

University Grants Commission (UGC) Approved International Research Journal

## JAMSHEDPUR RESEARCH REVIEW

Multi-Disciplinary English Bimonthly

ISSN: 2320-2750

UGC JOURNAL No.45297

Postal Registration No.-G/SBM-49/2016-18

- Dateline: December 2017 - January 2018
- Year V: Volume VI: Issue XXV
- Place: Jamshedpur
- Language: English
- Periodicity: Bimonthly
- Price: Rs.150
- No. of Pages:(Incl. Cover page):146
- Nationality of the editor: Indian
- Editor: Mithilesh Kumar Choubey
- Owner: Gyanjyoti Educational and Research Foundation (Trust), 62, Block No.-3, Shastrinagar, Kadma, Jamshedpur, Jharkhand, Pin-831005.
- Publisher: Mithilesh Kumar Choubey  
Nationality of the Publisher: Indian
- Printer: Mithilesh Kumar Choubey
- Nationality of the Publisher: Indian
- Printing Press: Gyanjyoti printing press, Gyanjyoti Educational and Research Foundation (Trust), 62, Block No.-3, Shastrinagar, Kadma, Jamshedpur, Jharkhand, Pin-831005.

**Declaration:** Owner of Jamshedpur Research Review, English Quarterly is Gyanjyoti Educational and Research Foundation (Trust), 62, Block No 3, Shastrinagar, Kadma, Jamshedpur, Jharkhand, Pin -831005, and published and printed by Mithilesh Kumar Choubey and printed at Gyanjyoti Printing Press, Gyanjyoti Educational and Research Foundation, 62, Block No.-3, Shastrinagar, Kadma, Jamshedpur, Jharkhand, Pin-831005, and published at Gyanjyoti Educational and Research Foundation(Trust), 62, Block No.-3, Shastrinagar, Kadma, Jamshedpur, Jharkhand, Pin-831005, and editor is Mithilesh Kumar Choubey



Visit us online

[www.jamshedpurresearchreview.com](http://www.jamshedpurresearchreview.com)

© 2017 Jamshedpur Research Review

No part of this publication can be reproduced in any form or by any means without the prior permission of the publishers

- *Jamshedpur Research Review is a registered open market Research Journal, registered with Registrar, Newspapers in India, Ministry of Information and Broadcasting, Govt of India.*
- *Matters related to research paper such as selection/acceptance/rejection etc. are decided by editorial board on the basis of recommendations of paper review committee. In this regard final decision making body will be the Editor-in -Chief that will be binding to all.*
- *The views expressed in the articles are those of individual authors, Editors/publisher do not take any responsibility for issues related to intellectual property rights or other matters.*
- *Jamshedpur Research Review will come under jurisdiction of Jamshedpur Court only. All the disputes related to Jamshedpur Research Review will come under jurisdiction of Jamshedpur Court only.*



[editorjrr@gmail.com](mailto:editorjrr@gmail.com)

A Publication of

GYAN JYOTI EDUCATIONAL AND RESEARCH  
FOUNDATION (TRUST)

JAMSHEDPUR, JHRKHAND

Ph:09334077378

# EDITORIAL BOARD

## EDITOR –IN –CHIEF

**Dr. Mithilesh Kr Choubey**

## MEMBERS OF THE EDITORIAL BOARD

### **Dr. Shukla Mahanty**

Vice- Chancellor, Kolhan University, Chaibasa, West Singhbhum, Jharkhand, India

### **Dr. P.Venugopal**

Senior Professor, XLRI, Jamshedpur

### **Dr. Neha Tiwari**

Prof –in-Charge, Dept of Mass Communication & video Production, Karim City College, Jamshedpur, Jharkhand

