus on research is missing in Indian Business Schools, the students are not groomed to do research, which gives them a leverage of working on Secondary Data and not on the Primary Data (**Preshni Srivastava, 2015**). Possessing an MBA degree nor grades earned in courses does not correlate with career success. There is little evidence that business school research is influential on management practice, calling into question the professional relevance of management scholarship (**J Pfeffer et al, 2002**). The young management students have an irreversible fall in values and are therefore not reachable. Usually this fall in values is ascribed to the overwhelming influences of “market systems”. This is more common in countries which are emerging from more traditional economies to global ones. There was a growing feeling, which is overtaking the society, that all values should be legislated or converted to rules and ‘compliance’, and this will be the basic way to ensure values and ethics (**R.C Shekhar, 1992**).

The most important qualities of a business leader are problem solving skills, innovation and willingness to shed past dogmas and respond willingly to change. The case method does a splendid forecasting of all three. There has been a mismatch between the skills business professionals perceived as necessary

for their organizations to function and the MBA skills with which students are being prepared was apparent **(Ramaswamy, 2005)**.

The current curriculum in management education does not prepare students to face the challenges in business environment. Managing uncertainty and complexity are not taught in Business Schools. Business Schools merely teach the concepts with case studies and does not focus on the challenges arising out of rapid growing technology and the challenges involved in running an enterprise **(Yasir Arafat Elahi, 2013)**.

The dominant MBA's focus is on acquisition of analytical and cognitive skills, stylized treatment of real business problems, self-centred careerism, and the limited recognition that management is as much a clinical art as a science **(Bennis and O' Toole, 2005)**. The idea that management could be learned like engineering, science or computer programming is a great disservice of management education **(PR Trivedi and K N Sudarshan, 2003)**. The existing "medicine" archetype of management education might usefully be replaced with that of "politics" **(Ramanathan Narayanaswamy, 1992)**.

#### **EAST vs WEST:**

There are two fundamentally different streams of human temperament in the world: the western (especially since the renaissance) masculine, logical, rational aggressiveness and the Eastern feminine, intuitive, receptive realization **(Chakraborty, 1991)**. There is no single model that is applied everywhere in different countries. The principal difference between the Eastern institutions and those in the West is that, Western institutions are tuned to organizational structure and formal systems to cope with those challenges. In

contrast, Eastern institutions, while until recently advancing more slowly in thinking about organizational forms and formal systems paid more attention to social and spiritual means **(Sharma G D, 2001)**. Indian management education is almost a replica of US Business education particularly in the area of pedagogy, curricula, industry interface and academic research models **(Maheshwari, 2013)**. But, institutions in India are struggling to introduce several adaptations because of the differences in the work culture system. There has been a shift from a commerce-focus to management-focus in the popular business education in India. **(Vipin Gupta, 2003)**. The IIMs are showing preference towards the recruitment of US educated faculty and the trend is catching with other reputed B-Schools. Continued recruitment of faculty in the IIMs, and other similar institutions, from universities in the west, particularly the U.S., has ensured that most of the prominent post graduate programs in management in India have followed the norms that emerged in the US environment, although with a lag. As the emphasis remains more on the western theories and approaches, the candidates are not exposed to the realities of the functioning Indian systems **(Ojah, 2005)**.

#### **PROGRAM/SYLLABUS/SPECIALIZATION/PEDAGOGY:**

MBA programs have become big business driven by a market orientation to education in the absence of a unifying professional ethos **(Pfeffer and Fong, 2004)**. The traditional management education curriculum, as presently constituted, may not be adequately preparing individuals for the challenges they experience as professional managers **(Mohammed Abdullah Mamun, 2009)**. The unmet needs of current MBA programmes are global perspective, leadership skills,

integration skills, recognition of organizational realities and implementing effectively, creativity, innovation, critical thinking, clear communication, ability to understand the role, responsibilities and purpose of business, limits of models and markets **(Datar, Garvin, Cullen, 2010)**.

The three major issues have been identified as the causes for achievement gap in management education. They are the faculty issues, pedagogic issues and the industry-academia interface. Innovative programs needed to be pursued to inculcate research mindset in the youth and the participation of faculty in product design and development in small and micro enterprises increases the interaction with industry on a large scale than ever before. Imitative research has to be avoided. In this regard, India can learn from the Chinese experience where the Chinese conduct research in a distinctive Chinese way **(Prashanth, 2013)**.

There has been rise of customized and flexible curriculum for management education. This offers the student a higher degree of ownership and collaboration which is more effective than a more generalized curriculum. Some of the student satisfaction surveys, conducted at the time of graduation, indicated that a benchmarked designed customized MBA program did provide deeper insights and more job-related capabilities than does a traditional generalized MBA program **(Owen & Terry, 2007)**. In some surveys, students consider ethics in marketing as a very important point for discussion and its coverage inadequate. The existing teaching in business school does not cover ethics in marketing the way it should. Barely adequate job is being done in discussing ethics in basic

marketing and sales in business schools **(Pillai and Garg, 2011)**.

Enhancing mass customization of management education will boost creation of customized learning environment and individualized instruction methodologies, which, in turn, will affect the use of information, content delivery and service technologies to enable students to develop skill set based on their strengths and as demand by the industry **(Dugar et al, 2016)**.

New courses like Service Sector Management Course, Travel and Tourism Management, Hospital Management, Consultancy Management, NGO Management, Advertising Management, Banking and Insurance Services Management, Farm Management could be introduced. Needless to say, courses should be need based and syllabi should be changed periodically. Lack of specialization specific to industry, is one of the problems of MBA program. The world of business education is facing its biggest opportunities and challenges in history **(Dr B. V. R Naidu, 2015)**. New specializations have to be introduced in the area of entrepreneurship development **(Gangaiah B, 2013)**.

## **TRENDS IN MANAGEMENT EDUCATION:**

Management Education across the globe is facing a unique crisis of relevance in the contemporary scenario. The Indian B-schools are facing multiple issues such as proliferation of B-Schools, quality of education, faculty shortage, poor regulatory mechanism and governance and accountability **(Kumar S, 2011 and Vrat P, 2009)**. Management education has become “



Mass Education” rather than “Class Education”. The higher management education industry in India is encountering the problems related to quality standards of education, inadequate infrastructure, industry interaction, reliability issues, course curriculum, degradation in studies and low levels of student satisfaction (**Razi-ur-Rehim, 2012**). Indian B-Schools are struggling hard to introduce several adaptations because of differences in the work culture system. That made Indian Business education to face several issues in the area of academics, development of infrastructure & financial support (**Saha, 2012**).

Management education has become elitist as it attracts young men and women who are usually motivated by the positive consequences associated with management education (**R Balaji, 2013**). Currently business management education is perhaps the most commercialized of all the higher education programmes in India (**Srinivasa Gowda, 2013**). Management Education has acquired the characteristics of a commodity, to be bought and sold in markets like other commodities. It should be more meaningfully viewed as a process, rather than a programme (**L R Irala, 2006**).

Business Schools business schools have strayed from their lofty aim of educating far-sighted, moral business leaders to producing myopic, career technocrats (**Rakesh Khurana, 2007**). Business schools have become morally bankrupt by pushing growth for its own sake through satellite programs and executive education, while instilling business values—such as winning at all costs and personal enrichment—that helped fuel the greed and corporate scandals of the 1990s (with Enron as its poster child) (**Starkey et al,**

**2004**). Management thought and management education have been largely rooted in market values approach to life. This led to creation of professionals with a narrow vision of the world based on “consumeristic” worldview. While it emphasizes “core competence” (Prahlad, 1992), it does not care much about the “Character competence of the corporation” (**Subhash Sharma, 2002**).

The management education is the limelight in the recent past and has drawn attention of the industry as well as entrepreneurs. There is mushroomed growth of B-Schools which has created an imbalance and resulted in lopsided development on the supply side. The job opportunities have not grown with the growth in MBA seats (**Bharathirajan and Senthil, 2015**). The unplanned and unchecked growth of B-Schools has backfired as several of them have shut shop and many more are expected to do so for want of students (**MRDA, 2014**). For some people, objectives of running business schools is for business; for some others, the objective is to get themselves branded and to earn a good name and fame through a selfless service being provided for the development of the community. Therefore, two types of management institutions could be identified: Institutions with Business Model where money is a master, Institutions with Service Model where money is a servant (**T V Raju, 2015**).

Globalized world demands business leaders who possess both leadership and management abilities. Traditionally functional areas have changed its course of efficient methods for developing and enhancing soft skills, innovative self-learning, and understanding of organizational environment both internal and external (**Patel Bhavin Arvindbhai, 2012**). The management education in India is

going through changes. The changing scenario offers students more openings, greater self-confidence and out of the box ways to better hone their skills. The current trends include increased focus on international partnerships, internships, student exchange programs, joint degrees etc. Also, the use of new technologies in management teaching is a trend that is catching up fast. Greater use of the social media to establish connection with students is on the rise (**Ranjitha, 2016**). There has been a shift away from traditional educational offerings towards diverse programmes and changing enrolment patterns. Management education in the top-ranked schools in India is no different from the education offered in the Western contexts insofar as it is subjected to the same pressures to reinvent, redefine, redesign and re-establish its value addition (**TV Rao, 2014**).

Students are increasingly preferring Web-based Information System over traditional school of thought and blended learning (**Mukherjee D, 2014**). Online Learning (OLL) has become a greater option for post-secondary business education (**Lee, 2013**).

### **Suggested Changes in Management Education**

The Management education, started in the early 1950s, was initially a part of commerce education designed for clerical occupations. There is a need to micro-manage to a much higher degree in the social sector. The culture and environment of the social sector, however, requires a more democratic management style as compared to the corporate sector (**Ranjana Agarwal 1992**). The management education should be experience-based, problem oriented, active and should produce employable, ethical,

creative and life-long independent thinkers to lead the economy (**Margaret Mac Namara and et al ,1990 and R. Anita, 2016**). The management education should result in brand love, positive word-of-mouth, and students' intention to support their university as alumni (**Rauschnabel, 2016**).

The management education needs to be contextualized and need to incorporate the psycho-cognitive and moral aspects in terms of humanitarian and environmental impacts (**Indoo Pandey, 1992**). The reality in the developing countries is replete with the necessity to take risks, the nature of family business, the heritage of colonialism and the route to development India has chosen to pursue. Reconstruction, is thus, a painful business. Such a process cannot be gratified, imported or imposed. In such a case, the result will be an artificial limb. It will necessarily have to come from within, as part of a larger learning within society, from understanding the past and the manner in which it impinges the present. It has been in greater or lesser measure influenced by mainstream literature as the latter has evolved in the west. It has yet to convincingly demonstrate a level of reasonable comfort with engaging Indian realities and positing the latter within an indubitably Indian frame of philosophic references and finally. It has failed to draw upon the creative diverse arsenal of Indian cultural traditions to formulate, design and implement specifically Indian solutions. It is important to teach students how to understand management as an activity. This involves an application of management as a social, political and moral practice, rather than as a set of techniques and skills to be learned and subsequently applied (Grey and Mitev, 1995a; Roberts) (**Ramathan Narayanaswamy, 1992**).

There is a need for incorporation of theories of multiple intelligences in the management education which broadened concept of intelligence beyond intellectual, emotional and social perspectives to include existential and spiritual intelligence (**Aggi Anand, 2017**). There is a need to include integrated and concurrent learning, thoughtful reflection, utilization of life experience, organizational development and that education should be interactive and lifelong. The managers must learn from action by engaging in concrete activities based on solving problems and then reflecting upon these through challenging their own beliefs and feelings about the experience (**Michael Segon et.al, 2010**).

The Business Schools are facing the decline in standards. They are lack of appropriate infrastructure, shortage of adequately qualified faculty, compromise in research activities and converting education institutions into factories (**Weight, 2005**). The quality of management institutes could be improved by implementation of ISO, accreditation and use of innovation in programs (**Komal Chopra, 2016**) and **J J Bailey and Dangerfield, 2000**). There is a need for the institutes to have strategic market orientation and maintain academic reputation while continuing to provide a rigorous curriculum (**J J Bailey and Dangerfield, 2000**).

The business schools need to adopt consumer-based brand equity measures for improving the positioning (**Ashitha Sharma, 2013**). There is a need for identifying the strategies of brand positioning which can be utilized by management institutes for distinguishing and promoting their reputation in order to attract talented students and academic staff (**Sinha,**

**2015**). Positioning is a key concept in marketing, branding and strategy. However, the theoretical and practical usefulness of positioning strategies is in peril due to its many meanings, usefulness and overall vagueness (**Mats Urde, 2014**).

The Higher Educational Institutions (HEI) have to incorporate a better alignment with the business strategy, the system of performance evaluation and management control systems (**Beuren, 2014**). The business schools should act as bridges between academia and the real business world. By becoming knowledge hubs instead of reservoirs, business schools may better contribute to the advance of Management theory and practice (**Ozonol, 2010**).

Argues that the quality of management education depends on the combined efforts on the part of the educational system as a whole, the educational institutions and the faculties.

There is a need for creating systems and processes which ensure sustainability for the business schools. The principles which develop and ensure sustainability in the business schools are values of responsibility, method of creating pedagogies and education approaches, research that advances understanding about the impacts of companies in creating sustainable social, environmental, and economic value, partnership that fosters interactions between managers and academics and dialogue that facilitates debate among representatives of the multiple sectors (**Waddock et al, 2010**).

There are gaps between the stakeholder's expectations as reflected in vision and mission of institution with regard to students'



aspirations and the available competency of the institutions in terms of knowledge, skills and aptitude of the teaching faculty (**Sarnikar, 2011**). There is a need to meet the expectations of all the key stakeholders such as students, faculty, society, industry, government and the global community at large by reorienting mission, vision, holistic faculty development, pedagogical innovations and increased industry-institute interface (**Shwetha and Manoj Kumar, 2011 and Manoj Kumar, 2012**). In this process, there is an inherent danger that business schools could turn out to be elitist and pursuing education here might turn out to be costlier. The students from the disadvantaged background might find it difficult to pursue education in these business schools. The equalized opportunities for students from disadvantaged background could be ensured by charging differential fee and marking policies (**Banwari, 2014**).

The B Schools across the globe are facing the unique crisis of relevance facing by the B Schools across globe. The main building blocks are unclear vision, mission and the management philosophy, unclear idea about the aspirants, governance and accountability, unsuitable pedagogy, and gap between the management education and the industry expectation. There is a need for bringing the desired changes in the management institutes to sustain in the globalised world and add meaning to the education industry (**Phukan, 2015**). The focus of management schools has been only on organized sector enterprises and creating linkages between organized and unorganized sector markets has remained the challenge (**Ashok Chandra, 1992**). The current management education has been conceived as training in the efficient management of the economy (**Hendry, 1992**).

### **INDIA-SPECIFIC KNOWLEDGE:**

Management education has to give emphasis on making management education relevant to the Indian context, the themes to be covered, and the way the topics have to be dealt with. Detailed coverage has to be developed for each subject. Since management is a practice oriented domain, management education has to incorporate an element of on-the job training. This will need a mix of concepts, cases, exercises as well as simulations for themes such as business strategy, market planning, business negotiations, leadership, business ethics and team work (**Shalini Gupta, 2012**). As management education becoming interdisciplinary, it should have a holistic coverage of topics from all the other subjects. Today the management education is largely suffering to bridge the gap between industry and academics (**J Ravi, 2015**). It is important to explore how the management education could be delivered using ancient Indian scriptures. The management education can be designed in a Vedic Learning style for revitalizing practical wisdom for facing the challenges of modern society, both in India and other parts of the world (**S Nandram, 2014**).

### **MANAGEMENT PRACTICES:**

Management is always about people; it's essence is dealing with human nature. A company or organization is conceived solely as an economy; the fact that it is also a community, has been forgotten (**Bhaswati Patnaik, 2008**). Management is an essential part of the day-to-day life of everyone and not merely the preserve of professional managers, entrepreneurs, bureaucrats and politicians. Good management is all about solving problems, not mere the “art of managing contradictions” (**A P Venkateswaran, 1992**).

Sl No	Dimensions	No of articles	%
1	Influence of Culture	11	44%
2	Convergence of organizational culture with local culture	06	24%
3	India-specific practices	03	12%
4	Comparison Between Eastern and Western practices	05	20%
	<b>TOTAL</b>	25	100%

### INFLUENCE OF CULTURE:

Management is predominantly culture specific (**Parthasarathy, 2006**). National and organizational culture can have a pervasive and powerful influence in organizations and in various aspects of global workforce management. Culture is not something that is easily acquired; it is a slow process of growing into a society. It includes learning values, partaking of rituals, modelling on heroes, and understanding symbols. Though there is no common definition of culture, some common components of culture include 'subjective perception' (Trinadis, 1972), 'subconscious mechanism' (Hall 1990), 'acquired behaviour' (Kluckhohn, 1961). Culture has a significant impact on ethical behaviour, advertising, organizational commitment, entry mode choice and international strategic options (Reis et al., 2011).

Management has been hindered as well as facilitated by multiple models of organizational culture (**Nardon L, 2006**). Where the management practices have been adapted as per the local context, it increases the external legitimacy of the organization and leads to increased commitment from the employees. It has become increasingly important to understand the cross-cultural differences and similarities for international partnerships (**Rolwley & Bension 2000**), **Bjorkman & Budhwar 2007**). The work

units where management practices fit better with national culture have higher financial performance and hence it is necessary to adapt management practices as per host country culture. The ways universal practices have been interpreted and implemented varies between countries, organizations and individuals (**Yamamura & Stedham 2004**).

Organizations are growing more similar, while the behaviour of people within them is maintaining its cultural uniqueness. In order to understand the aspects of management in India that are universal and those that are affected by culture, one has to understand the management practices adopted by the organizations in India. According to researchers, there is a need for modern practices to prevail and Indian management should move towards institutionalization of practices over time and across organizations and build a new structure somewhat unrelated to the past. A study of management practices and values adopted by organizations in India will provide an enriched understanding of the differences in these practices according to pattern of ownership. It will also suggest ways for adaptation of management practices in Indian organizations in order to be successful in the present business scenario. The impact of national culture on business has been researched widely and empirical studies have been conducted to understand the role of national cultures on individual as

well as organizational outcomes (**Adler & Gundersen, 2007**).

A growing trend among MNCs is to leverage their organizational practices across their international subsidiaries in order to gain competitive advantage. But due to the cultural context, these have to be adapted according to the local requirements (**Sauers et al, 2009**). An was made to understand the impact of national culture on management practices during economic crises and focused on manager employee relationship, work environment and managers priority in times of crisis. Significant differences were found in the ways these issues were addressed and these were attributed to the differences in their national cultures (**Cotic & Bavec, 2013**). In a comparative study of management in emerging versus developed countries, it was found that management culture and practices of a particular country cannot be generalized into other countries (**Nigam & Su, 2011**). A comparative review of culture on management development revealed that, with the increase in industrialization, the influence of economic and technical factors could be stronger than the impact of culture (**Al-Yahya, 2009**).

#### **CONVERGENCE OF ORGANIZATIONAL CULTURE WITH LOCAL CULTURE:**

Management within a society is very much constrained by its cultural context as it is not possible to coordinate the actions of the people without a deep understanding of their values, beliefs and expressions. There must be culture conscious transfer of skills which must be combined with local adaptation in the receiving country (**Hofstede, 1983**). Convergence theory supports the view that as a result of industrialization and globalization,

the differences between cultures will disappear and it will result in cultural homogeneity. The rationale behind this belief is that management methods are universal and can be transferred and applied in different contexts. Cultures will become entangled and diffused and the stronger culture's influence will prevail. Management principles are marked by their culture of origin and will be resisted if applied in other contexts. Hence, adjustments and compromises need to be made (**Barmeyer et al, 2008**).

Industrialization and use of advanced technology will move all countries to similar systems like US and will overwhelm national difference. This will also lead to identification of best practices which are universal around which organizations would converge. In a study of convergence or divergence in the area of human resource management in Asian region, it has been concluded that while several common patterns were emerging across advanced industrial states, cross-national variations also existed in various aspects of employment relations (**Rowley & Benson, 2002**). Industrialized nations have always been equated to western countries and hence convergence means adopting the values of western capitalistic economies (**Ralston et al, 1997**). There has been convergence of traditional and new values and there has been increased emphasis on training and learning after economic reforms (**S R Chatterjee, 2000**).

The leadership style and management practices are influenced by the state of development of a MNC subsidiary. In the initial stages, the home country's influence is higher as the company is managed by an expatriate manager. As the local managers become more involved, the implementation

of the management practices is influenced by the local traditions. There has been a trend of convergence of traditional Indian management and foreign management approaches in the Indian companies located in India and abroad as well. Indian managers tend to give importance to relevant educational background and experience for employment decisions. A participative management style has been adopted by managers and giving importance to personal relationships between management and employees has been reduced (**Chung et al, 2004**). A misfit between national culture and management practice would reduce effectiveness. Cultural values shape managerial choices across cultures and in turn explain differences in HRM practices (**Gerhart, B, 2008**).

#### **INDIA-SPECIFIC PRACTICE STUDIES:**

India would be able to achieve greatness only by following the management systems based on the cultural traditions and native spirit. The author noted that the irrefutable commandment is that the secular and the material must be informed and invested with the sacred and spiritual. .... India's obligation to herself and to the world is to relive this sacro-secular symbiosis for effective transformation in every epoch (**Chakraborty, 1999**). Some models and constructs, such as those pertaining to job and organizational climate, can be successfully transferred to the Indian context (**Thomas, 1994**). The Indian approach of management appears to be superior as the Indian leadership approach arose from the unique circumstances of the Indian economy and society (**Peter Cappelli et al , 2010**). Indians appear to be moderate on uncertainty avoidance (**Kumar & Sankaran, 2007**).

An “India Way” philosophy which characterizes four major traits of Indian Management could be proposed. According to this philosophy, Indian companies work towards serving a social mission rather than maximization of shareholder value. Secondly, Indian companies tend to focus more on employee empowerment, and provide training and education facilities, along with advocating promotion of existing employees rather than hiring of new ones. Indian organizations also adopt a distinctively Indian approach to problem solving described as 'jugaad' that creates a competitive advantage leading to success. Finally, they combine these practices to form a new business strategy that is based on innovation, creativity and risk-taking. The Indian leadership approach arose from the unique circumstances of the Indian economy and society (**Peter Cappelli et al, 2010**).

#### **COMPARISON BETWEEN INDIAN AND WESTERN MANAGEMENT PRACTICES:**

Management system is based upon centuries of rules and regulations from various dominating empires; different religions; a very influential caste system that, knowingly or unknowingly, intentionally or unintentionally, influences the organizational system of Indian enterprises; the British Raj who ruled India for about 200 years; and more recently, the globalization of world economies and its influence on the Indian management system. also stated that as the socio-cultural environment or the national culture of a country directly influences the organizational culture of a firm, it plays a significant role (Hofstede, 1980; Laurent, 1983) in shaping the management system of a multinational. Tensions between Indian and Western managerial values have been

emphasized by the normative Indian literature that has developed distinctive managerial values and ethics from roots deep in Indian culture”. Due to the hierarchical nature of the Indian culture and mindset, authority is more centralized and decisions tend to be more top-down. Indians are said to be high on uncertainty avoidance (**Roli Nigam et al , 2011**).

Differences have been found in perceived values, status, organizational design and individualism between India and US. Apart from these areas, management styles in India are considered to be closer to US management styles than Chinese styles. An exploration of managerial values post liberalization reveal a shift from old values to contemporary values like quality, learning and teamwork. Though liberalization has brought about a significant change in this area, there still exists a great difference in the practices due to cultural characteristics. Reforms introduced after liberalization have made India an attractive destination for business and Indian business groups have transformed themselves to gain a competitive advantage (**Rienda et al, 2011**).

Management culture in India is in the direction towards professionalization thereby reducing the gap between its own and management culture of other countries resulting in convergence. He also highlighted that the direction in large Indian companies is towards professionalization thereby reducing the gap between its own management culture and that of other countries leading to convergence, based on the study of foreign multinationals adapting to the Indian work values and management practices (**Arora, 2005**). Though the different types of organizations in India adopted different management practices, in the process of

implementation, many modern concepts generated on the basis of western centric cultures as unacceptable and seek compromises and evolve some locally workable system of management (**Virmani, 2007**).

There was variation in management practices within India was greater than in other countries, with relatively large proportions of very good and very bad firms. In addition to the family-owned firms run by eldest sons, government firms also have very poor management practices. It was also found that, the top 10% of Indian firms in the sample were better managed than 75% of US firms surveyed. This suggests that something in the business environment in India permits more heterogeneity in practices and outcomes. It was also found that Indian firms are stronger in people management practices (**Bloom and Reenen, 2007**).

Western norms are not congruent with the Indian values, Indian managers acquire both sets of values and use these differently in different contexts i.e. managers are context sensitive (Simha, 1999). The Indian firms are more personalized and ad-hoc in implementation of the practices while the practices of the western firms are more institutionalized (Amba Rao et al, 2000).

A study of Dutch and Indian employees in four IT companies found that there has been a hybridization of cultural practices, where new cultural practices emerged from interactions between culturally diverse backgrounds and bridged the cultural differences. Dichotomies of western and local management have been replaced by new hybrid work practices with sources of both local and western culture. Hybridization occurs when selective parts of a



management system found effective in one culture are grafted on to the management system of a different culture. There has been a shift in research from the narrow dimensions of cultural management and focusing is on new directions of cross-cultural studies. The emphasis now has moved from establishing whether management is culture free or culture specific to identifying factors – cultural or otherwise which moderate or mediate relationships (Van Marrewijk, 2011).

### CONCLUSION:

The dominant view which has emerged from the survey of literature is that the current management education is not attuned to the management practices. There is no exposure to practical aspects in the management education. It is tending towards commercialization and mass learning and has little relevance to the society. Management is predominantly culture, value and context specific. Management practices gain legitimacy when relevant with the local culture and native spirit. The unique situation arising out of the interface of economy and culture tend to have an influence on the management practices.

### REFERENCES:

- Adler, N J. and Gundersen. A. ( 2007). International Organizational Behaviour. *South-Western Cengage Learning, New Delhi, India*, pp 60-61.
- Aguilera Ruth & John Denker (2004). The role of human resources management in cross-border mergers and acquisitions. *International Journal of Human Resource Management*, vol.15, pp.8.
- Al-Yahya et al (2009). The Impact of Culture on Management and Development : A Comparative Review. *Handbook of Bureaucracy*, ed .Ali Farazmand. New York: Marcel Dekker.
- Amba-Rao S. C. , Petrick J.A., Gupta J., Von Der Embse T.J., (2000). Comparative Performance Appraisal Practices and Management Values Among Foreign and Domestic Firms in India. *International Journal of Human Resource Management*, 11(1), 60-89.
- Aggi Anand, A. A. (2017). Spiritual Intelligence and Employability Skills – An Empirical Study among Business School Students in Kerala. *IJEMR*, 7 (1).
- Arabinda Debnath, P. R. (2015). A Critical Study on The Present Position of Management Education in Assam. *International Journal of Research in Commerce, IT & Management*, 5 (11), 27-30.
- Arora, D. (2005). Foreign multinationals in India: Adapting to India's work culture and management practices. *Schmeisser W., Hummel TR, Hannemann G., & Ciupka D., Internationale Geschäftstätigkeiten in Asien. München und Mering, Germany: Rainer Hampp.*
- Ashita Sharma Aggarwal, R. V. (2013). Measuring consumer-based brand equity for Indian Business Schools. *Journal of Marketing for Higher Education* , 23 (2), 175-203.
- Asifulla, A. (2013). Why MBA Students Are Not Employable? *International Journal Of Research In Commerce, IT & Management* ,3 (8), 120-123.
- Aycan Z.(2000). Cross-Cultural Industrial and Organizational Psychology: Contributions, Past Developments, and

Future Directions , *Journal of Cross-Cultural Psychology*, Vol :31 : Issue No.(1), 110-128.

Bailey, A. R. et. al. (1999). Continuous Improvements in Business Education: Insights from the for-profit sector and business school deans. *Journal of Education for Business*, 74 (3), 165-180.

Balanagarajan, M. K., & Senthil, D. M. (2015). Management Education: Current Scenario and strategies for quality enhancement. *Zenith International Journal of Business Economics & Management Research*, 5(1), 192-202.

Banwari, V. (2014). Socio-Economic Background Of Management Students Of Public And Private Institutions In Delhi. *International Journal Of Research In Commerce, It & Management*, 4 (4), 37-42.

Barua, Samir K (2009). "Create Indian Management Theories". *Interview Business India*, November 1.

Barmeyer , Christopher et al ( 2008). "The Contribution of Intercultural Management to the Success of International Mergers and Acquisitions : *An Analysis of the EADS group*. Vol.17, Issue 1, 28-38.

B. Gangaiah, J. V. (2013). Impact Of Indian Management Education In Developing Entrepreneurial Aspirations And Attitudes Among Management Students. *Asia Pacific Journal of Research*, 1 (12), 1-10.

Bjorkman I & Budhwar P (2007). When in Rome...? Human Resource Management and the Performance of Foreign Firms Operating in India. *Employee Relations* 29(6): 595-610.

Bloom Nicholas et al "Healthy Business? Managerial Education and Management in

Healthcare", *Working Papers 18-025, Harvard Business School* 2017.

Bloom N, Reenen J. V ( 2007)., Measuring and Explaining Management Practices Across Firms and Practices , *The Quarterly Journal of Economics*. CXXII(4), 1351-1408.

B.V.R. Naidu, O. S. (2015). Management Education in India: Issue and Concerns. *International Journal of Academic Research*, 2 (2(8)), 79-83.

Cappelli, Peter. et al , " Leadership Lessons From India", *Harward Business Review*, March 2010.

Chacha, J. Z. (2015). The Demand Increase for Management Education: Challenges and Implications for Teaching and Learning in Tanzania's Universities. *GENERAL EDUCATION JOURNAL*, 4 (1), 1-15.

Chakraborty, S K.(1991). 'Management by Values-Towards Cultural Congruence. *Oxford University Press: New Delhi*.

Chakraborty, S K. (1999). Ethics in Management : Vedantic Perspectives. *Oxford University Press : New Delhi*.

Chaudhury, Sarita et al., (2011) Emerging Issues in Management Education in India. *VSRD International Journal of Business and Management Research*.

Chopra, Komal. & D. P. (2016). Role of ISO in Improving Quality of Management Education in India. *International Journal of Research in Commerce, IT & Management*, 6 (5), 34-37.

Cotic Aprila & Bavec Cene ( 2013). Some Empirical Insights into Cultural Differences And Management Practices: The Case Of

Denmark And Slovenia. *Dynamic Relationships Management Journal*.

Chung et al (2000). The influence of subsidiary context and head office strategic management style on control of MNCs : The experience in Australia. *Accounting, Auditing and Accountability Journal*.

Datar, M.Srikant , Garvin , A. David & Cullen, G. Patrick.(2010). Rethinking the MBA : Business Education a Cross Roads. Boston: *Harvard Business Press*.

Erez E ( 2000). Immigration, Culture Conflict and Domestic Violence/Woman Battering. *Crime Prevention and Community Safety*. 2, 27-36.

31. Gerhart, B. (2009), "Does national culture constrain organization culture and human resource strategy? The role of individual level mechanisms and implications for employee selection", Martocchio, J.J. and Liao, H. (Ed.) *Research in Personnel and Human Resources Management (Research in Personnel and Human Resources Management, Vol. 28)*, Emerald Group Publishing Limited, Bingley, pp. 1-48.

Gopalan S., Stahl A., (1998). Application of American Management Theories and Practices to the Indian Business Environment: Understanding the Impact of National Culture. *American Business Review*. 16 (2). 30-41.

Gupta, A. (1992). The informal education of the Indian Entrepreneur, *Journal of Small Business and Entrepreneurship*, 9(4), 63-70.

Gupta, K. G. Vipin. (2003). Quality in Business Education: Study of the Indian Context. *Trends and Prospects Conference. Technology Square, Atlanta, Georgia, USA*.

Gupta, U. C. Shalini. (2012). Problem & Prospects of Management Education in India. *International Journal of Research Review in Engineering Science and Technology* , 1 (1), 65-68.

Hofstede, G. (1983). National Cultures Revisited. *Behavior Science Research*, 18(4), 285–305. <https://doi.org/10.1177/106939718301800403>.

Ilse Maria Beuren, S. A. (2014). Evaluation Of Management Control Systems In A Higher Education Institution With The Performance Management And Control. *Journal of Information Systems and Technology Management*, 11 (1), 169-192.

J.J Bailey. & B. Dangerfield. (2000). Applying The Distinction Between Market Oriented and Customer led strategic Perspectives to Business School strategy. *Journal of Education for Business*, 75 (3), 183-187.

J Pfeffer et. al. (2002). The End of Business Schools? Let Success Than Meets the Eye. *Academy of Management Learning and Education*, 1 (1), 78-95.

Jeffrey Pfeffer and Christina T. Fong, “The Business School 'Business': Some Lessons from the U.S. Experience,” *Journal of Management Studies*, 41/8 (December 2004): 1501-1520; Ken Starkey, Armand Hatchuel, and Sue Tempest, “Rethinking the Business School,” *Journal of Management Studies*, 41/8 (December 2004): 1521-1531.

Jr Louis F Jorden et. al. (2000). Higher Evaluation (Evaluation); A quality is not customer driven. *Journal of Business Education*, 298-300.

Kang Sharma et al ( 2012) . Globalization : Its



- impact on Management Education in India. *Pacific Business Review International*, 5(2), 73-79.
- Ken Starkey, Armand Hatchuel, and Sue Tempest, "Rethinking the Business School," *Journal of Management Studies*, 41/8 (December 2004): 1521-1531.
- Kumar, S. &. (2011). Management Education in India: Issues & Challenges. *Journal of Management & Public Policy*, 3 (1), 5-14.
- Kumar and Sankaran (2007). Indian Culture and the Culture for TQM : A Comparison, *The TQM Magazine*, Vol.19, p,176-188.
- Kumar K. Ashok, Rao , Bala Nageswara and Mohan J. Madan ., (2013), Management Education in India, Roles of the Institutes of Management, Past Present and Future Trends. *Journal of Educational Research (Jer)* 1(1), 1-16.2.
- L R Irala et al ( 2006). Performance Evaluation , Economic Value Added and Managerial Behavior , PES Business Review, 47. Lee Weyant. and Kutztown University, Designing Online Management Education Courses Using the Community of Inquiry Framework, *Journal of Instructional Pedagogies*. 2013; 3(5):1-14.
- MRDA.(2014, October 26). *India's B-School Market is Maturing*. *Business Today*, 23 (21) , pp.1-1.
- MacNamara, Margaret., Meyler, M.& Arnold, A(1990) Management Education and the *Challenge of Action Learning*, *Higher Education*, 19(4), 419-433.
- Maheshwari, D. S. (2013). Management Education: Current Scenario in India. *IOSR Journal of Business and Management (IOSR-JBM)*, 66-70.
- Mats Urde, C. K. (2014). Market and brand-oriented schools of positioning. *Journal of Product & Brand Management* , 23 (7), 478-490.
- Michael Segon et. al. (2010). Addressing MBA Shortcomings: Developing Management Competencies through Reflective practice. *Journal of Business and Policy Research*, 5 (2), 180-196.
- Miranda, R. A. (2015). Management Report for Marketing in Higher Education Based On Data Warehouse and Data Mining. *International Journal of Multimedia and Ubiquitous Engineering*, 10 (4), 291-302.
- Mohammed Abdullah Mamun (2009). Management Education for Contemporary Challenges: *The Role of Business School*, *European Journal of Scientific Research*. 30(4):649-661.
- Morden T (1999). "Models of National Culture- Management Review "Cross Cultural Management : *An International Journal* , Vol 6, No.1 , pp, 19-44
- Mukherjee, D. (2014). Factors of Management Education in India as Perceived by Learners and Providers: *An Empirical Study*. *EBSCO*, 2 (18), 73-80.
- Nardon L et al (2006). Navigating The Culture Theory Jungle: *Divergence and Convergence in Models of National Culture*. *Vlerick Leuven Gent Working Paper Series*.
- Nigam and Su (2011). Management in Emerging versus Developed Countries : A Comparative Study from the Indian Perspective. *Journal of Centrum Cathedra*. Vol.4, Issue 1, pp 121-133.
- Noronha, M. &. (2011). Management

Education At Cross Roads In India. *Asia Pacific Journal Of Research In Business Management*, 87-101.

Ojah, Abhoy K (2005). 'Management Education in India: *Protecting it from the ranking onslaught*'. *Decision*. Vol 32, No.2.

Ozonol, Santiago Iniguez. (2010). Management Education : The best is yet to come. In "From Challenge to Change: Business Schools in the wake of financial crisis' (A Compendium of Essays put together by Global Foundation for Management Education) accessed from [www.gfme.org/pdf/complete\\_web.pdf](http://www.gfme.org/pdf/complete_web.pdf).

Owen Hall, Terry Young. Management Education Benchmarking Designing Customized and Flexible MBA Programmes, *Journal of College Teaching & Learning*. 2007; 4(3):33-39.

P.R. Trivedi & K.N. Sudarshan. (2003). Management Education. Indus International Palo & Padhi. (2005). How HR Professional drive TQM. *The TQM Magazine* , 17 (5), 467-485.

Patel Bhavin Arvindbhai. Business Management Education in India: Evaluation Challenges and Future Actions. *Journal of Advances in Developmental Research*. 2012; 3(1):50-54.

Patnaik , Bhaswati , Social Sciences in Management Education: *ASBM Journal of Management*, Vol.1, No.1, 2008

Parthasarathy, Swami. (2006). Human Value Management -20 Key Principles for Modern Management. Ane Books India : New Delhi.

Phukan, M. P. (2015). B-Schools In India: Re-Engineering Is The Need Of The Hour An

Analysis Based On. *International Journal of Management and Social Science Research Review* , 1 (14), 119-126.

Prashanth, D. &. (2013). Students' Expectations from Management Education. *International Journal of Research in Management* , 2, 208-220.

Preshni Srivastava, P. K. (2015). Recent Trends in Management Education. *International Journal of Science, Technology & Management* , 04 (01), 1037-1044.

Pillai and Garg ( 2011) . Attitudes and Perceptions of Students of Business Schools in Punjab Towards Treatment of Ethics in Marketing. *The FedUni Journal of Higher Education* 6(3), 60-81.

R. Anita. (2016). Quality of Management Education in India – Concerns & Challenges. *International Journal of Research in Economics and Social Sciences* , 6 (5), 54-60.

R.Balaji. (2013). Trends, Issues and Challenges in Management Education. *International Journal of Innovative research in Science, Engineering and Technology*, 2 (4), 12571262.

Ralston A David et al.(1997). The Impact of National Culture and Economic Ideology on Managerial Work Values : A Study of the United States, Russia, Japan, and China, *Journal of International Business Studies* 28,177-207.

Rakesh Khurana, From Higher Aims to Hired Hands: The Social Transformation of American Business Schools and the Unfulfilled Promise of Management as a Profession (*Princeton, NJ: Princeton University Press*, 2007).

- Ramaswamy. (2005). Strategic Change in U.S. Business Schools: A strategic Group Analysis. *Journal of Education for Business*, 72 (1), 343-347.
- Ranjitha, D. S. (2016). Trends, Issues And Challenges In Management Education In India. *International Journal of Current Research and Modern Education(IJCRME)*, 1 (1), 269-272.
- Rauschnabel, A. P. (2016). Brand management in higher education: *The University Brand Personality Scale. Journal of Business Research*, 69 (8), 3077-3086.
- Razi-ur-Rahim, D. M. (2012). Measuring Service Quality and Student Satisfaction In NAAC Accredited B-Schools. *Asia Pacific Journal of Research in Business Management* 3 (1).
- Rienda L., Claver E., Quer D.,(2011). Doing business in India : A Review of Research in Leading International Journals. *Journal of Indian Business Research*, 3 ( 3), 192-216.
- Roli Nigam et al (2011)., Management in Emerging Versus Developed Countries: A Comparative Study from an Indian Perspective. *Journal of CENTRUM Cathedra*. 4(1).
- Rowley Chris & Benson John, Convergence and Divergence in Asian Human Resource Management, *California Management Review*, 44(2), DOI: 10.2307/41166124.
- S R Chatterjee (2000). Indian Managers in Transition : Orientation, Work Goals, Values and Ethics, *Management International Review*, 40(1): 81-95.
- Saha G Gautam., (2012) Management Education in India: Issues and Concerns. *Journal of Information Knowledge and Research in Business Management and Administration*, 2(1), 35-40.
- Salamon , Greame. (2002). India Need Not Follow Western Biz Model, Interview. *The Hindu-Business Line*. Oct 1.
- Sharma, G.D. (2001). *Management and the Indian Ethos*, Rupa and Co : New Delhi.
- Sharma, Subhash (2002). Corporate Rishi Leadership Model : An Indian Model for Corporate Development & Ethical Leadership. Published in the book” Human Resource Development in Asia: *Trends and Challenges*”, Oxford & IBH, New Delhi, 2002.
- Shweta, Manoj Kumar. Management Education in India: Issues and Challenges, *Journal of Management and Public Policy*. 2011; 3(1):1-11.
- Sinha, S. (2015, June-Dec 1). Brand Positioning of Management Institutes - A Study of National Capital Region. *Amity Business Review*, 16 (2), pp. 74-90.
- Srinivasagowda, M. D. (2013). Review of Business Education in India - A perspective. *JMSD*, 167-176.
- S. Nandram, S. (2014). Vedic learning and management education. *Journal of Management Development*, 33 (8/9), 860-870.
- Thomas, A.S., and Philip, A.(1994). India: Management in an Ancient and Modern Civilization. *International Studies of Management and Organization*, 24 ( 1-2), 91-115.
- Thomas, H. (2010). Impactful Management

Research: The importance of finding the voice of practice in management research . In "From Challenge to Change: Business Schools in the wake of financial crisis' (A Compendium of Essays put together by Global Foundation for Management Education) accessed from [www.gfme.org/pdf/complete\\_web.pdf](http://www.gfme.org/pdf/complete_web.pdf)

T V Rao, S. S. (2014). Responding to Industry Needs: *Reorienting Management Education*. *Vikalpa*, 39 (4), 1-10.