### **Prof. Vijay Bahadur Singh**

Dept. of Commerce, Ranchi University, Ranchi, Jharkhand

### **Dr. Vijay Kumar 'Piyus'**

Dept Of Hindi, Jamshedpur Co-operative College, Jamshedpur

### **Prof. Sudeep Kumar**

Xavier institute of Social Services (XISS), Ranchi, Jharkhand

## NATIONAL AND INTERNATIONAL REFEREE

### **Dr. Sanjiv Chaturvedi**

Dpty Director, Dept. of Higher Education Govt. of Jharkhand

### **Dr. Raksha Singh**

Principal, Sri Sankaracharya Mahavidhyalya, Bhilai, Chattisgarh

## COPY EDITOR

### **Dr. Sanjive Kumar Singh**

Dept of Commerce, Jamshedpur Co-operative College, Jamshepur

## GRAPHICS AND CREATIVE ART EDITOR

### **Mr. Krishna Kumar Choubey**

Director, Shaswat Infotech, Jamshedpur

## Paper Reviewers

### **Dr. P.K Pani**

Examination Controller, Kolhan University, Jharkhand

### **Dr. Swati Chakraborty**

Royal Thimphu College, Bhutan

### **Dr. Prakash Chand**

Dept of Political Science, Dayal Singh (Ev) College, Delhi University

### **Dr. Kh.Tomba Singh**

Professor, Department of Commerce, Manipur University

### **Dr. Ajay Prasad**

Assistant Professor, MGM Medical College, Jamshedpur.

### **Dr Abhay Kr Pandey**

D.K College, Dumraon, Buxar, Bihar

### **Dr.Manisha Kumari**

IMS, Ranchi University, Ranchi, Jharkhand

### **Dr. K.M Mahato**

Dept. of Commerce, Jamshedpur Co-operative College, Kolhan University, Jamshedpur. Jharkhand

### **Dr. Kamini Kumari**

Dept of Commerce, Jamshedpur Women's College, Jamshedpur, Jharkhand

### **Dr. Subhabrata Chakrabarti**

Department of Economics  
Kharagpur College.W.Bengal

### **Dr. Hanuman Sharma**

University Dept of Botany, Ranchi University, Ranchi, Jharkhand

### **Dr. S.K Pandey**

Asst. Professor, Dept of Commerce, J.S College, Daltonganj, Jharkhand

# Editorial

The Development agenda essentially aims to end all forms of poverty. And, it calls for action by everyone in the country to promote prosperity while protecting the planet. It is recognized that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection. Reflecting the spirit and the changed dynamics of the new India, the institutions of governance and policy have to adapt to new challenges and must be built on the founding principles of the Constitution of India, the wealth of knowledge from our civilizational history and the present-day socio-cultural-economic contexts. The aspirations of India and its citizens require institutional reforms in governance and dynamic policy shifts that can seed and nurture unprecedented change.

Our demographic dividend has to be leveraged fruitfully over the next few decades. The potential of our youth has to be realized through education, skill development, elimination of gender bias, and employment. We have to strive to provide our youth productive opportunities to work on the frontiers of science, technology and knowledge economy.

The role of the government in achieving 'national objectives' may change with time, but it will always remain significant. Governments need to continue to set policies that anticipate and reflect the country's requirements and execute them in a just manner for the benefit of the citizens. The continuing integration with the world politically and economically has to be incorporated into policy making as well as functioning of the government. In essence, effective governance in India will rest on following 'pillars':

- Pro-people agenda that fulfils the aspirations of the society as well as individual,
- Pro-active in anticipating and responding to their needs,
- Participative, by involvement of citizenry,
- Inclusion of all groups,
- Equality of opportunity to our country's youth,
- Sustainable development, by protecting environment, and
- Transparency that uses technology to make government visible and responsive.

Improving technology governance, developing infrastructure, harnessing the young population and ensuring the benefits of development are evenly distributed between urban and rural areas, as well as different states, are the key to achieving India's ambitious growth goals going forward. In our 25<sup>th</sup> issue of Jamshedpur Research review, 14 outstanding articles are presented to address the development agenda of India. We are optimistic that these research articles will be insightful or our readers. Your feedbacks on these articles will be of great help for us for further improvement of the magazine and selection of research papers for incoming issues

*With New Year Wishes.....*

Yours faithfully



Dr. M.K Choubey

Date: December 1 2017



RNI: JHAENG/2013/53159  
ISSN: 2320-2750  
UGC Journal No.45297

# Jamshedpur Research Review

UGC approved Peer Reviewed Multi-Disciplinary Bi-Monthly International Research Journal



Jamshedpur Research Review  
UGC approved journal 45297  
Year 5, Volume 6: Issue 25, December 2017-January 2018

Title/Author	Page Nos.
<b>A DATA ANALYTICS APPROACH FOR BLOOD DONATIONS</b> Kavita Pabreja, Ph.D., Associate Professor, Head of Department of Computer Science, Maharaja Surajmal Institute, New Delhi-110058 Akanksha Bhasin, Maharaja Surajmal Institute, New Delhi-110058	07-13
<b>STRATEGIC DEBT RESTRUCTURING: WILL IT PATCH THE CRACKS IN INDIAN BANKING SYSTEM MADE BY LARGE CORPORATE DEFAULTERS?</b> Bharat Kumar Meher, Research Scholar, Department of Commerce, Dr. Hari Singh Gour Central University, Sagar, Madhyapradesh	14-21
<b>A STUDY ON PERCEPTION OF COMMUTERS TOWARDS SERVICES AND AMENITIES IN LOCAL TRAINS WITH REFERENCE TO MUMBAI SUBURBAN RAILWAYS- INDIA</b> Dr. Pramila S Patil, Department of Commerce, S.N.D.T. Women's University, Pune, India.	22-27
<b>A STUDY ON HEALTH INSURANCE – CHALLENGES AND OPPORTUNITIES</b> Dr. M. Ramachandar Gowda, Professor, Department of commerce, Bangalore University, Bengaluru, India. Leelavathi N, Research scholar, Department of commerce, Bangalore University, Bengaluru, India.	28-36
<b>AGRARIAN DISTRESS IN ANDHRA PRADESH</b> Dr. N.Subba Rao, Department of Economics, Andhra University, Visakhapatnam	37-40
<b>CHANGING SCENARIO OF TRIBAL LIVING IN GLOBALISED ERA: AN INDIAN PERSPECTIVE</b> Bishnuprasad Mohapatra, Research Scholar, Department of Sociology, Utakli University, Bhubaneswar Odisha	41-49