T.V. Raju, S. (2015). Managing Management Education: A Current Scenario. *AIMA Journal of Management & Research* , 9 (2/4).

Van Marrewijk, A. H. (2011). Aesthetic experiences of designed organizational space. *International Journal of Work Organisation and Emotion* , 4 ( 1 ) , 61 - 77 . <https://doi.org/10.1504/ijwoe.2011.041531>.

Vrat P. (2009) Role of Technical Education in Emerging Indian Society : *Opportunities and Challenges*. *RITES Journal* 11(2) , 9.1-9.10.

Vigna Oza, S. P. (2011). Quality Management Education in India in the 21st Century. 2011 International Conference on Advancements in Information Technology With workshop of ICBMG 2011. 20, pp. 239-242. *Singapore: IACSIT Press, Singapore*.

Virmani B. R.(2007), The Challenge of Indian Management. *Sage Publications, India*.

Waddock Sandra et al (2010). The Principles

of for Responsible Management Education - Where do we go from here ?, *Towards Assessing Business Ethics Education*, *Information Age Publishing*.

Warren G. Bennis and James O'Toole, "How Business Schools Lost Their Way," *Harvard Business Review*, 83/5 (May 2005): 96-104; Henry Mintzberg, *Managers Not MBAs* (San Francisco, CA: *Berrett-Koehler Publishers*, 2004)

Weight, B. &. (2005). The MBA is dead- part 1: GOD Save MBA. *On The Horizon* , 13 (4), 229-240.

Wilson, S. R. (2002). Changing the way MBA programs do business-lead or languish. *Journal of Education for Business*, 77 (5), 296-305.

Yamamura and Stedham (2004). Measuring National Culture : Does Gender Matter ?. *Women in Management Review*.19(5): 233-243.

Yasir Arafat Elahi, A. R. (2013). A detailed Study on Issues and Challenges of Management Education in Digital Age with Special Reference to Lucknow District. *Romanian Journal for Multidimensional Education* , 5 (1), 215-233.

Yelena, Istileulova. &. Darja, Peljhan. (2013). How Accreditation Stimulates Business School Change : *Evidence from Commonwealth of Independent States*. *Dynamic Relationship Management Journal* , 15-30.

## RESEARCH

### Factors Affecting The Usage Of Banking Services: A Religion-based Study In Malda District Of West Bengal

Md. Wakil Hossain\* Dr. Abhijit Sinha\* Prof. Tagar Lal Khan\*

---

#### ABSTRACT

*Financial inclusion is accepted worldwide as a pathway of inclusive growth. This study focuses on the aspect of 'usage of banking services' towards financial inclusion and looks into the effect of religious practices of communities of Malda district that is relatively backward and Muslim dominated. Primary data is collected from five hundred respondents using a structured questionnaire on the basis of multistage sampling method. Results of factor analysis show that knowledge about products and satisfaction about banking services are the prominent factors that give incentive to people to avail banking services. Moreover, the two extracted latent variables viz. customer experience on banking service and customer attitude towards banking products are two important aspects that affect 'usage' of such services. Contrary to the general perception, the study finds relative less significance of staff behavior and banking transaction time in the use of banking services. The study finds no significant difference in the usage of banking services between the Muslim and non-Muslim communities.*

**KEYWORDS:** Financial Inclusion, Usage, Banking, Religious Communities

---

#### INTRODUCTION:

Financial inclusion contributes to the inclusive development of the nation and India is no exception. It is, therefore, among the key priority areas of the government of all economies across the globe. The Rangarajan Committee (2008) set up by the Reserve Bank of India (RBI) considers the term as a process which ensures timely and adequate access to financial services by the vulnerable groups (weaker sections and low income groups) at

an affordable low cost. In the same tone, the RBI considers it as a process of ensuring easy access of appropriate financial products and services to the vulnerable groups at an affordable cost in a fair and transparent manner. By financial products and services, we generally relate it to banking services. However, in a true sense, it also includes insurance, remittance services, payments etc. It is, therefore, clear that there is a need for active participation from the suppliers' end

---

\*Md. Wakil Hossain, Goenka College of Commerce and Business Administration, West Bengal, India  
Email: mdwakhossain@gmail.com

\*Dr. Abhijit Sinha, Commerce, Vidyasagar University, West Bengal, India.  
Email: abhijitsinha\_091279@rediffmail.com

\*Prof. Tagar Lal Khan, Commerce, Vidyasagar University, West Bengal, India. Email: tagarkhan@yahoo.com



(financial institutions) and also from the targeted group in order to bring success to the movement of financial inclusion. The contributions of Sharma (2008, 2010), Chattopadhyay (2011) and Kuri and Laha (2011) highlight that financial inclusion has three dimensions which are penetration, availability and usage. Penetration indicates the number of adults having bank accounts, availability relates to the number of bank branches per square km. and usage focuses on the extent of banking transactions in respect of deposit, credit loan etc. Several initiatives and measures have been taken by the policy-makers in India from time to time but still the country does not stand in a good position as pointed by Hamidu (2014). The recent three-phased inclusion plan is another focused strategy in that direction which is yielding results as evident from the success of Pradhan Mantri Jan Dhan Yojana (PMJDY).

In this paper, the researchers look exclusively at the 'usage' aspect of banking services in Malda district of West Bengal. The findings can guide bankers and policy-makers in identifying the key issues governing usage. The investigation is done with a focus on the Muslim community to see which factors govern 'usage' of banking services among Muslims and others.

### **NEED FOR THE STUDY AND RESEARCH QUESTIONS:**

In the global survey by Demircuc et al. (2015), it is observed that one-fourth of the adults in Muslim-dominated countries considered religion as a key hindrance in promoting financial inclusion (Demircuc-Kunt et. al., 2015). The same study reported that there was a much lower participation rate among the Muslims in borrowing from banks along with a lower rate of owning an account

with a bank. In another study, Karlan et al. (2019) found that cost of banking products had an effect on the financial inclusiveness among the Muslims. An interesting finding in the same study is that religion and cost factor were two important factors that affected the usage of financial services. However, the research by McCawley (2004) mentioned that Muslims believed that conventional banks made an improper use of the money that will be kept by the banks. With regard to Muslims, the study by Dusuki and Addullah (2007) found that in the selection of banks and formal financial institutions, religious motive was not the only governing factor. There were many other factors which included availability of ATMs, bank staff behaviour, cost element and few others. The data in India on the inoperativeness of accounts opened under the Pradhan Mantri Jan Dhan Yojana shows that 18.71% remain dormant (Hindu Business Line, dated February 6, 2020) which points to low usability of the accounts. Hence, the real purpose of opening bank account is not served. Thus, the paper addresses the issue by capturing responses to know which factors influence the usage rate. *The first research question is:-*

*What are the factors that influence the banking habit (usage) among people of the Muslim and Non-Muslim communities?*

In the review of other set of articles, the issue of demography and experience in banks are also highlighted. The research paper contributed by Demircuc et al. (2013) found that Muslims had a lower tendency to open and operate banks accounts compared to non-Muslims. Karlan et al. (2019) found that both religion and cost were identified as key obstacles in the usage process. Furthermore, it highlighted the issue of religion as observed in Sub-Saharan Africa. Similar such finding has been established in the study of Beck and

Brown (2011) where Muslims are found to be less financially included compared to non-Muslims. The study also mentioned that bank employees showed discriminatory practices towards handling Muslim customers. Moreover, the research found that Muslims had a lower tendency to choose traditional products. The issue of banking and other formal financial institutions holds relevance especially for Muslims as according to their religious belief, the concept of all forms of interest (or *riba*) is illegal (Ghannadian & Goswami, 2004). The study by Kim et al. (2020) finds that religious and non-religious factors have an impact on financial inclusion and this is more seen in the case of the Muslim community. Thus, the second research question that this paper addresses is:

*- Is there any difference between the Muslim and Non-Muslim communities with respect to usage of banking services?*

This question is so very relevant in the Indian context following the Justice Sachar Committee report (2010) which highlighted the issue of backwardness among the Muslim community in respect of key developmental parameters.

### **SIGNIFICANCE OF THE STUDY:**

There are research evidences which show that financial inclusion can contribute immensely to the economic development and progress of a country. In line with this, all countries including India have been adopting developmental measures for improving the level of inclusiveness. The key focal point of this research is a special emphasis on the Muslim community which is found to be relatively backward on various fronts and therefore require attention as evident from the Justice Sachar Committee (2006) report which further pointed that this religious community was losing out to other low-caste

groups. The gap between the Muslim and Hindu community has been widening; from 9 percentage point in 2011-12, it increased to 11 percentage point in 2017-18 which stood at 8% for West Bengal. Moreover, a NSSO report mentioned that the percentage of Muslims who enroll in a formal system was even lower than that of the Scheduled Tribes. The Committee mentioned that with regard to the economic profile, majority of the Muslims were engaged in inferior jobs due to which their average income was also lower than the Hindus and other communities. Another interesting issue is that the access to bank credit by this community was comparatively much lower than others. Thus, there are various issues connected to the religious factor and financial inclusion is an area that the researcher studies in this contribution with due consideration to this religious aspect. Hence, the research is an endeavor to look into the usage-related issues in financial inclusion particularly to the Muslim community that will help to identify the hurdles and improve the level of inclusiveness which is at a poor position even today so several countries agreed to ensure 'Universal Access to Finance' by 2019.

### **There are dual objectives of the paper which are as follows:**

- i. To identify the key factors that affect the 'usage' of financial services among the Muslim community and others, and
- ii. To identify difference, if any, in respect of usage among the Muslims and non-Muslims.

The following part of the paper is structured as follows. Section 2 deals with the literature review that helps to identify the research gap. Section 3 discusses the research design which is followed by Section 4 that gives the results

of the analysis. Section 5 presents the key findings of the study in line with the two research questions. Section 6 discusses the practical implications of the research which is followed by the last section on scope for further research.

### LITERATURE REVIEW:

There are numerous studies that look into the issue of financial inclusion in India and abroad. A brief discussion of some of the literatures is given. Kuri and Laha (2011) find the effect of caste and religion on financial inclusion performance level. Ghosh (2020) also recognizes the importance of religion in influencing the access to and use of finance. The author finds that a significant disparity in both access and usage of finance exists when the criterion is religion. The researcher also notes that interest rate is a key factor in driving the use of formal finance by Muslims. Wonkim et al. (2020) in their study find the impact of religion on financial inclusion after examining the dataset of OIC (Organization of Islamic countries) and non-OIC countries. The findings highlight the relatively poor level of inclusiveness among the Muslims. Umar et al. (2019) in their study on the impact of religion and interest rate on financial inclusion of the Muslim community find that the former, and not the latter, was an issue in financial inclusion in Nigeria. Rajsekaran (2018) looks at the barriers to financial inclusion. Ozili (2018) studies the relationship between digital finance and financial inclusion and its success in spreading inclusion levels. Nandru et al. (2016) specifies some important elements of financial inclusion and notes that ownership of bank accounts indicates not only financial inclusion but also socio-economic status. Mukherjee and Mallick (2015) note that though a large number of savings bank

accounts have been opened under the Swabhimaan programme, most of them lie in the dormant stage. Unnikrishnan and Jagannathan (2015) note that financial inclusion means accessibility, availability and usage of the formal financial system for all segments of the society. Dhar (2015) studies the role of business correspondents and business facilitators in respect of extending access to banking services to the remote villages. Trivedi (2015) highlights the concern arising from low financial inclusiveness in the country. Selvakumar et al. (2015) mention that bank interest is a key factor that affects the usage of accounts in the formal financial system. Kolloju (2014) critically looks into the new models for delivering banking inclusiveness which includes business correspondents, business facilitators, self-help groups, non-governmental organizations. Kaur and Tanghi (2014) in their deliberation look at the different national and global issues related to financial inclusion. Banerjee and Francis (2014) in their inter-state assessment find the dominating position of Kerala, Maharashtra and Karnataka. Nahar and Bhatia (2014) in their investigation on the relationship between GDP and financial inclusion find a positive relationship between GDP and banking penetration and also point to the demand and supply-side barriers. Chauhan (2013) highlights the need for financial inclusion in a country like ours where a large section of the populace lives in rural areas where formal banking facilities are not easily available. Bajrang and Kumar (2013) look at the contribution of different financial intermediaries in financial inclusion. Chakraborty (2013) observes that inclusive growth and sustainable economic development mainly depends on the formation of capital through adequate credit



and necessary financial services. Shibani (2013) finds that though financial inclusion got fresh priority in 2005, a huge percentage of the population is financially excluded from the formal financial facilities. Shankar (2013) states the encouraging role of microfinance institutions in financial inclusion. Agarwal and Klapper (2013) conceptualize financial inclusion and explain the scope of inclusive growth through cooperative banks in India. Kunt and Klapper (2013) in their global study find a huge disparity in the financial inclusion levels among the high income and developing countries. The study states that age, income, insufficient scope for investment, religion, high transaction costs and distance of the bank branches are the key factors that lead to high level of exclusion. Adeyemia et al. (2012) in their study on Nigerian entrepreneurs find the problem of involuntary and voluntary exclusion. The investigation reveals the lack of financial services is more significant than the lack of access among the poor Muslims. Ram et al. (2012) consider financial inclusion as a prerequisite for poverty alleviation, sustainable economic growth and inequality reduction among the poor people of the remote areas. Singh and Tandan (2012) explain the impediments to the success of financial inclusion in India. Kuri and Laha (2011) look into the position of financial inclusion in some selected districts of West Bengal which shows a wide inter-district gap in index. Chattopadhyay (2011) in the study on financial inclusion in Indian states and selected districts of West Bengal finds huge disparity among the states. Sharma (2010) elaborates the importance of inclusive financial system for equitable growth in any economy. Chibba (2009) establishes the relationship among financial inclusion, poverty reduction and Millennium Development Goals. The author also specifies

the role of microfinance institutions in promoting financial inclusion in a country like Bangladesh. Sharma (2008) makes a comparative assessment among the different states and countries on the basis of the index score. Thus, it is evident from the discussions that financial inclusion has spanned across a wide spectrum.

### **RESEARCH GAP:**

The majority of research contributions in India look into the supply-side of financial inclusion. This investigation analyses from the demand-side by studying the 'usage' aspect of financial inclusion with a focus on religion by considering both Muslims and other religious communities which is rarely covered in the earlier contributions. Moreover, the investigation makes a comparative assessment between Muslims and others which is rarely done in other contributions in this subject. Thus, this research is a further addition to the contributions already made in this line of study.

### **RESEARCH DESIGN:**

The robustness of results depends on the research design, the details of which are given below.

- 1. Data Type And Data Source:** The present study is based on primary data which is collected from five blocks (Kaliachak-II, Kaliachak-III, Manichak, Chanchal-I and English Bazar) of Malda district in West Bengal.
- 2. Sample Size:** For collecting the primary data, five hundred respondents are chosen from the randomly selected respondents from each of the ten villages chosen under the five blocks of Malda districts in West Bengal.
- 3. Sampling Design:** For the collection of

primary data, structured questionnaire method is used which collects information on the demographic profile of the respondents and also the habits that are reflective of the extent of financial inclusiveness. For the purpose, five blocks are chosen purposively keeping in view the different parts of the district and of the dominance of Muslim population in the blocks. The blocks that are chosen in the first stage include Chanchal-I, Manikchak from northern part of Malda; Kaliachak-II and Kaliachak-III from southern part and the English Bazar block from the central part of Malda district to get the financial inclusion status of whole area of this concern district. In the case of selection of villages from each block, simple random sampling method is followed which means that each and every unit of the population has an equal opportunity of being included in the sample in an unbiased way. Then finally, from every village ten respondents are chosen that makes the total number of respondents to be five hundred. The responses have been so collected that it represents both the Muslim and non-Muslim community for deciding the ratio between the two communities, the ratio of the two types of populations in the district is considered.

#### **4. Description of the data sample**

The entire sample of five hundred respondents comprises of 57.6% from the Muslim community and the remaining from the other communities. In terms of the caste distribution, among the Muslim respondents, 81% belong to the 'General' category, whereas the remaining is from the OBC-A category. Similarly, 65% of the respondents from the non-Muslim community belong to the General

category. In terms of the educational qualification, 56% pursued their studies till the secondary level which is a little less than 53% which is observed for the Non-Muslim community. In terms of the income distribution, among the Muslim category, almost 69% have an earning up to Rs. 15,000 every month which is 74% for the non-Muslim category. Regarding the occupation status, in both the communities, close to 70% belong to the informal sector.

#### **ANALYSIS AND FINDINGS:**

In this section of the study, the detailed results are highlighted by the researchers. The results for both communities (Muslim and others) are given. But, the initial discussion briefly describes the research method used for the study.

##### **1. Research Method Applied**

The empirical research focuses only on the 'usage' dimension of financial services in the background of high number of dormant accounts. The collected data is analyzed using factor analysis, which is regarded as a dimension reduction technique.

The variables considered under the 'usage' dimension are as follows:

Variable 1: Knowledge about Traditional Products

Variable 2: Knowledge about Non-Traditional Products

Variable 3: Bank office staffs are helpful and well behaved

Variable 4: Completing banking transactions take time

Variable 5: The banking services are satisfactory

Variable 6: You are satisfied with banking products

In order to understand whether the data is fit for factor analysis, the Keiser-Meyer-Olkin (KMO) test and Bartlett's test of Sphericity are applied. The former tests for the adequacy in data whereas the latter tests for the absence of correlation among the variables. As the analysis shows rejection of the null hypothesis in both the tests, factor analysis is applied. Hence, the other outcomes are accordingly considered which include communalities, total variance explained and extracted component matrices. The application of factor analysis technique gives an idea about the key factors that explain the variability in usage. In the latter part of the study, in order to understand the usage of banking services by both Muslims and non-Muslims, weighted index is computed by considering data-driven weights for each variable under 'usage' dimension from the results of factor analysis. For testing any significant difference in usage between the two broad religious groups of Muslims and non-Muslims, Wilcoxon ranked sum test is applied. The null hypothesis of the test is as follows:

$H_0$ : There is no difference between the two communities on the basis of median of differences.

## 2. Results for Pooled Data Set (Muslim and others)

In order to apply factor analysis, initially we need to test for data suitability. For this, the researchers perform the KMO and Bartlett's test of Sphericity. The former gives a value of 0.620 which exceeds the threshold value of 0.50 given by Kaiser (1974). Hence, the method is suitably applicable. The latter test gives a p-value of less than 0.01% which thereby rejects the null hypothesis that the correlation matrix is an identity matrix.

Table 1 on communalities of data set indicates that variables 1, 2 and 5 under the 'usage' dimension are relatively more important than others. In other words, 'Knowledge about traditional products', 'Knowledge about non-traditional products' and 'Banking services are satisfactory' are the three issues that have more influence in determining the extent of usage of banking services. On the other hand, variables like "Completing banking transaction take time" (variable 4) and "Bank office staffs are helpful and well behaved" (variable 3) are the least important. The variable (no. 6) viz. "Satisfaction with banking products" plays a moderate role in promoting the usage of banking service.

**Table 1 : Communalities of Data Set**

Var. No.	Variable	Initial	Extraction
1	Knowledge about Traditional Products	1.000	.583
2	Knowledge about Non-Traditional Products	1.000	.670
3	Bank office staffs are helpful and well behaved	1.000	.465
4	Completing banking transactions take time	1.000	.258
5	The banking services are satisfactory	1.000	.583
6	You are satisfied with banking products	1.000	.539

Source: Computed by the researchers. Extraction Method: Principal Component Analysis

From Table 2, it is evident that two components are significant (eigen value being more than one). We find that the two

significantly extracted components together explain 51% of the data variability.

**Table 2 : Results of Total Variance Explained**

Components	Variance Explained		
	Eigen Value	Explained %	Cumulative %
1	1.824	30.406	30.406
2	1.273	21.223	51.629
3	.939	15.657	67.286
4	.737	12.291	79.577
5	.620	10.326	89.903
6	.606	10.097	100.000

Source: Computed by the researchers. Extraction Method: Principal Component Analysis

Next, the results of un-rotated and rotated component matrices are presented (see Table 3). In the un-rotated matrix, it is seen that the variables position themselves in such a way that each variable does not fall under a particular component. In other words, there are complex variables that relate to both the extracted components. For example, all the variables excluding variables 3 and 4 find position in both the components. Hence, in order to better understand the structure of the underlying data and their loading on any specific factor, the researchers apply varimax rotation whose results are given in the right two columns of Table 3.

It is observed that variables 3, 4, 5 and 6 have loading on the first extracted component whereas variables 1 and 2 have loading on the

second extracted component on the basis of their proximity in relationship with the factor. The first component is found to be highly correlated with variables 5 and 6 and moderately correlated with variables 3 and 4. The extracted second component, on the other hand, is highly correlated with variables 1 and 2. Variable 3 has a loading factor on both the extracted components and it therefore indicates that both the components are moderately correlated with this variable. On the basis of grouping of the variables, it is seen that the third variable is a complex variable which is related to both the components. The two extracted components (after rotation) are named as 'Customer Experience on banking service' (Component 1) and 'Customer attitude to banking products and people' (Component 2).

**Table 3 : Component Matrix**

Var. no.	Description of the variable	Extracted Components (Un-rotated)		Extracted Components (Rotated)	
		Comp. 1	Comp. 2	Comp. 1	Comp. 2
1	Knowledge about Traditional Products	.610	.459	---	.752
2	Knowledge about Non-Traditional Products	.363	.734	---	.783
3	Bank office staffs are helpful and well behaved	.676	---	.430	.529
4	Completing banking transactions take time	---	-.432	.490	---
5	The banking services are satisfactory	.689	-.329	.727	---
6	You are satisfied with banking products	.563	-.470	.733	---

Source: Computed by the researchers.

Extraction Method: Principal Component Analysis.

Component 1: Customer Experience on banking service.

Component 2: Customer attitude to banking products and people.

### 3. Analysis of 'Usage of Banking Services' for Muslim Community

For the analysis under this section, again the same six variables are considered and factor analysis is applied. The KMO value is found to be 0.621 and the Bartlett's Test of Sphericity shows a p-value of less than 0.01% which is highly significant and thus the data is fit for applying factor analysis. In the case of Muslims, the communalities indicates that variables 1, 2 and 5 show a relatively highly importance than the others. In other words, 'Knowledge about Traditional Products', 'Knowledge about Non-Traditional Products' and 'Banking services are satisfactory' have more influence in determining the extent of usage of banking services among Muslims in Malda district. In other words, variables like "Completing banking transaction take time" and "bank office staffs are helpful and well behaved" are found to be relatively less important. The sixth variable, "You are satisfied with banking products" plays a moderating role in promoting usage among the Muslims. The eigen values of the

extracted components for the Muslim community show that the first two components are significant with the eigen value exceeding 1 and these two explain more than 50% of the total variance. In order to see the distribution of the variables in 'usage' dimension in the two factors, the component matrix is presented below.

It is evident from the un-rotated component matrix (Table 4) that the variables do not distribute in a way that each variable falls under a particular extracted component. In order to get a better picture about the structure of underlying data and their loading on specific factors, the varimax rotation is applied which shows that variables 1, 2 and 3 load on the first extracted component, whereas 3, 4, 5 and 6 load on the second extracted component. The first component is highly correlated with variables 1 and 2 and moderately correlated with variable 3. For the second extracted component, variables 5 and 6 are highly correlated with it, whereas 3 and 4 are weakly correlated.

**Table 4 : Component Matrix for Muslims**

Var. no.	Description	Extracted Components (Un-rotated)		Extracted Components (Rotated)	
		Comp. 1	Comp. 2	Comp. 1	Comp. 2
1	Knowledge about Traditional Products	.640	-.431	.762	–
2	Knowledge about Non-Traditional Products	.434	-.690	.789	–
3	Bank office staffs are helpful and well behaved	.662	–	.569	.361
4	Completing banking transactions take time	–	.300	–	.387
5	The banking services are satisfactory	.659	.435	–	.769
6	You are satisfied with banking products	.561	.532	–	.772

Source: Computed by the researchers.

Extraction Method: Principal Component Analysis.

Component 1: Customer attitude towards product and people.

Component 2: Customer Experience on banking service.

#### **4. Result of 'Usage of Banking Services' for other communities**

A similar procedure is followed. The KMO value in this case is found to be 0.614. The Bartlett's test of sphericity again rejects the null hypothesis at an alpha value of less than 0.01%. Extracted values of communalities of the variables indicate that variables 1, 2 and 5 under 'usage' dimension are comparatively more important than the other variables. In other words, 'Knowledge about Traditional Products', 'Knowledge about Non-Traditional Products' and 'Banking services are satisfactory' have more influence in determining the extent of usage of banking services. On the other hand, variables like “Completing banking transaction take time” and “Bank office staff are helpful and well behaved” and are found to be relatively less important. The sixth variable viz. “You are satisfied with banking products” plays a moderate role in promoting the usage of banking services.

Here, it is observed that for the first two extracted components, the eigen value

exceeds one (Kaiser's criteria) and these two explain 53% of variability in the dataset. Thus, we have considered only the first two significant extracted components for our analysis. Next, the results of the rotated and un-rotated component matrix are presented in table 5. Initially, to show the distribution of the six variables under the 'Usage' dimension for the non-Muslim religious community, the un-rotated section is relevant. It is evident from the result that the variables do not distribute in a way that each variable falls in either of the two components. Since, the structure of the variables is not clear, varimax rotation is applied. The result shows that variables 3, 4, 5 and 6 have loading on the first extracted component whereas 1, 2, 3 and 4 have loading on the second extracted component. Thus, the two variables viz. 3 and 4 position themselves in both the extracted components. The first component is highly correlated with variables 5, 6 and 3 and moderately correlated with the fourth variable. The extracted second component is highly correlated with the variables 1 and 2 and poorly correlated with variables 3 and 4.



**Table 5 : Component Matrix (for other communities)**

Var. no.	Description	Extracted Components (Un-rotated)		Extracted Components (Rotated)	
		Comp. 1	Comp. 2	Comp. 1	Comp. 2
1	Knowledge about Traditional Products	.578	.502	–	.723
2	Knowledge about Non-Traditional Products	–	.792	–	.809
3	Bank office staffs are helpful and well behaved	.714	–	.600	.389
4	Completing banking transactions take time	.324	-.531	.545	.301
5	The banking services are satisfactory	.719	–	.711	–
6	You are satisfied with banking products	.562	-.381	.677	–

Source: Computed by the researchers

Extraction Method: Principal Component Analysis

Component 1: Customer Experience on banking service

Component 2: Customer attitude towards banking products

### 5. Testing for mean difference in 'usage' dimension

In order to explore the issue of usage among different religious communities, the researchers test for the difference based on

weighted score where the weights are data-driven weights obtained using the factor loading in factor analysis. The results are given below in Table 6.

**Table 6 : Mann-Whitney Test Result**

Ranks of Usage index			
Religion_code	N	Mean Rank	Sum of Ranks
0	212	248.16	52609.50
1	288	252.22	72640.50
Total	500	–	–

Source: Computed by researchers

1-represents for Muslim community;

2-0-represents the other communities

**Table 7 : Test Statistics**

	Usage index
Mann-Whitney U	30031.500
Wilcoxon W	52609.500
Z	-.311
Asymp. Sig. (2-tailed)	.756
Grouping Variable: Religion_code	

Source: Computed by researchers

The above table (Table 7) shows that in terms of the result of the index, the mean rank of Muslim category exceeds that of the other communities. However, the result is insignificant as clear from the p-value of 0.756. Hence, the study found that there is no statistically significant difference between the two religious categories in respect of usage of banking services.

### KEY FINDINGS AND CONCLUSIONS:

The history of banking in India shows that despite efforts to promote financial inclusion, the status even today stands at a worrisome level. Though there are stories of success, a serious issue is that of low usage of formal bank accounts. Hence, the researchers focus on the 'usage' dimension of the Muslim and non-Muslim communities in Malda district to

identify the facilitators and impediments. The overall investigation shows that the knowledge level of banking products has a strong influence on the tendency to use bank accounts. In addition to this, the experience of customers at the physical branch in respect of cooperative attitude of staffs and time required to complete transactions also affect the usage tendency among bank account holders. Similar findings are found from the analysis of responses of Muslims and the non-Muslims. The last part of the investigation that makes a comparison between the two communities shows that there is no significant difference in the usage between the Muslims viz.-a-viz. other communities. The analysis also shows that apparently the efforts of the government and bankers have helped to bring about considerable rise in the inclusiveness level.

#### **IMPLICATIONS OF THE STUDY:**

The results can come in handy to bankers while designing strategies about how to create a better banking environment and experience for customers. The results denote that awareness about banking products and the banking experience are two vital factors that affect the tendency to visit banks for transacting in order to fulfill their banking needs. On the basis of the outcome of this study, the managers of banks can play a vital role in ensuring that the environment of the bank branch should be so customer-friendly that customers would love to come to the bank without any hesitation. As the cooperation of the staffs is very important, it is necessary to impart training to them about ways to handle customers and manage them. There can be a practice of job rotation that will give the staffs chance to change their positions and help to maintain a proper temperament within the

office premises. Another key aspect that is recognized is that there is an immediate necessity to create awareness about different kinds of products and services that the banks offer. Banking awareness should be created in the urban and rural areas. These efforts will give the bank branches to offer customers delight that will help to retain and add more customers through word-of-mouth.

#### **SCOPE FOR FUTURE RESEARCH:**

An interesting fallout of the analysis is that it is seen that the inclusiveness level of Muslims is at par with that of the non-Muslim community which is a very encouraging picture. This Malda-based investigation finds out the key facilitators/obstacles that come in the way of usage which is very relevant in the backdrop of high dormancy levels that is seen in bank accounts including the ones opened under the PMJDY scheme of the Central Government. In the future endeavours, it is necessary to explore the other two dimensions of financial inclusion which are penetration and availability. Also, the researchers can look at the role and efficacy of the banking correspondents and facilitators in the financial inclusion process.

#### **REFERENCES:**

- Adeyemia, A. A., Pramanikb, A. H., & Meerac, A. K. M. (2012). A Measurement Model of the Determinants of Financial Exclusion among Muslim Micro-entrepreneurs in Ilorin, Nigeria. *Journal of Islamic Finance*, 1(1), 30-43
- Agarwal, S. & Klapper, L. (2013). Designing Government Policies to Expand Financial Inclusion: *Evidence from around the World*. Retrieved from [www.isb.edu/faculty/shilpa\\_aggarwal/files/shilpa-aggarwal-leora-klapper.pdf](http://www.isb.edu/faculty/shilpa_aggarwal/files/shilpa-aggarwal-leora-klapper.pdf), accessed on 15.12.18



- Bajrang & Kumar, V. (2013). Financial Inclusion through SHG: A case study of Narnaul Block of Haryana. *International Journal of Enhance in Management and Computer Application*, II(6), 15-20.
- Banerjee, S. & Francis, G. (2014). Financial Inclusion and Social Development. *International Journal of Scientific Research and Management, Special issue on Business Growth and Social Development*, 13-18.
- Beck, T., & Brown, M. (2011). *Which Households Use Banks? Evidence From Transition Economies* (Working Paper 1295). European Central Bank, Frankfurt, Germany.
- Chakrabarti, M. (2013). The Role of Regional Rural Banks (RRBs) in Financial Inclusion: An Empirical Study on West Bengal State in India. *Abhinav - National Monthly Referred Journal in Commerce and Management*, II (8), 51-62.
- Chattopadhyay, S.K. (2011). Financial Inclusion in India: A case-study of West Bengal. *Munich personal RePEc Archive*, 34269, January, 1-42
- Chauhan, A.A. (2013). A study on Overview of Financial Inclusion in India. *Indian Journal of Applied Research*, III (12), 351-353.
- Chibba, M. (2009). Financial Inclusion Poverty Reduction and the Millennium Development Goals. *European Journal of Development Research*, XXI(2), 213-230.
- Demirguc, A., Klapper, L., & Randall, D. (2013). *Islamic Finance and Financial Inclusion Measuring Use of and Demand for Formal Financial Services among Muslim Adults* (Working Paper 6642). World Bank, World Bank Policy Research,
- Dhar. S.K. (2015). A Study on Financial Inclusion with Specific Emphasis to Electronic Banking. *IUP Journal of Management*, I(3), 55-63.
- Dusuki, W.A. & Abdullah, I.N. (2007). Why do Malaysian customers patronise Islamic Banks? *International Journal Of Bank Marketing*, 25(3), 142-160.
- Ghannadian, F.F., & Goswami, G. (2004). Developing Economy Banking: The Case Of Islamic Banks. *International Journal Of Social Economics*, 31(8), 740-752.
- Ghosh, S. (2020). Access to and use of finance in India: does religion matter? *Indian Economic Review*, 55, 67–92 <https://doi.org/10.1007/s41775-020-00082-6>.
- Hamidu, M.S. (2014). Financial Inclusion-Issue in Measurement and Analysis. *International Journal of Current Research and Academic Review*, II(2), 116-124.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-6.
- Karlan, D., Osman, A., & Shammout, N. (2020). *Increasing Financial Inclusion In The Muslim World: Evidence From An Islamic Finance Marketing Experiment* (Working Paper, No. 9200). World Bank, World Bank Policy Research.
- Kaur, H. & Tanghi, B. S. (2014). Financial Inclusion: A Way to Sustainable Growth. *Gyan Joyti E Journal*, IV(1), 11-20.
- Kolloju, N. (2014). Business Correspondent Model Vis- a Vis Financial Inclusion in India. *International Journal of Scientific and Research Publication*, IV(1), 1-7.
- Kunt, A. D., & Klapper, L. (2013). Measuring Financial Inclusion: Explaining Variation in Use of Financial Services across and within Countries. *Brookings Papers on Economic Activity*, Spring, 279-346.
- Kuri, P.K. & Laha, A. (2011). Determinants of Financial Inclusion: A Study of Some Selected Districts of West Bengal, India. *Indian Journal of Human Development*, August, 1-20.

- Mccawley, T. (2004). Islam's Edicts. *Far Eastern Economic Review*, 167(5), 36.
- Mukherjee, S. & Mallick S.S. (2015). Is Financial Inclusion Cause or Outcome? A State-wise Assessment in India? *Madras School of Economics Working Paper*, 132, 1-26.
- Nahar, A. D. & Bhatia, B.S. (2014). Comparative Analysis of Financial Inclusion with special reference to India. *Indian Streams Research Journal*, IV(8), 1-8.
- Nandru, P., Anand P. & Rentala, S. (2016). Determinant of Financial Inclusion: Evidence from Account Ownership and Use of Banking Services. *International Journal of Entrepreneurship and Development Studies*, IV(2), 141-155.
- Ozili, P.K. (2018). Impact of Digital Finance on Financial Inclusion and stability. Retrieved from [https://mpira.ub.uni-muenchen.de/84771/MPRA\\_Paper\\_No.\\_84771](https://mpira.ub.uni-muenchen.de/84771/MPRA_Paper_No._84771), posted 24 February 2018 10:08 UTC.
- Ram, A. K., Moodithaya, M. S., & Handy, F. (2012). Financial Inclusion: Lessons from Rural South India. *Journal of Social Policy*, XXXI(1), 183-205.
- Rajasekaran, N. (2018). Including the Excluded - The Scenario of Financial Inclusion in India. *IOSR Journal of Business and Management*, XX(2), 64-69.
- Selvakumar, M., Jacob, M., & Sathyalaxmi, V. (2015). Rural Perspective towards Financial Inclusion. *Journal of Economic and Social Thought*, II(2), 106-120.
- Shankar, S. (2013). Financial Inclusion in India: Do Microfinance Institutions Address Access Barriers? *ACRN Journal of Entrepreneurship Perspective*, II(1), 60-74.
- Sharma, M. (2008). Index of Financial Inclusion. *Indian Council for Research on International Economic Relation, Working Paper No. 215*, June, 1-20.
- Sharma, M. (2010). Index of financial Inclusion. Centre for International Trade and Development, School of International Studies, Jawaharlal Nehru University, Discussion Paper 10-05, November. Retrieved from [www.jnu.ac.in/sites/default/files/DP05\\_2010](http://www.jnu.ac.in/sites/default/files/DP05_2010) accessed on 3.1.18.
- Shibani (2013). Financial Inclusion in India. *International Journal of Research in Finance & Marketing*, III(7), 49-60.
- Singh, A.B. & Tandan, P. (2012). Financial Inclusion in India- An Analysis. *International Journal of Marketing and Financial Services and Management Research*, VI, 41-54.
- Trivedi, P. (2015). Wider Insurance Coverage for Better Financial Inclusion. *The Management Accountant*, 50(7), 38-42.
- Umar, U.H., Ado, M.B., & Ayuba, H. (2019). Is religion (interest) an impediment to Nigeria's financial inclusion targets by the year 2020? : A qualitative inquiry. *Qualitative Research in Financial Markets*, XII (3), 283-300.
- Unnikrishnan, R. & Jagannathan, L. (2015). Unearthing Global Financial Inclusion Level and Analysis of Financial Inclusion as A Mediating factor in Global Human Development. *Serbian Journal of Management*, X(1), 1-14.
- Wonkim, D., Suk Yu, J. & Hassan, M.K. (2020). The Influence of Religion and Social Inequality on Financial Inclusion. *The Singapore Economic Review*, 65(1) 193-216.
- Almost every fifth Jan Dhan account 'inoperative'. February 06, 2020. Retrieved from <https://www.thehindubusinessline.com/money-and-banking/almost-every-fifth-jan-dhan-account-inoperative/article30754738.ece>.