<p><b>IMPACT OF LEVERAGE ON FINANCING PATTERN OF CORPORATE SECTOR IN INDIA –A COMPARATIVE STUDY OF PUBLIC SECTOR COMPANIES DURING PRE AND POST LIBERALIZATION</b>  <b>Baljinder Singh</b>, Assistant Professor, Department of commerce, Pbi . Uni.TPD. Malwa College RampuraPhul.  <b>Dr.Amandeep Singh</b>, Associate Professor, University School of Business Study, Punjabi University Guru Kashi Campus Talwandi Sabo</p>	50-60
<p><b>CORPORATE SUSTAINABILITY REPORTING: A STUDY OF SOCIAL SUSTAINABILITY ASPECT BY SELECTED INDIAN CORPORATIONS</b>  <b>Ritu Mittal</b>, Assistant Prof. in Economics, Panjab University Constituent College, Nihal Singh Wala, Moga  <b>Monika Chaudhary</b>, Assistant Prof. in Commerce, Panjab University Constituent College, Nihal Singh Wala, Moga  <b>Rajni Bhalla</b>, Assistant Prof. in Commerce, Panjab University Constituent College, Nihal Singh Wala. Moga</p>	61-72
<p><b>INSTITUTIONAL FINANCE: AN ACHILLES HEEL TO AGRICULTURAL SECTOR</b>  <b>Sibanarayan Mishra</b>, PhD research scholar, Dept of A&amp;A Economics, Utkal University, vanivihar, Odisha</p>	73-80
<p><b>LOOK EAST TO LOOK ACT: 25 YEARS OF INDIA’S SOUTH EAST ASIAN DIPLOMACY</b>  <b>Murari Singh</b>, Research Scholar, Centre for West Asian Studies, Jamia Millia Islamia, New Delhi</p>	81-92
<p><b>FACTOR INFLUENCING SUCCESS OF WOMEN E-ENTREPRENEURSHIP: AN EMPIRICAL STUDY OF NORTHERN INDIA</b>  <b>Meenakshi Atri</b>, Assistant professor, Punjab University Constituent College, Moga  <b>Dr Harvinder Singh Mand</b>, Assistant Professor, University College, Dhuri</p>	93-108
<p><b>PERFORMANCE OF MICRO ENTERPRISE RUN BY SHGs IN WEST BENGAL</b>  <b>Dr. Swapan Kumar Barman</b>, Assistant Professor, Department of Commerce (UG &amp; PG), Prabhat Kumar College, Contai, Purba Medinipur. West Bengal</p>	109-115
<p><b>SOCIAL REPORTING PRACTICES OF SELECT BANKS</b>  <b>Chanpreet Kaur</b>, Research scholar, Department of commerce, Delhi School of Economics, University of Delhi  <b>Dr. Ritu Sapra</b>, Associate Professor, Department Of Commerce, Delhi School Of Economics, University Of Delhi</p>	116-130
<p><b>FACTORS AFFECTING TO ESTABLISHMENT OF A PPP PROJECT IN HEALTHCARE SECTOR IN WEST BENGAL: AN EMPIRICAL STUDY</b>  <b>Mrinal Maity</b>, search Scholar, Vidyasagar University, Paschim Medinipur, West Bengal</p>	131-141



RNI: JHAENG/2013/53159  
ISSN: 2320-2750  
UGC Journal No.45297

# Jamshedpur Research Review

UGC approved Peer Reviewed Multi-Disciplinary Bi-Monthly International Research Journal

Jamshedpur Research Review is an UGC approved multi-disciplinary, peer reviewed internationally referred English Bimonthly Journal. Registered with RNI, Ministry of Information and Broadcasting, Govt of India (RNI: JHA/ENG/2013/53159 with ISSN. 2320-2750, published four times in a year from Jamshedpur city of Jharkhand. Publication months are: February, April, June, August, October, and December. Its annual issue is published in the month of January every year. JRR is published by Gyanjyoti Educational and Research Foundation, Jamshedpur-831005 with an objective to develop empirical research oriented mindset among young research scholars, academicians, NGOs, small entrepreneurs, and social activists and to provide them a forum for the presentation through showcasing their outstanding research works. JRR is devoted and dedicated to the advancement of basic and applied field in all disciplines of research and education in the state of Jharkhand and all over the country. It is multidisciplinary in nature because it aims to bring all the scientific researches together irrespective of research areas and integrate diversified fields of knowledge and research for socio-economic development of the county in general and Jharkhand in particular.

## PAPER SUBMISSION DATES

ISSUES	LAST DATE FOR THE PAPER SUBMISSION	MONTH OF PUBLICIAION
Annual Issue		
First Bimonthly	15 January	FEBRUARY
Second Bimonthly	15 March	APRIL
Third Bimonthly	15 May	JUNE
Fourth Bimonthly	15 July	AUGUST
Fifth bimonthly	15 Sept	OCTOBER
Sixth Bimonthly	15 November	DECEMBER
ANNAUAL ISSUE	JANUARY	

## IMPORTANT INFORMATION FOR THE AUTHORS:

- ▶▶ Mail your paper to the editor at: editorjrr@gmail.com.
- ▶▶ For any kind of detail information regarding the publication, subscription etc. write to editorjrr@gmail.com.
- ▶▶ Enquiry phone numbers are: 09334077378 and 08987872050.
- ▶▶ For more details log on to [www.jamshedpurresearchreview.com](http://www.jamshedpurresearchreview.com).
- ▶▶ List of shortlisted papers is available on [www.jamshedpurresearchreview.blogspot.com](http://www.jamshedpurresearchreview.blogspot.com).
- ▶▶ Authors can submit their paper anytime in a year.
- ▶▶ Our review and publication process takes 90 days.