**Appendix**  
**PRIMARY SURVEY**  
**QUESTIONNAIRE ON FINANCIAL INCLUSIVENESS OF HOUSEHOLDS**

**Section A : Demographic Information**

**Name of the respondent:**

- 2) **Gender:** Male / Female / Transgender
- 3) **Address:** Block: \_\_\_\_\_ Village \_\_\_\_\_
- 4) **Age:** \_\_\_\_\_ yrs
- 5) **Languages known:** (i) Reading: Bengali / English / Hindi  
(ii) Writing: Bengali / English / Hindi
- 6) **Caste:** General / SC / ST / OBC-A / OBC-B
- 7) **Religion:** Hinduism / Islam / Christianity / Sikhism / Others
- 8) **Education:** Primary / Secondary / Higher Secondary and beyond
- 9) **Income (per month):** < Rs. 8000 / Rs.8000 - 15000 / > Rs. 15000
- 10) **Area:** Rural / Urban / Semi-urban
- 11) **Occupation:** Salaried or Non-salaried  
If non-salaried: Labour / Farmer / Business / Others (mention: \_\_\_\_\_)
- 12) **No. of family members:**
- 13) **No. of earnings members:**
- 14) **Head of the household:** (a) Gender (b) Education

**Section B : Banking Questions**

1. Do you have a Bank Account? Yes/No
2. Type of Bank Account: SB / CC / FD / Loan  
Is it opened under JDYS? Yes / No  
Total no. of accounts in the household:
3. With which bank do you have the account? Public / Private / Cooperative
4. For how long are you holding a bank account? Less than one year / 1-3 years / > 3 years
5. Why did you open the account?  
(i) For availing banking services (ii) For getting government payments  
(iii) Social influence (iv) Other reasons (pls. specify):

**For the questions below: 5 means most favourable / agreeable, whereas 1 means least favourable / agreeable**

6. The bank is close to your home	1	2	3	4	5
7. Going to bank is costly for you	1	2	3	4	5
8. Having a bank account is a necessity	1	2	3	4	5
9. Do you have ATM Card?	Yes / No				
10. ATMs have made banking easier	1	2	3	4	5
11. The ATM is near your home	1	2	3	4	5
12. Documentation is easy while opening a/c	1	2	3	4	5
13. Opinion regarding accessing service:					
I access traditional services quite frequently	1	2	3	4	5
I access non-traditional services quite frequently	1	2	3	4	5
14. No. of times you visited a bank or ATM (time period?)	Less than 3    / 3-6    / > 6				
15. I have taken loan from bank	Yes / No. If yes, fill the below				
- The loan taking process was easy	1	2	3	4	5
- The documentation was easy	1	2	3	4	5
- The processing time was low	1	2	3	4	5
16. Knowledge about products					
Traditional products (cheque, deposit, loan etc.)	1	2	3	4	5
Non-traditional products	1	2	3	4	5
(Net banking, Mobile banking, Internet banking)					

### BANKING EXPERIENCE

17. Useful services are provided by the bank	1	2	3	4	5
18. Distance is a problem in my banking	1	2	3	4	5
19. Bank office staffs are helpful and well behaved	1	2	3	4	5
20. Branch office timings are okay	1	2	3	4	5
21. Opening bank account was easy	1	2	3	4	5
22. Completing banking transactions take time	1	2	3	4	5
23. The banking services are satisfactory	1	2	3	4	5
24. You are satisfied with banking products	1	2	3	4	5
25. Banking Mitrs are useful	1	2	3	4	5

### GENERAL OPINION ABOUT BANKING

26. Bank helps to build wealth	1	2	3	4	5
27. You have trust on bank and staff	1	2	3	4	5
28. Banking keeps your money safe	1	2	3	4	5
29. Banks make you aware about different government schemes that can be availed	1	2	3	4	5
30. Banks listen to complaints & redress them	1	2	3	4	5

## RESEARCH

### An Assessment On The Performance Of The Scheduled Commercial Banks During The Covid-19 Pandemic Scenario

Dr. Abhigyan Bhattacharjee\* Dipankar Das\* Dr. Irala Reddy\*

---

#### ABSTRACT

*Banks are considered to be lifeline of an economy and improper functioning of it leads to malfunctioning of the economy at large. This paper is intended to have an outlook of the performance of Scheduled Commercial Banks during pre and post lockdown phase using indicators like deposit of SCBs, Bank Credit of SCBs and Credit-to-Deposit ratio of SCBs in midst of Covid-19 pandemic scenario. As the economy has suffered a lot due to COVID-19, it is evident to measure the performance of banks as it is an important element of the financial system. The main idea behind this study is to examine the position of SCBs in terms of the prime indicators as countywide lockdown has impacted the revenue generation of banking sector to a great extent. The findings revealed that the deposit of SCBs has increased during post lockdown compared to lockdown period which is a sign of revival of the economy but on the other hand the bank credit has decreased in the post-lockdown phase. It is observed that the mean Credit-to-Deposit Ratio (CDR) in the lockdown period was more compared to the post-lockdown period.*

**KEYWORDS:** SCBs, CDRs, Covid-19, pre and post lock down, economy, India.

---

#### INTRODUCTION:

Banks are considered as one the pillar of economy which facilitates the mobilization of people's savings in to productive channels. The role of bank is increasing at pace with the focused initiative of NDA government on entrepreneurship programme across the country. Finance is considered as the life blood for trade, commerce and industry. This finance can be made available only if there is

vibrant banking system in the country. The growth of a country depends on the performance of various sectors, out of which banking is one of them. Better the performance of banking sectors more strong the financial system would be. According to Singh (2020) banking which is a part of service sector have grown manifold and contributed around 54.3% to the GDP for the year 2018-19. The Indian banking system

---

*\*Dr. Abhigyan Bhattacharjee, Associate Professor, Department of Management, North-Eastern Hill University, Tura Campus, Meghalaya, India*

*\*Dipankar Das, Research Scholar, Department of Management, North-Eastern Hill University, Tura Campus, Meghalaya, India*

*\*Dr. Irala Reddy, Associate Professor, Department of Management Studies, University of Hyderabad, Telengana, India. Email: dr.iral@gmail.com*



consists of 20 public sector banks, 22 private sector banks, 44 foreign banks, 44 regional rural banks, 1,542 urban cooperative banks and 94,384 rural cooperative banks in addition to cooperative credit institutions (India Brand Equity Foundation, n.d).

### **CONCEPTUAL FRAMEWORK OF SCHEDULED COMMERCIAL BANKS IN INDIA:**

According to Reserve Bank of India, Scheduled Commercial Banks are those banks which carry business of banking in India and which have paid-up capital and reserves of an aggregate, real or exchangeable value of not less than 5 lakh, and satisfy the Reserve Bank of India that their affairs are not being conducted in a manner detrimental to the interests of their depositors, are eligible for inclusion in the Second Schedule to the Reserve Bank of India Act, 1934 and when so included are known as 'Scheduled Banks.' All the Regional Rural Banks established under Section 3 of the Regional Rural Banks Act, 1976 are included in the Second Schedule of the Reserve Bank of India Act, 1934. As regards co-operative banks, only State co-operative banks are eligible for inclusion in the Second Schedule to the Act. Singh (2018) stated that Scheduled Commercial Banks (SCBs) are considered to be an important component of financial system which contributes around two-third of the resources to the Indian financial system. These SCBs have experienced many peaks and valleys before 1991 but showed manifold improvement in performance after the economic reforms of 1991. Prakash (2018) in her study uttered that Indian banking sector consists of scheduled banks and non-scheduled banks. The Scheduled banks are further divided into Commercial banks and

Cooperative banks. Commercial banks include nationalized banks, SBI, Regional Rural Banks, Foreign banks and other Indian private sector banks (Kumar, 2015).

### **LITERATURE REVIEW:**

Reviews of some relevant literature were made to understand the backdrop of the performances of commercial banks in India.

Ordia & Bhanawat (2018) studied about the efficiency of 70 scheduled commercial banks in India using Data Envelopment Analysis (DEA). As the banking industry is considered vital in the overall performance of the economy, measuring their efficiency is an important factor. In terms of efficiency, out of 70 banks 33 banks reported as efficient and the rest 37 banks reported as inefficient. Mahendru & Bhatia (2017) analyzed the cost, revenue and profit of scheduled commercial banks in India considering a sample of 76 banks. The results of the study confirmed that banks are not able to maintain the input-output synchronization when it comes to cost and revenue. It has been observed that the performance of Public, Private and Foreign banks differ significantly with regard to their working, customer base, employee base, spread of their branches and working environment etc. Sufian, Muhamad, Bany-Arifin, Yahya, & Kamarudin (2012) studied the effect of mergers and acquisition on revenue efficiency on Malaysian banking sector. The result of the study stated that mergers and acquisition has no significant influence on revenue efficiency when compared during pre and post merger period. For instance, revenue efficiency of both merged and unmerged banks were performed but they maintained a static performance in both pre and post merger period. Bhatia &

Mahendru (2019) analyzed the efficiency of scheduled commercial banks operating in India with regard to cost, revenue and profit. Efficiency in all these three parameters has been compared on the basis of reformatory era and post reformatory era. The findings of the study disclosed that the Scheduled Commercial banks secured higher efficiency scores in reformatory era as compared to post-reformatory era. Bhatia & Megha (2016) analyzed the productivity of scheduled commercial banks in India using Deposit per rural branch, Credit per rural branch and Business per rural branch. The study opted for comparison of productivity using the above parameters for pre permission (2004-05 to 2007-08) and post-permission period (2008-09 till 2011-12). When compared between the two periods, the mean productivity performance is much better in the post-permission period. The study also revealed that there is an improvement in the overall performance of scheduled commercial banks in all the three parameters. Hawaldar, Rohit, Pintu & Rajesha (2017) observed that there is no significant difference in the performance of the banks during pre-crisis and crisis period when they studied about the impact of oil prices on the performance of commercial banks in Bahrain. The performance of the banks has been measured by employing indicators like profitability, efficiency, capital adequacy and liquidity ratio. Chilumuri (2013) identified the impact of globalization on banking sector by comparing two periods, i.e., pre-liberalization (1981-82 to 1991-92) and post-liberalization (1991-92 to 2010-11). The findings revealed that the performance of Scheduled Commercial Banks in post-liberalization period is high in all the parameters employed for the study as compared pre-liberalization period.

Bhanawat & Kothari (2013) studied about the impact of banking sector reforms on banking industry in India using four indicators-interest income to total assets, ratio of operating profit to total assets, return on assets and return on advances. They concluded that financial sector reforms were not worthwhile in improving the profitability of banks. Shihadeh, Hannon, Guan, Haq & Wang (2018) enquired whether financial inclusion has any influence on bank performance in Jordan by employing six parameters-credits for small and medium enterprises (SMEs), deposits for SMEs, number of ATMs, number of ATM services, number of credit cards, and new services. The study found positive results that financial inclusion play a significant role in enhancing banks performance. Shah & Khan (2017) examined the impact of merger and acquisition on the performance of acquirer bank based on profitability, liquidity and capital adequacy. To compare the pre and post merger scenario 11 ratios have been used. The result of the study conveyed that the performance of acquirer bank have declined during the post-merger period in all the parameters. Moreover, the study also concluded that in spite of involving in unproductive merger deals the banks should increase their resources and network. Sufian & Habibulah (2010) have found that the Asian financial crisis had a negative impact on the performance of Indonesian banking sector, The devaluation of domestic currency has tormented the balance sheet position of leading banks. Moreover, there was decline in the revenue of banks as it was not possible for banks to charge higher interest rates from the torment investors resulting into negative interest rates expansion, reducing bank's net income and declining capital adequacy.

Empirical findings from the previous literature emphasizes on the impact of demonetization, impact of liberalization, financial sectors reforms; financial inclusion, merger and acquisition etc. upon the performances of the banking sector. The main idea behind examining such related literature is to comprehend the impact of such events on the banks' performance and utilizing the same concept to understand the performance of scheduled commercial banks during the COVID-19 lockdown period in the Indian context.

After a careful review, the primary focus of this paper portrays on the performance of scheduled commercial banks during the lockdown period to analyze the impact of it on the banking business in India.

#### **RESEARCH GAP:**

Previous studies focused on many unanticipated events and their impact on the performance of banks. This study is different from others in the sense that COVID-19 is completely a new phenomenon and the effect of such a phenomenon on Scheduled Commercial bank will be an added knowledge to the literature. As the basic functions of commercial banks is accepting deposit and advancing loans, the present study have considered this two as an important parameter along with the credit-deposit ratio to determine the performance of Scheduled Commercial bank during the two phases considered under study.

#### **OBJECTIVES OF THE STUDY:**

1. To examine the trend of deposit pattern of Scheduled Commercial Banks in India during lockdown and post- lockdown phase of the pandemic.
2. To find out the pattern of bank credit provided by Scheduled Commercial Banks during the lockdown and post-lockdown stages.
3. To determine the credit to deposit ratio of Scheduled Commercial Banks during lockdown and post-lockdown stages.

#### **METHODS:**

The present study has opted for secondary sources. Data have been gathered from reports of the RBI and other electronic sources. The study has been divided into two section-Lockdown phase and Post-lockdown phase. Based on the reports published by the Reserve Bank of India, the position of Scheduled Commercial Banks on key parameters like deposit, Bank credit and Credit-Deposit Ratio have been studied. As RBI publishes report every two weeks for Scheduled Commercial Bank, the authors have classified the report in to two phases to fit the data as Lockdown phase and post-lockdown phase. The nationwide lockdown have started from 25th March, 2020 upto the end of 31st May, 2020. In the present study, this period has been considered as lockdown phase. The second phase as post-lockdown phase was considered from July 1, 2020 onwards with government declaring relaxation in almost all the sectors through ts guidelines.

**FINDINGS:****Table 1 : A glimpse of Deposit and Credit of Scheduled Commercial Banks in India during Lockdown phase**

Date	Deposit (₹ in Crore)	Bank Credit (₹ in Crore)	Credit to Deposit Ratio*
27th March, 2020	13571032.76	10371912.96	0.764
10th April, 2020	13714927.23	10339298.94	0.754
24th April, 2020	13710685	10269257.94	0.749
08th May, 2020	13850437.69	10252405.42	0.740
22nd May, 2020	13830524.93	10223149.55	0.739
<b>Mean</b>	<b>13735521.52</b>	<b>10291204.96</b>	<b>0.749</b>
<b>SD</b>	<b>112170.5217</b>	<b>62139.81614</b>	<b>0.010</b>

Source: RBI\* Author's own calculation

Table-1 shows the position of deposit and bank credit of scheduled commercial banks during the lockdown period. The data in Table 1 is projected every two weeks as RBI publishes the data only after every two weeks of interval. The mean deposit during the lockdown period is ₹ 13735521.52 crore with a standard deviation of 112170.5217 crore. On the other hand, the average bank credit during lockdown phase is ₹ 10291204.96 crore with a standard deviation of 62139.81614 crore. The banks have been to maintain average credit-deposit ratio of 0.749 during the lockdown period with a standard deviation of 0.010.

**Table 2 : A glimpse of Deposit and Credit of Scheduled Commercial Banks in India during Post-Lockdown phase**

Date	Deposit (₹ in Crore)	Bank Credit (₹ in Crore)	Credit to Deposit Ratio*
05th June, 2020	13955386.25	10254775.66	0.734
19th June, 2020	13867113.56	10245029.85	0.739
03rd July, 2020	14075184.8	10291610.82	0.731
17th July, 2020	14020487.36	10219462.22	0.729
31st July, 2020	14161689.28	10265888.45	0.725
14th August, 2020	14080420.54	10219729.04	0.726
28th August, 2020	14176764.67	10211730.05	0.720
11th September, 2020	14248235.14	10224927.8	0.718
25th September, 2020	14263674.47	10271856.83	0.720
09th October, 2020	14302352.74	10343938.68	0.723
<b>Mean</b>	<b>14115130.88</b>	<b>10254894.94</b>	<b>0.727</b>
<b>SD</b>	<b>141259.8891</b>	<b>40873.92004</b>	<b>0.007</b>

Source: RBI\* Author's own calculation

Table 2 shows the position of deposit and bank credit of scheduled commercial banks during post-lockdown period. The data in above table is projected every two weeks as RBI publishes the data only after every two weeks of interval. The mean deposit during post-lockdown period is Rs 14115130.88 crore with a standard deviation of Rs 141259.8891 crore. On the other hand, the average bank credit during lockdown phase 10254894.94 crore with a standard deviation of Rs 40873.92004 crore. The banks have been to maintain average credit-deposit ratio of 0.727 during the lockdown period with a standard deviation of 0.007

### DISCUSSION:

The study found that the performance of SCBs were better during post lockdown compared to the lockdown period which is a sign of revival of the economy but another side of the story is that the bank credit has decreased in the post-lockdown phase. It has been observed that the mean Credit-to-Deposit Ratio (CDR) in the lockdown period was more compared to post-lockdown period which means that banks have been able to create more loan assets out of its deposit in the lockdown period. It has been observed that the variation in Credit-to-Deposit Ratio (CDR) is more in the lockdown period and stable at post-lockdown period. The banks would be able to earn more revenue if it gives more credit and if there are no bad loans in the form of Non-Performing Assets. So, it is important for banks to consider the repaying credibility of the borrower before advancing credit. The paper suggests that banks should come out with innovative and affordable scheme to attract deposit from all class of people. The same deposit can be used to advance loans and earn interest on that. Efforts should be taken on minimization of

non-performing assets which is the biggest drawback of the Indian banking system at present.

### LIMITATION OF THE STUDY:

The present study has taken only eight months period consisting of lockdown and post-lockdown phases, the results of the same may not be generalized. Moreover, the current study has considered only three indicators-deposit, bank credit and credit-deposit ratio whereas performance of a commercial bank cannot be judged based on only three parameters.

### POLICY IMPLICATION:

The study will be useful for banks to understand their performance in the short tenure i.e., during lockdown and post-lockdown phase and take initiative to improve their performances. Moreover, it can also be helpful for the policymakers to take decision on various matters of SCBs because the important element of deposit, credit and CDR is being considered in the present study.

### REFERENCES:

- Bhanawat, S.S & Kothari, S. (2013). Impact of Banking Sector Reforms on Profitability of Banking Industry in India. *Pacific Business Review International*. 6(1), 60-65
- Bhatia, A., & Mahendru, M. (2019). Financial Efficiency Evaluation of Indian Scheduled Commercial Banks. *Jindal Journal of Business Research*, 8(1), 51–64. <https://doi.org/10.1177/2278682118823308>
- Bhatia, A., & Mahendru, M. (2016). Analysing Productivity of Scheduled Commercial Banks in India: *An Insight into Rural Branches*. *Pacific Business Review International*, 8(8), 25-31



- Chilumuri, S.R. (2013). Impact of Globalization on Scheduled Commercial Banks with Reference to Agriculture Sector. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* 9, (1), 05-10.
- Hawaladar, I.T., Rohit, B., Pinto, P. and Rajesha T.M. (2017b). "The impact of oil price crisis on financial performance of commercial banks in Bahrain", *Banks and Bank Systems*, 12(4), 4-16. doi:10.21511/bbs.12(4).2017.01. <https://businessperspectives.org/journals/banks-and-bank-systems/issue-270/the-impact-of-oil-price-crisis-on-financial-performance-of-commercial-banks-in-bahrain>.
- Kumar, P. (2015). Assessment of Performance of Scheduled Commercial Banks in India. *International Journal of Computing And Business Research (IJCBR)*, 6(1),
- Mahendru, M., & Bhatia, A. (2017). *Cost, revenue and profit efficiency analysis of Indian scheduled commercial banks*. *International Journal of Law and Management*, 59(3), 442–462. Doi: 10.1108/ijlma-01-2016-0008.
- Ordia, S., & Bhanawat, S.S. (2018). Empirical Analysis of Financial Health of Scheduled Commercial Banks in India. *Indian Journal of Accounting (IJA)*, 50(1), 69-77.
- Prakash, P. (2018). An Analysis of Productivity of Scheduled Commercial Banks in India. *International Journal of Engineering & Scientific Research*, 6 (3), 59-65.
- Shihadeh, F. H., Hannon, A. (M. T. ., Guan, J., Haq, I. ul, & Wang, X. (2018). *Does Financial Inclusion Improve the Banks' Performance? Evidence from Jordan*. *Research in Finance*, 117–138. doi:10.1108/s0196-382120170000034005.
- Singh, J. (2018). Profitability of Indian Scheduled Commercial Banks: A Comparative Evaluation. *Amity Journal of Finance*, 3 (1), 29-39.
- Singh, H. (2020, January 3). What is the Sector-wise contribution of GDP in India? Retrieved from <https://www.jagranjosh.com/general-knowledge/what-is-the-sectorwise-contribution-in-gdp-of-india-1519797705-1>
- Sufian, Fadzlan; Habibullah, M. S. (2010). Assessing Crisis of Financial Impact on Bank Performance Empirical Evidence from Indonesias. *ASEAN Economic Bulletin*, 27(3), 245–262
- Sufian, F., Muhamad, J., Bany-Arifin, A. N., Yahya, M. H., & Kamarudin, F. (2012). *Assessing the Effect of Mergers and Acquisitions on Revenue Efficiency: Evidence from Malaysian Banking Sector*. *Vision: The Journal of Business Perspective*, 16(1), 1–11. doi:10.1177/097226291201600101.

## RESEARCH

### Freelancers Of The Street Economy: Exploring Informal Partnerships For Waste Management In India

Ms Muskan Soni\* Dr. Padmini Ram\*

---

#### ABSTRACT

*The role of informality in promoting sustainable living is often not part of the discourse on emerging perspectives on sustainable living. This paper brings in the perspective of the so-called 'unorganised sector' that deals with most of the recycling and waste management. This is examined through the political ecology themes of environmental conservation and social justice. For the purpose of this study, waste collectors in and around the National Capital Region (NCR) were interviewed about their work in the informal sector as an important link in the chain of recycling waste.*

**KEYWORDS:** Ragpickers, Informality, Informal Economy, Waste Collectors, Sustainable Development

---

#### INTRODUCTION:

Research since the 1980s has been warning us about how prevailing human actions are prompting environmental devastation at an unparalleled scale and speed (Wilson 1988, Reid and Miller 1989). Policies that operate on the notion of competition and minimum intervention from the state, operate for the sole function of expanding profit and end up exploiting natural and human resources to the maximum limit possible are usually clubbed as neoliberal. Globalisation and its modern neoliberal policies have led to a definite lifestyle that fosters an unsustainable form of living. It promotes the pursuit of profit over social and environmental costs and leads to

economic vulnerability, misuse of natural resources and further, inhibits the subsistence and expansion sustainable practices of business which are locally relevant (FOTE, 2003).

The popularity of disposable products, which could be purchased and disposed of later, without apprehension, without thinking about the consequences, was discussed in the August issue of Life magazine as Throwaway Living (1955). Later, Ben Cosgrave (2014) referred to this (culture) as “when tossing out everything was all the rage.” The preference of convenience over sustainability is the reason for the increasing amount of waste

---

\*Ms Muskan Soni, Clare, Christ, Bannerghatta Road Campus, Bangalore, Karnataka - 560076,

Email: muskan.soni@consultancy.christuniversity.in,

\*Dr. Padmini Ram, Christ, Bannerghatta Road Campus, Bangalore, Karnataka - 560076,

Email: padmini.ram@christuniversity.in,

production and creation of toxic waste dumps, which are a whirlpool of toxic substances that are harmful to health, such as cyanide, arsenic, and lead to name a few (UNEP, 2015). In India, about 1.50 lakh metric tonnes of solid waste is generated every day and out of this only 20 per cent or 27,000 metric tonnes per day, is processed and the other 80 per cent or 1,08,000 metric tonnes per day, is discarded in landfill sites (Shrivastava, 2019).

Littered roads and ineffective solid waste management are probably two of the worst externalities of economic advancement. Most of the waste that is generated in urban India is toxic and is managed largely through the informal sector (Suthar, Rayal&Ahada, 2016). On the topic of waste management and garbage dumps, PrakashJavadekar, the Minister of Environment, Forests and Climate Change claimed that the informal sector 'has saved the country' (2015).

He is not alone in his praise. Many others have referred to the informal economy as the solution for waste problems in developing countries such as India (APC News, 2011; DQI Bureau, 2014; Aneez, 2017; Hande, 2019). In fact, 56 per cent of India's recyclable waste is recovered (Walani, 2017) even though more than 90 per cent of the country does not have a proper waste disposal system (Bose & Bhattacharya, 2017). The important task of waste collection and supporting recycling often falls upon informal rag pickers who work in hazardous conditions, only to earn less than minimum wages and this is a common trend all over the world from China to Nigeria (Silva, Fassa, Siqueira & Kriebel, 2005; Suthar, et al., 2016; Nzeadibe, 2009; Orlins & Guan, 2016). The daily segregation that these waste collectors are

involved in are neither standardised nor valued.

Unpaid and shunned, waste collectors are critical for waste management in India. They help clean up a significant proportion of the 62 million tonnes of waste generated annually (Aneez, 2017; Bose & Bhattacharya, 2017). Their numbers are estimated between 1.5 million and 4 million (ibid). Given that it is mostly in the informal sector, it is hard to quantify how much waste is collected in this manner, but there are rough indicators: only 75 per cent - 80 per cent of the waste generated in India is collected by municipal bodies (Bose & Bhattacharya, 2017). A paper by Silva, et al., (2005) described rag pickers as the environmental agents and abused workers of the informal sector in Brazil. They secure, separate, distribute and trade all sorts of recyclable supplies and assist cities in decreasing the garbage in landfills while supporting recycling companies, and feeding their families through their work which earns them incomes less than twice the level determined by the Brazilian government as the minimum living wage (ibid).

Similarly in India, a study identified the various stakeholders at different levels of waste collection (Suthar, et al., 2016). However, the sharing of benefits by these different stakeholders depends on several political, social and environmental factors that invariably marginalises the informal rag picker. Further, the study depicted that besides reducing waste, this process of informal waste gathering also generates earnings for the urban poor (ibid).

It is, therefore, essential to support informal waste recycling as a sustainable strategy in

drafting a community based solid waste management plan for developing cities as evidence proposes that waste picking can encourage local investment, create employment, reduce poverty and costs borne by municipalities, conservation of natural resources if it is properly organised and supported (Medina, 2008; Rayal & Ahada, 2016).

### LITERATURE REVIEW:

In 19th century Europe, where rapid industrialisation and urbanisation led to the creation of more waste, informal waste economies started to emerge as service providers (Aneez, 2017). Such economies were common around the world. While developed countries completely formalised their waste management systems, emerging economies of countries like India employed a large number of informal, unskilled workers (Aneez, 2017).

While some literature on the informal sector views it as a constraint for businesses (Skenderi, Islami & Mulolli, 2017), others highlight the crucial services provided to the society by informal agents (Marteau, 2008; Kumar, 2016). In most researches that examine the dire situation of waste management in the Indian context, informal actors are highlighted as critical links for managing waste (Singh, 2014). In fact, in many growing nations, informal waste collectors contribute significantly to waste management and resource efficiency by assembling, distributing, selling and on some occasions even processing waste materials as part of earning their living (Singh, 2014; Majeed, Batool & Chaudhry, 2016). There is also an agreement that informal waste collectors make vital contributions to waste

management (Wilson, Velis, & Cheeseman, 2005; Majeed, Batool & Chaudhry, 2016).

At the same time, most studies about workers in the waste collection industry in the informal sector discuss the sometimes inhumane conditions that they work in, along with an urgent need for reform to manage the waste produced by urban population (Bose & Bhattacharya, 2017; Shekar, 2015; Pandey & Govind, 2014).

Informal systems are able to control informal pursuits through the unwritten norms buried in customs (Bratton, 2007). There is evidence about their success in building networks and managing enterprises (Ghani, 2019; Meagher, 2010; Perera, Ranjith & Amin, 1996). However, the existing literature's attempt to uncover the potential of the informal economy and its agents as effective private enterprises, and in particular, the waste collectors is inadequate.

A majority of the global workforce works in the informal sector. At the same time, they are also a part of the formal system. The line between what falls under informal and what does not is often blurry. The formal and informal are not as far apart as perceived. The notion of what should be a universal norm for social lives; 'the rules' are usually considered to be formal in nature. One of the most popular forms of the 20th century was bureaucracy. However, as Keith Hart points out, the informal sector only appears to be so distinct from the formal sector due to the invisibility to these forms in informal institutions by the 'bureaucratic gaze' (2006).

To borrow directly from Herbert Spencer's famous sociological analogy; society is a

living organism and every part contributes to ensure survival. This functionalist school of thought proposes that each part of the society performs a certain imperative social function. In fact, in their present form, a regular handshake and complex religious rituals both serve a function in our societies and keep them going (Macionis, 2007). All parts that make up the social structure are requisite to the extent that they offer specialised roles related to the demands of the system. Societies are wholes; systems of interrelated parts (Swingewood, 1984).

Each element has a purpose with regard to the whole. Society can be invariably seen as a system of interdependent elements; with each component performing a unique purpose within the system. The integration and modification of the system as a whole takes place due to the individual contributions of all these elements.

This paper will use functionalism as a theoretical framework for analysing the informal economy of waste collectors.

### **RESEARCH QUESTION:**

Despite the fact that current research on waste collectors as informal agents and efficiently operating business enterprises focuses on their merits, literature about waste collectors as innovative enterprises in the private sector is scant. Do waste collectors rely on business models that reduce transaction cost and are scalable? This paper intends to explore the present business model that the waste collectors employ in the informal sector and if it can be harnessed to reach its full potential to efficiently and sustainably manage waste.

The research question for this paper is: how

do the mechanics of the informal market operate in the waste management sector in India?

### **METHODOLOGY:**

To understand the waste economy management sector in a more effective manner, 14 in-depth interviews were conducted with waste collectors in and around the National Capital Region of India. Since there is no enumerated list available for these waste collectors, snowball-sampling was employed to talk to the respondents. After the initial in-person interviews, telephonic interviews were also conducted to fill any gaps in the information. The gathered information pertained to their daily lives, which was collected through a semi-structured questionnaire. Beyond that, local residents of the area where the respondents operated were spoken to. The researcher made sure that ethical terminology was used while talking to the waste collectors and rag pickers about their work. For instance, the general Hindi word for waste (*Kachhra*) could be viewed as derogatory and other acceptable slang for the same were employed (*Raddi*, *Kabaadi*). Since many informal enterprises operate out of kinship, the families operating the business were also spoken to. All of the respondents were informed about the nature of the research, as well as its intention and purpose before asking them any questions.

### **ANALYSIS: THE FREELANCERS OF THE STREET ECONOMY:**

This section will detail the market structure, the business model, the risks, and the value chain of how informal waste collectors operate as the freelancers of the street economy.



## Market Structure

In the suburbs of Gurgaon, an upcoming and constantly growing city next to the capital, waste is collected, sorted and segregated by a large group of individual entrepreneurs. At first glance, the process of waste collection does not seem all that organised. In fact, most of its workforce hails from the unorganised sector or the informal economy. At a more careful inspection, structures and organised systems can be found in place. The waste collectors have an informal agreement regarding who visits which building and which area. Further, the households can call different types of waste collectors, in context to their needs; Darshan, a newspaper delivery man in the morning, a waste collector by day, is the go-to person for a locality when old papers, newspapers, magazines and books are to be disposed of.

While collectors, like Darshan, work on their own accord and can even be classified as 'freelancers', there are others who are employed by the government. Azam Sheikh and Nazia usually sit behind the big dumpsters at the NCR highway, waiting for new waste to segregate and sell. Though they are government employees, they struggle to make ends meet. Nazia, the bolder one of the two, seems initially hesitant to answer any questions; she does not want to put her permanent job at risk. After she is assured that the purpose of questioning her is not to defame the government, she opens up.

*I have not received my salary since last month, it comes late sometimes. It is manageable but we have five daughters; one of whom is getting married next month. Another is all set for marriage. We have to take up other jobs to run our households.*

Nazia and her husband sell the waste they pick up to a nearby recycling factory to improve their earnings during times of need. It fetches them about Rs 50/ Rs 100 a day. Their migratory status and earnings place them at a lower rung of the ladder of waste collectors as compared to Darshan.

## The Business Model

Though Nazia and Azam are government employees, they have much in common with other waste collection enterprises that operate with the help of complete familial support. Many informal enterprises such as that run by the Ram brothers along with their mother function due to these kinship-based relationships. Such family businesses allow an extra set of working hands for waste collection. They are not alone in this practice.

While his wife was nestled on a structure made solely out of discarded newspaper, Santosh sat on a tattered chair that looked like it might have been attached to a handsome office desk set in an earlier life. The family has a garage where they store all of the collected waste from the nearby locations. Along with his family, he is able to collect waste from the scattered waste pickers around the city, segregate it as per product type and send more than 1500 kilos of waste every month to recycling centres in the capital city.

In the middle of the conversation for the interview, Santosh's wife piped in, "We are giving you all of this information, what do we get in return?" Before a response could be furnished, Santosh shushed her down by saying, "This is just a simple conversation, they do not owe us anything." After the interview was completed and the researcher got ready to leave, Santosh's wife took her to a

corner, “Whatever he said is okay, but I have three daughters. You know how cold it is, do drop by and give some warm clothes for the winter.”

Local governments have attempted to improve the collection of Municipal Solid Waste (MSW) by trying diverse techniques such as door-to-door collection with segregation of waste at source (Pattnaik & Reddy, 2010). Waste collectors like Darshan and Ram make their living by satisfying this demand that the public sector cannot fulfil. While there persists a demand for waste pickup from houses, local municipalities are usually unable to afford home visits to collect waste. Micro-enterprises can seize the opportunity by providing neighbourhood services by going from house-to-house for waste collection (Ahmed & Ali, 2004).

Ashok is a one-man enterprise. Collectors like Ashok go door-to-door to ask for waste that can be purchased. He brings back this waste to his locality to sort and segregate before it goes off for reselling or recycling. Other collectors such as Ram, who works with his brother and mother has a functional home waste pickup system for their customers. While one stays behind at the shop to purchase items from other waste collectors, the other takes a trip around their marked territories to check if anyone has any waste to dispose of. On good days when there are a lot of calls and a lot of houses to visit, the brothers go together, leaving the mother in charge of the business until they return.

Entrepreneurs like Ashok, the Ram brothers and Darshan are able to fill the gaps of demand and supply in the existing market structure and effectively manage and sort

waste, where the public sector might not be able to reach.

### Risks

Like many enterprises in the formal sector, there are several, if not more risks associated with a business in the informal sector. They often face low margins, increasing competition, high fluctuations in incomes, high-interest rates for loans, etc.

Babu is a waste picker in his early thirties. He lives in a small village located near high rise apartment buildings where he usually sources his work. His wife and child do not live here with him. His earnings come from the discarded plastic, paper, steel and cardboard he purchases from the nearby apartment residents. He adds proudly;

*I go to collect waste around these apartment buildings and get it together, truckloads of the waste we collect goes out of here.*

Like many urban poor migrants in big cities, Babu's dialect consists mostly of refined Hindi with some erratic English. A near-perfect reflection of his two worlds; one where he grew up, and another that he hopes his son can grow up in. While he uses the conventional Hindi words for 'employer' (Maalik) and 'culture' (Sanskaar), the word 'margin' comes out with the casual ease of routine application. He promptly uses it to describe his decreased earnings;

The margins have been decreasing, you see? It used to be Rs 12 or 13 for a kilo of the waste, now it barely goes for Rs 10 or 9. Everyone involved in the cycle earns less, you see? I do not know why it has reduced. My margins have become Rs 1 or 2. It is a little

problematic but these prices fluctuate, so I am hoping it gets better.

Despite attempts to increase savings and earn more to have better lives, like most businesses, the earnings of these waste collectors fluctuate. While incomes can go up to Rs 30,000 a month, sometimes they earn as little as Rs 5,000. The unpredictability of fluctuating incomes is a woe for many waste collectors.

Originally from the district of Sawai Madhopur in the state of Rajasthan, Sunil and Naresh came to the city in search of better work opportunities. During good times they earn up to Rs 20,000, and on other occasions, it goes down to Rs 4,000. When asked about how they manage their household with such little earnings, Sunil laughed and in true entrepreneurial spirit said,

*This is all part of the business- it is what it is.*

Unpredictable rain in the region meant that all the paper that had been collected by Sunil and Naresh got spoiled. The rent for garages and storage spaces are often really high and unaffordable for such workers. Santosh and his family spend almost half of the earnings into the rent for a garage, while the other half is spent on managing the household. Saving is a difficult agenda for them.

For others like Darshan, who managed to beat the odds and save enough to start his cloth business, they were accompanied with bad luck that many informal setups face in some sort due to their operational structure. After his rented shop opened and started succeeding, his landlord evicted him. The

landlord then opened his own garment shop at the same place with Darshan's clientele. With all his savings gone and two young sons, he had no choice but to go back to trading waste and selling newspapers.

### **The Value-Chain**

Babu is just one of the many such collectors in the area. Every street in Gurgaon has about four waste collectors at the least who work different houses and areas. They buy waste from local households, sort out different products and sell them in bulk at a higher margin. These entrepreneurs are a crucial link in the value chain of waste collection. Their segregated waste often goes to bigger waste collectors and recycling centres in the city. By collecting and segregating waste, these waste pickers are not just earning their living, but also contributing to the overall amount of waste that gets recycled. In India, there are about 1.5 million to 4 million of such waste pickers (Dandapani, 2017).

Though a serious man, Babu softens up as he talks about his 5-year-old son who goes to an English-medium school in another city. He hopes his son grows up and does M.B.B.S so he can become a Doctor. Babu cannot remember what he wanted to grow up to be when he was younger.

Even though I do this work; picking up after people's discarded items and everything, I have big dreams for my son, I hope he gets as far as he can in life, that's what I am trying for.

### **Discussion- Public-Private Partnerships: A Functionalist Need**

The implicit or explicit solution to the problem of who will take the responsibility to lead society to sustainable development is

usually “the state” due to its rule-setting, policy-making, and implementation powers. As per Arthur Okun, public policy is supposed to manage the tensions between efficiency and equality (2015). However, the rigidity of formal institutions does not permit quick alterations for different scenarios. Informal institutions, on the other hand, thrive on making quick adjustments to accommodate for the given situation or issue.

There are several examples of daily life situations where the informal economy steps up in places where the formal structures seem to be lacking- the informal economy is engaged not only in promoting sustainable consumption through informal markets and homemakers but also in water provision, transport and food services, SMEs and countless other sectors (Marteau, 2008; Kumar, 2016; Skenderi, et al., 2017). In the best-case scenario, the need for alterations should not arise, however, when the formal system in itself is broken and is generating structural inequalities, it is essential to think of alternative arrangements.

While discussing the methodical failure of the system of waste management during the Delhi rag-picker strike in 2017, Sambyal highlighted the urgent need for finding hybrid solutions to tackle the (literally) growing<sup>1</sup> problem of waste management in the city.

There is a pressing need to modify the contemporary arrangements if we are to tackle the problem of sustainably managing the waste being generated by urban populations. However, research also acknowledges that any change in the present order may affect millions of vulnerable

populations (Ahmed & Ali, 2004). Informal policies are easier to change and fix as compared to formal rules. The so-called 'unorganised sector', permits trial and error and creating norms as per the preference of the majority of traders/customers in these informal markets. By starting at the fringes, there is room for debate and errors and quick solutions for those errors that will be generated. This organic form of changing that allows negotiations and deliberations that evolves into a mature form of acceptable solutions.

Informal waste recycling reduces waste and creates livelihood opportunities for the urban poor. If sold as a sustainable strategy, these informal actors can be promoted as crucial factors in the solid waste management program for developing countries (Suthar, Rayal&Ahada, 2016).

The roles of these waste collectors are crafted according to the requirements of society. They play a pivotal role in waste segregation and management in cities with rising population and waste (Aneez, 2017). Their function in society is an informal one, but quite critical.

Bozeman claimed that both the public and private sectors function in a conventional manner in certain situations and adopt the behaviour of their counterparts in various separate ways. Such hybrids and collaborations have the potential to solve many of our domestic problems (Ahmed & Ali, 2004). They are significant alternatives to the current system, not to replace the existing fabrication, but to balance the functions played by government and private agencies.

<sup>1</sup>The Ghazipur landfill in East Delhi is the size of 40 football fields, more than 213 ft tall, and growing by 10m every year (Krishna, 2019)

Here, the traditional application of the term "Private Sector or Private Entities" is discarded, to accommodate the entrepreneurs of the developing world, who operate largely in the informal sector. The notion that public-private collaborations customarily involve large corporations and government agencies needs to be altered for developing countries (Ahmed & Ali, 2004).

Since a lot of the traditional arrangements between public and private collaborations depend on private entities bringing in money, many informal agents are not even included in the discussion for such partnerships. Even though a collaboration between the government and the informal waste collectors might not be the poster child for public-private partnerships, it grants a lot of mutual benefits to both the parties involved. As a pioneering effort, the government is already set to collect a national database of workers in the informal sector; an estimated 450 million in number as an attempt to provide social security (Sharma, 2020). The public sector can offer free/ subsidised training and technical support in the form of equipment and safety measures. Depending on the particular context of the waste collector; their specific requirements, job type, product collected category, etc, the public sector can provide support to these informal entrepreneurs. For workers managing hazardous waste, specific training and equipment can be provided along with health insurance; godown or storage facilities can be provided to store the waste collected, amongst others.

This proposal is validated by existing models in place. Kabbadiwala Connect is a Chennai based enterprise trying to help support a city's solid waste through the existing informal

infrastructure. They provide techniques to blend informal participants into the formal waste management structure and to provide cost-effective and low-carbon waste management resolutions that developing countries need to support their growing economies and populations.

In fact, in their study, they found that these waste collectors already seem to get back 33 per cent of the total recyclable waste in Chennai, which includes paper, plastic, glass and metal (Aneez, 2017). Sampurn(e)arth in Mumbai has expanded not only into an efficient and sustainable business, but also a lucrative venture of waste management. Context-based waste management solutions are provided which are eco-friendly and effectively occupy waste collectors (Chakraborty, 2015).

While such models exist, they must also be integrated as public-private partnerships on a larger scale. An organised system of waste collection, sorting and segregation already exists in an informal way. In addition, a study found that by 2025, the waste management market is anticipated to be worth \$13.62 billion by 2025, with an annual growth rate of 7.17 per cent (D'Cunha, 2016). By tapping into this existing structure and providing hands-on support, the public bodies have the ability to help the informal actors, the public at large and the environment in terms of solid waste management. Such partnerships can be sustained effectively if they are allowed to remain dynamic to account for factors such as population growth, upskilling, new policies, etc (Ahmed & Ali, 2004). Informal setups allow for such dynamism. A collaboration or a partnership between formal and informal actors, in this case, the government and the entrepreneurial waste collectors could go a



long way in achieving the global mission of sustainable development.

The Maputo corridor of Africa, where attempts towards formalisation dismantled an operative informal economy (Khasnobis, Ostrom & Kanbur, 2006) and the abandonment of housing construction for low-income groups by private developers in Ahmedabad after a change in policy (Mukhija, 2004), serve as essential reminders to the pitfalls of formalising an already functional informal setup. This paper does not propose the formalisation of these informal enterprises. Instead, it suggests acknowledging their efforts in the global agenda of sustainability and encouraging them via public sector partnerships.

#### **IMPLICATIONS:**

Our main aim in this study was to address the lack of acknowledgement and credit that is due to a wide network of informal waste collectors and rag pickers who act as freelancers in the street economy and help in recycling most of India's waste. We have done so by directly observing and reporting on the daily work on fourteen waste collectors and rag pickers in and around the National Capital Region (NCR). Accordingly, the fundamental contribution of this paper has been in terms of providing experimental evidence to an informal waste collection market. Since the literature in this context is limited, the paper looked at informal agents in their operational structure as parts of potential collaborators with the governments. It is put out as a call to policymakers to look at informal partnerships as innovative solutions for the problem of waste management.

#### **FUTURE RESEARCH:**

Given that India is currently producing 62 million tonnes of waste annually (Aneez, 2017; Bose & Bhattacharya, 2017), without any institutional mechanisms to manage and dispose of waste, this research is timely. In terms of implications for future research, the authors intend to carry on with the study to identify and understand the ways in which public-private partnerships between the informal waste collectors and government agencies could be formulated in an informal way. The potential of the waste collectors in the street economy as productive entrepreneurs and potential partners for collaborations needs to be tapped into. There is a scope for providing crucial training about waste management and segregation that will be explored as possible avenues for creating sustainable livelihoods.

At the brink of massive change, the more comprehensive problems of equity call for a space for informal deliberation and discussions that concedes for complex constructs to surface for discussions, debates, contests and to be reflected upon. Informality accommodates in succeeding to a consensus regarding new forms of sustainable living. After evaluating the formal and informal interactions, we maintain that informality here assists the argument for partnerships among public and private sector enterprises for sustainable growth. The hope is that studies on informal markets can reveal the hidden perks that informal spaces render in policy building and policymakers are able to recognise the important role played by informality in the path to sustainability.

## REFERENCES:

- Ahmed, S., & Ali, M. (2004). Partnerships for solid waste management in developing countries : linking theories to realities *S.* 28, 467–479. [https://doi.org/10.1016/S0197-3975\(03\)00044-4](https://doi.org/10.1016/S0197-3975(03)00044-4)
- Aneez, Z. (2017, May 11). From Trash to Resource: How Technology Can Help Informal Waste Pickers Solve India's Recycling Problem. Retrieved from <https://nextbillion.net/from-trash-to-resource-how-technology-can-help-informal-waste-pickers-solve-indias-recycling-problem/>
- APC News. (2011, October 14). 90% of India's e-waste is recycled informally – when will gov't policy recognise this? Retrieved from <https://www.apc.org/en/news/90-indias-e-waste-recycled-informally--when-will-govt-policy-recognise>
- Bose, R., & Bhattacharya, A. (2017, May 15). Waste Management By Ragpickers: The Tragic Story Behind India's Informal Sector. Retrieved from <https://swachhindia.ndtv.com/waste-management-ragpickers-tragic-story-behind-indias-informal-sector-7507/>
- Chakraborty, R. (2015, March 31). How Debartha, Ritwik, and Jayant are revolutionising waste collection systems in India. Retrieved from <https://yourstory.com/2015/03/sampurnearth-waste-management>
- Cosgrove, B. (2014, May 15). 'Throwaway Living': When Tossing Out Everything Was All the Rage. Retrieved from <https://time.com/3879873/throwaway-living-when-tossing-it-all-was-all-the-rage/>
- D'Cunha, S. D. (2016, August 24). Mumbai's \$13B Waste Management Market And The Startup That's Tapping Into It. Retrieved from <https://www.forbes.com/sites/suparnadutt/2016/08/24/mumbais-13b-waste-management-market-and-the-startup-thats-tapping-into-it/#37e31cf66438>
- Dandapani, S. (2017, November 30). Unpaid and undervalued, how India's waste pickers fight apathy to keep our cities clean. Retrieved from <https://www.thenewsminute.com/article/oppressed-and-unrecognised-life-waste-pickers-crucial-india-s-sanitation-72426>
- Da Silva, M. C., Fassa, A. G., Siqueira, C. E., & Kriebel, D. (2005). World at work: Brazilian ragpickers. *Occupational and Environmental Medicine*, 62(10), 736 LP – 740. <https://doi.org/10.1136/oem.2005.020164>
- DQI Bureau. (2017, June 17). 'The informal recycling sector in India is handling over 90% of the e-waste'. Retrieved from <https://www.dqindia.com/the-informal-recycling-sector-india-handling-90-waste/>
- FOTE. (2009, September). Over consumption? Our use of the world's natural resources.
- Friends Of The Earth. (2003). Towards Sustainable Economies: challenging neoliberal economic globalisation. Towards Sustainable Economies: challenging neoliberal economic globalisation.
- Ghani, E. (2019, May 4). The power of informality. Retrieved from [https://www.business-standard.com/article/opinion/the-power-of-informality-119050400723\\_1.html](https://www.business-standard.com/article/opinion/the-power-of-informality-119050400723_1.html)
- Guha-Khasnobis, B., Ostrom, E., & Kanbur, S. M. R. (2006). Linking the formal and informal economy: concepts and policies. Oxford: Oxford University Press.
- Hande, S. (2019). The informal waste sector:

a solution to the recycling problem in d. Retrieved from <https://journals.openedition.org/factsreports/5143>

Hart, Keith. (2006). Bureaucratic form and the informal economy. *Linking the formal and the informal economy*. 21-35. 10.1093/0199204764.003.0002.

Kumar, M., Singh, S., Ghate, A. T., Pal, S., & Wilson, S. A. (2016). Informal public transport modes in India: A case study of five city regions. *IATSS Research*, 39(2), 102–109. doi: <https://doi.org/10.1016/j.iatssr.2016.01.001>

Majeed, A., Batool, S.A. & Chaudhry, M.N. (2016). Informal Waste Management in the Developing World: Economic Contribution Through Integration With the Formal Sector. *Waste Biomass Valor* 8, 679–694 (2017). <https://doi.org/10.1007/s12649-016-9648-4>

Marteau, A. (2008) Informal water suppliers meeting water needs in the peri-urban territories of Mumbai, an Indian perspective. *Global Changes and Water Resources: Confronting the Expanding and Diversifying Pressures* :XIIIth World Water Congress, Montpellier, France

Meagher, Kate. (2010). Identity Economics: Social Networks and the Informal Economy in Nigeria.

Medina, Martin. 2008. The Informal recycling Sector in Developing Countries: Organizing Waste Pickers to Enhance their Impact. Gridlines; No. 44. World Bank, Washington, DC.

Nzeadibe, T. C. (2009). Solid waste reforms and informal recycling in Enugu urban area, Nigeria. *Habitat International*, 33(1), 93–99.

doi: 10.1016/j.habitatint.2008.05.006

Okun, A., (2015). Equality and Efficiency: The Big Tradeoff. Brookings Institution Press. Retrieved from <http://www.jstor.org/stable/10.7864/j.ctt13wztjk>

Orlins, S., & Guan, D. (2016). Chinas toxic informal e-waste recycling: local approaches to a global environmental problem. *Journal of Cleaner Production*, 114, 71–80. doi: 10.1016/j.jclepro.2015.05.090

Pattnaik, S., & Reddy, M. V. (2010). Assessment of Municipal Solid Waste management in Puducherry (Pondicherry), India. *Resources, Conservation and Recycling*, 54(8), 512–520. <https://doi.org/10.1016/j.resconrec.2009.10.008>

Perera, Ranjith & Amin, ATM. (1996). Accommodating the Informal Sector: A Strategy for Urban Environmental Management. *Journal of Environmental Management*. 46. 3–15. 10.1006/j.jema.1996.0002.

Pooja Pandey & Madhav Govind (2014) Social repercussions of e-waste management in India: a study of three informal recycling sites in Delhi, *International Journal of Environmental Studies*, 71:3, 241-260

Role of Informal Sector in Solid Waste Management and Enabling Conditions for its Integration. (2011). Retrieved from <https://ppp.worldbank.org/public-private-partnership/library/role-informal-sector-solid-waste-management-and-enabling-conditions-its-integration>

Sabyal, S. S. (2017, January 13). Delhi's solid waste: a systemic failure. Retrieved from <https://www.downtoearth.org.in/blog/waste/delhi-s-solid-waste-a-systemic-failure-56776>

- Sharma, Y. S. (2020, January 19). National database of workers in the informal sector in the works. Retrieved from <https://economictimes.indiatimes.com/news/economy/indicators/national-database-of-workers-in-informal-sector-in-the-works/article-show/73394732.cms>
- Shekar, K. C. (2015). Status and Role of urban informal workers in solid waste management: A study on Rag Pickers in Hyderabad city. *Journal of Governance & Public Policy*, 5(1), 31–44.
- Shrivastava, R. (2019, July 21). India's Trash Bomb: 80 of 1.5 lakh metric tonne daily garbage remains exposed, untreated. India Today . Retrieved from <https://www.indiatoday.in/india/story/india-s-trash-bomb-80-of-1-5-lakh-metric-tonne-daily-garbage-remains-exposed-untreated-1571769-2019-07-21>
- Singh, Rahul. (2014). Socio-economic Issues in Waste Management by Informal Sector in India. Birla Institute of Management Technology, India.
- Skenderi, Xhavit, Mulolli, & Enis. (2017, August 10). The Impact of Informal Economy in the Development of SMEs - Evidence from Kosovo (2008-2012). Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3016083](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3016083)
- Suthar, Surindra & Rayal, Poonam & Ahada, Chetan. (2016). Role of different stakeholders in trading of reusable/recyclable urban solid waste materials: A case study. *Sustainable Cities and Society*. 22.10.1016/j.scs.2016.01.013.
- Swingewood, A. (1984). A Short History of Sociological Thought. New York: St. Martin's Press.
- Throwaway Living. (1955, August 1). *Life*, 39(5), 43–44.
- UNEP.(2015). UN Environment's activities on lead and cadmium. Retrieved from <https://www.unenvironment.org/explore-topics/chemicals-waste/what-we-do/emerging-issues/lead-and-cadmium>
- Walani, N. (2017, November 19). A day in a ragpickers' slum in New Delhi. Retrieved from <https://www.downtoearth.org.in/blog/waste/a-day-in-a-ragpickers-slum-in-new-delhi-59106>
- Wilson, D. C., Velis, C., & Cheeseman, C. (2005, November 28). Role of informal sector recycling in waste management in developing countries. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0197397505000482>

## Re-configurable Manufacturing Systems: Research Trends

**Ms. Ria Bhattacharjee\* Mr. Kartik Kulkarni\* Mr. Vaibhav Narwane\***

---

### **ABSTRACT**

*The present manufacturing environment can be called an ever-changing environment which can be attributed to economic globalization. Embracing 'change' has become one of its major characteristics. Thus, there is an increased need for the adoption of new approaches quickly, which will lead to enhanced adaptability to the market changes. Re-configurable Manufacturing Systems (RMSs) are those technologies that fall under the new generation of manufacturing systems that aid the manufacturing sector to achieve goals by tackling the challenges of increasing demand, the short product cycles, and the flexibility of offering products and services with high value-added through mass customization as per market requirement along with highly efficient production. However, such a fully re-configurable system is still in the developing phase and is thus a subject of major research efforts. Many of the proposed projects have proved to be promising and can be a major breakthrough in the manufacturing industry. Our research throughout has shown the trend of how RMS is being increasingly assimilated in developed countries but there may be certain hindrances that hamper RMS to reach its potential which needs scrutiny. This study provides a brief understanding of the concept of RMS through an SLR methodology and can dispel misconceptions about the various aspects of RMS. Thus this study helps industry managers or academia to frame problem statements or research questions respectively so as to identify the opportunities RMS provides according to the research trends. Industry managers can strategize for further planning to adopt RMS and academicians can propose a comprehensive framework for implementing RMS.*

**KEYWORDS:** Re-configurable Manufacturing Systems, Systematic Literature Review, Dynamic Market Conditions, Flexibility, Scalability, throughput

---

### **INTRODUCTION:**

Manufacturing systems have evolved over the years with the market transforming itself globally and dynamically in nature, demanding for greater flexibility and responsiveness. Embracing 'change' has

become one of its major characteristics, making it increasingly difficult for manufacturing companies to be competent. The present manufacturing environment can be called an ever changing environment which can be attributed to economic

---

\*Ms. **Ria Bhattacharjee**, KJ Somaiya College Of Engineering, Mumbai. **Email:** ria.b@somaiya.edu

\*Mr. **Kartik Kulkarni**, KJ Somaiya College Of Engineering, Mumbai. **Email:** kartik.k@somaiya.edu

\*Mr. **Vaibhav Narwane**, KJ Somaiya College Of Engineering, Mumbai. **Email:** vsnarwane@somaiya.edu



globalization. In the existing competitive scenario, success is not just about having the right product with low cost and high quality but its also about having the new requirements of production responsiveness and flexibility. Thus, there is an increased need for the adoption of new approaches quickly, that will lead to an enhanced adaptability to market changes. Re-configurable Manufacturing System (RMS) is a new paradigm enabling manufacturing systems to react to market demand rapidly. In 1996, Koren first introduced the concept of re-configurable manufacturing system (RMS). Re-configurable Manufacturing Systems (RMSs) are those technologies that fall under the new generation of manufacturing systems that aid the manufacturing sector to achieve goals by tackling the challenges of increasing demand, the short product cycles and the flexibility.

Re-configurable Manufacturing System (RMS) offers products and services with high value added through mass customization as per market requirement along with highly efficient production. RMS enables high throughput even during dynamic market conditions. This is done by re-modelling the manufacturing systems itself. Quick launch of new products, fast integration of new technologies with the production processes without disrupting the existing systems is a characteristic of re-configurable manufacturing system. However, such a fully re-configurable system is still in the developing phase, and is thus a subject of major research efforts. Many of the proposed projects have proved to be promising and can be a major breakthrough in the manufacturing industry. Thus, for efficient implementation of RMS we need a comprehensive literature survey. This study states the following research objectives,

**RO1:** To give a foresight of Re-Configurable Manufacturing System (RMS) in manufacturing

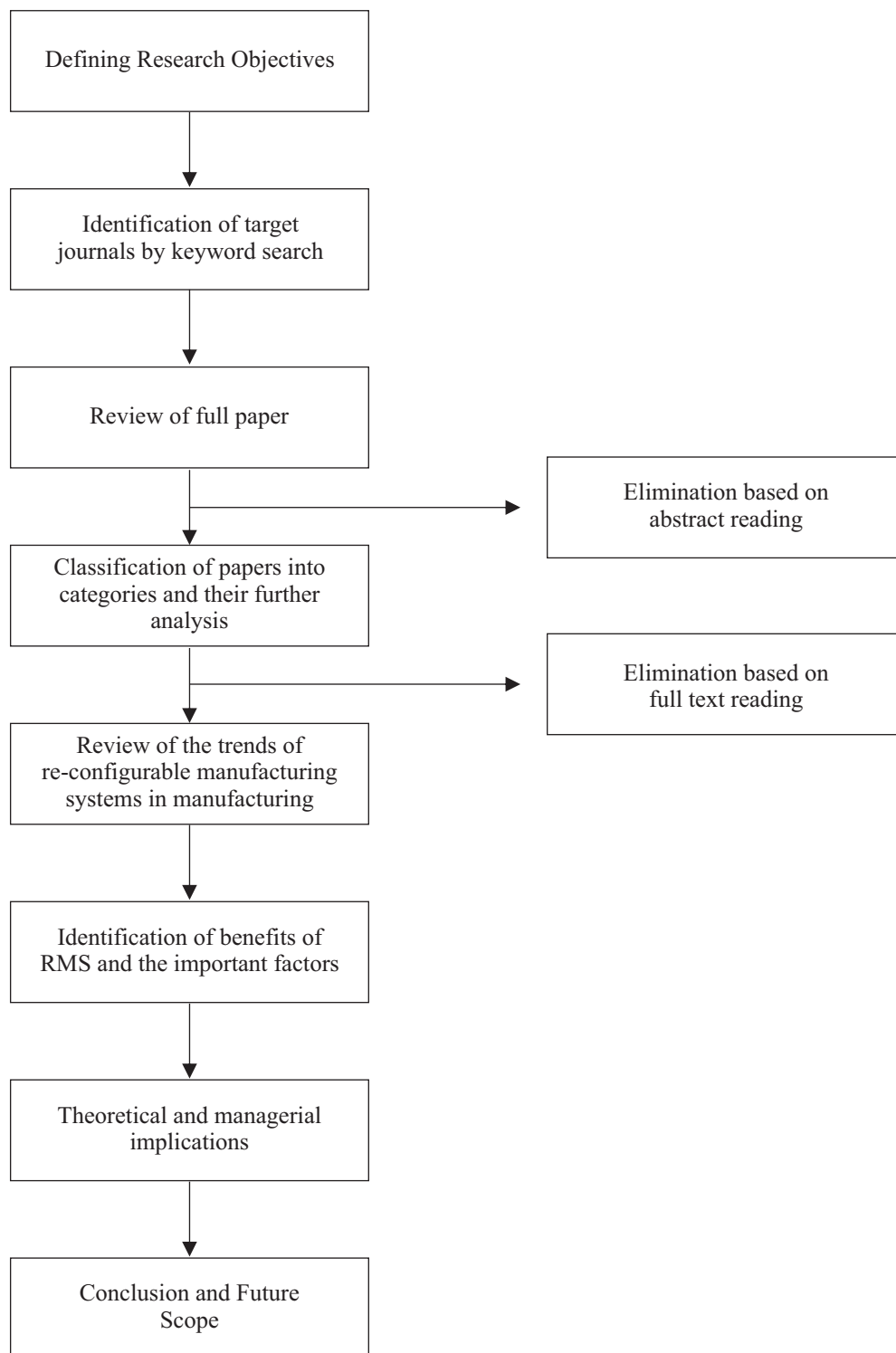
**RO2:** To identify the factors essential for RMS implementation.

**RO3:** To suggest managerial implications of RMS and provide future scope for further research.

This paper presents a structured systematic review of the literature about RMSs, highlighting the key methodologies and tools. The review further elaborates about the important factors to be considered for RMS implementation that will help researchers and practitioners to develop strong studies in this field. Section 2 of the paper discusses the SLR of related work with further analysis. Section 3 provides a discussion on the results obtained and Section 4 highlights the managerial implications and future scope.

## LITERATURE REVIEW:

Research papers pertaining to RMS were identified using keyword search such as RMS, re-configurability, modularity, integrability, flexibility, scalability and changeability. The papers were selected from journals like International journal of flexible manufacturing systems, Journal of Manufacturing Systems, IEEE International Conference on Automation Science and Engineering, International Journal of Production Research etc. A total of 100 research papers were reviewed by title and abstract reading and after elimination, a total of 45 papers were selected based on its relevance to the topic. From these papers the factors essential for RMS implementation were determined and the various techniques used for research were identified. The flow of the SLR methodology is illustrated in Figure 1.



**Figure 1: Flow of the study**

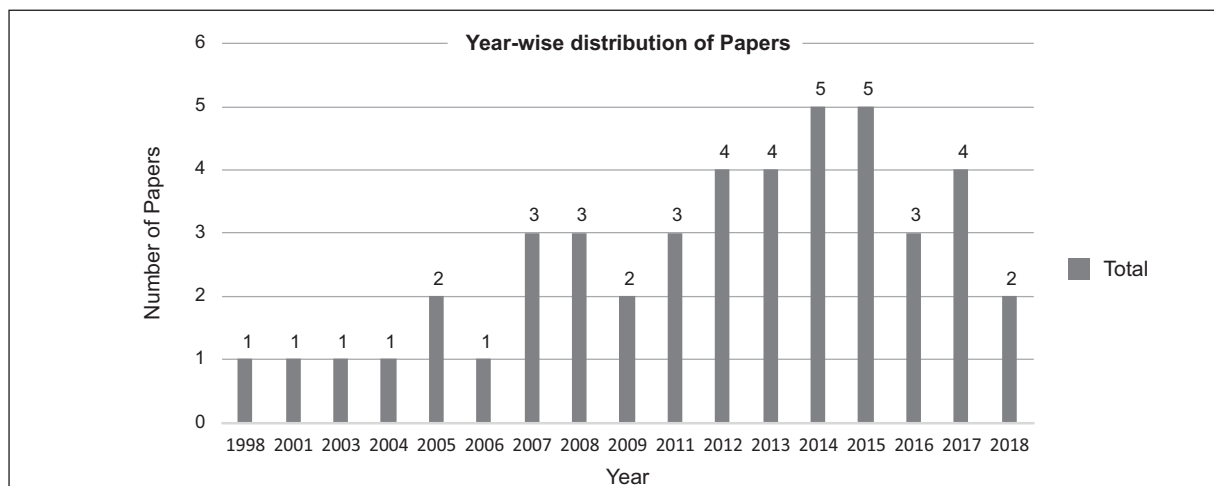
**Table 1 : Classification of research papers**

Year	Count of papers	% papers
1998	1	2.22
2001	1	2.22
2003	1	2.22
2004	1	2.22
2005	2	4.44
2006	1	2.22
2007	3	6.67
2008	3	6.67
2009	2	4.44
2011	3	6.67
2012	4	8.89
2013	4	8.89
2014	5	11.11
2015	5	11.11
2016	3	6.67
2017	4	8.89
2018	2	4.44
<b>Grand Total</b>	<b>45</b>	<b>100.00</b>

In this section, after reading the paper and understanding its relevance to our research topic we did detailed classification of the

research paper frequency for the publishing year from 1998 to 2018 as shown in **Table 1**. As per the papers analysed we were able to discern that there is an increase in the awareness of the concept also there is consistent increase in the interest of the academia in the field of RMS from 1998. Also a huge rise in the research papers was seen in this decade as compared to the previous one. As per the pivot of the year-wise distribution of papers illustrated in **Figure 2**, we can see a slight dip in 2016 but further increase in the papers indicates increase in the overall increase in interest towards application of RMS (Highest of 5 papers each in 2014-15).

Further the country-wise (**Figure 3**) analysis of the frequency of research papers is done for further understanding the trend of the current scenario of the research work in RMS in the respective countries. We are able to infer that developed countries and many fast growing economies have further more number of research papers indicating considerably greater research activity (highest 5 papers in Italy and India). Lastly we also found out that for the fast growing countries the field of RMS is relatively newer as compared to the developed one (**Figure 4**).

**Figure 2: Year-wise distribution of papers**

Count of Country	Year	Canada	China	Denmark	Egypt	France	Germany	Greece	India	Iran	Italy	Malta	People's Republic of China	Portugal	Spain	Sultanate of Oman	Sweden	Switzerland	UK	United States	USA	Grand Total
	1998																					1
	2001	1																	1			1
	2003										1											1
	2004																		1			1
	2005	1																				1
	2006	1																			1	2
	2007							1	1													1
	2008	2													1							3
	2009									1									1			2
	2011						1	1	1													3
	2012						1	1	1		1										1	4
	2013			1				1	1	1						1	1					4
	2014									1	2		1									5
	2015								1					1				1				5
	2016	1					1				1											3
	2017			1					1			1									1	4
	2018									1	1											2
Grand Total		5	1	2	1	2	1	3	6	3	6	1	1	1	1	1	1	1	3	1	4	45

Figure 3: Year v/s country

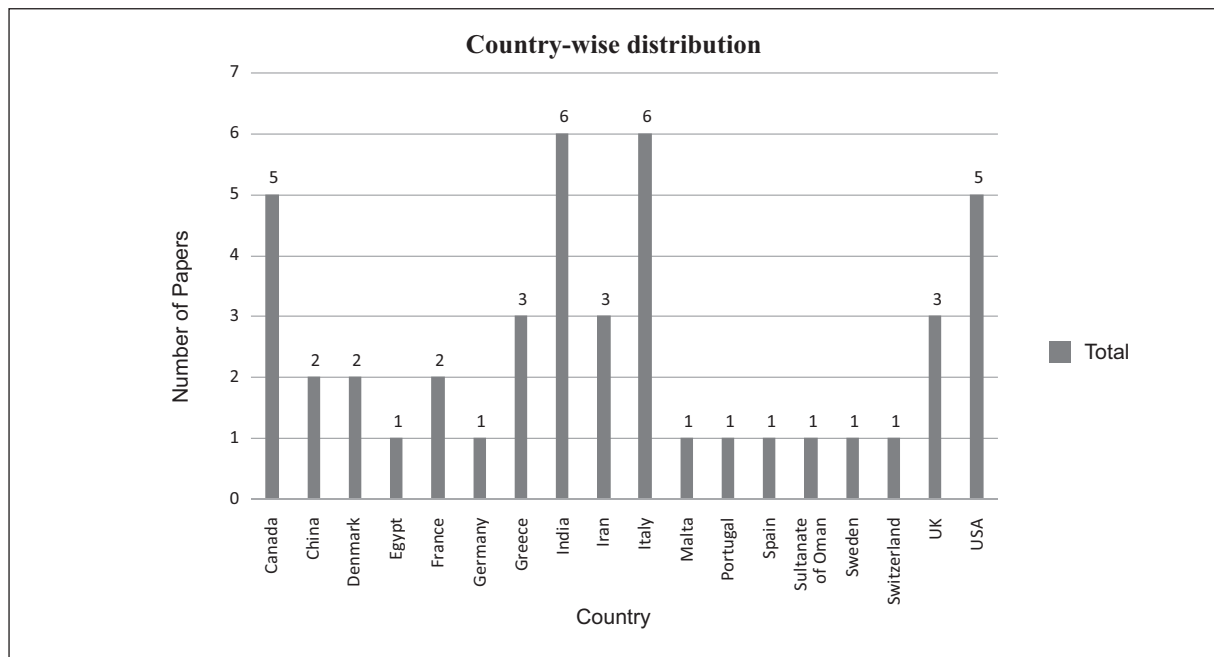


Figure 4: Country-wise distribution

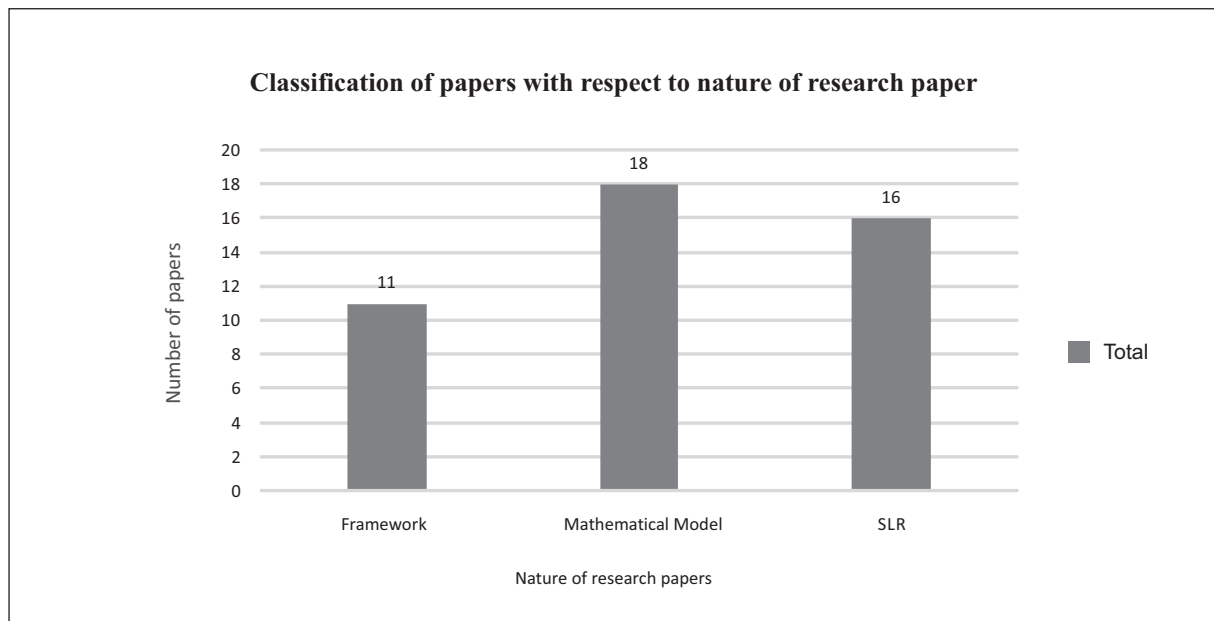
**Abbasi and Houshmand** addressed the need to implement an effective and productive RMS to meet the needs of growing demands. A Mixed Integer Non-linear Programming model was developed to find out the optimum sequence of the production tasks, its configurations and batch sizes. This problem was solved using TABU search method. An important point discussed by the author is that it is necessary to grasp the techniques with the rapid changes in market demand. But, **Rosio and Safsten** stated that there is a lack of

knowledge in the systematic design method to incorporate RMS which can be attributed to lack of knowledge and negligence. Also **Saliba et al.** found the research gap between the concepts and its application. **Bi et al.**, thus discussed the basic requirements for the next generation manufacturing systems that are nothing but the re-configurable manufacturing systems. Furthermore, the paper identified the need for RMS because of

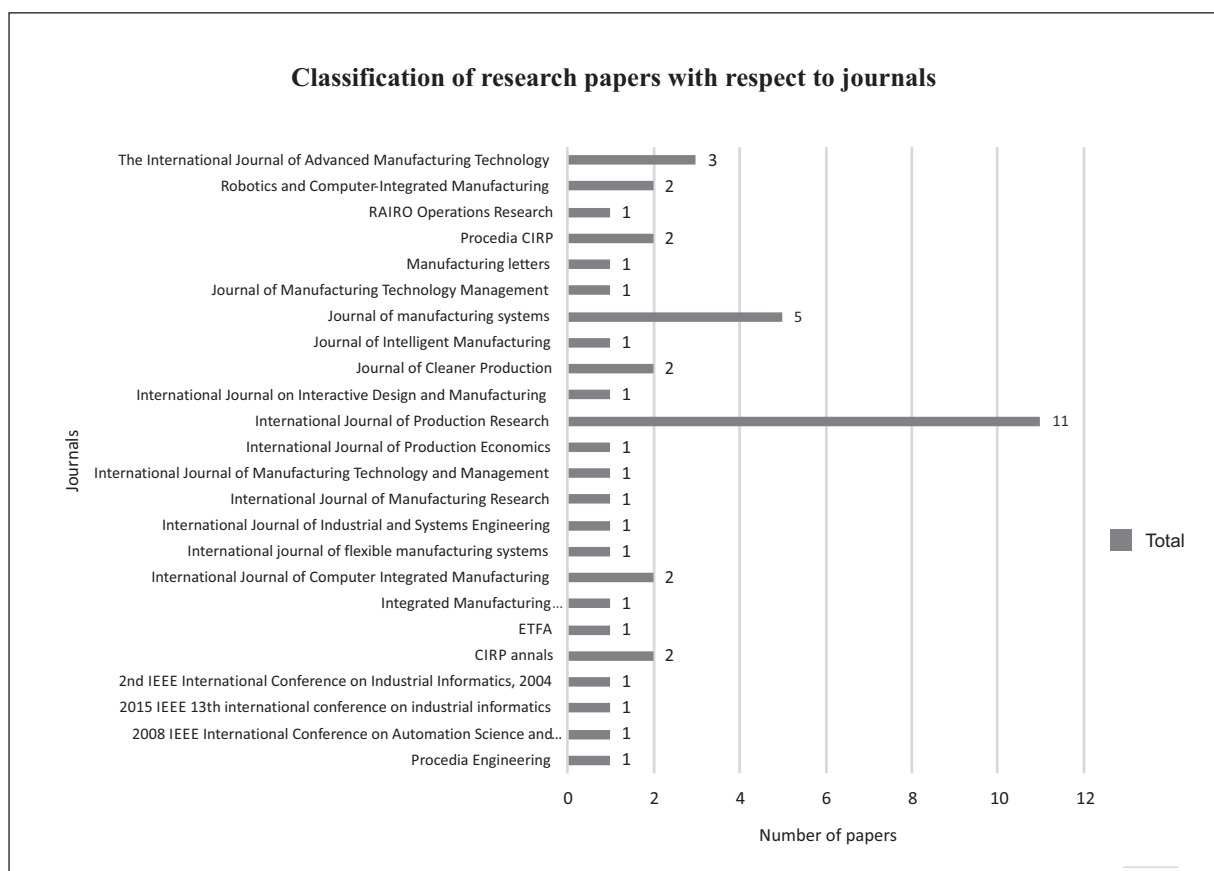
dynamic market demand and low and fluctuating product volumes. **(Bensamine) (Elmaraghy)** regarded RMS as the concordant evolvement of the two existing manufacturing systems used by the industry, namely Dedicated Manufacturing Lines (DML) and Flexible Manufacturing Systems (FMS). DMLs produce parts at high volume throughput. However, in certain situations, these lines remain underutilized causing losses. FMS on the other hand, provide high flexibility but cannot respond to a quick change in market demand with high capacity. Thus, a need to merge the high throughput of DML along with the high flexibility of FMS to make an integrated system that can respond quickly to the market demand was stated.

Gindy and Saad illustrated the importance of a rapid and balanced response to the predictable and unpredictable changes by the efficient utilization of the systems existing resources.





**Figure 5: Classification based on nature of paper**



**Figure 6: Classification of research papers with respect to journals**

**Goyal** presented a novel methodology to measure responsiveness using re-configurable manufacturing tools (RMTs) and emphasized the measure of responsiveness at the machine level would lead to the minimization of the reconfiguration efforts in the later stage. **Youssef and ElMaraghy** stated that the various aspects considered in the RMS configurations for functional adaptability including equipment selection, arrangement of machines and assignment of operations. Various changeability and flexibility approaches in manufacturing assembly according to different levels of production systems are analysed **Huettemann et al.** which provides help to adapt to RMS. **Andersen et al.** also mentions about changeability in manufacturing processes to meet the demands of the market and states that decision making is essential to estimate the degree of convertibility and scalability in the system during the design phase.

**Galan et al.** presented a novel approach for a production system and stated that its importance is in the proper grouping of sets and making it re-configurable. **Rabbani et al.** addressed this re-configurable dynamic cell formation problem and proposed a mathematical model to solve it with the help of imperialist Competitive Algorithm where intractability was addressed. **Aljuneidi and Bulgak** aimed at the creation of cellular manufacturing systems (CMS) and hybrid manufacturing systems with the simultaneous focus on the issues facing in sustainable manufacturing systems with the overall objective of minimizing the total cost of machining and manufacturing processes and the allied costs. **Andrisano et al.** proposed a method for design and optimization of hybrid

reconfigurable system through a case study approach using digital manufacturing to integrate virtual models of product, process and resources. This enhances the integrability, modularity and enhances the performance quality of processes. In order to maintain the robustness and re-configurability of a process, **Bensmaine et al.** proposed a heuristic to solve problems related to process planning and scheduling and has emphasised on the need to consider **RMT** failures during scheduling in RMS. This need was catered to by **Bruccoleri et al.** The main objective of this paper was the determination of how re-configurability can be used to handle sudden breakdowns in real time. Also this focusses on the ease of software and hardware upgradation to enhance functional ability. **Hasan et al.** assessed the reconfigurability of machines and proposed framework to determine optimum selection of machine configurations for any product line using Multi Attribute Utility Theory (MAUT). **Chaube et al. (Bensmaine et al.)** proposed a novel approach for generating dynamic process plan for reconfigurable manufacturing system. The NSGA-2 approach aims at reducing the manufacturing time and cost. The solutions obtained by the proposed model were plotted on a Pareto front. This, according to the authors, will further assist decision making regarding the configuration of the machines used for the production.

**Deif and ElMaraghy (Koren et al.) (Spicer et al.) (Wang and Koren) (Prasad and Jayswal) (Gupta et al.) (Elmasry et al.)** stated capacity scalability as one of the major factors of RMS. **Koren et al.** used genetic algorithm (GA) to solve optimization problem if there were incremental capacity

additions along with cost effective expansion of the system capacity. The optimization objective is only minimizing total number of machines and maximizing the system throughput and urges scalability planning should be performed concurrently. Decision making is an important tool for any organization (**Michalos et al.**) (**Mourtzis et al.**) (**Abdi**) (**Carpanzano et al.**). **Abdi** identified the crucial factors that affect machine selection and configurations. Further, a fuzzy AHP model is used to determine the machine preference based on the criteria. Also, the presented model is examined using sensitivity analysis. Moreover, **Carpanzano et al.** proposed an agent-based algorithm combining global and local optimization criteria for managing the part flow in re-configurable transportation systems (RTSSs). The model ensures autonomy in the selection of routing decisions evolving optimization strategies. In **Singh et al.**, MCDM matrix was made considering tangible and intangible parameters so that designers can evaluate various alternatives for particular manufacturing choice. AHP is used to measure importance of matrices in system convertibility for short term, medium term and long terms. **Choi and Xirouchakis** proposed a unique perspective of minimum energy consumption in alternate process plans to maximize throughput. On a similar basis, **Yingjie** showed an overview about the existing energy efficient techniques and the pointed out the lack of depth in the studies of optimization in cost and productivity achieved through energy efficiency. **Garbien** necessitated the importance of RMS towards sustainable processes and stated to opt for re-configurable components and machines, material handling systems and easily physical changing layouts to secure

sustainability. Further, **Govindan et al.** by using the triple bottom line concept emphasized importance on the social, environmental and economic criteria for supplier evaluation. Consideration of all the three dimensions together is necessary for sustainable operations. **Dubey et al.** integrated managerial implications with environmental effects and stated that an important step towards cleaner production is through re-configurable manufacturing which is relatively cheaper in comparison to those of flexible manufacturing systems.

## RESULTS AND DISCUSSIONS:

Re-configurable Manufacturing System (RMS) is a new paradigm enabling manufacturing systems to react to market demand rapidly. Throughout the paper we have seen that how RMS can be applied effectively to manufacturing. Through a systematic literature review, our case study has presented an extensive review of 45 papers published in a total of 23 journals in RMS. All the papers were classified into different categories and the trends were analysed as discussed in the previous sections above. This thorough analysis of all the papers and their trends highlight some of the major factors inherent in the implementation of RMS in manufacturing.

### 1. Theoretical implications

In the existing competitive scenario, success is not just about having the right product with low cost and high quality but it's also about having the new requirements of production responsiveness and flexibility. Thus, there is an increased need for the adoption of new approaches quickly, that will lead to an enhanced adaptability to market changes. This is done by re-modelling the

manufacturing systems itself by using Re-Configurable Manufacturing Systems. But, there is a misconception in the manufacturers that re-configurable systems can lead to change in the entire process plan and thus lead to an increased cost of production. Thus, it is imperative to spread awareness about the true benefits of RMS that can enable high throughput even in dynamic market conditions. RMS combines high throughput with increased flexibility. This study identifies these potential benefits and concludes that that RMS can thus be utilized effectively by proper grouping of machine components and processes and selection of easily changeable process layouts to enhance the responsiveness of processes and thus can be used for mass manufacturing with superior customizability according to the market demand. This increases the adaptability and makes a system adaptable to a change in the market. Hence, it is necessary to opt for re-configurable manufacturing systems for enhancing the integrability, modularity and enhances the performance quality of processes. However, such a fully re-configurable system is still in the developing phase, and is thus a subject of major research efforts. Our research throughout has showed the trend of how RMS is being increasingly assimilated in developed countries but there may be certain hindrances which hampers RMS to reach to its potential which need scrutiny. And further research is needed for analysing the Real-Time shortcomings in the application of RMS.

## 2 Managerial implications

Re-configurable components and machines, material handling systems and easily physical changing layouts are important to secure sustainability. Moreover, due to increased

changeability organizations can leverage its resources and increase their throughput. This study provides a brief understanding of the concept of RMS through a SLR methodology and can dispel misconceptions about the various aspects of RMS. Thus this study helps industry managers or academia to frame problem statements or research questions respectively so as to identify the opportunities RMS provides according to the research trends. Industry managers can strategize for further planning to adopt RMS and academicians can propose a comprehensive framework for implementing RMS. Industry specific trends in RMS can be studied to understand tailored opportunities for the industry. Further study can be channelled to reduce the effect of the hindrances during the adoption of RMS.

## LIMITATIONS AND FUTURE SCOPE:

In the existing competitive scenario, success is not just about having the right product with low cost and high quality but it's also about having the new requirements of production responsiveness and flexibility. Thus, there is an increased need for the adoption of new approaches quickly, that will lead to an enhanced adaptability to market changes. This is done by re-modelling the manufacturing systems itself by using Re-Configurable Manufacturing Systems. This study identifies these potential benefits and concludes that that RMS can thus be utilized effectively by proper grouping of machine components and processes and selection of easily changeable process layouts to enhance the responsiveness of processes and thus can be used for mass manufacturing with superior customisability according to the market demand. However, such a fully re-configurable system is still in the developing

phase, and is thus a subject of major research efforts. Our research throughout has showed the trend of how RMS is being increasingly assimilated in developed countries but there may be certain hindrances which hampers RMS to reach to its potential which need scrutiny. And further research is needed for analyzing the Real-Time shortcomings in the application of RMS. MCDM methods may be helpful to find out about the factors in detail, layout plan selection and for the purpose of validation and improving accuracy. Industry specific trends in RMS can be studied to understand tailored opportunities for the industry.