## **A DATA ANALYTICS APPROACH FOR BLOOD DONATIONS**

**Kavita Pabreja**

Ph.D., Associate Professor, Head of Department of Computer Science, Maharaja Surajmal Institute, New Delhi-110058

**Akanksha Bhasin**

Maharaja Surajmal Institute, New Delhi-110058

---

### **Abstract**

Blood forms the most essential constitute of every living being. Nowadays, various ailments that turn out to people require blood in some or the other form. Hence, considering blood as a significant necessity, this research work has been carried out that creates an understanding amongst people for the need to donate blood. The data for the research work has been collected from the persons of various age groups, primarily the youth, so as to understand their viewpoint on blood donation in addition to inculcating the deem of blood donation amidst them i.e. encouraging voluntary blood donations . Principally, the data analytics approach has been applied for perceiving the notion of people and then suggesting the possible methods to aid blood banks in managing and promoting campaigns for blood donations.

**Keywords: Blood donors, blood receptor, data analytics, diseases, religion.**

---

### **Introduction**

Blood has constantly been in great demand from the days gone by, but currently, as the population is escalating, the ratio of road accidents, diseases, and medical surgeries are also intensifying. Hence, the blood donors are very important since blood cannot be manufactured artificially. Blood donation and its transfusion service is undeniably an indispensable element of medicine and healthcare sectors. As explained by the author in <sup>1</sup>, it is a series of interdependent operations that consists of donor registration, donors' health evaluation, donors availability information, blood collection, blood screening, supply when needed, inventory management, and proper dissemination of blood.

These days information and computer technology have gained more importance in medical and healthcare sectors because it requires efficient utilization of Computer Technology to database systems as elucidated by the author in<sup>2</sup> While the medical information and healthcare sectors' repositories data is

complex, it explores the usage of data mining field. For gaining useful and important knowledge of large health-related data from blood banks, data analytics and data mining are considerably important fields.

The mechanization of our society has substantively enhanced our capabilities for both generating and collecting data from miscellaneous sources. A tremendous amount of data has swamped in practically every facet of our lives. This explosive growth in stored or transient data has spawned an exigent need for the new techniques and computerized tools that can assist us in intelligently and perceptively transforming the vast amounts of data into useful information which has led to the origination of a potential and burgeoning frontier in computer science called data mining. Data Mining, as an accurately interdisciplinary subject, refers to the computational process of uncovering new sequences and patterns in large data sets involving routines at the intersection of database technology, machine learning, informational sciences and artificial intelligence. A lot of literature has been

reviewed in the field of data mining and data analytics for blood donations.

Santhanam and Sundaram<sup>3</sup> analysed Classification and Regression Tree (CART) based model along with the extended definition for identifying regular voluntary donors that provided a good classification accuracy based model. Masser et al<sup>4</sup> have designed a framework that facilitates determining the predictors of the intentions and behaviour of established blood donors. Ferguson and Chandler<sup>5</sup> have applied qualitative studies to demonstrate that blood donors describe their behaviour using TransTheoretical Model (TTM). In a study by The government of India<sup>6</sup> through the National AIDS Control Organization, a detailed Voluntary Blood Donation Programme has been developed which provides an operational guideline and some valuable information into the foundation of blood donor ship. Mohamed Mostafa<sup>7</sup> used neural networks to examine the effect of various demographic, cognitive and psychographic factors on blood donation in Egypt. The author used variables such as sex, age, educational level, altruistic values, perceived risks of blood donation, blood donation knowledge, attitudes toward blood donation and intention to donate blood. Chaudhary and Hegadi (2009)<sup>8</sup> discussed specific overall governance and controls that have been developed in the area of blood transfusion services in India.

Data analytics has also been extensively applied in the field of blood donations. The technique examines large amounts of data to uncover hidden patterns, correlations and other insights. Data analytics principally refers to a collection of applications, from basic business intelligence (BI), reporting and online analytical processing (OLAP) to various forms of advanced analytics. With the growth in technology, it's possible to analyze the data and get answers from it almost immediately.

Data analytics for blood donors has rarely been applied in past.<sup>9</sup> Individuals ages 18-36 were approached to participate in the study during their blood donation appointment by completing a questionnaire, available as google form<sup>10</sup> and it has been observed that the

identification of optimal time intervals and total number of donations at which donors are more likely to return may allow for more strategic scheduling of blood drives, increasing the likelihood of a donor returning while also increasing the total number of donations for that individual. The authors<sup>11</sup> have identified the relationship among donor's age, gender, blood type and frequency of donation, the relationship between donation frequencies and distance from the donation centre, the characteristic of different donation centre, and the trend of blood donation. Hence the best location for establishing a new blood donation centre has been identified. In a similar study<sup>12</sup>, reasons for rejection of volunteer blood donors were studied. The most common reason of such rejection was history of jaundice. Other reasons were anaemia, hypertension, heart disease, etc. Based on various inputs acquired from literature review, this research work has been conducted on primary data collected from youth in Delhi state of Indian region. The paper uses the approach of data analytics, data mining and modelling techniques to examine the blood donor classification. The primary goal of this research is to ascertain various blood donation patterns on the basis of voluntary blood donor ship. The study discusses the comparison of donor ship models and the assessment provides an insight into donor classification development that enables blood banks to govern the kinds of donor profiles and administer blood donor ship activities like recruitments and campaigns for blood donations.

### **Data collection**

A survey was conducted across various colleges of Guru Gobind Singh Indraprastha University, New Delhi. The data was gathered using Google Forms (see Appendix) from the students studying in various Under Graduate courses. Data was collected from approximately 500 respondents. The survey included 17 questions and responses were on Likert scale in which participants were asked to select the choice that suited them the most.

**Technique used**

The analysis has been done using the R-Studio tool and the Data Analytics approach with the help of which various pie charts, bar graphs, box plots etc. have been generated. R is a comprehensive statistical and graphical programming language.

All over the world, incredible number of analysts and data researchers use R programming to cater their most problematic issues in fields running from computational science to extensive marketing<sup>13</sup>. R programming has been turned into probably the most prevalent language for data science and a fundamental tool for Finance and analytically driven organizations such as Google, Facebook, and LinkedIn. It has brought revolutionary modifications in Big Data Analytics and other facets of data science and analysis.

Besides the presence of various open-source tools like Statistical Analysis Software (SAS) and Python, R is still preferred as a professional tool for big data analysis. According to the survey conducted by Burtch Works Executives recruiting in the year 2016, open source tools has been steadily climbing over the past three years, with 61.3% of respondents in 2016 choosing R or Python, and 38.6% choosing SAS.

**RESULTS AND DISCUSSIONS**

The survey was conducted broadly for the people age group of 16-25 years using Google forms. Focus of the survey was to understand following characteristics and viewpoints of the youth.

- i. Blood group with Rh factor.
- ii. Diseases among population surveyed.
- iii. Concern of youth to become a donor and to explore how many of them are regular donors.
- iv. Independent decision making about blood donation among youth.
- v. Reasons for reluctance in donating and accepting blood among different religious groups.

- vi. Willingness of people to accept or donate blood considering religion as Hindu only.
- vii. Frequency of blood donations by donors.