#### REFERENCES:

- Abbasi, M., & Houshmand, M. (2009). Production planning of reconfigurable manufacturing systems with stochastic demands using Tabu search. *International Journal of Manufacturing Technology and Management*, 17(1), 125.
- Abdi, M. R. (2009). Fuzzy multi-criteria decision model for evaluating reconfigurable machines. *International Journal of Production Economics*, 117(1), 1-15.
- Alexopoulos, K., Mourtzis, D., Papakostas, N., & Chrysosolouris, G. (2007). DESYMA: assessing flexibility for the lifecycle of manufacturing systems. *International Journal of Production Research*, 45(7), 1683-1694.
- Aljuneidi, T., & Bulgak, A. A. (2016). A mathematical model for designing reconfigurable cellular hybrid manufacturing-remanufacturing systems. *The International Journal of Advanced Manufacturing Technology*, 87(5-8), 1585-1596.
- Andersen, A. L., Brunoe, T. D., Nielsen, K., & Rösiö, C. (2017). Towards a generic design method for reconfigurable manufacturing systems: Analysis and synthesis of current design methods and evaluation of supportive tools. *Journal of manufacturing systems*, 42, 179-195.
- Andrisano, A. O., Leali, F., Pellicciari, M., Pini, F., & Vergnano, A. (2012). Hybrid Reconfigurable System design and optimization through virtual prototyping and digital manufacturing tools. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 6(1), 17-27.
- Bensmaine, A., Dahane, M., & Benyoucef, L. (2011, September). Simulation-based NSGA-II approach for multi-unit process plans generation in reconfigurable manufacturing system. In *ETFA2011* (pp. 1-8). IEEE.
- Bensmaine, A., Dahane, M., & Benyoucef, L. (2014). A new heuristic for integrated process planning and scheduling in reconfigurable manufacturing systems. *International Journal of Production Research*, 52(12), 3583-3594.
- Bi, Z. M., Lang, S. Y., Shen, W., & Wang, L. (2008). Reconfigurable manufacturing systems: the state of the art. *International Journal of Production Research*, 46(4), 967-992.
- Bortolini, M., Galizia, F. G., & Mora, C. (2018). Reconfigurable manufacturing systems: Literature review & research trend. *Journal of manufacturing systems*, 49, 93-106.
- Bruccoleri, M., Amico, M., & Perrone, G. (2003). Distributed intelligent control of exceptions in reconfigurable manufacturing systems. *International Journal of Production Research*, 41(7), 1393-1412.
- Carpanzano, E., Cesta, A., Orlandini, A.,



- Rasconi, R., Suriano, M., Umbrico, A., & Valente, A. (2016). Design and implementation of a distributed part-routing algorithm for reconfigurable transportation systems. *International Journal of Computer Integrated Manufacturing*, 29(12), 1317-1334.
- Chaube, A., Benyoucef, L., & Tiwari, M. K. (2012). An adapted NSGA-2 algorithm based dynamic process plan generation for a reconfigurable manufacturing system. *Journal of Intelligent Manufacturing*, 23(4), 1141-1155.
- Choi, Y. C., & Xirouchakis, P. (2015). A holistic production planning approach in a reconfigurable manufacturing system with energy consumption and environmental effects. *International Journal of Computer Integrated Manufacturing*, 28(4), 379-394.
- Deif, A. M., & ElMaraghy, W. H. (2006). A control approach to explore the dynamics of capacity scalability in reconfigurable manufacturing systems. *Journal of Manufacturing Systems*, 25(1), 12-24.
- Dubey, R., Gunasekaran, A., Helo, P., Papadopoulos, T., Childe, S. J., & Sahay, B. S. (2017). Explaining the impact of reconfigurable manufacturing systems on environmental performance: The role of top management and organizational culture. *Journal of cleaner production*, 141, 56-66.
- ElMaraghy, H. A. (2005). Flexible and reconfigurable manufacturing systems paradigms. *International journal of flexible manufacturing systems*, 17(4), 261-276.
- Elmasry, S. S., Youssef, A. M., & Shalaby, M. A. (2015). A cost-based model to select best capacity scaling policy for reconfigurable manufacturing systems. *International Journal of Manufacturing Research*, 10(2), 162-183.
- Galan, R., Racero, J., Eguia, I., & Garcia, J. M. (2007). A systematic approach for product families formation in Reconfigurable Manufacturing Systems. *Robotics and Computer-Integrated Manufacturing*, 23(5), 489-502.
- Garbie, I. H. (2013). DFSME: design for sustainable manufacturing enterprises (an economic viewpoint). *International Journal of Production Research*, 51(2), 479-503.
- Gindy, N. N., & Saad, S. M. (1998). Flexibility and responsiveness of machining environments. *Integrated manufacturing systems*, 9(4), 218-227.
- Govindan, K., Khodaverdi, R., & Jafarian, A. (2013). A fuzzy multi criteria approach for measuring sustainability performance of a supplier based on triple bottom line approach. *Journal of Cleaner production*, 47, 345-354.
- Goyal, K. K., Jain, P. K., & Jain, M. (2013). A novel methodology to measure the responsiveness of RMTs in reconfigurable manufacturing system. *Journal of Manufacturing Systems*, 32(4), 724-730.
- Gupta, A., Jain, P. K., & Kumar, D. (2015). Configuration selection of reconfigurable manufacturing system based on performance. *International Journal of Industrial and Systems Engineering*, 20(2), 209-230.
- Hasan, F., Jain, P. K., & Kumar, D. (2013). Machine reconfigurability models using multi-attribute utility theory and power function approximation. *Procedia Engineering*, 64, 1354-1363.
- Huettemann, G., Gaffry, C., & Schmitt, R. H.

(2016). Adaptation of reconfigurable manufacturing systems for industrial assembly—review of flexibility paradigms, concepts, and outlook. *Procedia CIRP*, 52, 112-117.

Koren, Y., Wang, W., &Gu, X. (2017). Value creation through design for scalability of reconfigurable manufacturing systems. *International Journal of Production Research*, 55(5), 1227-1242.

Kuruvilla, S. A., Gokhale, S. S., &Sastry, S. (2008, August). Reliability evaluation of reconfigurable conveyor systems. In *2008 IEEE International Conference on Automation Science and Engineering* (pp. 929-934). IEEE.

Lee, J., Bagheri, B., & Kao, H. A. (2015). A cyber-physical systems architecture for industry 4.0-based manufacturing systems. *Manufacturing letters*, 3, 18-23.

Matt, D. T., Rauch, E., & Dallasega, P. (2014). Mini-factory—a learning factory concept for students and small and medium sized enterprises. *ProcediaCiRP*, 17, 178-183.

Michalos, G., Makris, S., &Mourtzis, D. (2011). A web based tool for dynamic job rotation scheduling using multiple criteria. *CIRP annals*, 60(1), 453-456.

Mourtzis, D., Doukas, M., & Psarommatis, F. (2012). A multi-criteria evaluation of centralized and decentralized production networks in a highly customer-driven environment. *CIRP annals*, 61(1), 427-430.

Neto, L., Reis, J., Guimarães, D., &Gonçalves, G. (2015, July). Sensor cloud: Smartcomponent framework for reconfigurable diagnostics in intelligent manufacturing environments. In *2015 IEEE*

*13th international conference on industrial informatics (INDIN)* (pp. 1706-1711). IEEE.

Prasad, D., & Jayswal, S. C. (2018). Reconfigurability consideration and scheduling of products in a manufacturing industry. *International Journal of Production Research*, 56(19), 6430-6449.

Rabbani, M., Samavati, M., Ziaee, M. S., &Rafiei, H. (2014). Reconfigurable dynamic cellular manufacturing system: A new bi-objective mathematical model. *RAIRO-Operations Research*, 48(1), 75-102.

Renzi, C., Leali, F., Cavazzuti, M., &Andrisano, A. O. (2014). A review on artificial intelligence applications to the optimal design of dedicated and reconfigurable manufacturing systems. *The International Journal of Advanced Manufacturing Technology*, 72(1-4), 403-418.

Rösiö, C., & Säfsten, K. (2013). Reconfigurable production system design—theoretical and practical challenges. *Journal of Manufacturing Technology Management*, 24(7), 998-1018.

Saliba, M. A., Zammit, D., & Azzopardi, S. (2017). Towards practical, high-level guidelines to promote company strategy for the use of reconfigurable manufacturing automation. *Robotics and Computer-Integrated Manufacturing*, 47, 53-60.

Setchi, R. M., & Lagos, N. (2004, June). Reconfigurability and reconfigurable manufacturing systems: state-of-the-art review. In *2nd IEEE International Conference on Industrial Informatics, 2004. INDIN'04. 2004* (pp. 529-535). IEEE.

Singh, R. K., Khilwani, N., & Tiwari, M. K.

- (2007). Justification for the selection of a reconfigurable manufacturing system: a fuzzy analytical hierarchy based approach. *International Journal of Production Research*, 45(14), 3165-3190.
- Spicer\*, P., Yip-Hoi, D., &Koren, Y. (2005). Scalable reconfigurable equipment design principles. *International journal of production research*, 43(22), 4839-4852.
- Wang, W., &Koren, Y. (2012). Scalability planning for reconfigurable manufacturing systems. *Journal of manufacturing systems*, 31(2), 83-91.
- Xiaobo, Z., Wang, J., & Luo, Z. (2001). A stochastic model of a reconfigurable manufacturing system-Part 4: Performance measure. *International Journal of Production Research*, 39(6), 1113-1126.
- Yingjie, Z. (2014). Energy efficiency techniques in machining process: a review. *The International Journal of Advanced Manufacturing Technology*, 71(5-8), 1123-1132.
- Youssef, A. M. A., &ElMaraghy, H. A. (2008). Availability consideration in the optimal selection of multiple-aspect RMS configurations. *International journal of production research*, 46(21), 5849-5882.

## RESEARCH

### Does Bancassurance Pay Off?

#### A Study Of Bancassurance Performance In India

Dr. P. Srilatha\* & Dr. Irala Lokanandha Reddy\*

---

#### ABSTRACT

*The financial reforms brought out by the globalization and liberalization necessitated the transformation of traditional business into innovative business lines in banking and insurance. Banks have diversified to provide various banking and non-banking products for customer retention. As part of such diversification, the concept of bancassurance evolved. 'Bancassurance' is an arrangement between banks and insurance companies for distributing insurance products by banks to its customer.*

*Our paper made an attempt to study the performance of bancassurance channel in India with reference to the number of policy issues and the quantum of premium earnings in life as well as non-life businesses during the last nine-year period. It also compares the quantum of premium that is earned through the bancassurance business between life insurance and non-life businesses.*

**KEYWORDS:** Bancassurance, Performance, Banking, Insurance

---

#### INTRODUCTION:

The financial reforms brought out by the globalization and liberalization necessitated the transformation of traditional business into innovative business lines in banking and insurance. Changing needs of the customer, sophisticated technology, entry of private banks and universalization of banking operations demanded banks to provide differentiated banking and non-banking products for customer retention. On the other hand, with growing competition and dynamic regulatory regime, profit margins of banks declined.

The Insurance Companies had similar problems. Insurance is a product which is sold than bought. While most of the population in India is either uninsured or under insured, distribution posed a major challenge for the insurance companies. When the Insurance sector was open for private and global player, the insurer had to face cut-throat competition and found difficult to sell insurance without incurring heavy distribution expenses.

The Insurance Regulatory and Development Authority of India (IRDAI), in a report of 2001-02 pointed out the low insurance

---

\*Dr. P. Srilatha, Telangana Social Welfare Residential Degree College for Women (TSWRDCW), TSWREIS, Hyderabad

\*Dr. Irala Lokanandha Reddy, School of Management Studies, University of Hyderabad,  
Email: dr.iralal@uohyd.ac.in

penetration. It further suggested how banks, as corporate agents, with their wide geographical network and customer loyalty can come forward and contribute to the growth of insurance industry. It also said that the banks can also earn commission income from the cross selling. This led to an amendment in October 2002, allowing the recognized banks, cooperatives, NGOs and panchayats to act as intermediaries in selling the insurance policies/products.

As a part of such diversification, banks entered insurance business. The arrangement between a bank and an insurer for distributing insurance policies/products by banks to its customer bases is called 'Bancassurance'.

According to Bramham, Irala, et al., (2004), the "Bancassurance in its simplest form is the distribution of insurance products through a bank's distribution channels. The broad philosophy behind Bancassurance is to combine the manufacturing capabilities and selling culture of insurance companies with the distribution network and large client base of banks".

Realizing the potential growth in the insurance industry, many banks such as SBI, ICICI, HDFC set up their own subsidiaries. It was felt that the well-trained bank staff would provide comparative analysis of various insurance policies and design the best suitable plan according to the customer profile. The insurance companies would provide mainly risk management benefits to the parent company.

While the concept of Bancassurance took off in a big way, it was not without issues and challenges. Did this channel really help Banker and Insurance Companies? What had

been the experiences of the world? We present an analysis of performance of the bancassurance in India.

## REVIEW OF LITERATURE:

Stigler (1971) opined that excess returns to banks under bancassurance depend on the synergies between banking and insurance.

Diamond (1984) emphasized that diversification within an intermediary would result in cost reduction, even in case of a risk neutral economy.

Fama (1985) pointed out that banks are at a unique advantage of having accessibility to customer private information that is useful for taking short-term decisions.

Morgan (1994) studied the growth of bancassurance business in the United Kingdom and concluded that selling insurance policies/products requires different skillset and operationalizing the bancassurance channel is a complex process.

Bryan (1997) concluded in the context of United States of America that traditional channels of insurance distribution failed in meeting the requirements of lower- and middle-income groups. He opined that the bancassurance channel would become more suitable to such groups as it brings the benefits of wider choice, more value and increased accessibility.

Sekhar Chandra & Kumar (2001) concluded that about only 25% of the insurable population is insured in India. Further among these 25%, the majority were underinsured. He opined that the banks could win this game of tapping the large uninsured or underinsured customer base.



Murthy, GRK, Seethapathi (2003) had concluded that for the bancassurance model to succeed; the managements of both banking and insurance companies should be sharing identical philosophies of credit and risk management making it a strategic fit.

Lymberopoulos et al.(2004) opined that while cross selling the insurance policies and services, the banks shall have to design effective marketing strategies aimed at increasing the awareness and promoting the willingness of customer. They shall prepare an integrated communication plan.

Karunakaran (2006) concludes that bancassurance in future would become a norm in India rather than an exception. It shall be a 'win-win situation' for banks, insurer and customer.

Fields et al.,(2007) researched on the financial viability of different combinations of bancassurance. They concluded that the financial markets reacted a bit positively to the bancassurance merger announcements. They also provided evidence on how the bancassurance merger have resulted in wealth gains for the potential for bidder.

Orla & Mohamed (2009) obtained views of eight focus groups and through postal questionnaire, conducted a survey in the context of UK. They found that the customer bought the insurance through bancassurance in cases when there was a long relationship between bank and customer.

Fiordelisi & Ricci (2011) assessed the gains of cost and profit efficiency facilitated by bancassurance in Italy. Their study revealed that the gains in cost efficiency are found in insurance industry.

Pejawar (2013) concluded that the micro insurance products can be sold to through bancassurance to the huge rural population in India.

Sahlian(2015) stated that the factor attributing to success of bancassurance are simplified processes, the insurer's representatives being present in the bank board and a set of compatibilities between the insurer and banks.

Keith(2016)concluded that the capital adequacy, quality of management and quality of assets have positive influence on bancassurance and on the bank's financial performance in the context of Kenya.

Choudhury & Singh (2016) found that purchasing life insurance through the bancassurance channel offer several benefits such as the ease of buying, the channel reliability and responsiveness and the services after-sale. Hence, the banks should devise various strategies for customer retention besides attracting new ones.

Sharma & Bhateja (2017) emphasized that indicator like population size and structure, literacy rate, banking structure, insurance density and penetration explain the success of bancassurance. Bancassurance share of individual new business premium is more in case of private life insurer than that of public life insurer.

Sharma & Bhateja (2017) developed an efficiency assessment to evaluate the financial alliances in the area of pension fund management in the Baltic countries. Seventeen out of twenty pension fund management companies operate under the Bancassurance. Pension fund management

business is very important for financial groups as it generates very strong return on equity. Small and medium specialized pension fund management companies are found to be capable of achieving competitive efficiency compared to other companies.

Peng et al.(2017)investigated the banks that are engaged in bancassurance in Taiwan during 2004 -2012 and revealed that such banks experienced improvements in efficiency and accrued greater profits and showed an increase in shareholder value.

Leepsa et al., (2017) in a case study found that the Axis Bank's performance improved after it had acquired the stake in Max New York Life Insurance.

Sreenish et al. (2017) analyzed the possibilities of bancassurance to sell the life insurance products in the cashless and digitalized economy. In this context, the bancassurance channel is unique compared to other distribution channels. Bank staff, as insurer can give better financial advice about the insurance products to its customer for their protection needs.

Dharmaraj (2019) conducted a survey and explored the perception of branch manager and revealed that proper coordination between banks and insurer makes bancassurance more productive.

Ninova & Tsenov (2018) discussed the practices of bancassurance in Bulgaria. Also, the benefits of bancassurance for customer, commercial banks and insurance companies are also discussed.

Shinde & Salve (2018) discussed bancassurance models used by banking and

insurance companies in India are considered in this research paper. A study on five major nationalized banks showed that these banks avoided participating in managing insurance activities and seen accepting low risks.

Chen(2019) investigated the impact of bancassurance on the reputation of the corporates and their profitability with special reference to life insurer in Taiwan. He concluded that the quality-of-service quality had a profound effect.

Praba Devi (2020) made an attempt to understand the evolution of bancassurance in India through a review of the literature. The study also identified the research gaps and provided scope for the further research.

Minghui et al., (2020) analyzed the social sustainability dynamics of bancassurance in China. The China's bancassurance helped its Rural Revitalization and as well as the small and micro enterprise development. The study revealed that the government needed to increase subsidies and optimize the risk-taking ratio of banking and insurance providing companies, for a healthy and professional bancassurance business.

Pushpa Latha et al.(2020)discussed the concept, scope and models of bancassurance and also presented SWOT analysis of bancassurance. It is concluded that the bancassurance success lies in banks ensuring excellent customer relationship.

Abiyyu et al.(2020) observed that such strategic issues as product development, customer segmentation and digital initiatives in selling the insurance are key determinants of bancassurance business.

## RESEARCH QUESTIONS:

Usually, a developing country's progress is measured by its strength of the financial sector. Banking and insurance, being a core of the financial services play a pivotal role. Besides, with the challenges faced by both the industries due to various macro-economic regulatory forces and as a niche market, which the bancassurance business provided, it is imperative to focus on its contribution especially to the insurance industry. Moreover, bancassurance intermediary channel is a second dominant channel in insurance market after the tied-agency channel. In this context, the present study throws some light on the performance of bancassurance business in India; and thereafter, comparing the performance viz., the premium earned via bancassurance channel between both life and non-life insurance industry. However, as a prelude, the discussion opens up with a snapshot view on bancassurance.

The research questions broadly answered are:

1. What is the performance of bancassurance business in India?
2. Is there any difference in the premiums earned from bancassurance channel between life and non-life insurance companies?

## METHODS:

The present paper is a modest attempt to provide insights into the performance of bancassurance in India. Firstly, it would discuss the conceptual framework of bancassurance, then, it would discuss the performance of bancassurance business in life and non-life insurance businesses during 2010-2019. The study presents the combined performance of bancassurance channel in life non-life insurance businesses. Finally, the

Comparison of Bancassurance income between Life and Non-Life Insurance Companies is presented. In order to study the performance, the data is drawn from the secondary sources such as Annual reports, Committee reports and hand-books on insurance statistics from IRDAI and RBI databases and also research journals on previous research studies in the area of bancassurance. The data is analyzed using the descriptive and comparative statements. In order to test for the difference that whether there was a statistically significant difference in the premium amounts earned through bancassurance channel between life and non-life insurance business using an independent samples t-test.

## ANALYSIS:

The performance of bancassurance channel in India with reference to the number of policies issues and the quantum of premium earnings in both life and non-life business sector during the last nine-year period is analyzed. The quantum of premium that is earned through the bancassurance business between life insurance and non-life businesses is compared

### 1.1. Performance of bancassurance channel in Life insurance business

The performance of bancassurance channel in life insurance is presented in Table 1.

#### 1.1.1. Individual new business,

The no. of policies showed somewhat fluctuating trend until FY2014 and then an increasing trend. Across all the channels, the no. of policies increased from 7.18% to 11.85% during the study period. The amount of premium showed an increase (except for FY12 and FY14) from Rs.8688.68 Crores (10.60%) to Rs.26410.44 Crores (25.19%).

Thus, the average number of policies and premium stood at 2727749(8.318%) and Rs.14234.51 Crores (19.10%) for the period under study.

***The percentage of bancassurance premium has shown a steady growth from 10.6 to 25.9, the Average being 27.03***

#### **1.1.2. Group new business,**

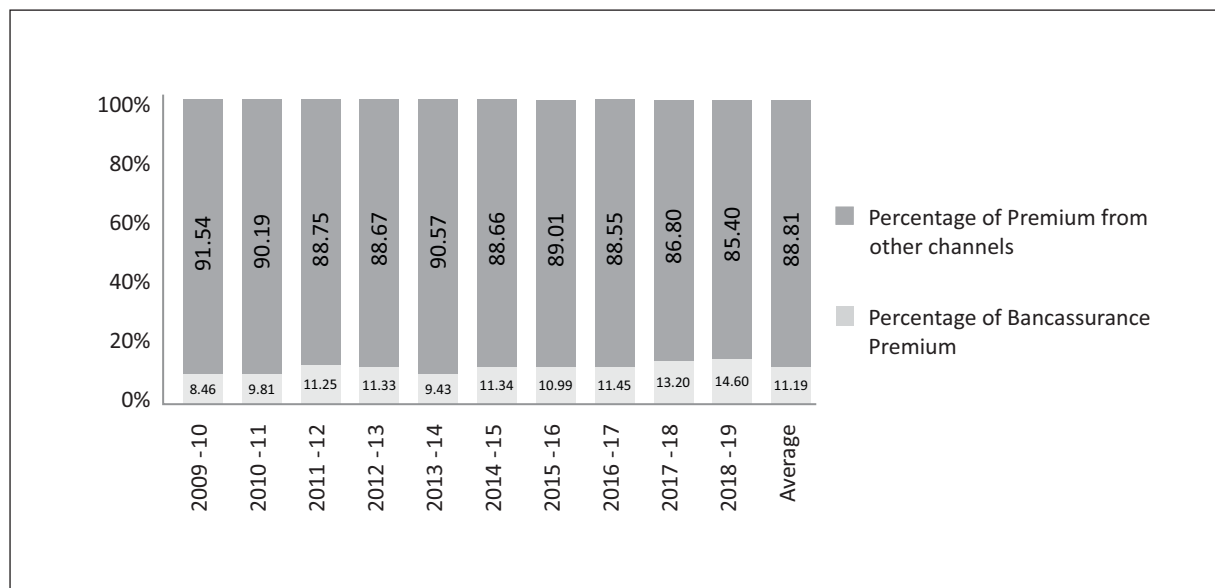
The coverage of number of lives increased by about thirty six times during, i.e., from 1181334 (1.46%) to 42114753 (8.70%). The premium had shown a fluctuating trend upto FY 2015. There after it started increasing, reaching Rs.4940.65 Crores in 2018-19 and finally averaging to 3.16%.

***The percentage of bancassurance premium has shown a fluctuating trend from 2.15 (FY 2009-10) to 4.22 (FY 2018-19.), the Average being 3.16***

#### **1.1.3. Total Individual and Group new business,**

The total premium (individual and group) from bancassurance had increased from Rs.9288 Crores in FY2010 to Rs.31351.09 Crores in FY 2019. The premium rose from 8.46% to 14.60% during the corresponding period.

***The average bancassurance premium is 11.19% during FY2010-19.***



**Figure 1: Figure Performance of Bancassurance Channel in Life Insurance Business from FY 2010-19**

Figure 1 shows the percentage of Bancassurance Premium to Total Premium from all channels over the study period. It may be observed that the

growth had been somewhat steady from 8.46 (FY 2009-10) to 14.60 (FY 2018-19.) averaging 11.19.

Table 1: Performance of Bancassurance Channel in Life Insurance Business from FY 2010-19

Rs. Crores

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Average
					Individual New Business						
Number of Policies (NOP)	3819790	2988481	2180018	2452767	2327836	2414000	2713791	2879990	3199208	3393652	2727749
% of Bancassurance NOP to Total NOP from all channels	7.18	6.21	4.94	5.55	5.7	9.33	10.16	10.9	11.36	11.85	8.318
Amount of Premium (Rs. Crores)	8688.68	11062.63	9692.9	10072.96	9523	11547.45	13891.93	18250.35	23204.78	26410.44	14234.51
% of Bancassurance Premium to Total Premium from all channels	10.6	13.3	14.96	16.18	15.62	20.84	23.82	23.48	25.19	27.03	19.10
<b>Group New Business</b>											
Number of Schemes	444	1834	936	515	483	399	300	331	486	591	632
Number of Lives Covered	1181334	4651600	2618616	2698080	3282246	4485704	5801924	2897265	16389881	42114753	8612140
% of number of lives covered to total from all channels	1.46	5.59	3.93	3.45	3.49	3.65	3.37	1.61	8.7	18.75	5.4
Amount of Premium (Rs. Crores)	599.57	1328.61	3117.71	2081.28	1804.2	1283.07	1361.9	1798.94	2394.68	4940.65	2071.061
% of Bancassurance Premium to Total Premium from all channels	2.15	3.08	6.35	4.63	3.05	2.22	1.69	1.85	2.35	4.22	3.159
<b>Bancassurance Business (Individual Plus Group) Rs. Crores</b>											
Bancassurance Premium	9288	12391	12811	12154	11327	12831	15254	20049	25600	31351.09	16305.61
% of Bancassurance Premium to Total Premium from all channels	8.46	9.81	11.25	11.33	9.43	11.34	10.99	11.45	13.20	14.60	11.186
Premium from channels other than bancassurance	100557	113942	101057	95082	108829	100354	123494	155029	168345	183327.99	125001.70
Total Premium (Individual Plus Group) across all channels (Rs. Crores)	109845	126333	113868	107236	120156	113185	138748	175078	193945	214679.08	141307.30

Source: Compiled by author from the Handbook of Indian Insurance Statistics, IRDAI



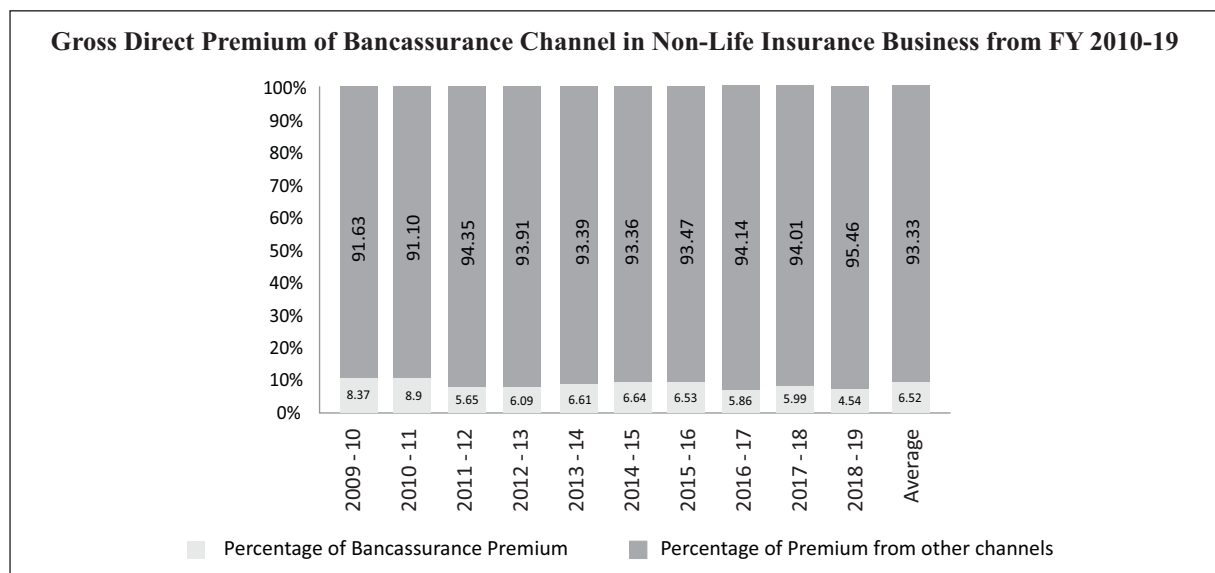
## 1.2. Performance of the bancassurance channel in non-life insurance business

Table 2 presents the gross direct premium through the bancassurance channel in case of non-life insurance. It may be noted that the premium is rising steadily during the period i.e., from Rs.3219 Crores to Rs.5381.33 Crores.

The segment wise analysis reveals that the crop insurance premium is more in 2009-11, fire insurance in 2011-14, health insurance in 2014-18 and fire insurance in 2019 (Chart 2). During FY 2010-19, the average contribution of bancassurance channel is Rs. 5380.34 Crores (6.67%).

On an average, it is seen that the segment premium earned is highest from fire insurance Rs.1173.51 Crores, followed by Health Rs.1124.98 Crores, Motor Own Damage Rs.759.30 Crores, Third party Rs.685.05 Crores and Personal accident Rs.631.71 Crores.

Fire insurance basically covers fire Lightening, Explosion / Implosion, Strikes, Aircraft Damage, Earth Quake, Typhoon, Flood, Tempest, Storm, Tornado and Cyclones. Customers availing home loans from banks would prefer to take a fire insurance policy as it would benefit the former. Health insurance covers medical and surgical expenses of an insured individual. Health insurance plans by banks especially nationalized banks are offered at low premiums irrespective of the age of insured. On 7<sup>th</sup> October 2020, IRDAI allowed the benefit of portability in group health insurance schemes offered by banks. The account holders can choose to change the insurance company of the group health insurance policy which they hold with their bank. Motor and Personal accident insurance policies protect the insured from unforeseen accidental risks.



**Figure 2: Gross Direct Premium of Bancassurance Channel in Non-Life Insurance Business from FY 2010-19**

**The percentage of bancassurance premium (life and non-life business) has shown somewhat decreasing trend from 8.37 (FY 2009-10) to 4.54(FY 2018-19.), the Average being 6.67**

Table 2: Gross Direct Premium of Bancassurance Channel in Non-Life Insurance Business from FY 2010-19 Rs. Crores

Type of Channel	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Average
Fire	443	494	732	904	1195	1329	1478	1441.05	1725.37	1993.69	1173.51
Marine (Cargo)	6	10	46	25	24	20	23	11.59	12.77	11.78	19.01
Marine (Hull)	4	2	3	4	2	2	2	1.79	2.9	2.12	2.58
Aviation	-	-	4	2	0	2	3	1.3	0.16	0.15	1.58
Engineering	24	32	42	49	48	48	45	34.98	28.84	27.04	37.89
Motor Own Damage	447	746	640	883	842	705	695	831.7	856.64	946.66	759.30
Motor Third Party	181	225	367	459	688	682	722	985.54	1084.74	1456.23	685.05
Liability Insurance	6	8	18	36	18	19	28	10.11	12.64	14.19	16.99
Personal Accident	144	145	311	458	617	885	990	1219.24	1547.9	-	631.71
Health Insurance	166	217	693	871	1048	1336	1653	2310.81	2954.95	-	1124.98
Overseas Medical Insurance	6	3	13	14	18	18	19	17.88	24.46	-	13.33
Crop Insurance	1457	1931	1	0	7	11	10	31.09	26.87	77.39	355.24
Credit Insurance	-	-	5	4	3	3	5	5.12	0.96	0.96	3.38
Miscellaneous	336	372	398	475	606	562	625	601.93	738.74	851.13	556.58
Bancassurance Premium	3219	4184	3273	4186	5117	5623	6298	7504.11	9017.93	5381.33	5380.34
% of Bancassurance Premium to Total Premium from all channels	8.37	8.9	5.65	6.09	6.61	6.64	6.53	5.86	5.99	4.54	6.67
Premium from channels other than bancassurance	35250	42835	54689	64533	72286	79062	90081	120624	141644	113139.58	81414.36
Total Premium across all channels	38469	47019	57962	68719	77403	84685	96379	128128.4	150662.14	118520.91	86794.75

Source: Compiled by author from the Handbook of Indian Insurance Statistics, IRDAI

### 1.3. Combined (Life and non-life) Performance of bancassurance channel

Table 3 shows the combined (Life and non-life) performance of bancassurance channel premium as percentage of total premium in each during the study period.

The premium through life business increased from 8.46% to 14.60% in FY2019, finally averaging to 11.19%. However, there was a decrease from 8.37% to 4.54% in the non-life business in the corresponding period (averaging 6.67%). Thus, during study period, the average combined premium earned from bancassurance channel was pegged at 8.93% and in almost all year the contribution from life insurance business was more than that of the non-life business.

### 1.4. Comparison of income form Bancassurance channel between Life and Non-Life Insurance Companies

Subsequent to the sector-wise analysis, the premium amount earned from bancassurance channel is compared between life and non-life insurance companies to know whether there was a statistically significant difference in the premium amounts earned through bancassurance channel between life and non-life insurance business using an independent samples t-test.

**Null Hypothesis:** There is no significant difference in the premium amounts earned between life and non-life insurance companies through the bancassurance channel.

**Alternative Hypothesis:** There is a significant difference in the premium amounts earned between life and non-life insurance companies through the bancassurance channel.

**Table 3: Average Performance of Bancassurance Channel Premium in Life and Non-Life Insurance Business**

Particulars	Percentage										
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Average
Life sector	8.46	9.81	11.25	11.33	9.43	11.34	10.99	11.45	13.20	14.60	11.19
Non-life sector	8.37	8.9	5.65	6.09	6.61	6.64	6.53	5.86	5.99	4.54	6.67
Average Percentage of Total Life and Non-Life Sectors	8.4	9.4	8.5	8.7	8	9	8.8	8.66	9.60	9.57	8.93

Source: Compiled from Tables 1 & 2

Tables 4(a) and 4(b) show the results of t-test

**Table 4(a): Descriptive Statistics**

Type of Sector	No. of items	Mean	Standard Deviation	Std. Error Mean
Life	10	16305.61	7139.48	2257.70
Non-Life	10	5380.34	1846.40	583.88

Source: Compiled from Tables 1 & 2

**Table 4(b): Independent Sample Test**

t-test for Equality of Means									
Levene's Test for Equality of Variances	F	Sig.	t.	df.	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	10.4	.005	4.6	18	0.000	10925	2332	6025.9606	15824.583
Equal variances not assumed	10.4	.005	4.6	18	0.001	9253	2332	5742.9719	16107.572

Source: SPSS Output \*Significant at 5%

Levene's test for equality of variances shows that F value is significant, so assumption of equal variances is not accepted. With this evidence test for equality of means is conducted. The 'p' value of t' statistic is less than 0.05. It reveals that there is significant difference between Life and Non-Life Insurance companies in the Premium earned through Bancassurance channel. The average premium earned through the life insurance business is higher than that through the non-life (Tables 1 & 2). This is because life insurance cover risk of life and offer tax advantages. The modern insurance products, besides covering the risk, allow the investor as per one's own choice to invest in high risk high return investments.

## DISCUSSION:

The study reflects the performance of

bancassurance channel in terms of number of policies covered and premium earned from bancassurance channel. It also compares the premium income from life and general insurance business along with a detailed discussion on various segments of non-life insurance. Further, the comparative analysis between the sectors is made as well.

## 1.5. MAJOR FINDINGS

In case of the life insurance business, the percentage of bancassurance premium percentage of Bancassurance Premium had been somewhat steady from 8.46 to 14.6, averaging 11.19. In case of non-life business, the percentage of bancassurance premium has shown somewhat decreasing trend from 8.37 to 4.54, the Average being 6.67.

Thus, during study period, the average

combined premium earned from bancassurance channel was pegged at 8.93% and in almost all year the contribution from life insurance business was more than that of the non-life business.

There was a significant difference in the premium amounts earned between life and non-life insurance companies through the bancassurance channel. It may also be concluded that among the two segments, life insurance sector outperformed the non-life insurance.

### IMPLICATIONS:

#### For banks, insurers and govt.

From the foregoing discussion, the study reinforces the role which banks and insurance companies can play for the growth of bancassurance in an economy. Although bancassurance is a fee-based income and incidental to the interest income, yet a few banks can perceive this as an opportunity to reduce their operating ratio to some extent. Moreover, banks in India have unique advantages of wide branch network and customer loyalty through which they can, with their colossal database, can distribute the customized insurance products and services. While insurance companies, with their low insurance density and penetration can tap the huge uninsured market through bancassurance. Nevertheless, the coordination between banks and insurance companies coupled with a supportive regulatory climate will assure the prospects in bancassurance.

### FUTURE RESEARCH:

The present study provides an idea an overall analysis of bancassurance channel in insurance industry. It leaves the scope for further researchers to analyze the types of

policies sold via bancassurance channel. From the bank's perspective, the extent of bancassurance income contribution impacting its financials and so on.

### REFERENCES:

- Abiyyu, I., Najib, M., & Asmara, A. (2020). Bancassurance Business Strategy in Life Insurance: a Case Study One of Joint Venture Company in Indonesia. *Jurnal Dinamika Manajemen*, 11(1), 102–114. <https://doi.org/10.15294/jdm.v11i1.21868>
- Bryan, C. (1997). Bancassurance in the United States: Effects on Consumers. *Journal of the American Society of CLU & ChFC*.
- Chen, T. J. (2019). Marketing channel, corporate reputation, and profitability of life insurers: evidence of bancassurance in Taiwan. *Geneva Papers on Risk and Insurance: Issues and Practice*, 44(4), 679–701. <https://doi.org/10.1057/s41288-019-00137-7>.
- Choudhury, M., & Singh, R. (2016). Customers' Perception regarding Assurance of Bancassurance Channel. *Acta Universitatis Sapientiae, Economics and Business*, 4(1), 85–102. <https://doi.org/10.1515/auseb-2016-0005>.
- Dharmaraj, S. (2019). Customer perception towards bancassurance-A study of select banks in Tamilnadu. *SMART Journal of Business Management Studies*, 15(2), 47. <https://doi.org/10.5958/2321-2012.2019.00014.9>.
- Diamond, D. (1984). Financial Intermediation and Delegated Monitoring. *Review of Economic Studies*, 51.



- Fama, E. F. (1985). What's Different about Banks? *Journal of Monetary Economics*, 15, 29–36.
- Fields, L. P., Fraser, D. R., & Kolari, J. W. (2007). Is bancassurance a viable model for financial firms? *Journal of Risk and Insurance*, 74(4), 777–794. <https://doi.org/10.1111/j.1539-6975.2007.00234.x>
- Fiordelisi, F., & Ricci, O. (2011). The European Journal of Finance Bancassurance efficiency gains: evidence from the Italian banking and insurance industries Bancassurance efficiency gains: evidence from the Italian banking and insurance industries. *The European Journal of Finance*, 17(9), 789–810. <https://doi.org/10.1080/1351847X.2010.538519>
- Karunakaran, A. (2006). Bancassurance: A Feasible Strategy for Banks in India? *Reserve Bank of India Occasional Paper*, 27(3).
- Keith, K. K. (2016). Influence of bancassurance on financial performance of commercial banks In Nakuru Town, Kenya. *International Journal of Research in Business Management*, 4(4), 19–30.
- Leepsa, N., Aff, R. S.-J. B. F., & 2017, undefined. (2017). Banking and insurance industry. *Researchgate.Net*. <https://doi.org/10.4172/2167-0234.1000283>
- Lymberopoulos, Konstantinos;Chaniotakis, Ioannis E;Soureli, M. (2004). Opportunities for banks to cross-sell insurance products in Greece. *Journal of Financial Services Marketing*, 9(1), 34–48.
- Minghui, Q., GONG, X., Zheng, Y., & Fangqian, W. (2020). Research on the Social Sustainability of China's Bancassurance. *Revista de Cercetare Si Interventie Sociala*, 68, 179–187.
- Morgan, G. (1994). Problems of Integration and Differentiation in the Management of 'Bancassurance.' *The Service Industries Journal*, 14(2), 153–169. <https://doi.org/10.1080/02642069400000020>
- Murthy, GRK & Seethapathi, K. (2003). Bancassurance in EMEs: Assessing its impact on the financial system with specific reference to India. *The IUP Journal of Bank Management*, 2(3), 57–67.
- Ninova, V., & Tsenov, D. A. (2018). Bancassurance-Application and Advantages for the Insurance Market in Bulgaria (on-line) Bancassurance-Application and Advantages for the Insurance Market in Bulgaria. *Ceeol.Com*. <https://www.researchgate.net/publication/326539535>
- Orla, G., & Mohamed, N. (2009). Understanding what drives the purchase decision in pension and investment products. *Journal of Financial Services Marketing*, 14(2).
- Pejawar, A. (2013). Driving Micro insurance through bancassurance. *The Journal of Insurance Institute of India*, XXXVIII (Jan-Mar), 16–21.
- Peng, J., Jeng, V., Wang, J., Finance, Y. C.-J. of B. & 2017, U. (2017). The impact of bancassurance on efficiency and profitability of banks: Evidence from the banking industry in Taiwan. *Elsevier*. [https://www.sciencedirect.com/science/article/pii/S0378426617300717?casa\\_token=0Rt2LnctmA4A](https://www.sciencedirect.com/science/article/pii/S0378426617300717?casa_token=0Rt2LnctmA4A)

AAAA:-vSdHjd040Qi-KPSNcdkJVS-SebDE2Bc0-9x\_AaTqfFkxsGvysK-0EHyFOc8j8L1PPy-I31SeUSH

Praba Devi, P. (2020). Bancassurance and its antecedents to customer buying intentions. AIP Conference Proceedings, 2207. <https://doi.org/10.1063/5.0000298>

Pushpa Latha, K., Mallikarjuna, V., & Reddy, N. (2020). A Study On Bancassurance In India. *Journal of Information and Computational Science*, 13(7).

Sahlian, D. N. (2015). Is bancassurance concept profitable for the banking and insurance field in Romania. Ovidius-University Annals, *Economic Sciences, Series, XV(1)*, 887–892.

Sekhar Chandra, Y. &, & Kumar, K. (2001). Bancassurance potential to grow. Chartered Financial Analyst.

Sharma, B., & Bhateja, R. (2017). Developments in Bancassurance-Indian Life Insurance Industry. PEOPLE: *International*

*Journal of Social Sciences*, 3(2), 273–285. <https://doi.org/10.20319/pijss.2017.32.273285>

Shinde, D. G., & Salve, T. N. (2018). Bancassurance Models Preferred by Nationalized Banks in India. *Journal of Commerce and Management Thought*, 9(2), 192. <https://doi.org/10.5958/0976-478x.2018.00014.9>

Sreenish, S., *Journal, S. S. K.-C. I., & 2017, . (2017)*. THE ROLE OF BANCASSURANCE IN DIGITAL ERA. Search.Ebscohost.Com, 8(3), 54–56. [http://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=22494561&AN=123164649&h=F0o8VRp7ALLWCoT9vS8xZTXSSLG67c%2FDZpBqUFIpcb8G3W4FTeW6rK%2B2f2MSKB8n3zji4I9USFHBuuKImobAyQ%3D%3D&crl=c&casa\\_token=vvSC1nnctfQAAAAA:\\_c](http://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=22494561&AN=123164649&h=F0o8VRp7ALLWCoT9vS8xZTXSSLG67c%2FDZpBqUFIpcb8G3W4FTeW6rK%2B2f2MSKB8n3zji4I9USFHBuuKImobAyQ%3D%3D&crl=c&casa_token=vvSC1nnctfQAAAAA:_c)

Stigler, G. (1971). The Theory of Economic Regulation. *Bell Journal of Economics and Management Science*, 2(1), 3–21.

## RESEARCH

### VUCA Impact Of Covid-19 On Marketing Of Two-wheeler In Rural And Urban Markets Of India

**Dr. Anil Jain\* Dr. Nirmala Joshi\* & Anand J. Mayee\***

---

#### **ABSTRACT**

*VUCA i.e. Volatility, uncertainty, complexity, and ambiguity, is the best word that describes the current situation arising out of the COVID-19 pandemic. But it is interesting to note that despite the gloom, things are looking optimistic. The marketers of Two-wheeler are argue, that things will normalize soon. They believe that the negative repercussions of the pandemic are estimated to be short lived and may last for a few months. They believe that in the long run, the Corona effect will lead to a major boost in the sales figures of Two-wheeler.*

*The research undertaken is unique as it deals with a phenomenon never experienced before. The earlier research studies were related to consumer buying behaviour for Two-wheeler. These research studies were limited to the profile of the consumers, their expectations, satisfaction level and the features of the Two-wheeler. This research undertaken provides a holistic picture of the Two-wheeler industry in era of COVID-19 crises. The research is of great significance as the automobile sector of the country is considered to be one of the most vibrant and happening industry in the country.*

*The study and its findings will lead to congruence of marketing strategies of Two-wheeler companies and customer expectations. It will also help in seeking the much required support from policy makers in the government by bringing to their notice the plight of the automobile sector with the advent of COVID-19 situation. The paper aims to influx positivity in the minds of the marketers and make them feel optimistic about the new normal. It proposes that despite the big blow, the economy of the country has taken, especially the industrial sector, things are not that bad for the Two-wheeler industry.*

*The study will give a new dimension to the way the manufacturers of the automobile industry view the market. The research will highlight reasons for the demand that is likely to unfold in future. The researcher also intend to give satisfactory reasons why some companies had increased sales in 2020 as compared to the corresponding months of 2019 in the previous year. The study based on exhaustive research of available secondary data aims to examine the marketing strategies of six major Two-wheeler companies during the unlock phase. The six companies that are considered*

---

*\*Dr. Anil Jain, Pacific Academy of Higher Education & Research University*

*\*Dr. Nirmala Joshi, Institute of Management – Mumbai Education Trust*

*\*Anand J. Mayee, Pacific Academy of Higher Education & Research University.*

*Email: [ajmayee@gmail.com](mailto:ajmayee@gmail.com) / [ajmayee@rediffmail.com](mailto:ajmayee@rediffmail.com)*

*for the study are Hero Moto Corp, Honda, TVS, Bajaj Auto, Yamaha and the Royal Enfield. These six companies were considered due to their significant market share and the brand value they command in the Indian market. The combined market share of these six companies accounts for more than 95 percent share of the Two-Wheeler market.*

*The period of the study is from January 2018 to November 2020. The sales figures of the six leading Two-wheeler manufacturing companies for the year 18/19 and 2020 were considered for the study. A comparison of the sales figures of 2019 and 2020 for each month was done so as arrive at a conclusion. Appropriate percent increase and decrease in sales are highlighted.*

*Appropriate tables and graphs that depict sales figures for the current year (2020) and previous two years (2018 /2019) are considered so that the hypothesis that is framed can be tested and the objectives of the study are achieved. The study makes a comparison of sales figures between the months post the unlock phase for the current year i.e. 2020. An attempt has also been made to compare the market share of companies and the positive / negative impact on sales of the COVID-19 pandemic on the six companies considered for the study. An analysis for the increase or decrease in the market share has been done to as to suggest suitable remedies. A proper SWOT analysis of the existing situation will help in giving new insights on how to sail through the existing situation and make the most of the opportunity.*

*The important reasons why sales of Two-wheeler are likely to increase are, people will avoid the public transport system and may opt for the Two-wheeler mode of transportation as it is very economical and convenient, many employees have faced salary deductions and hence for the time being, they will avoid buying a car and instead buy a two wheeler. Many women who till date did not think of buying a Two-wheeler for self-use, will now consider buying one, this will include house wives, who need to venture out of their homes to fulfill many domestic obligations. Many Two-wheeler manufacturing companies are making loan options more simplified to make things easy for the buyers during times of financial crisis. Home delivery of goods has increased, so companies in the business of delivering goods to customers like Swiggy, Zomato Domino's and courier companies may indulge in placing orders for bulk purchases for their employees. Post the pandemic it is estimated that Two-wheeler service taxi may be the new lucrative business, resulting in more demand for Two-wheeler.*

*The rural markets of the country may also see a boost in sales of Two-wheeler as the country has witnessed a more than satisfactory rainfall resulting in good harvest by the farmers. The special COVID relief funds may increase the surplus of cash. The loan waivers announced by the government will increase the level of motivation among the rural folks. Companies are well aware that aspirations of rural consumers are on the rise due to rising incomes, educational levels and the increasing penetration of television and internet.*

**KEYWORDS:** VUCA, COVID-19, pandemic, lockdown, unlock, Two-wheeler.

**INTRODUCTION:**

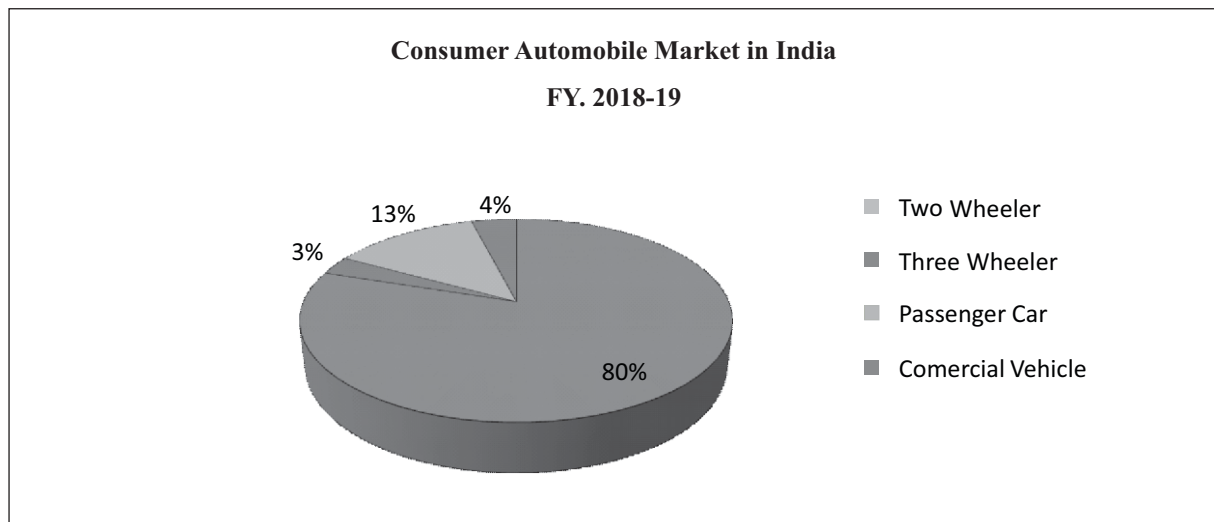
India is the world's largest two wheeler markets. In the year 2016, it raced ahead of China in terms of Two-wheeler sales for domestic consumption. The Two-wheeler industry is the backbone of the automobile sector of the country and accounts for approximately 80 percent share of the country's automobile sector. The Indian automobile industry makes a significant contribution of 7.1 percent to the GDP of the country. The share of the automobile sector in the GST revenues is 15 percent. More than 35 million people seek direct or indirect employment in the automobile sector. The contribution of the automobile sector to the exports of the country is around 4.3 percent of the total exports, which is quite significant. The automobile sector has helped in attracting FDIs to the tune of 2.82 billion U.S dollars in form of equity inflows (Keelery, 2020).

The COVID-19 pandemic in 2020 had a huge impact on the Two-wheeler industry and consequently on the automobile sector of the country. The lockdown announced all of a sudden by the government almost brought to a halt the manufacturing and sales of Two-wheeler. Never before has the Two-wheeler industry, experienced crisis of such magnitude. There is uncertainty among businesses, employees and the society at large. Salary deductions, loss of jobs and income are common. The paper makes a detailed analysis of the hard times faced by

the manufacturers of Two-wheeler during the lock down. It also analyses the struggles of the companies post the lockdown and the efforts made to overcome the obstacles.

The Two-wheeler mode of transportation is quite popular in India. Most Indians as young kids learn to ride a cycle, so the switch over to a Two-wheeler is an upgradation which is rather very smooth, easy and fun. The market for Two-wheelers is vast, especially for a country like India which has a huge population and approximately 60 percent of its population is below 30 years of age. The young Indian population is a clear indication that Two-wheeler manufacturing companies have either potential customers or have future prospective customers (population below 17 years of age). Riding a Two-wheeler is the dream and passion of most youth especially the male. Many Two-wheeler companies have launched attractive models with unique features to appeal to the youth. Two-wheeler are available in three main categories i.e. motorbikes, scooters and mopeds. The motorbikes are popular with the young male segment, a scooter is popular with both the genders i.e. male and female, but more so with the female gender and the middle aged males and mopeds are generally used by people with low income groups as they are less priced, and considered more fuel efficient. A Two-wheeler is the most common personal means of transportation in the country.





Source: <https://indiancompanies.in>.

More than 60 percent of the country's population resides in rural areas. The population is scattered and spread across approximately 625000 big or small villages. People residing in rural India; buy a Two-wheeler more as necessity rather than a luxury. The necessity for buying a Two-wheeler arises due to number of factors like, lack of good public transport facilities, narrow lanes through which cars or other four wheeled vehicles cannot be navigated, lack of motor able roads, lack of basic supplies / health care / education in the locality they reside etc. A Two-wheeler which is affordable serves as the best answer to the issue of transportation. People in urban localities need a Two-wheeler for a variety of reasons like a two wheeler can be easily maneuvered in traffic, ease in parking, fuel economy, good for short distance travel etc. The number of working women is higher in cities and towns, so the demand for non-gear vehicles users will be higher in cities and towns.

#### **REVIEW OF LITERATURE:**

Promod Patil (2017) in his research paper titled "Rural and Urban consumer of India"

the author explains that the concept of rural marketing in the country is still a concept that is evolving despite the fact that most of our population resides in the rural area of the country. The study was undertaken with the objective of understanding the rural and urban consumers and to discuss the differences in marketing in rural and urban markets. In the study it was proposed that the rural consumer indulges in rational buying, intends value for his money, rural consumer is a rational decision maker, his buying is need based and the decision making process is consensus based where family members and opinion leaders are involved. The study was based on secondary data which was collected from thesis, reports, books, journals and newspapers. The study concludes that rural consumers are homogeneous and the rural society is rigid. The urban population is concentrated, but rural population is scattered and hence issues related to distribution may arise.

Ronald Mani and Dr. Debasis Tripathy (2016) in their research work titled "A Study on Consumer Buying Behaviour towards Two

Wheeler Bikes in context to Indian Market” explains that buying behaviour of the Indian consumer is influenced by social, cultural, personal and psychological factors. The study was conducted in the cities of Allahabad, Varanasi and Lucknow in the state of Uttar Pradesh. The conclusions of the study were; there is high demand for Honda bikes and the company needs to improve the supply, mileage of Honda and Yamaha needs improvement, Hero needs to redesign its bikes to make it more attractive, the price of Yamaha is high so company needs to work towards reducing the price of the vehicle and Bajaj Two-wheelers focus only on the youth, the company needs to consider the middle aged group. The study concludes that Bajaj and Honda were the best on customer satisfaction level.

Ms. Priyanka Jain (2015) in her research titled “A Study of Customer Satisfaction of Two Wheelers on Yamaha”. The main objective of the study was to understand the customer satisfaction level of Yamaha bike users. The researcher states that customer satisfaction for Yamaha bikes is high on all factors, except mileage. Youth is the target market for Yamaha bikes. The bikes are highly appreciated for their performance and design. The researcher in her study has proposed that aggressive promotions need to be undertaken to increase sales. She also cautions that looks and style must not lead to compromise on quality and mileage. In the research it was found that after sales service was not up to the expected standards. Friends acted as major influencers in consumer buying decisions. According to the findings of the study, there was dissatisfaction regarding the availability of the bikes during the actual delivery of the vehicle. The data for the study undertaken was collected from a sample of 100 respondents

who were users of Yamaha bikes. Dr. Sardar Gugloth & Margani Soma Sekhara (2012) in their research study titled “A Study relating to the decision – making Process of Purchasing Two-Wheeler's in rural area of Andhra Pradesh” propose that there is a huge demand for Two-wheeler in rural areas of the country. They explain that factors like mileage have significance impact on the decision making process. They further state that family and friends exert great influence on the buying behaviour of the rural consumer. In the research paper it was concluded that rural consumers do not have much access to information and hence cannot indulge in comparative studies, the marketers therefore need to design marketing strategies accordingly. The study was undertaken in Tamballapalli Taluka of Chittoor district. Data for the study was collected through a questionnaire from 96 respondents. The data collected clearly indicated that educational levels were low and for most respondents agriculture was the main source of income. It also indicated that a high number of respondents (80 percent) had income levels below rupees 150000 per annum.

Subrato Dey (2017) in his research titled “A Study on Changing Buying Behaviour of Indian Customers” explains that internet penetration and drastic increase in the use of social media has resulted in drastic change in the buying behaviour of Indian consumers. The study undertaken was based on consumer perception, their buying behaviour and consumer satisfaction. The objectives of the study were to understand different consumer types, their decision making process and the factors which affect their buying behaviour. The findings of the study were that Indian consumers are value oriented and even high end brands have to design a pricing strategy

that is unique. Consumer involvement is more when the product is expensive. The researcher has recommended that when buying, the consumers check what competitors are offering. Family and friends have a big influence on buying decisions and reviews of the product can influence buying decisions of the customers.

Basha S. Suraj; Dr. Laxshman B.C in their research “A Study on Factors Influencing Consumers Buying Behavior of Two wheelers with special reference to Rayalaseema region, Andhra Pradesh, India” The objectives of the study were to study factors that influence consumer buying behaviour and the impact of demographic factors on the consumers. The study was based both on primary and secondary data, with more focus on the secondary data. The period considered for the study was July 2016 to January 2017. The primary data was collected from 220 respondents from four towns of Rayalaseema region. There was a good representation of the male and female respondents in the sample for the study. The researchers in their findings state that consumer buying behavior is impacted by various factors like personal factors, psychological factors, social factors and cultural factors.

Vijayalakshmi D, Shantha Kumari M, Deepika S, in their research study titled “A Study of Customer Satisfaction of a Selected Branded Two Wheeler in South Coimbatore”. The study was conducted on five major two wheeler brands. The objectives of the study were to access the profile of Two-wheeler users, to know the association between socio economic profile and the brand purchased and to analyse the level of customer satisfaction. Data for the study was collected from 250

respondents, comprising of 50 respondents for each brand considered for the study. The authors conclude that most of the consumers felt the price of the two wheelers was high; most of the respondents came to know about the two wheelers through television advertisements. Consumers expect facilities like mobile charger, baby carrier. Matching helmets can be given. They feel that complaints should be addressed immediately. Malla Riya in her research “Factors Affecting Brand Preference of Scooters among Women Consumers in Kathmandu Valley”. The data for the study was collected from 200 female scooter users. The respondents were from different homogeneous groups. The main objective of the study was to analyse the consumer preference for scooter in Khatmandu valley. The researcher has concluded that Hero has the highest brand preference, Honda is the second most sought after brand among women in Khatmandu valley. According to her findings there is no significant relationship between demographic variables and preference of scooters. Comfort and mileage are respectively the most important factors considered while choosing the brand of the scooter. It also states that there is no significant relationship between education and brand preference of scooters.

#### **OBJECTIVES OF THE STUDY:**

- To understand the impact and repercussions of COVID-19 pandemic on Two-wheeler manufacturing companies.
- To analyse the marketing strategies of Two-wheeler manufacturing companies during the unlock phase and give suitable suggestions.

#### **RESEARCH METHODOLOGY:**

The study was conducted using the available secondary data. Data was collected from

websites of companies, internet and newspaper reports. A thorough review of related literature was also done to collect information useful to the study undertaken. The domestic Sales of six leading Two-wheeler manufacturing companies before and after the COVID-19 pandemic were considered for the study.

#### **DATA ANALYSIS:**

Secondary data from authentic sources used for the research study. The sales figure reports collected were tabulated and analysed. The simple percentage method and t-test were used to arrive at a conclusion.

#### **HYPOTHESIS:**

The Study is undertaken with the following Hypothesis

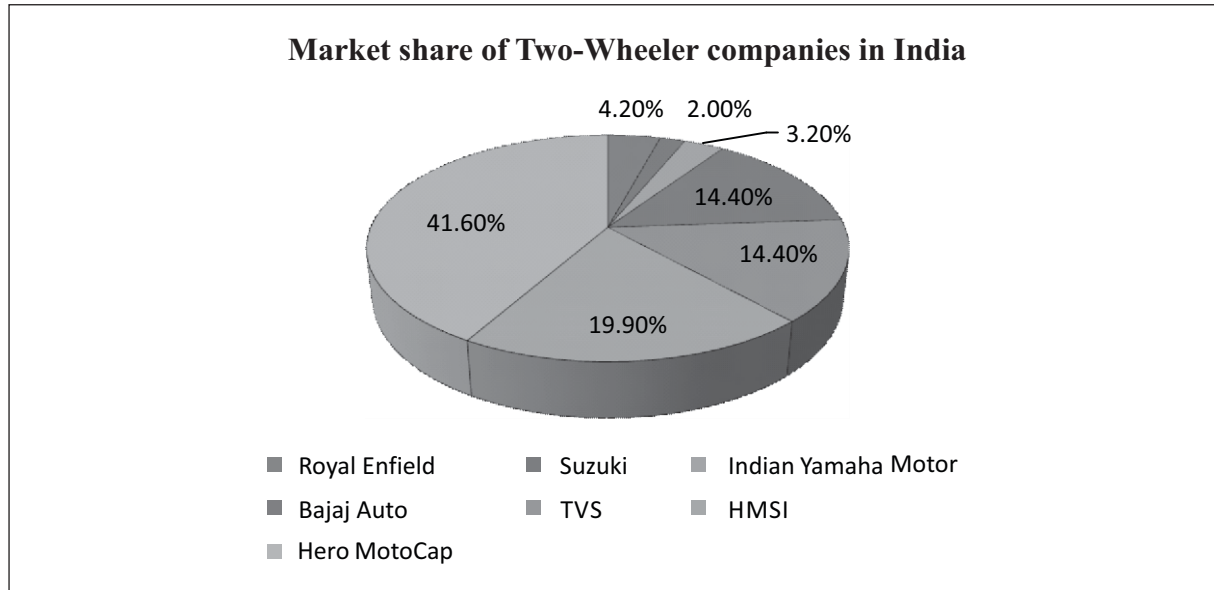
Ho: There is no impact of COVID-19 on the sales of Two-wheeler.

Ha: There is an impact of COVID-19 on the sales of Two-wheeler.

#### **Major Players in the Indian Two-wheeler Industry**

Hero Moto Corp is the leading manufacturer of Two-wheeler in the country. The company till date has sold over 90 million Two-wheelers; it has over 6000 customer touch points and has been in business for more than 34 years. The company manufactures both geared and non-geared vehicles i.e. Scooter. Bajaj Auto is the world's third largest manufacturer of motorcycles. Bajaj Auto is an Indian company established in 1944. The company has approximately 660 dealers

across the country. The company has Two-wheeler bikes positioned for different price segments. Honda started its business operations in the country in the year 2001 and is one of the youngest players in the Two-wheeler market. Due to its consistency in giving quality products it has become the second largest Two-wheeler company in India with over 46 million customers. TVS motors are the third largest Two-wheeler manufacturer in India. It has the unique distinction of manufacturing the largest range of Two-wheelers. Their range of manufacturing includes motorcycles, scooters and mopeds. The company boasts of production capacity of 4.95 million Two-wheelers annually. The scooters manufactured by the company are very popular across all demographic variables in India. The bikes of Yamaha are a craze among the youth. The company is considered to have created India's most revolutionary Two-wheeler vehicle. The Yamaha R15 model is a rage among the youth. The bikes of the company are rated highly on aspects of technology, but score low on aspects of mileage and cost. The focus of Yamaha Company is on manufacturing the deluxe motorbikes and scooters. The Royal Enfield bikes are quite popular across the country for their power and sturdiness. Royal Enfield is one of the oldest motorcycle brands in the country that is still operational and continues to manufacture and launch new models of bikes for the bike lovers. The bikes of Royal Enfield are considered grand and royal. They are positioned for machoism due to their rugged looks, power and sturdiness.



### Strategies adopted post COVID-19

Despite the VUCA impact, the Two-wheeler industry is expected to register a 16 percent to 18 percent sales growth as compared to the previous year Two-wheeler sales. The economy initially was severely affected due to COVID-19. The rating agencies had earlier estimated a decline of 11 percent to 13 percent in sales. In the initial stages, manufacturing and sales initially took a big hit, and almost all companies reported losses in the first few months. In the post lockdown period things gradually started to normalize and the sales as expected are rapidly picking up. It is for sure; people will now avoid the public transport to maintain social distancing and will now get more personalized in their mode of transport, being independent is the new norm. The disrupted public transport will further encourage buying of two wheelers. As per research report 33 percent of the respondents in a survey felt two wheeler were the safest mode of transport during COVID-19 times. Reduced income due cut in wages, high maintenance cost of cars, the four wheeled drive is a difficult option in the present

circumstances and hence the focus will be on buying a two wheeler. The recent sales figures of most Two-wheeler companies give clear indications of consumer demand revival.

### Hero Moto Corp

The company is estimated to sell at least two in every five Two-wheelers sold in the country. The company has posted a growth of 35 percent in the month of October 2020. As per company reports, it is the highest ever sales in a single month. The concern for the company was that entry level vehicles contributed to a major share of the sales and it had very little contribution from the premium segment.

A survey by Hero Moto Corp indicated that the demand for two wheeler has increased from people who travel to work. As per reports, due to its rural reach, the company is expected to outperform its competitors in the coming months. The company increased its market share by 4.5 percent to 5 percent between the months of April to August 2020. In the month of June, 4.5 lakh units of



motorcycles and scooters were sold by the Hero Moto Corp. A major part of the sales of the company came from the rural and semi urban markets. A deep reach in the hinterlands and a number of low priced models have made this possible for the company. The first time buyers have fueled the sales growth. It is rather the need based buying of the consumers rather than the conventional buying reasons and logic. The scooter segment also registered a growth. The company made 95 percent of its customer touch point operational with due safety measures during the unlock phase. The management recently told its investors that supply was the main concern rather than demand. The company has plans to increase its sales in the international markets. The company has a strategy of launching premium segment bikes which are heftier and sporty to target the millennials. The company also plans to target the international markets with this premium model.

The company stated that forecast of a normal monsoon, a good Rabi crop and various revival packages by the government were instrumental in pushing the sales. The company is relying heavily on its rural demand. The rural consumers have always been inclined towards motorbikes. To meet the high demand, the company made wholesale deliveries to its dealer in record time, almost four times the dispatches the previous year.

In the month of November 2020, to boost sales of its electric Two-wheelers, the company has tied up with online platform CredR and as per the offer of the company customers can exchange their old petrol vehicles with new Hero electric Two-wheeler. Employees of CredR will make a valuation of the old Two-wheeler and fix a price tag to that.

The amount will be deducted on the purchase of the new electro Hero Two-wheeler. This offer is initially limited to a few Indian cities like, Poona, Delhi NCR, Hyderabad, Jaipur and Bangalore, and will be later extended all over the country in a gradual manner. The company is hopeful that this strategy will yield positive results during the unlock phase.

### **Honda**

HMSI scooters contribute to 67 percent of the sales and motorcycles 33 percent, the same as pre COVID-19 times. The scooter segment is the main strength of the company. The company maintained its market position in the scooter segment with more than 50 percent of the market share. The rural consumption is on the rise as the urban markets were sluggish due to restrained economic activities and lockdowns. The company believes that sales of scooters particularly in rural areas will rise due to challenges of social distancing, increasing number of working women, unreliable public transport and the need for mobility thus creating a demand for two wheelers. The rate of enquiries turning into purchase has been high for the company (almost 40 percent). The company feels that individuals employed in the essential sectors like health and banking would be the likely buyers. Attractive EMIs with lower down payments have been worked out by the company.

Honda Company plans expansion in its premium bike segments, to overcome the havoc of the COVID-19 pandemic on its sales. The company has come up with innovative offers for its buyers. If payments are made with credit cards, the buyer can avail up to 95 percent loan and cash back. The cash back facility is 5 percent. The company has tied up IDFC and HDFC. The loan facility

will be for 36 months. The scheme is only for a few select dealers of Honda.

### **TVS Motors**

TVS Company registered a decline of 62 percent in the month of March 2020, due to the lockdown. It was more or less the same case with its rivals. Like many other companies to cut down on expenses, TVS announced a deduction of 20 percent on staff salaries at executive level till the end of October 2020. Most of the employees took a voluntary salary cut. Despite the trying times, the company engaged in host of welfare activities. The company manufactured and distributed over one million face masks in Tamil Nadu and Karnataka to health care workers and service providers in the essential service provider category. The company also distributed 3.2 lakh food packets. The company also had vehicles covering 3,800 villages to meet any emergencies. The company also developed a mobile app to meet any needs of its employees related to health or cash. The company announced various customer friendly initiatives. A toll free number was made available to customers which was available 24/7 for any assistance or queries.

The marketers of TVS are optimistic that this is a temporary phase. Focusing on international markets was growth strategy adopted by the company. In the domestic market, the company has launched a new campaign with Amitabh Bachchan and M.S. Dhoni. The management is highly enthusiastic that with acquisition of the British legacy brand Norton and a high end 200 cc brand Zeppelin new marketing opportunities await the company. In October 2020, the sales of the company grew by 22 percent. The exports of the company grew in

the month of September, as compared to its exports in the month of September last year.

### **Bajaj Auto**

The company had a sales increase of 12 percent in the 125-150 CC segment in October 2020. The sales of Bajaj motorcycles had declined 26 percent in July 2020 as compared to last year. In the month of April the company had no sales. The earnings of Bajaj Auto picked up in the month of September 2020. Inventories have been stocked up to avoid any complications that may arise. It does not want its manufacturing to be dented, a clear indication of being optimistic of business happening in times to come. The company believes that gradually the business is coming back on tracks but the challenges ahead remain. The rise in sales is attributed to the need for personal mobility. The company expects the festive seasons to fuel the sales growth further. Exports will help in generating more revenues. The company started witnessing sales in the month of July. The sales of Pulsar were very encouraging in the month of October 2020. The overall sales in the month of October had increased by 18 percent as compared to the sales in the same month the previous year.

The company has plans to address the portfolio gaps in the domestic market. The festivals are likely to push up sales. The challenges on the supply side have been managed reasonably well by the company. The Pulsar model is highly successful and bankable to help company ride through the crises. The company exports to 79 countries globally. The company experienced great demand in overseas markets including Africa and Latin America. As per reports, the company's international markets are doing better than the domestic markets. The

reopening of schools and entertainment places may see a further revival in demand in the domestic markets. Increasing footfalls and inquiries at dealership is very encouraging sign for the company in the domestic market. The demand from rural areas of the country is likely to give a boost to its sales in the domestic market. The company hopes of government intervention post the festive season, as the demand is likely to go down once the festive seasons are over. The company has entered into a joint venture with Triumph to manufacture 300-700 CC bikes in the premium segment. These models are expected to be in the market in the year 2021.

### **India Yamaha Motor**

Taking into account that the lockdown phase was a sensitive time the company immediately modified their communication on social media. During the worst phase of the COVID-19 pandemic the company looked at the ground reality from the perspective of sales, dealership network and consumers. The company refrained from pushing products on social media. The content was limited to safety, tips about bike care and updates related to service. To keep the audience engaged, Yamaha did some activities related to games and contests on social media. The focus of the company was on using Instagram. Taking into consideration the difficult situation, the company undertook some interesting initiative like extension of service during lockdown, contactless delivery, online booking etc. The focus of the company has completely shifted towards digital marketing. The company announced a special scheme for COVID-19 frontline warriors, so as to extend its support to the frontline warriors. Under the scheme the EMIs for the first three months were reduced by 50 percent. The scheme was

for the purchase of new Yamaha vehicles by the frontline workers. A tab was kept on the conversations about the brand so as to be aware of the challenges faced by customers and help out the customers within the capacity. When some of its dealers began reopening during the unlock phase, the company ensured that all norms were followed and there was utmost hygiene and safety measure at the dealers. The same was communicated to the customers on social media. In November the company registered sales growth for the fifth consecutive month.

### **Royal Enfield**

Royal Enfield commands a major share in the premium segment bikes. Competition in this segment has intensified in urban cities with entry of new models from other established companies. The major demand for its vehicles is from rural India. The rural consumers account for approximately 50 percent of the sales of Royal Enfield bikes. The company was compelled to look at the digital world to engage its customers, as physical engagements were not possible amid the COVID-19 lockdown. Digital engagement is at an all-time high during the lockdown phase. The company has run a wide range of campaigns to bring the Royal Enfield community under one umbrella. The Trip Story was one of the few social media engagements undertaken by the company. According to reports, the company came up with the innovative idea of encouraging their customers, fans and enthusiastic to voluntarily share their stories. The initiative received an amazing response with use of platforms like Facebook. The brand has 40 lakh customers but over 70 lakh followers on digital platforms, an indication that its reach is beyond its customer base. After things are

back on track, diverse and huge number of potential customers awaits the range of models of Royal Enfield.

When restrictions on the lockdown were lifted, Royal Enfield announced contactless purchase and contactless service options for its customers. They initiated the safety on wheels initiative. Under this initiative the company has taken bike service to the door step of the customer. The company for this purpose has deployed 800 bikes with appropriate tool kit across its large dealer network in the country. The service includes scheduled maintenance service, minor repairs and a host of other facilities.

Post the lock down the demand for the bikes have shot up, but the supply is not up to the mark. The company is on a backlog of more than 40,000 bookings. The online enquiries for the bike have gone up almost five times, compared to the Pre-COVID-19 period. The demand is exciting for the company, but the inability to deliver has affected its moral in a big way. The company sold 60,000 bikes every month before the lockdown, the company is optimistic of higher sales when the supply related issues are sorted out.

**Sales of Two-Wheeler in Domestic Market from Jan.to Nov. 2020**

Company	Jan - March 2020	Apr- 2020	May- 2020	Jun- 2020	Jul- 2020	Aug. 2020	Sept. 2020	Oct. 2020	Nov. 2020	Total
Hero	1284950	0	112682	450744	506946	568674	697000	732498	575957	4929451
Honda	935115	0	54820	202837	321583	428231	500887	494459	412641	3350573
TVS	426796	0	41067	144817	189647	218338	241762	301380	247789	1811596
Bajaj	403084	0	39286	146695	152474	178220	219500	268631	188196	1596086
Yamaha	137296	0	11630	29539	49989	60505	63052	60176	53208	465395
Enfield	155110	91	18429	36510	37925	47571	55910	66891	59084	477521
Total	3342351	91	277914	1011142	1258564	1501539	1778111	1924035	1536875	2630622

Source : <https://www.rushlane.com/> <https://www.autopundit.com/>

**Sales of Two-Wheeler in Domestic Market Jan. to Nov.2019**

Company	Jan.-Sept	Oct. 19	Nov.19	Total 2019
<b>Hero</b>	5177092	599248	505994	6282334
<b>Honda</b>	3711706	487782	396366	4595854
<b>TVS</b>	2090755	252684	191222	2534661
<b>Bajaj</b>	1722522	242516	176337	2141375
<b>Yamaha</b>	519776	46082	39406	605264
<b>Enfield</b>	516504	67538	60411	644453
<b>Total</b>	<b>13738355</b>	<b>1695850</b>	<b>1369736</b>	<b>16803941</b>

**The t-test was carried out to test the hypothesis. The period from January to November was considered for the years 2019 & 2020.**

**t-Test: Paired Two Sample for Means**

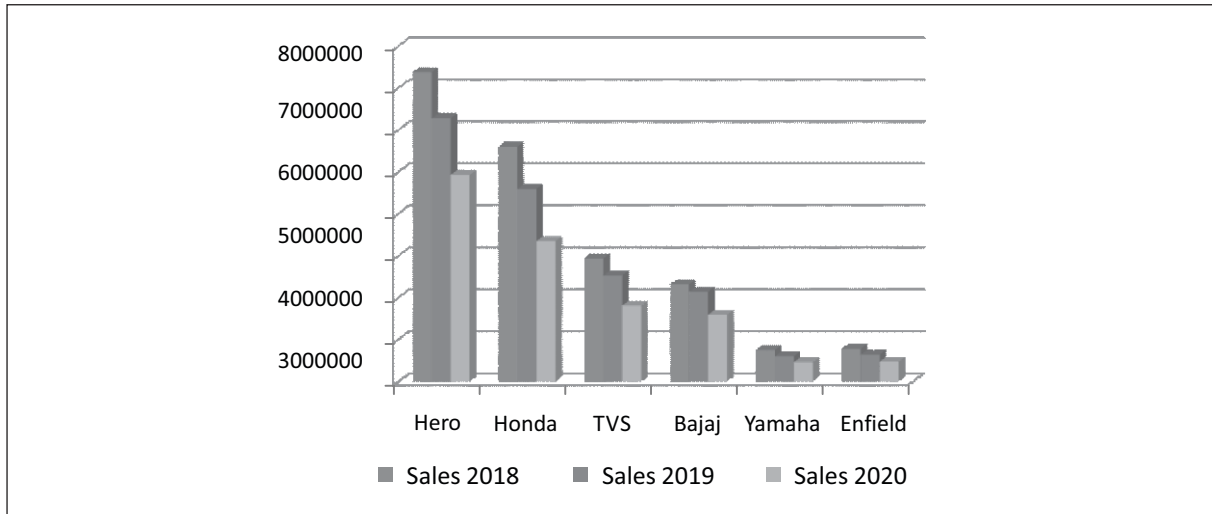
	<b>Sale Jan. To Nov. 2019</b>	<b>Sale Jan. To Nov. 2020</b>
Mean	2800656.833	2105103.667
Variance	5063835948548.57	3042209460665.47
Observations	6	6
Pearson Correlation	0.998340377	
Hypothesized Mean Difference	0	
Df	5	
t Stat	3.283926989	
P(T<=t) one-tail	0.010929762	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.021859524	
t Critical two-tail	2.570581836	

The p value is significantly low at 0.022. In the test carried out  $P < 0.05$  ( $0.022 < 0.05$ ) so we reject the Null hypothesis and hence the alternative hypothesis is accepted i.e. there is an impact of COVID-19 on the sales of Two-wheeler.

**Sale of Two-Wheeler in Domestic Market Jan. to Nov. 2018**

<b>Company</b>	<b>Jan.-Sept</b>	<b>Oct. 18</b>	<b>Nov.18</b>	<b>Total</b>
<b>Hero</b>	6064816	716059	601045	7381920
<b>Honda</b>	4692518	490124	418367	5601009
<b>TVS</b>	2337840	338988	260253	2937081
<b>Bajaj</b>	1833675	281582	205259	2320516
<b>Yamaha</b>	609767	83379	60116	753262
<b>Enfield</b>	646573	70044	65744	782361
<b>Total</b>	<b>16185189</b>	<b>1980176</b>	<b>1610784</b>	<b>19776149</b>





Considering Two-wheeler sales figures for the Year 2018/2019/2020 from January to November we can easily conclude that sales in 2018 were higher as compare to 2019 and sales in 2019 were higher as compare to 2020. The decline in sales could be attributed to

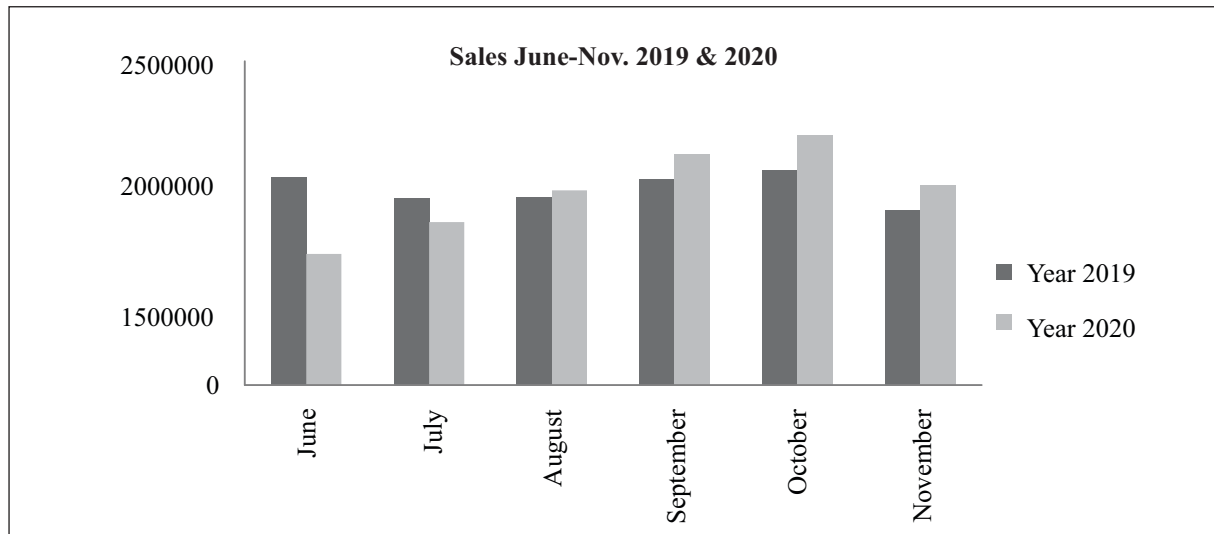
economic cycles and the BS-VI norms made mandatory by Government for Two-wheeler manufactures. The COVID-19 impact had an effect on sales of Two-wheeler only during month of March, April and May 2020. Sales gradually started picking up from June 2020.