The results show that the maximum percentage of people have Rh+ blood group where in B+ is the most frequently occurring blood group i.e. 47% of people have B+ blood groups as shown in Figure1. Furthermore, population of Rh- blood groups is very less, specifically, the AB- and O- groups which are very scarce i.e. only 1.1% of people possess these blood groups followed by A-. It is a noteworthy point that blood donations by people belonging to these blood groups should be encouraged to donate blood as already these groups are rarely available hence their availability should be increased.

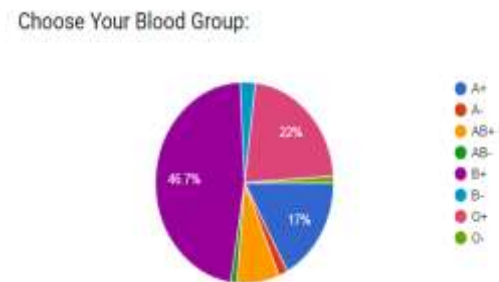


Figure 1: Blood groups of surveyed people

Correspondingly, from the list of various blood related diseases Low Blood Pressure is the most commonly occurring disease in which nearly 10.1% of the population suffers from it followed by Anaemia, which is again a highly prominent disease that occurs in females of the specified age group as depicted in Figure 2. It is also advisable that by taking iron-rich diet, the blood levels can easily be replenished up to the levels of a normal human being.

Are you suffering from any disease?



Figure 2 : Diseases from which respondents are suffering

The survey also shows that approximately 82.1% of the population is considerate for the need to donate blood, out of which 67.9% are existing donors. Now the main task for the blood banks is to retain these donors. In India during the year 2006-2007, voluntary blood donations formed only about 55% of the present population which increased to nearly 80% during the year 2010-2011. Therefore, the primary concern is to increase the number of youth donors specifically in the age group of 20-30 because of their willingness to work for the elevation of society as well as for their dynamic, healthy and active personality. Approximately, 57.1% of the respondents believe that they don't require their parents' permission to donate blood as shown in Figure 3. It can be interpreted that the youngsters are willing to donate blood with their own will and do not require permissions from their parents for donating blood which shows the increased participation of youth generation.

Would you need to take permission of your parents to become a blood donor?



Figure 3: Willingness to donate blood independent of permission from parents

The inclination of the people for donating blood can be seen from the fact that nearly 43% of the

respondents were definitely sure for donating blood as illustrated in Figure 4, while 21.3% would like to donate, if asked, along with considering other factors depending upon the individual. Also, 7.3% were reluctant in donating blood because of their health issues or some were afraid from needles and other factors. Moreover, Figure 5 shows, existing blood donors already want to continue their habit of donation while the other people might change their thoughts depending upon the factors such as:

- i) Knowing who would receive their blood or,
- ii) Being paid for it,
- iii) Knowing someone who did it such as their family members or friends etc.

Would you like to become a blood donor?

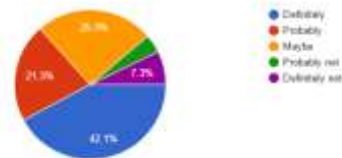


Figure 4: Inclination of people to become blood donor

What would change your mind about becoming a blood donor?



Figure 5: Factors affecting decision to donate blood

Also, the survey results show that people refrain from blood transfusions. Approximately, 55% of the people are confused about receiving blood from others as illustrated in Figure 6. Out of this nearly, 13% are completely against blood transfusions. This is mainly due to following reasons as explained by the authors.<sup>14</sup>

- 1) People believe that medical treatments and operations are very exorbitant.
- 2) Belief that religious doctrines forbid them for donating and accepting blood.
- 3) Increased risk of diseases and infections.
- 4) Fear of ABO incompatibility and the aftermaths of it.

According to Christian culture, Jehovah witnesses believe that it is prohibited for them to donate or accept blood. They believe in blood-less treatment and rely on the fact that “faith” can cure any kind of illness as exemplified in <sup>15</sup>. Such myths not only affect an individual’s life rather it puts the entire community into trouble. Hence, changing their viewpoints is a critical situation that needs to be taken care of. Out of this, one technique is to perform complicated surgeries without using blood. Such replacements not only require less blood usage but also are beneficial for people who desist blood transfusions specially the Jehovah’s witnesses.