#### Sale of Two-Wheeler in Domestic Market Jan. to Nov. 2018

	June			July			August		
Company	2019	2020	% change YoY	2019	2020	% change YoY	2019	2020	% change YoY
Hero	6,16,526	4,50,744	-26.89%	5,11,374	5,06,946	-0.87%	5,24,003	5,68,674	8.52%
Honda	4,50,888	2,02,837	-55.01%	4,55,036	3,21,583	-29.33%	4,25,664	4,28,231	0.60%
TVS	2,26,279	1,44,817	-36.00%	2,08,489	1,89,647	-9.04%	2,19,528	2,18,338	-0.54%
Bajaj	1,99,340	1,46,695	-26.41%	1,70,978	1,52,474	-10.82%	1,73,024	1,78,220	3.00%
Yamaha	54,215	29,539	-45.51%	47,916	49,989	4.33%	52,704	60,505	14.80%
Enfield	55,082	36,510	-33.72%	49,182	37,925	-22.89%	48,752	47,571	-2.42%

	Sep			Oct			Nov		
Company	2019	2020	% change YoY	2019	2020	% change YoY	2019	2020	% change YoY
Hero	6,00,509	6,97,000	16.12%	5,52,672	7,32,498	32.54%	5,05,994	5,75,957	13.83%
Honda	4,55,896	5,00,887	9.87%	4,87,819	4,94,459	1.36%	3,73,283	4,12,641	10.54%
TVS	2,43,047	2,41,762	-0.53%	2,52,684	3,01,380	19.27%	1,91,222	2,47,789	29.58%
Bajaj	1,77,348	2,19,500	23.77%	2,42,516	2,68,631	10.77%	1,76,337	1,88,196	6.73%
Yamaha	53,727	63,052	17.36%	46,082	60,176	30.58%	39,406	53,208	35.03%
Enfield	54,858	55,910	1.92%	71,964	66,891	-7.05%	58,292	59,084	1.36%

Source: <https://www.rushlane.com>

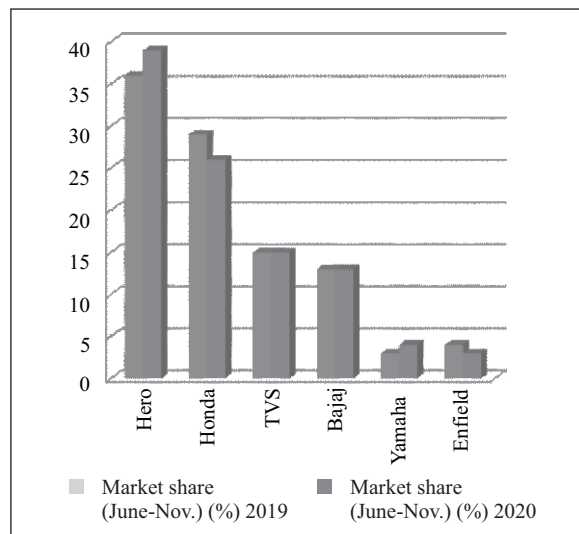


Note: Lockdown restrictions were lifted gradually in the month of May 2020 and Companies and dealers resumes operations in phased manner. The data indicate a steady rise in sales every month. Due to festival season, the sales where in peak level in the month of October.

In the months of August, September, October and November the sales were higher in 2020 as compared to the sales in corresponding months of the previous year.

**Market share (Domestic) of companies from June-November 2019/2020.**

Two-Wheeler	Market share (June-Nov.) (%)	Market share (June- Nov.) (%)
Domestic	2019	2020
Hero	36	39
Honda	29	26
TVS	15	15
Bajaj	13	13
Yamaha	3	4
Enfield	4	3
	100	100



From the above table, it can be observed that sales of TVS and Bajaj remained unaffected due to COVID-19 Pandemic. There was a hike in sales of Hero and Yamaha Two-wheeler. Honda and Enfield (marginal) had decreased in sales in 2020 as compared to 2019.

The reasons for the decrease in sales of Honda and Enfield could be attributed to factors like; these companies do not have low priced models for the mass markets. (Entry level segment). Also post the pandemic rural areas accounted for a majority of the sales registered. Honda does not have a good rural reach in terms of dealer network and hence could not capitalize on the opportunity.

## 8.0 POST COVID-19 - SWOT Analysis of the Two-Wheeler Industry in India

The COVID-19 pandemic had a major negative impact on the sales of Two-wheeler in the month of March, April and May 2020. The industrial sector across the country suffered heavy losses and the Two-wheeler industry was no exception. For their survival, companies cut down on employee salaries and jobs.

In the month of June 2020 sales started showing an upward trend and gradually increased till the month of November 2020, it had almost caught up with the sales figures of the previous year 2019. Companies have learned the art of thriving in what is now the new normal. Two-wheeler manufacturers have realized the strengths, weaknesses, opportunities and threats that are associated with the new normal.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>Indian two wheeler industry is well established having been in the business for decades.</li> <li>Two wheelers is already a popular mode of transport in the country. Most people comfortable with riding one.</li> <li>Economic activities in rural areas not much affected.</li> <li>Good monsoons, good harvests, cash inflows in forms of aid, farm loan waivers from government.</li> <li>Economy slowly limping back to normalcy post lockdown.</li> <li>Cut in corporate taxes.</li> <li>Electric two wheelers gaining ground in India.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>Loss of income and jobs in the society.</li> <li>Distribution (supply lines) severely disrupted. The distribution of vehicles to dealer outlets, inventories for production of goods affected.</li> <li>Cost of fuel is already high. May see further escalation in future.</li> <li>Higher income groups will opt for a car.</li> <li>Banks already overburdened with bad debts.</li> <li>Having reported revenue losses during lockdown, companies not in a position to offer freebies.</li> <li>Due to the current situation, people may have other priorities that may put on hold buying a two wheeler.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Most people reluctant to use public mode of transport.</li> <li>New first time buyers in high numbers.</li> <li>Rental two wheeler startups could be the new business ventures.</li> <li>Online buying and delivery has drastically increased, hence scope for B2B sales for two wheeler companies.</li> <li>Opportunities and scope for exploring international markets.</li> <li>GST likely to be reduced on two wheelers as per indication from finance ministry.</li> <li>Drastic increase in internet penetration. Scope for digital marketing increases multifold.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Uncertainty of future as new wave of virus is predicted by experts.</li> <li>Manufacturing cost may increase, resulting in overall price increase of the vehicle.</li> <li>Some customer buying on loans may not be able to repay.</li> <li>Work from home could be the new trend.</li> <li>It is a wait and watch approach by most manufacturing sectors. Steps are taken with caution and risks avoided.</li> <li>India is among the worst affected countries of the world. Business activities with India may be avoided by other countries i.e. Imports from India, Joint venture with Indian companies etc.</li> <li>Due to uncertainty people may save money and avoid spending on a two wheeler.</li> </ul>

**CONCLUSIONS:**

The COVID-19 pandemic had a significant impact on the sales of Two-wheeler in India. Companies like Hero Moto Corp and Yamaha have increased their market share. The increased market share of Hero has been quite impressive. The market share of Honda and Enfield has declined. TVS and Bajaj remained unaffected. Overall the road to recovery is long and may even play out like a game of snake and ladder. The market will throw up many first times buyers. Digital advertising will increase as more people are hooked up to mobile phones and increased penetration of internet. Two-wheeler companies had little or no sales during the months of April and May 2020, so most companies will try to indulge in aggressive marketing and promotional strategies to compensate for the loss of sales. The number of people buying on installment basis will see a drastic rise. Demand for Two-wheelers in rural India will be high. Most of the companies will now look to strengthen their exports. In the end it is concluded that despite all the challenges, pictures of proud owners of brand new two wheelers will be the uploaded more often on social media. The roads will witness brand new two wheelers navigating their way through the traffic.

**SUGGESTIONS:**

- Honda should think of launching motorcycles / scooters for the mass markets so as to compete with Hero, TVS and Bajaj which have models for the entry level segments.
- Enfield should tie up with financial institutions so as to encourage bike lovers to buy the model of their choice. The bikes of Enfield are popular in rural markets and hence it should focus more on rural

markets especially those that remain untapped.

- Companies instead of long term planning, should focus on short term plans, and have a plan B in place in case of any new challenges that suddenly arise.
- Front line warriors could be felicitated by the two wheeler dealers, and the most important contributors like doctors, nurses, policemen, could be provided with one free service or even a discount on purchase of two wheeler.
- Electric Two-wheeler does not even contribute to 1 percent of the share of Two-wheeler in the country. A creative and unique marketing strategy need to be adopted by companies for promoting electric Two-wheeler among the Indian consumers.

**LIMITATIONS OF THE STUDY:**

- The study is based primarily on secondary data, supplemented by discussions with representatives of different groups.
- Data available till the month of November 2020 has been considered for the study.
- The representative of companies have made tall claims, the actual facts and figures will be uncovered only in due course of time.

**IMPLICATIONS OF THE RESEARCH:**

The study reflects the significant contribution of the Two-wheeler industry in the economic development of the country. The results of the study may act as an instrument to seek government intervention to bail out the automobile sector from the existing crisis. The research study will be a strong foundation and motivation for researchers, academicians and marketers to undertake more research activities related to automobile sector and

other consumer durables. It will also encourage more research work that is based on the available secondary data. This research paper will act as a platform on which further studies based on primary data could be conducted. Further studies could be carried out in 2021, so as to make comparisons with the scenario in 2020.

Region specific / company specific studies will help in giving more accurate results. Businesses and individuals are now gradually settling down in the new normal, a study after a gap of few months may throw up new results and outcomes.

## REFERENCES:

Avik Chattopadhyay (Nov 10 2020). "Opinion: Is the Indian auto industry big enough?" The Economic Times.

Baban Bansidhar Lihinar (July 20, 2020) "Honda EMI offer of purchase of Bikes and Scooters" Maharashtra Times.

Basha S. Suraj; Dr. Laxshman B.C (2017). "A Study on Factors Influencing Consumers Buying Behaviour of Two wheelers with special reference to Rayalaseema region, Andhra Pradesh, India". *International Journal of Academic Research*. Vol 4, Issue 4 (1), Page no 37-49.

Dr. Sardar Gugloth ; Margani Soma Sekhara (2012). "A Study relating to the decision – making Process of Purchasing Two-Wheeler's in rural area of Andhra Pradesh". *Global Journal of Commerce and Management Perspective* Vol. 1(2).Page No. 14-18.

Lijee Philip (April 14 2020), "Two wheelers

may get 'personal' fillip post COVID-19 lockdown" Auto.com-The Economic Times.

Malla Riya (2016). "Factors Affecting Brand Preference of Scooters among Women Consumers in Khatmandu Valley". *Journal of Business and Social Sciences Research (JBSSR)*. Vol 1 No 2 Page 185-200.

Meena Sanu (2020). Impact of novel Coronavirus (COVID-19) pandemic on travel pattern: A case study of India. *Indian Journal of Science and Technology*. Page No: 2491-2501

Murali Gopalan (June 18 2020) "Bajaj Auto to sharpen value quotient during Covid". Business Line-The Hindu

Priyanka Jain (2015). "A Study of Customer Satisfaction of Two Wheelers on Yamaha". *IOSR Journal of Business and Management (IOSR-JBM)*. Volume 17, Issue 8.Ver. II Page No. 08-19

Promod Patil (2017). "Rural and Urban Consumer of India". Conference Paper (Researchgate).

PTI (July 07, 2020). Yamaha Motor India announces special finance scheme for frontline COVID-19 warriors. The Economic Times. TV 9 Marathi Digital Team (November 12 2020). Exchange your old Two-wheeler for new Hero Electric Two-wheeler.

Ronald Mani; Dr Debasis Tripathy (2016). A Study on Consumer Buying Behaviour Towards Two Wheeler Bikes in Context to Indian Market. (Researchgate).



Sengar Namit Singh (May 21 2020). “COVID-19: “Royal Enfield engages its digital Community”. Brand Equity-The Economic Times.

Shalini Priya (November 13 2020). “Where is the Indian Two Wheeler Market Heading”. The Economic Times (Auto.com)

Shally Seth Mohile (May 11 2020). “COVID-19: Two-wheeler sales hit top gear, but companies tread with caution” Business Standard.

Sharma Nishant (August 14 2020). “Demand's Back For Royal Enfield but broken supply chain is hurting”. Bloombergquint.

Singh Abhilasha (May 29 2020). “Digital engagement crucial for recovery from COVID-19 sales slump: Royal Enfield”. The Financial Express.

Subrato Dey (2017). “A Study on Changing Buying Behaviour of Indian Customers”. *Global Journal of Marketing Management and Research*. ISSN 2250-3242 Volume 7, Number 1 (2017), Page No. 1-4 (Research India Publications).

Thakkar Ketan (Sept 17, 2020) “Indian two-wheeler maker's gain market share amid COVID- 19”, The Economic Times

Vijayalakshmi D, ShanthaKumari M, Deepika S, (2015). “A Study of Customer Satisfaction of a Selected Branded Two Wheeler in South Coimbatore”. *International Journal of Multidisciplinary Research and Development*. Vol 2, Issue 4. Page No 260-264.

Yadav Navdeep (September 30 2020) September two-wheeler sales expectations — Hero Moto Corp expected to outperform Bajaj Auto and TVS Motor. Business Insider.

## **Pandemic An Opportunity For Kiranas Management Skills & Growth Strategies To Think**

**Dr. Sumanth K Nayak\***

---

### **PANDEMIC MOVES:**

India is a diverse country with the roots in villages and tier 2 cities. Major metropolitan cities have grown to what they are today due to the floating population. This population generally travels from villages and tier 2 cities in search of better education, job and for living. Life was perceived to be so fast that cities never slept, economic activities were concentrated in these cities to a very large extent. Pandemic Covid 19 reconciled significant floating population from major metro cities to the respective roots. This movement of population shifted the demand and supply of every product and service in the country. Work from home, job loss, safety were few reasons to move out of the cities and catch up with the native environment. Those who had options to move out of a cluttered place did decide to migrate and those who belonged to the origin had to continue the life as it came. Larger the dependency on humans, greater was the dent on the business during the pandemic. India had approximately 500 cases when the lockdown was announced for 21 days. Pharmacies, Milk, Fruits and vegetables, groceries and such other essentials could operate. E-commerce, malls, essentials operating from malls were not allowed or allowed to operate in limitation during the first phase of lockdown. This is

when Kiranas in the country found the sweet spot.

### **INDIAN FOOD AND GROCERY BUSINESS:**

India has about 12 million operational Kirana stores selling grocery and other essentials<sup>(1)</sup>, making them the highest contributors to general trade and accounting for 90% of the country's total trade<sup>(2)</sup>. The rest 10% of the business is contributed by organized retail. Metros had an experimenting set of population who were always ready to embrace new way of purchasing/ shopping. One such shift was in food and grocery retail. Organized grocery was one such sector. Big Bazaar, Hyper market, Spar, Star Bazaar, Nilgiris, Reliance fresh so on and so forth are the big dads in the game of offline organized retail. Big basket, Flipkart, Amazon, Groffersetc were the ecommerce grocery mavericks. These are the go-to places for customer experience to shop grocery. Neighboring Kiranas were only emergency supply sources and never remembered again until the next such situation in the kitchen.

The 21days of lockdown allowed organized set ups to function with rules like social distancing, sanitization, PPE kits for the employees, restrictions on the staff allowed to

---

*\*Dr. Sumanth K Nayak, Manager, TE Connectivit, Bangalore. Email: ksnayak59@gmail.com*

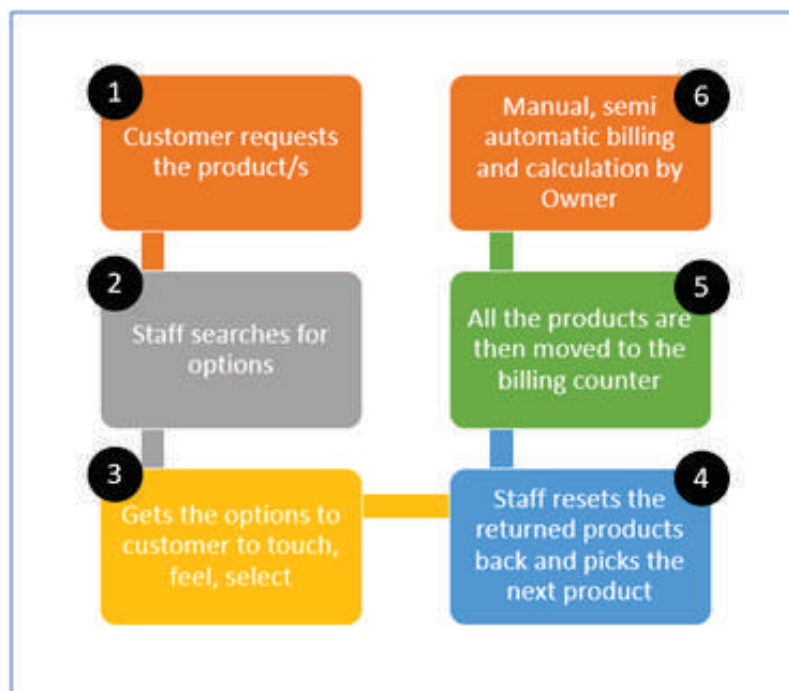
work etc which impacted smooth operation of supply chain and more importantly fulfillment of demand. These were the business which were dependent on humans at large. That's when the consumers remembered the emergency supplier – The Kiranas.

### SCOPE OF THIS STUDY:

This study was intended to explore the positives of Pandemic for Kiranas, how have the proprietors of these shops learnt management techniques and what should be their growth strategy post pandemic. Local associations of Kiranas were contacted to seek insights as a primary source of data, articles, interviews, focus group discussion results were referred as secondary source of data. Study was focused in various Tier 1 and tier 2 cities and villages of southern part of India covering states Andhra Pradesh, Karnataka, Tamil Nadu and Kerala.

### Operation of Kirana, Organized retail and Customer

Kiranas have a style of operations with a minimalistic approach. A shop generally welcomes a customer with a front desk and is not allowed to enter inside. There are few cups on the front desk, these are samples of cereals, pulses and variety of rice that is available. These are stored in large drums or containers for customized, demand-based weighing and packing. Sachets of shampoos, sauces, washing liquids etc are hung, clearly visible to point out as options from the front desk. Refrigerates are kept in the approachable distance so that the customer can choose a few products sometimes. Ready packs are stacked and stored in wall units and on the floor as per weight and packaging. All the customers will have to keep their list of items ready in a piece of paper or be sharp enough to memories as per requirement. Customer is not allowed to



walk inside the store or beyond the front desk to choose the products, unlike organized retail set ups. Owner and the appointed support staff will get what the customer asks as per the list given.

Many elements turn off a customer in the Kirana set up when compared to organized retail shops. Few important factors are as follows:

**1. Ambience** - Organized food and grocery would have well set up shelves with competing SKUs & offers displayed. It is generally an air-conditioned walk-in store which is well organized and well kept for a customer to choose products. In the case of Kiranas, Customer is supposed to stand outside the shop and ask for the products one by one, wait till the staff get the available options and then decide within the limitation.

**2. Time consumed** - Organized retail is a walk-in store where a customer can choose the speed to pick, pack and check out. There is no dependency to get the product by staff from the shelf and such transit time to select a product, weigh the product or wait for billing.

**3. Limited options** - Organized retail has options that compete. Shelf space, differentiation of product, product positioning, packaging are key aspects that boost sales and these have worked successfully in various permutation and combination till date. Kiranas have limited space to store and display the products. This limitation impacts on providing options to the customers. Hence, a customer must be happy with the available set of products.

**4. Check out experience** - Organized retail will have multiple checkout counters. Most of the products are pre-packed and barcoded.

Such a system enables quick billing i.e reduced wait time. There are self-check-out counters for those who want to bill the items themselves. In Kiranas it is a manual, redundant process which consumes a lot of time for an owner and staff to check the products multiple times and validate the amount mentioned on the bill. Mistakes in the bill total are a very common area of discomfort despite billing software and calculators in use!

**5. Digital adoption** - Digital adoption in organized retail outlet gives a competitive advantage. Barcoding of products and scanners, billing systems and software, Credit and debit cards, UPI payment mechanism etc are very widely used. So, this enables a very simplified material on boarding, SKU Management and billing. Overall customer experience is much better than the customer waiting outside the shop for his products!

**6. Online craze** - Organized retailers and e-commerce companies who sell grocery have attracted smartphone users! Every player in the market wants to be present in the internet space. Door delivery at your convenience is the key game changer apart from all the other benefits like cash backs, discounts, convenience etc.

### **Pandemic an opportunity for Kiranas Stores?**

The 21 days lockdown was a golden opportunity for Kirana owners in the country. Limited operations of the big and organized competitors, limited movement of customers etc did provide a very vast playground to capture the consumers. Operations in Kirana did change drastically and customers had limited options in a restricted environment. Health and safety were of primary importance and repeated messaging from various

authorities brought significant awareness about the virus. These aspects ensured people not to venture out.

### **Managing need of the hour**

Many during the interview said that the neighbours who never visited the shop did stand in a queue to buy essentials. But it was an unpleasant experience for both of us. We could not serve with speed due to limited stock, time and overwhelming demand. In critical times, it was important to prioritize safety and health. So, we had to change the way we operate. One of the owners explained that it was more of a service mindset that developed within no time and helped customize the offering to senior citizens, patients, usual customer base etc. Major changes adopted by the Kiranas as observed from the interviews are as follow.

**Go to market strategy** was the key change in approach. This changed the operations at Kiranas. In the pre covid market, it was a customer who visited the Kiranas whereas, during covid, it was Kiranas who managed to open channels to reach the customers. A similar strategy which e-commerce companies follows but this is more of a hybrid model where customers had a choice to opt the mode of connecting and it is not purely online (I will explain this in the section Traditional supply-chain). Hybrid set up of operation brought an element of customized and personal touch. It is more often talking to a few known people to get products delivered and thus building the customer relationship and longevity. Following are the two important components of the hybrid model of Kirana's operations.

### **1. Adoption of technology:**

Until a very recent past, UPI mode of

payments was the best-adopted mode of payment followed by plastic money! These of course increased during the Covid days. Adoption of technology happened in order management and inventory management space with high speed. The focus was to connect and serve, so no application can do the job better than WhatsApp. This was one application which was on every smartphone which helped the owner of Kiranas to communicate what is available in stock and collect orders 24/7. Few innovative owners did take a step ahead to get an app built for their service and replicated a hyperlocal model of service. No customer would need to come to the store but have the app to communicate the requirements.

Focus on inventory management was something important to learn about. It was an experience which decided what to stock when and how much. No data that would ever back such decisions. Having received orders through the technology platform, it was easy to forecast the demand and have the inventory in place. This enhanced repeat orders and increase revenue significantly. No rocket science but owners never felt the need of having technology in place to such an extent.

Similar story was reported on economic times- Raj Kumar Jain who runs a kirana shop in Noida said, "We are taking orders on WhatsApp and delivering products to various residential complexes once a day."<sup>(3)</sup>

### **2. Traditional supply chain with a modern touch:**

Interview with the owners explained nothing new but adoption of traditional way of selling. In many parts of the country there were/are vendors who sell vegetables on a hand pulled/ pushed cart, this was the best solution of last



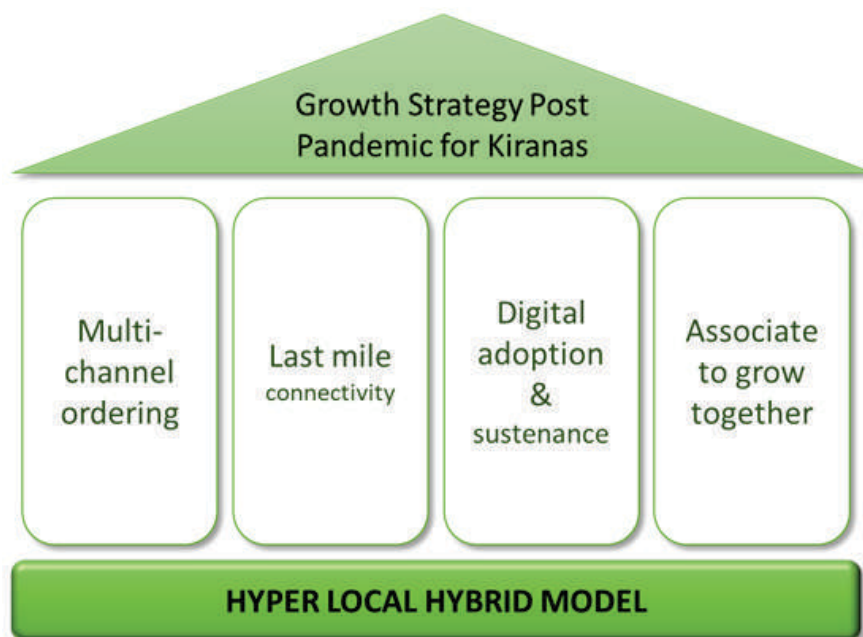
mile delivery. Kirana owners tried the same but used cargo vehicles both big and small as per the financial capability and vehicle availability. This picked up the order flow in three ways, selling on the go and it was a mode to collect large orders where delivery was committed during a later slot and deliver the orders which were earlier requested through offline or online channels. This is a hybrid model that was adopted as a need of the hour. Generally, an ecommerce firm would allow a customer to order and get it with in a defined time line. But in this case, Kiranas filled the gap of product feel and touch. While the products were taken on the last mile sales, there were a few samples on board. This generated traction and orders. Kiranas who could not drive through arranged home delivery mechanism which served the purpose as well. These delivery staffs did carry samples on demand for the customer to confirm the order.

Question is, dint all this happen earlier? What makes it so different now? Kiranas adopted all these with limited interest and mostly with a

mindset of being a victim of modern business models. But the covid lockdown did emphasize and force to experience and adopt the change. No one had time to think but to move with the wind. These changes around technology adoption and last mile connectivity approaches are now well stable and have gained a lot of momentum. Footfall in organized retail is yet to gain momentum and this is where Kiranas have to sustain the hybrid model.

### Post pandemic growth strategies

E-commerce and organized retailers are in the mode of establishing the network as the customers grow. Large scale capital investments and working capital requirements are key business operators for such big players. In such a situation and post-pandemic market, Kiranas should concentrate on Hyper local Hybrid Model of business strategy from here. Hyperlocal and Hybrid which will bring in a significant change in the market dynamics if played well. Following is a conceptual strategy house to execute the game plan.



### **HYPER LOCAL HYBRID MODEL:**

Kiranas should capitalize on the current market conditions, mature and sustain the current business model. Key focus points are as follows:

**1. Multi-channel ordering:** Kiranas should adopt online and offline order collection channels to enhance the reach to the customers. Whatsapp, App, website, In-person, Phone calls, Proactive order collection approach etc are prominent during a pandemic but these have now been adopted significantly by customers and Kiranas should leverage these modes of communication.

**2. Last mile connectivity:** Delivery service should be very personalised to various sections of society /customer. Home delivery service as it is called is not new, it existed even before the birth of e-commerce. But this service has got prominence due to change many factors around convenience, lifestyle, time management etc and most importantly after e-commerce using this service extensively. So, the home delivery system is the need of the hour where it is a good approach to capture all age group of customers.

**3. Digital adoption and substance:** Smartphone and the virtual world are the platform where every prospective customer is available and spend time on. Marking a large and strong footprint in the digital world is important in this era. This does not mean to replicate the e-commerce model but to have a digital presence. Kirana or a group of Kiranas should think to have an App, e-commerce website, digital payments, aggregation apps,

efficient billing solutions (which exists in most of the shops today though), supply chain solutions etc.

**4. Associate to grow together:** Kiranas are generally run by a sole proprietor or a family with limited financial risk-taking capabilities. Such establishments have limited scope to grow and compete with the big giants in the same space. This limitation can be addressed through forming a group of owners to operate together as a chain which can give capabilities like the power of negotiation across the supply chain, efficient large-scale operations, brand management & customer retention.

These 4 pillars of the strategy house should enable the Kiranas to jointly sustain in the game of retaining the market share and not lose it to organised section. This approach will enable Kiranas to give similar or better experiences to the customer than the organised retail set up. Kiranas will have an operating advantage as they would be very close to the customer to hear the pain points and course-correct quickly. Overall experience to the customer will be personalised and faster than e-commerce which is a big plus.

### **REFERENCES:**

Battleground kirana: The anatomy of India's raging retail war. (n.d.). Retrieved from <https://economictimes.indiatimes.com/industry/services/retail/indias--ubiquitous-ubiquitous--kiranakirana--storesstores--areare--findingfinding--themselves--in--greatgreat--demand/articleshow/69707009.cms?from=mdrmand/articleshow/69707009.cms?from>

Come back of neighbourhood kiranas (n.d). Retrieved from <https://www.livemint.com/industry/retail/the--neighbourhood-neighbourhood--kiranakirana--storestore--makesmakes--aa--roaringroaring--comebackcomeback--thisthis--seasonseason--11586545799321.html>

Shambhavi Anand, W. M. (2020, April 02). Kiranas become a lifeline for urban consumers in times of lockdown. Retrieved from <https://economictimes.indiatimes.com/industry/services/retail/kiranas-become-a-lifeline-for-urban-consumers-in-times-of-lockdown/articleshow/74935359.cms?from=mdr>

## RESEARCH

### Re-boosting Rural Economy To Address Worker Migration In The Covid 19 Pandemic Era: A Case Study Of Sualkuchi Handloom Town Of Assam

Ms. Sangita Sharma\*

---

#### ABSTRACT

*A country speeding on bullet trains, seaplanes and nuclear energy, witnessed such a heart-aching scene of thousands of migrant workers moving from the bigger cities to villages with children and luggage on their backs travelling hundreds of kilometres on foot. It was not fear of corona virus, but loss of livelihood that forced them to move to their native places. According Labour & Employment Ministry, government of India, the number of migrant workers who returned home due to COVID 19 pandemic is around 10 million.*

*These migrant workers are mostly from the states of Bihar, Uttar Pradesh, Jharkhand and West Bengal. The simple reason why these people move to bigger cities is for employment opportunities as they do not find the same in their respective states. In metro cities like Delhi and Mumbai, these villagers take up any unskilled job like that of house-maid, cleaners, guards, etc. They find the remuneration quite attractive as compared to what they earn in the villages.*

*This financial attraction is acting as a double-edged sword. On the one hand it is increasing the slum areas of big cities and secondly it is another cause of rising crime rate of these cities. Again looking at it from the perspective of the workers, they are leaving their home and loved ones far back and staying in very unhealthy conditions just for earning money. They generally take up a single room on rent and 8-10 people share the room.*

*Workers migration has been going on since historic times. But it does have some negative effects too. Such migration leads to dearth of manpower in the rural areas. This results in backwardness and underdevelopment in these areas. In order to bring about a balanced economic growth it is very important to develop the rural economy. A self sufficient rural economy would act as the pivot on which the national economy would grow.*

*With 41.49 per cent of the Indian workforce engaged in agriculture, it is the highest employment provider of the country. The second largest employment provider of our country is the handloom industry that directly or indirectly employs around 45 lakh people. This is followed by handicraft industry. These are majorly unorganised sectors, though earning substantial foreign exchange.*

*Handloom and handicrafts are the some of the earliest human activities in ancient civilizations.*

---

\*Ms. Sangita Sharma, Pearl Academy, Noida, U.P. Email: [sangitadelhi@gmail.com](mailto:sangitadelhi@gmail.com)

*These activities were important not only for their day to day living but also offered livelihood to many people. These include manufacturing of various silk and cotton fabric, pottery making, art and craft items for household needs, home decor, fashion and accessories, etc. Since ages Indians were known all over the world for their exotic silk fabric, brass items, embroidery, wood and stone work.*

*In the ancient era, as early as the 7th century, India exported silk, cotton and handicrafts items to Southeast, West & Middle East Asia and also parts of Europe. Gradually, as the British took over the reign of Indian economy, our country mainly served as a market for finished goods of Britain. The traditional industries died a natural death. The handloom and handicraft activities got pushed into certain clusters. These clusters now form a very small segment of rural population who are surviving in extreme poverty.*

*After independence of the country, Government of India initiated certain policies and cooperative societies to keep these sectors alive. However, these initiatives just managed to keep them alive but not flourish.*

*In this research paper, an attempt is being made to study feasibility of developing these sectors particularly handloom, as community entrepreneurial activity so that these traditional skills can be encouraged and developed to such an extent that it generates huge employment opportunity in the rural areas, thus making them economically self-sufficient without the need to migrate to bigger cities for job. A strong rural economy would also result in lesser burden on the urban areas in terms of population growth, housing and other facilities.*

*Moreover, impressive branding and marketing of handloom and handicrafts would ensure eco-friendly, sustainable and most of all, promotion of 'Brand India' or rather 'Made in India.'*

*For this research, Sualkuchi handloom town of Assam would be studied as a case study.*

**KEYWORDS:** *Sualkuchi town, handloom, community entrepreneurship, skill development, rural economy.*

---

## INTRODUCTION:

The COVID 19 pandemic has brought in such new dimensions to our thinking and way of life that is unprecedented in the history of human civilisation. Technology has replaced human interface for the most ordinary daily activities. Some businesses are reaching the pinnacle of success while some others are dying a natural death. Employees in certain sectors are earning high packages by working

from the comforts of their homes while some others are losing their jobs or facing major salary deductions. But the major blow is faced by the unskilled daily wage earners or factory workers who are employed on contract basis. The beginning of nation-wide lockdown due to the pandemic had witnessed huge number of workers moving from bigger cities back to their villages not due to COVID19 but due to loss of livelihood.



According to the Ministry of Labour & Employment, Government of India, around 10 million migrant workers moved back from big cities for loss of employment.

Worker migration is a problem in most of the developing countries. This migration has its merits and demerits as well. In the list of merits supply of cheap labour is at the top. Availability of cheap labour at the factory level ensures growth of manufacturing units not only of national companies but also international brands. This surges the national income and opens up scope of employment.

But such worker movement have its demerits too. First demerit is the growth of slum areas in the bigger cities that adds on to the deteriorating health and sanitation of the cities. Generally, these contractual workers stay in rented rooms in the unauthorized colonies. Six to seven members stay in a single room in quite unhealthy conditions. The women generally take up work as house-maids which is quite lucrative for these unskilled village women. But the major brunt is faced by the young children who are left unattended. These children are far away from schooling and any kind of skill development. They are generally victims of drug and human trafficking. Moreover, the villages lay backward as there is dearth of manpower to develop.

#### **State of Migrant workers during the COVID 19 pandemic & lockdown period in India:**

India witnessed such large number of worker movement in May-June 2020, that it brought back memories of partition of the country in 1947 when there was large scale displacement of people between India and Pakistan. There

were media reports of workers moving on foot for hundreds of kilometres from one state to another with luggage and children on their backs. It was quite a painful scenario to see little children and women walking for long distances without adequate food and water. Public transportation system was at a standstill due to sudden lockdown announced by government to control the spread of Corona Virus. But these are either contract workers or daily wage earners who would die of starvation if not for the virus, without any income. Factories were closed, construction sites were shut down, shops, restaurants, courier services, home deliveries, offices, institutions, road-side vendors etc., everything was closed. Even the entry of house-maids were restricted in residential societies. So, it was a matter of survival for these workers. Though the government tried to provide help to these people but the size of population of our country is such that it is not possible to provide help to each person.

They were helpless and so the decision to move back to their respective villages was quite justified. At least, they could get shelter in their homes without paying rent.

Most of the migration happened from Mumbai, Delhi to villages of Uttar Pradesh and Bihar. Around 23.6 lakh migrant workers returned to Bihar and 17.5 lakh to Uttar Pradesh (livemint.com). This is the number of only two states. There were a lot of migrant labourers returning to Rajasthan, Madhya Pradesh and Jharkhand.

How about reducing this migration if not finished? This is possible only when these workers find good source of income closer home.

### **Significance of Handloom & Handicraft in rural life:**

Agriculture is the mainstay of rural economy. It employs around 49 per cent of the rural workforce in our country. Handloom and handicraft are the other activities that the villagers are involved in.

Since historic times, India's rural economy has been largely based on handloom and handicrafts that includes pottery making, carpet making, glass work, paintings, etc. Prior to British rule in our country, India's handloom and handicraft industry had been quite flourishing. But, as the British started using India as a market for machine made finished goods from Britain, our indigenous industries just shrunk down to tiny clusters in certain regions. For instance, some of the handloom clusters in India are, Trichy, Varanasi, Bhagalpur, Guntur, Sualkuchi, etc.

Indian handloom has very good international market. USA has been the major importer of Indian handloom products. US is followed by the UK, Italy and Germany. Indian handloom export stood at US\$66.26 million between April to August 2020 (ibef.org).

However, in this research paper emphasis will be given to the handloom industry particularly that of the Sualkuchi town of Assam, also known as the Manchester of East.

### **Silk Handloom Industry of Sualkuchi:**

Assam produces three varieties of silk, viz., *Paat* Silk, *Eri* Silk and *Muga* Silk. *Paat* silk or mulberry silk is found in other parts of the country also. But *Eri* and *Muga* are unique varieties that are only found in Assam in the entire world.

Manufacturing and trading of all the three

varieties of silk was started in this region by the traders of East and Southeast Asia as early as the 6<sup>th</sup> and 7<sup>th</sup> centuries. Mention of *Muga* silk of Assam is even found in *Chanakya's Arthashastra* written in the 4<sup>th</sup> century. *Chanakya* describes it as a golden fabric. Infact, the fabric also finds its place in the *Kishkinda Kanda* of *Valmiki Ramayana*. Realising its great monetary value, the *Pala* Kings settled many silk weavers in this Sualkuchi village, on the banks of the river Brahmaputra. From then on, the village has been the epicentre of silk handloom manufacturing and trading. It is believed that silk has been introduced in other parts of India from this region only.

According to historians, the Ahom rulers who ruled Assam for almost 600 years starting from 12<sup>th</sup> century, were great patrons of handloom and under their patronage, Assam silk industry reached great heights of success. The Ahoms came to Assam from the Mong Mao district of present day Myanmar. They were strong rulers but had great business sense. During the Ahom reign, silk was exported to south-east Asia, west Asia and even some parts of Europe. The traditional silk route developed by Chinawas extensively used by the Ahom traders. South East Asia was reached by the water route via Brahmaputra River which flows from the Himalayas and on to the Bay of Bengal. The river takes the name of Tsang Po in China and Meghna in Bangladesh. The strategic location of north-east India (that is currently divided into the 7 states) had been quite instrumental in carrying forward border trade with China, Myanmar, Thailand, Indonesia, Phillipines, Singapore, Vietnam, Malayasia, etc.

But as the British entered Assam in the 19<sup>th</sup> century, they shifted focus to Tea cultivation

and oil exploration in the region and used it only as a market to sell their cheap mill-made fabric of England. The once flourishing silk industry just shrunk to a small cluster in Sualkuchi and some other smaller localities of Assam.

#### **Sualkuchi in the post-independence era:**

As the British left and the indigenous government came to power, the traditional handloom industry saw a ray of hope. A separate Ministry of Textiles was set up. Several cooperative societies, insurance schemes and other benefits were declared by government. However, the sector lost its shine forever. The benefits did not reach all the needy.

Despite all odds, the Sualkuchi town carried on the tradition of handloom weaving. Even today, every household in this town owns a handloom. Generally the whole family is engaged weaving. Infact, it is mandatory for every girl of marriageable age to know the art of weaving. Mahatma Gandhi once said that 'Assamese women weave dreams in their handloom.' It is true that Sualkuchi produces unmatched quality.

But due to more lucrative career options outside, the younger generation is moving out of Sualkuchi. This is not at all an encouraging trend. There are some master weavers, who own 10 to 15 handlooms. They employ weavers on contract and pay them on per piece basis. These master weavers are also known as factory owners.

The weavers generally weave Assamese traditional *mekhela sador* (two-piece saree like dress worn by Assamese women) or *gamucha* (traditional towel). Now-a-days *sarees* are also made woven.

For selling of finished goods, the master weavers also run shops in Sualkuchi itself. Byers from other parts of Assam, especially from Guwahati city visit Sualkuchi for purchasing traditional silk during the wedding season or during Bihu (traditional local festival) or Durga Puja. Sometimes finished goods are sold in the markets of Guwahati by middleman who buy silk from Sualkuchi at wholesale rate and sell it to retail outlets in Guwahati.

It is not at all an organised business. There is no proper framework or process of doing business. Even rates are also fixed as per the master weavers' decision.

#### **NEED FOR STUDY:**

From the above discussion it is well understood the plight of migrant workers in the COVID19 pandemic era. Moreover, too much worker movement to cities causes growth of slum areas as well as severe blow to the health and sanitation management of cities. In addition to this, the villages lose able bodied manpower hindering growth and development of the rural areas. While it is an established fact that Indian handloom and handicraft industry is world famous since the historic times, the researcher felt that if the traditional skills of handloom and handicraft are encouraged especially among the rural population particularly the youth, it could work as a boon to the rural economy without the worker leaving his home and family for money. Hence, felt the need for this study.

#### **RESEARCH QUESTION:**

The pandemic situation opened up the Pandora's Box of issues related to migrant workers which otherwise lay hidden in dingy lanes of urban slums in the big cities.

- Can traditional handloom and handicraft

industry boost the rural economy and improve the condition of the workers or prevent large scale migration in search of livelihood?

If going back to the roots provides a potential solution to the issue of migrant workers, then it is necessary to explore this area. This research paper takes Sualkuchi town of Assam, as a case study to understand the possibility of developing the traditional handloom industry so that the rural workforce find lucrative income source within their village without migrating to distant cities for employment.

#### **RESEARCH OBJECTIVES:**

(1) To study the problem of migrant workers during the COVID 19 pandemic period in India.

(2) To study the feasibility of developing the handloom industry particularly focussing on Sualkuchi town of Assam so that rural economy can be strengthened.

#### **RESEARCH METHODOLOGY**

##### **NATURE OF RESEARCH:**

The nature of research will be qualitative. Data is collected through interviews. Inductive approach is used to study this data. Narrative analysis will be used. (Questionnaire used for the survey is included as an Appendix of the paper)

##### **SAMPLING METHOD:**

Both primary and secondary method of research is used. Focus is on primary research in the Sualkuchi town wherein survey is done through personal interview and questionnaire. Purposive sampling is used.

Secondary information has been collected

from various research papers, journals and government reports, internet sources.

The entire field research was done in the month of January 2020 and detailed observation was done. However, the COVID 19 pandemic has brought in a new dimension to the study and accordingly telephonic interview was conducted with 10 respondents of Sualkuchi town as travelling opportunity has been restricted due to the pandemic. Out of these respondents 4 were master weavers and 6 were contract weavers.

#### **LITERATURE REVIEW:**

**Deka K (2020)**, says there is a large amount of circular migrants in our country who come to the cities only during the non-agricultural season. These workers generally remain invisible to the government as they are not permanent in one place and are employed by middleman. So, the number of migrant workers increased manifold during the lockdown.

**IED Team (2015)**, states that social entrepreneurs ensures participation of people. This participation is important as it adds value and thereby yields better returns. It rightly says that social entrepreneurs can help develop sustainable business models addressing local needs.

**Chand R, Srivastava SK, Singh Jaspal (2012)**, has pointed out correctly that this huge migration of worker from rural to urban areas in such unplanned way, puts severe pressure on the amenities of urban areas on the one hand and on the other, the migrant workers are forced to live in unhygienic conditions. All this hardship is only for better income. The most important fact is that over 70 per cent of India's workforce reside in rural

areas. So, this migration cannot be taken lightly.

**Shaw KM (2019)** suggests that social media platforms can be used to educate the rural folk and help them to be micro-entrepreneurs. The author further says that technology can help connect these rural entrepreneurs to national as well as international markets. This is a great suggestion as it will also solve the problem of middlemen for whom the rural entrepreneur fails to get the rightful dividend.

**Anand G (2017)** tells us about the decline in the number of weavers of Sualkuchi. The reason for this is low income which forced the younger generation to move out looking for more lucrative options.

**Kumudha A, Rizwana M (2013)** talks about a very vital issue of awareness level of consumers for handloom products, which is not much. So, the paper rightly suggests that efforts should be put on marketing and branding of handloom products so that more customer awareness can be generated.

Discussion (present the key findings of the study as they relate to the Research questions)  
Future research (discuss how this study can influence future studies in this topic)

### **DISCUSSION/ANALYSIS:**

The pandemic gave us many new insights about the loopholes of our existing socio-economic structure. It is time the policy makers introspect and look at society from a broader perspective and all-inclusive policies need to be framed. 10 million workers movement is historic. Every human being moves for a better life and growth prospects. If he fails to find it near home he does not mind moving to far-off lands for it.

Bigger cities and manufacturing plants do need the workers. But as more and more manufacturing units are established in city suburbs, burden on the cities have increased. Population of the major metropolitan cities of our country has increased manifold. The city administration has not been able to provide adequate, shelter, health and sanitation to the increased population. For instance, there was a huge spread of Corona virus in the Dharavi area of Mumbai. Dharavi is Asia's largest slum. Similarly, in Delhi also there is exponential growth of slum areas in the last few years. Around 1.8 million people in Delhi reside in slum areas today, (borgenproject.org).

Who is to be blamed for this situation? A country where 70 per cent of population still reside in villages, can actually be called a rural economy. 49 per cent of population is involved in agriculture and allied activities. According to the Census of 2011, number of villages in India is around 649,481.

Is it really possible to take all manufacturing plants to the rural areas? It is practically not possible. Even after 73 years of independence, road network is not fully developed in our country. Movement of goods and services would be a problem if factories are built near the villages. The cost of products would increase. Moreover, our cities are already struggling for fresh air to breathe. Rivers and water bodies are polluted due to factory waste. There is noise and air pollution. Protecting the environment is also a priority now as the whole world is looking for eco-friendly sustainable products.

The answer to all these problems is developing the traditional handloom and handicraft industries. Our rural workforce is



already trained by tradition. Capital investment is also less. Infrastructure requirement is minimal. These are eco friendly sustainable products. And most importantly there is great market for these products not only in India but outside as well. These traditional handloom and handicraft items can serve as a replacement for plastic and other items that are not eco-friendly. The only requirement is to organise this business and focus on a smooth supply chain management. Marketing and branding are other aspects that need attention.

Field trips to Sualkuchi town and regular interaction with the local people gave a new perspective of economic development at the grassroots. Strong grassroots would ensure stronger and much well managed cities.

From a distance, it is quite an interesting ambience at Sualkuchi, where one would find the rhythmic sound of the handloom coming from small lanes and outside every house. It is like a very different experience far away from the city life. But closer interaction with the weavers gives the actual picture of despair, disappointment and hope.

The questions focussed mostly on three broader aspects. They are: (a) Does weaving give them adequate livelihood opportunity? (b) What difficulties are observed in the handloom business? (c) How the COVID 19 pandemic has affected their business?

'I have learnt weaving from my father and grandfather. From my childhood I have been engaged in spinning yarn, creating natural dyes in our home, weaving and creating designs. This is my only source of income. I have 2 handlooms at home and our whole family is involved in this. We don't do

anything else' (translated from local language). As told by Dimbeshwar Kalita, 62 year old, weaver from Sualkuchi.

As Dimbeshwar Kalita, there are many weavers who are not working on contract, but run the handloom business on their own with two or three handlooms with the entire family. They generally sell their products to middlemen who go and sell these products to retailers in Guwahati city. 10 out of 10 weavers said that they have learnt the art of weaving from their ancestors and this is their only source of income.

'I have 15 handlooms and I have engaged weavers as per requirement. They all work on contract. They are paid on per piece basis. If I get more orders, like during the wedding or festival season, I engage more weavers to meet deadlines. But with no orders I cannot pay anything to the weavers. In fact, even I will not have anything for myself.' (translated), as told by Harekrishna Lahkar, 56 year old, master weaver.

4 out of 10 are master weavers who employ weavers on contract to complete assignments within the stipulated time. There is no fixed salary for the weavers. They are generally paid anywhere between Rs1200 to Rs1500 for a normal Assamese traditional Mekhela Saador with blouse. However, it goes up to Rs3000 for a heavily worked bridal wear. The entire raw material and infrastructure expenditure expense is borne by the master weaver. The selling is either done through shops run by master weavers or sometimes customers directly walk in to workplace generally called factories.

'I am from Nagaon district, quite far off from here. I have learnt weaving from my



grandmother in my village. I never went to school and I know only to work on the handloom. So, I came to Sualkuchi 20 years ago as payments are good here. We are 10 women weavers who work in a factory. Earlier we stayed at rented rooms but since the last 3 years our factory owner has given us free accommodation. I generally make around Rs6000 in a month. But it is more during the peak season.' (translated), as told by Bina Devi, 47 years old, contract weaver.

6 out of 10 are contract weavers who work for a master weaver. Interestingly, these weavers have no idea of the selling price of the products prepared by them. It is the discretion of the master weaver. Moreover, these weavers have no formal agreement or written official contract. It is all verbal understanding. They are paid in cash and most of them do not have bank accounts. Moreover, there is no employment security. The same weaver may or may not be called for work in the next season. So, the struggle for employment continues.

6 out of 6 contract weavers talk about the financial insecurity they have as there is no job guarantee after the completion of one assignment. Moreover, with more and more power loom products are flooding the market made with artificial fabric that are cheaper and easily available with low maintenance cost, there is decline in demand for authentic handloom silk. 10 out of 10 weavers say that they have knowledge of only handloom and they fear extinction with the growing popularity of power-looms.

This is a very significant point. Power-loom products made with artificial fabric are flooding the markets. Most of these power-looms are from Maharashtra and Gujarat.

Some of the duplicate fabrics from China. In this race, the authentic silk handloom products are losing their shine as the demand is declining due to high cost and maintenance.

Our income is not much. It is only during festivals like Bihu and Durga Puja or the wedding season that demand is high. But rest of the year, income is fluctuating. This has made our young generation to look for alternative source of income. Many young people, specially boys, go the city looking for jobs in other sectors as they don't find this handloom business lucrative. This is why we need to hire weavers from outside Sualkuchi as our own children do not want to carry forward this tradition. This is quite depressing as our heritage will get over soon,' (translated), as told by Phaniram Medhi, 71 year old master weaver.

Decline in work force is a major concern for all master weavers. If this industry is made attractive for the youth, if they see a career growth in their traditional art of weaving, the handloom sector is going to flourish. The COVID19 pandemic has also caused major damage to the Sualkuchi handloom industry.

'Our's is a seasonal business. The peak season is March-April and then again Oct-Nov. April is the time for Bihu festival where all Assamese women prefer to wear traditional silk attire. This is also the time for wedding. Again in October and November, Durga Puja is a grand celebration time where people wear new clothes. This is also the wedding season. So, generally we prepare stock by February and September. But this year, due to lockdown in March and rise of COVID 19 cases in September-October, we could hardly sell anything. We invested money but got no returns. Weddings were postponed and Bihu

was not celebrated this year. It's a huge loss,' (translated), as told by Harekrishna Lahkar, 56 year old, master weaver.

It is true if products are not sold and no new assignment means no work for the contract weavers. However, the pandemic opened up the scope of online selling and social media marketing. Even for the day to day needs, people started using the online mode. The digital market place in our country has grown so much that we have approximately 330 million online buyers today (internet sources). Sadly, the Sualkuchi weavers are not technically sound. They have no knowledge of social media marketing and online transactions.

#### **FINDINGS/CONCLUSION/FUTURE SCOPE:**

- Sualkuchi has a lot of scope to be developed as a model for social entrepreneurship. it is rightly called a weavers' village as every household has a handloom and more or less the entire population has knowledge of weaving. It is a tradition being passed on from one generation to the other.
- The younger generation, however not finding it lucrative enough to continue and is looking for greener pastures elsewhere.
- There is a decline in demand for handloom products owing to cheap power-loom products.
- The pandemic has served a major blow to the sale of finished goods.
- Sale is generally seasonal and so the pandemic and resultant lockdown created havoc for the weavers.
- Efforts have never been made to promote these goods outside the state of Assam.
- There is no effort being made on promoting Sualkuchi as a brand.

- Product diversification is important for promoting these goods outside the state.
- The weavers are unaware of social media marketing and online selling.

These findings can be generalised for the entire handloom and handicraft industry of our country. These findings can serve as a basic theoretical understanding of the actual state of affairs of these traditional crafts. Practical and workable ideas can be generated from further research on this.

#### **RECOMMENDATIONS:**

- The entire town can work under one community entrepreneurial programme.
- A business model can be prepared either by Ministry of Textiles or MSME and implemented accordingly.
- The weavers need to be trained in the business model so that any middle man is ruled out. The weavers can work as a self help group.
- Workshops by banks can be organised to train the weavers in online banking.
- Media and Ministry of Tourism should be involved in promoting these products.

#### **FUTURE SCOPE OF STUDY:**

Other handloom and handicraft clusters of India can also be studied and included in a community entrepreneurial programme. The Sualkuchi model can be used in promoting other clusters as well.

#### **REFERENCES:**

- Kumudha A & Rizwana M (2013). *A Study on Consumer Awareness about Handloom Products with Special Reference to Erode District*, Journal of Marketing and Consumer Research, Vol 1.
- Gogoi S (2016), *Assam Silk: Sericulture*,

*Research and Reviews Journal of Agriculture and Allied Sciences*, e ISSN 2347-226X, p ISSN 2319-9857, 2016, vol5, issue 2, December 2016.

*Handloom Industry And Exports*, ([www.ibef.org/exports/handloom-industry-india.asp](http://www.ibef.org/exports/handloom-industry-india.asp)) accessed on 30 December 2020.

Deka Kaushik (2020). *The Migrant Mess*, India Today.in ([www.indiatoday.in/magazine/cover-story](http://www.indiatoday.in/magazine/cover-story)) ISSUE DATE: June 8, 2020, accessed on January 2, 2021.

IED Team (2015), *Rural Development Through Social Entrepreneurship*, (<https://ied.eu>), accessed on 30 December 2020

Chand R, Srivastava SK, et al (2011-12), *Changing structure of Rural economy of India, Implications for employment and growth*. NITI Ayog, (<https://niti.gov.in>)

Shaw KM (2019) *India needs a new deal for rural India*, ([www.livemint.com](http://www.livemint.com)) accessed on January 2, 2021.

Anand G (2017), *Livelihood Sustainability of Handloom Weavers: A study in Sualkuchi, Assam*, Tata Institute of Social Sciences., ([www.researchgate.net](http://www.researchgate.net)).

*Growing Delhi Slum Population*, ([www.borgenproject.org](http://www.borgenproject.org)) accessed on 3 January 2021.

Mahan, Bandana (2012). *Silk Industry among the Tai-Ahom of Assam, India as an Attraction of Tourist*. International Journal of Scientific and Research Publications, Vol. 2, no. 12.

Mithun Chandra Roy (2017). *E-Commerce in silk industry of Assam: A critical study*, Pratidhwani the Echo Vol-I, Issue-IV, April 2013 - Pratidhwani the Echo

## APPENDIX:

### Questionnaire:

1. Since when are you in the business?
2. Is your whole family in the business?
3. Can you tell in detail your business model: like the entire process from procurement of raw material to weaving and selling the final products?
4. Do you rear silk worm?
5. Do you get government support for raw material?
6. Where do you get your designs from?
7. Do you have facility for training the weavers?
8. Is there any training facility provided by government?
9. Do you have proper storage facilities? If not where do you store your products?
10. Do you get easy government loans or any other investment source?
11. What is the impact of power looms over handloom products?
12. There are a lot of artificial or duplicate silk in the market. Your comments on it.
13. Lot of silk products are going from mills at Gujarat, Mumbai and south India. How is it affecting the northeast silk industry?
14. Do you think demand is decreasing these days? If yes, Why?
15. How can you think of increasing market demand and lowering cost?
16. How do you publicise your products?
17. Do you think women only take it up as a part time activity?
18. Are there more women than men in this business?
19. Is the new generation interested in this business or are they moving out to take up other professions? If yes, why?
20. What steps you would suggest to motivate youngsters to take up handloom & handicraft as profession?
21. According to you, what is the scope of online selling?
22. Does weaving give you adequate livelihood opportunity?
23. What difficulties are observed in the handloom business?
24. How the COVID 19 pandemic has affected your business?

## RESEARCH

### A Study Of Managerial Skills On Digital Transformation To Lead Change In 21st Century

Vikram R. Hande\* & Dr. Chandrahauns R. Chavan\*

---

#### ABSTRACT

*21st Century's industries have already started fourth industrial revolution-Digital transformation by integrating digital technology in their operations. Primarily it focuses on operations of industry and delivers value to customers. It is cultural and technology change. World economic forum has launched digital transformation initiative in 2015 to get insights on impact of digital technologies on business and society over the next decade. Digital transformation created new innovations and creativity rather than simply enhancing traditional methods. World economic forum has suggested digital themes to alter processes and improve performance. Digital themes include automation, robotics, digitally enabled workforce, integrated platforms, next generation analytics and decision support. Technologies like Internet of Things (IoT), Machine learning (ML), Blockchain, Artificial Intelligence (AI) and Cloud Computing to develop new innovations and disruptive business models. Managers required preserving skills which allows them to work efficiently and effectively to adapt and lead change.*

*During COVID-19 pandemic entire world worked on how to live differently and virtually using technology platforms. Success of businesses is more reliant on digital models to create value and experiences for all stake holders. Usage of internet, communication applications doubled. Companies that began early digital transformation survived better in COVID-19. Consumer behaviour changed during lock down. Market place indicated companies to adapt digital transformation during pandemic and for new normal. Digital transformation will not have one size fit for all; it will vary across industries, size and capabilities. Companies developed new digital platforms and informed consumer availability of online goods and services. This global disaster has created gaps in workforce. Post pandemic industrial environment will require better customer experience, speed and innovation. Industries have to design new strategies for continuation. Businesses that don't have digital implementation will not be in business for long. Starting or continuing digital transformation will be more important than ever.*

*Main research question for this exploratory research paper is - What are the managerial skills required for digital transformation in 21st century? To address this researcher has used skill gap analysis to assess the gap between current and benchmark against company or industry standards. Skill gap analysis gives insights on individual learning and developments. It helps*

---

*\*Vikram R. Hande, Bharati Vidyapeeth's, Institute of Management Studies and Research, Imed*

*\*Dr. Chandrahauns R. Chavan, Director, Jamnalal Bajaj Institute of Management Studies*



*organization for planning workforce, recruitment and creates competitive advantage. Qualitative approach is used to identify required skills with systematic literature review. Next phase involves data analysis to find skill gaps to satisfy the need of an organization. Researcher has designed competency model as a guideline on skills that enable managers to perform and sustain in fourth knowledge based industrial revolution. This study will guide management educators and professionals to upgrade skills, new behaviours and develop capabilities to embed value in business. Research results will be helpful for higher education institutes to design professional courses, workshops and curriculum on managerial skills. Industries can use to hire managers and reskill or up skill current workforce.*

**KEYWORDS:** *Digital Transformation, Fourth Industrial Revolution, Digital Technology, Internet of Things, Machine Learning, Artificial Intelligence Skill Gap Analysis, Competency Model.*

---

## **INTRODUCTION:**

Digital transformation is the implementation of digital technology to transform manufacturing and services to improve performance. It is improvement of people, process and technology in the organization. New technology adds efficiency to processes via automation. It promotes new innovations and business models instead of improving traditional businesses. Industries require proficient managers to lead the change. Current creative industries require managers who can efficiently use Internet of Things, data insights and other new digital skill sets to transform company. Industrial changes started with digitization such as traditional processes are converted into digital form without changing actual process. Growth of internet started digitalization which revolves around new technology usage for innovating products and services. Online business is one the example moving towards digitalization. World economic forum in an introduction to the digital transformation of industries initiative specified at present digital transformation is not understood to realize its potential for value creation. Digital transformation covers integrating digital

technology into all areas of business to change business operations and deliver value to consumer. Manufacturing oriented companies started automation, robotics for mass production. Service companies used electronic data transfer for inventory control and information exchange. It has begun affecting on all organizations and delighted customers.

Fourth industrial revolution focused on customized production by means of digital technologies. This revolution comes in the form of digital transformation. Rosabeth Canter identified reluctance to Digital transformation change. This includes uncertainty, competency, and false belief (HBR 2012). Successful digital transformations are rare, but organizations can focus on agile mind sets, usage of modern technology and right leadership, middle management to improve percentage of digital transformation (Patrick Forth BCG 2020). There are many aspects of digital transformation, in this paper researcher objective is to explore managerial skills required for digital transformation to lead the change in 21<sup>st</sup> century.

### RESEARCH QUESTIONS:

1. What skills do managers require for Digital Transformation?
2. How managerial competencies drive digital transformation?

To address this question researcher has used skill gap analysis that measures the gap between present skills of an employee with skills required for future goals in the organization. Proctor & Gamble, L'Oreal, Wal-Mart adapted skill gap analysis for digital transformation (Capgemini Consulting- Digital talent gaps). Researcher has designed competency model to develop skills and knowledge, followed with conclusion, and references.

### LITERATURE REVIEW:

The idea of digital transformation started with IT projects. Emergence of World Wide Web opened new ways of communication and collaboration for businesses. Automation opens new growth opportunities. New technologies such as Social, Mobile, Analytics, Cloud and Internet of things (IoT) mark new evolutions. Professor Klaus Schwab (2016) in world economic forum meeting stated that fourth industrial revolution will be characterized by new technologies that will fuse digital and physical. Ester van (2017) Managers are prepared to succeed in current organizations but lack in the skills for future smart organizations. Digital transformations need technical, information, communication, collaboration, critical thinking and problem solving skills. Elements of digital skills defined in theories (claro et al., 2012). Technical skills maintain managerial competitiveness (Lemke 2002). To increase productivity automation replaced traditional manual processes of work (Fuchs 2010). The

COVID-19 pandemic is rapidly driving organizational change and prompting managers to consider future needs and opportunities (Mathew Beaverson 2020). COVID Pandemic track fast digital transformation in organizations (Bernard Marr 2020). COVID-19 has presented a new set of challenges to fight pandemic with digital transformation (G. Rabello 2020). Spread of technology led to adapt digital transformation. Developing economies were digitally detached; they have fewer employees with right digital skills (Federica S 2020). Employees need to be capable for adapting new skills required for job requirements (Chalita Srinuan 2004). Digital industries use data in all sectors managers must be able to organize data and create information. This creates knowledge and gives choices for managers on critical thinking with reasoning and reflections (Charles Araujo 2011). Creativity is related to new product, services and processes ideas for organizational success (Avril Loveless 2006). Current situations are uncertain in VUCA world; managers require problem solving skills with uncertain situations (Rausch 2016). Existing literature reviews focused on internet skills. There is a need to shift from technical to knowledge related skills (Ahmad Nabi et al., 2013). In digital environments information management includes information needs, select digital information in an efficient and effective way (Claro, 2009). Managers need the skills to evaluate value from information. They have to organize, store and easily retrieval the information. They need to distribute information across the digital devices (Song & Ling 2011). It is important that people in the organization should understand effectively communicate using email, social networking and instant messaging services (Lewin &

McNicol, 2015). Encourage people to share ideas and participate within organization and online forum (Lu & Lee, 2012). ICT is useful to share information and collaborate to make decisions across national boundaries (Wang, 2010). Employees need the skills to work on management systems and share the documents and projects at the same time (Lewin 2015). In today's knowledge society managers have to develop skills on collaborative platforms to share the information across the organization. Digital Transformation requires creativity including developing ideas. Web 2.0, 3.0 technologies enables organization to create online content. User created content creation becomes a common creative practice (Lessig, 2008). Managers have to formulate the problem online and find approaches to get the best solution and transfer knowledge to new situations (Barak, 2018). Critical thinking is important in digital economy as experts participate and resources are crafted for capabilities (Starkey, 2011). Managers have to filter the incoming information and extract valuable information (Dede, 2010). Digital skills are required for 21<sup>st</sup> century. Many organization face skill gaps as they start digital transformation. Researchers are working on how managers could develop these skills. One way to solve this problem is skill gap analysis. Skill gap analysis is a tool used to find the gap between current skills of traditional manufacturing and future skills

required for digital industries. This helps organization move forward with valuable insights for management team and entire workforce. This tool supports employees and organization to adapt change. The objective of literature review is to explore the managerial skills required for digital transformation. Study explore base to specify key factors like technological, creative, collaborative, critical thinking skills in digital transformation. Researcher has selected ideas of previous researcher to minimize bias. Researcher reviewed academic articles, research books to identify managerial skills for digital transformation.

#### RESEARCH METHODOLOGY:

In this exploratory research method researcher has designed Digital transformation skill metrics on the basis of Key performance indicators (KPIs). Well-defined KPIs are important in determining organizational digital transformation. It provides insights on what needs to measure and achieve successful digital transformation. Researcher has focused on problems of managerial skills required for digital transformation. Major intention is to develop and understand more about digital skills and change management skills. Data and analytics can be used to adapt change by understanding required skills. Researcher has identified key performance indicators and managerial skills required for digital transformations as:

**Table 1: Digital Transformation Skill Metrics**

Key Performance Indicators	Skill Measures
Customer Experience	Soft Skills, Empathy, Ethics, Communication and Collaboration
Agility	Growth Mind set, Change Management, Creativity
Data Analytics	System Integration, Critical Thinking Descriptive, Predictive and Prescriptive analytics
New Technology	Automation, IoT, Cloud Computing, AI and problem solving
Innovation	Digital Leadership, Design-Thinking, & Flexibility

Skill gap analysis tool assess the gap between current skills and future desired skills required to adapt digital transformation. Organizations identify managerial skills to perform certain tasks effectively with reference to digital strategy. This tool helps to find out which skills and knowledge are lacking within managers and which skills required for effective digital transformation. It gives insights on workforce. Hexaware technologies have adapted skill gap analysis method by assessing current skills with benchmark against industry standards. Once managers understood what improvements they have to make in their role it creates positive impact and overall productivity improvement. In this paper skill gap analysis is used to fulfil tasks required for digital transformation strategies.

Qualitative Method – It includes digital transformation strategy to achieve certain goals. Managers need to answer following questions:

- What are the major goals of digital transformation?
- What is a digital transformation strategy of organization?
- Which processes are likely to be automated?
- What are current trends of skills rising in your industrial sector?

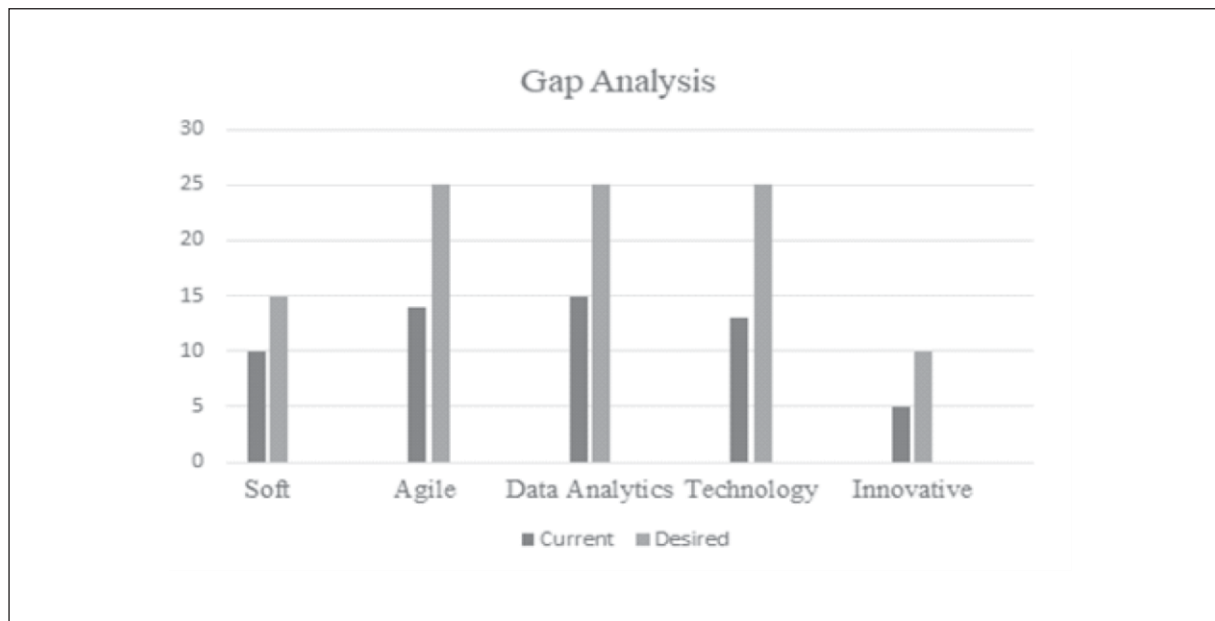
In this method data is collected on the basis of current skills and compared with desired skills to identify gaps to perform their jobs effectively. This can be done with assessments, surveys, performance feedback. The researcher has designed skill gap analysis template as below:

**Table 2: Digital Transformation Skill Metrics**

Skills	Current %	Desired %	Gap%
Soft	10	15	5
Agile	14	25	11
Data Analytics	15	25	10
Technology	13	25	12
Innovative	5	10	5

Skill gap analysis template measures current skills managers have and the skills required for successful change. This quantitative tool assesses current and future situation for

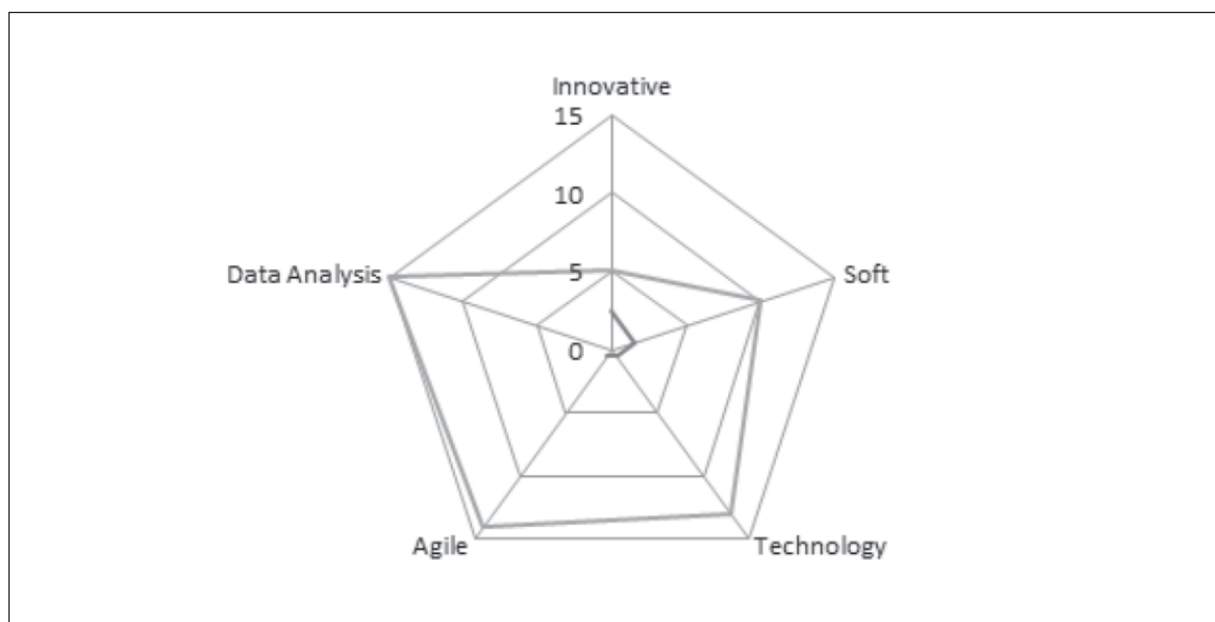
digital transformation. This helps company to get insights on strengths and weaknesses of managers.



**Figure 1: Skill Gap Analysis**

Company have managers with good data analytics skills and aware on agility and technology. Managers have to improve on

innovations and digital sifit skills (See figure3).



**Figure 2: Radar Chart**



Radar chart is a graphical method displaying multivariate data. It displays five variables presented on the axes starting from the same point as shown in figure 4. Organization can visualize managerial performance data based on key performance indicators to identify distinct correlations and comparative measures. Chart is useful to display multi skills observations with variables. It is easier to see patterns in the data and display performance metrics of on-going process. Charts display strengths and weaknesses. To close the gap organization can initiative to reskill managers by conducting professional events. Organization can hire new managers with required essential skills depends on the gap. Focus on managerial skills will take care of digital transformation process.

### Digital Transformation Competency Model:

Competency is capability and potential to deliver desired performance. To achieve digital transformation effective management of strategy, skills and knowledge is required. Competency is experience and self-development of manager. Gaining competencies manager can apply knowledge and skills in certain environment.

Digital transformation needs leadership, strategy, culture and framework. Researcher has designed A-B-C-D competency framework for digital transformation. Non-tech organizations can refer this model to bring digital change. Purpose of this competency model is to communicate skills required to improve the performance. Individual competencies are recognized in this model. It includes Awareness, Begin, Capacity development and Drive digital transformation.

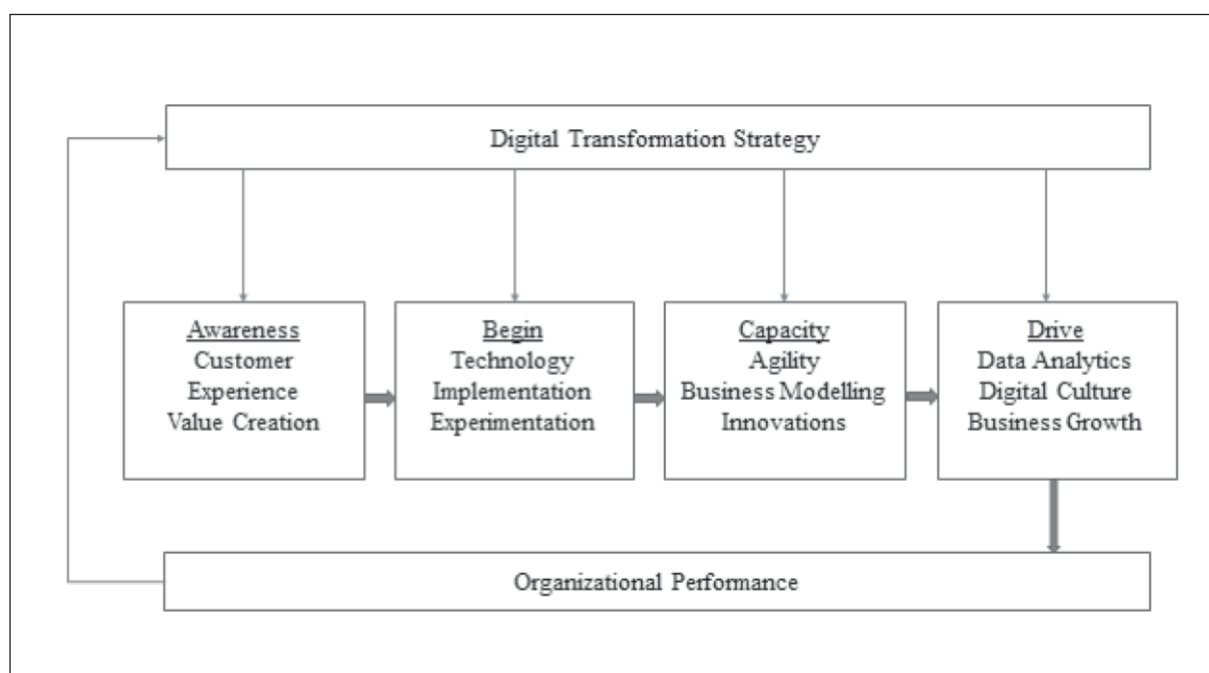


Figure 3: Competency Model (Conceptual)

### **Conceptual Model Explanation**

Top block of the model defines digital transformation strategy; organization has to create change strategy. Central blocks of model present four categories for the digital transformation. Managers have to develop competencies on awareness for digital transformation benefits to the employees. Second block direct manager to identify where organization should start digital transformation process. Organization can build capacity of digital transformation with agility, new business models and innovations. Data analytics and digital culture brings performance improvement of organization. Reverse arrow from organizational performance to digital transformation strategy informs organization to develop next strategy of improvement. This cycle can be repeated for continuous digital transformation improvement. Model can be tested with questionnaire see Appendix 1.

Digital transformation of an organization requires organizational change. Based on experts from Boston Consulting Group digital transformation needs culture and leadership that supports change. The focus should be on consumer experience. Managers should have forward looking approach on - How digital transformation will improve my business? How fast it will happen in my organization? What corrective actions to be needed to develop agility, digital culture to sustain tomorrow's digital world? Author has suggested simplified conceptual model focusing on managerial skills and competencies enabling them to adopt digital transformation for the organization.

### **Digital Transformation Challenges-**

Companies across all industries have started digital transformation to transform processes

in manufacturing and services. Transformation started changing business models and redefined professional skills for managers. As organizations started to begin digital transformation, they are facing challenges such as –

Companies are facing major challenge in digital transformation is to identify proper managerial skills and competencies. Digital transformation requires process change in business models to get desired results.

Digital strategy emphasizes on tools and operational performance improvements and provide value to the consumer. Technology supports to adapt agile, flexible and innovative practices. Use of Robots and 3 D manufacturing machines create objects with good quality and fewer inventories. Data and Analytics develop cost effective information processing to enable insights, decision making and automation.

Traditional organizational structure motivates for departmental objectives. This works in silos and creates inflexible workflows fails to improve efficiency.

### **CONCLUSION:**

21<sup>st</sup> century managers require new digital skills to successfully implement digital transformation of fourth industrial revolution. Soft skills, agile, data analytics, technology and innovations are major performance indicators for future digital industries. This research paper provides guidance to measure the managerial skills with skill gap analysis. Competency model set priorities and develop digital transformation of organization. Model is capable to identify set of competencies that are vital for organizational digital transformation. Structural framework of

model gives information on required skills. It verifies viewpoint on digital transformation skills and competencies relevant for strategy which is useful for organization to create value.

Digital knowledge and skills have become a professional necessity for 21<sup>st</sup> century. Day by day distinction between managerial levels is decreasing. Increasing use of robots, intelligent platforms at workplaces requires vocational, continuous learning and lifelong learning for managerial resourcing.

Disruptions will be new normal and success relies on managerial skills essential in tomorrow's smart industries. Growing open source platforms will reduce the cost in adaption. Future organizations require

collaboration with other organizations and professions. Right mind set, habits and innovations can help to create culture that views digital transformation as an opportunity.

Researcher has proposed digital transformation competency model. Industries can utilize to find skill gap for current managers and organize training programs to reskill managers. Institutes can initiate new skill development certificate programs to bridge the gap between industry and education to get right talent for future disruptive industries. Encourage students towards digital environment and adapt flexible practices during their managerial program. This will help them not to survive but flourish in the face of new change.

### Appendix 1

#### Skills and Competency assessment for Digital Transformation

Area of Focus	Questions	Answer
<b>Digital Awareness</b>	1. Organization have digital transformation strategy to create value	Yes/No
	2. Do Managers have clear understanding on digital transformation?	Yes/No
<b>Digital Capacity Building</b>	1. Organization have a process to identify where to begin digital transformation	Yes/No
	2. Organization have a process to periodically identify digital skills for managers	Yes/No
<b>Digital Capacity Building</b>	For Each Answer Give Score 1 = Strongly Disagree 3 = Neutral, 7= Strongly Agree 1. Digital transformation should point to create Awareness in the organization 2. Technology is key for digital transformation 3. Digital transformation should have automation and agility for continuous improvement 4. Digital transformation should focus new innovative ideas for new product, services and business models 5. Digital transformation should improve desired business performance	
<b>Drive Digital Transformation</b>	1. Organization have committed employees and managers for digital transformation	Yes/No
	2. Managers have current technological skills to success digital transformation	Yes/No
	3. Organization have innovating approach to digital transformation	Yes/No

## REFERENCES:

- Ahmad Nabi et al., (2013) Technical, non-technical and knowledge skills, IETEC conference 2011-2013
- Avril Loveless (2006) creativity new technologies and learning, creativity as essential life skill
- Bernard Marr (2020) COVID-19 is tracking fast digital transformation in companies Forbes
- Chalita Srinuan (2004) Understanding digital divide, Research gate
- Capgemini (2017) Digital talent gap, Developing skills for today's organization
- Charles Araujo (2011) why critical thinking is crucial for digital transformation, institute of digital transformation.
- Cheryl Martine et al., (2018) World Economic Forum digital transformation initiative with Accenture
- Claro et al., (2012) Elements of digital transformation skills
- Clint Boulton (2020) what is digital transformation? A necessary disruption CIO.com
- Dede C. (2010) Comparing frameworks for 21st century skills
- Ester van et al., (2017) a systematic literature review 21<sup>st</sup> century digital skill, Science direct volume 72
- Federica S & Asif M (2020) How to harness digital transformation in the COID era Harvard Business Review
- G. Rabello (2020) Digital Transformation and innovation in times of COVID 19 Elsevier webinar June 2020
- George Westerman (2018) How to set up for digital transformation success, the enterprise project
- George Westerman et al., (2014) Leading Digital Turning technology into business transformation Harvard Business Review Press
- Jordan, J., Joshi, A.M., Wade, (2018). Digital Disruption and Transformation: What Executives Need to Know?
- Lemke, C. (2002). 21st century skills: Digital literacies for a digital age. North Central Regional Educational Laboratory
- Lewin & McNichol (2015) supporting the development of 21<sup>st</sup> century skills through ICT, Manchester University UK
- Louise Starkey (2011) Evaluating learning in 21<sup>st</sup> century, A digital age learning matrix
- Lu & Lee (2012) Impact of technology on social behaviour
- Klaus Schwab (2016) Fourth Industrial revolution what it means and how to respond
- Mathew Beaverson (2020) How COVID-19 has accelerated digital transformation in healthcare
- Miri Barak (2018) examine flexible thinking and resistance to change, computers and education Elsevier

Muhammad Raza (2020) Digital Transformation metrics and KPIs for measuring success, Business of IT blog

Patrick Forth et al., (2020) flipping the odds of digital transformation success BCG publications.

Raush & Wuttke(2016) the computer-based assessment of problem-solving competency

Rosabeth Moss Canter (2012) people resist change Harvard Business Review change management

Saul J. Berman (2010) Digital Transformation

opportunities to create new business models Emerald publication

Skill Gap Analysis (2020) template to prepare future work sales force blog

Song & Ling (2011) strategies in information management, International journal of human computer interaction vol-27

Uday Salunkhe (2020) skills for Gen Z to fit into the future workforce, Forbes India

UNESCO fighting digital innovation and transformation

## Core valueS

**1. Passion:**

The soul of Welingkar blossoms in our heart, mind and body.

**2. Breakthrough Thinking:**

We foster academic rigour in an environment conducive to innovation.

**3. Result oriented, Process driven Work Ethic:**

We adopt dynamic quality processes to ensure accountability and exceptional performances.

**4. We Link and Care:**

We support and collaborate with all our stakeholders through mutual trust and respect.



## Quality policY

We are committed to give our students Quality Management Education in tune with the changing needs of business and industry.

We shall endeavor to do this by:

- Providing the best learning resources.
- Making the environment conducive for students to develop their creativity, Leadership skills and ability to learn continuously.

We shall follow a data oriented factual approach to Quality Management leading to continual improvement of our processes culminating in total customer satisfaction.





S.P. Mandali's Prin. L. N. Welingkar Institute of  
Management Development & Research  
Lakhamshi Napoo Road, Near Matunga (Central Rly.),  
Mumbai - 400 019. Maharashtra, India.  
Tel.: +91-22-2419 8300 Extn.: 8370 / 8294  
Email : [aweshkar.journal@welingkarmail.org](mailto:aweshkar.journal@welingkarmail.org).  
Website : [www.welingkar.org](http://www.welingkar.org)