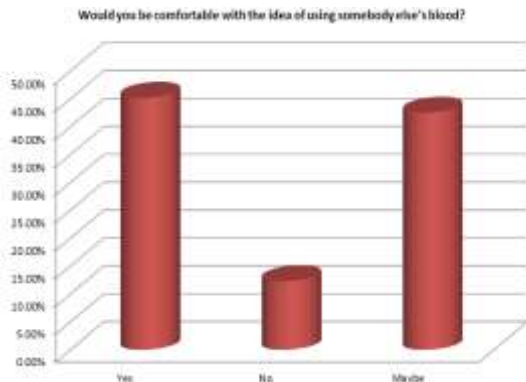


Figure 6: Comfort-ability with the idea of using someone else’s blood

Figure 7 depicts that considering “Hindu” as the religion, people belonging to various blood groups are willing to donate blood but hold back the thought of blood transfusions. Though a relatively high percentage of people are reluctant for accepting blood but at crucial situations they are agreeable.

The following graph depicts the willingness of people to accept and donate the blood based upon their blood group, taking Religion as 'Hindu.'

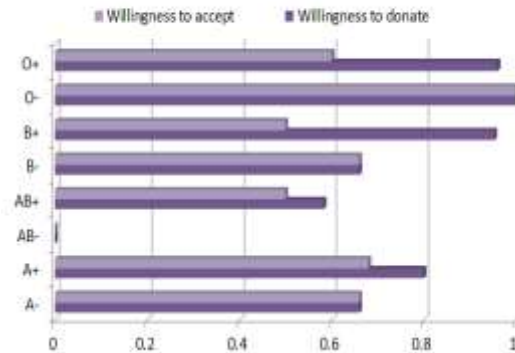


Figure 7: Willingness of people to accept or donate blood based upon their blood group, taking religion as Hindu only. Furthermore, Figure 8 shows that 39% of the people donated blood more than a year ago. This means that the frequency of blood donation drives should be increased so that maximum participation can be ensured. Plus, the blood banks should maintain a list of all the donors and award them with suitable rewards so that their consistency can be maintained.

When was the last time you donated blood ?

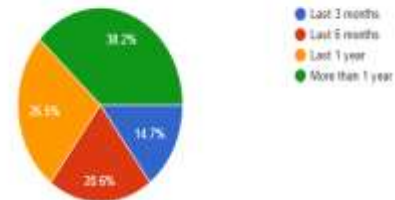


Figure 8: Frequency of blood donations

### CONCLUSION AND FUTURE SCOPE

Despite the brisk and notable expansions in the fields of medical sciences today, lack of the ability to produce blood synthetically, has led to only one way of accruing it at safe storage to meet emergency necessities i.e. through donation, that too, voluntary donations. Hence, voluntary donations form the major prospect for blood donations. This study showed a deep insight into various dynamics related to blood

donations. The views of youth on voluntary blood donations, concern about those in need of blood, willingness of youth for donating and accepting blood from other religion persons, frequency of blood donations by a person, has been explored. The contribution of the study lies in the fact that effective donor recruitment can be done so as to form a network of peer motivators from various colleges/ educational institutes/local clubs/NGOs blood donors/ Non-Government Organizations (NGOs). They can focus on the educational institutes and target the identified groups so as to meet the ever increasing demand for blood. They can educate and motivate the youth on getting away with various myths related to blood donations be it religious doctrine or phobia of needles or fear of catching some disease. The regular blood donors can also be identified and others can be inspired to be blood donors. This study can be further extended to apply Data Mining tools to classify donors based on age, blood group, interests, locations, etc. To ease the job of blood bank to fulfil their requirements as contributing blood means giving life to someone and is the best gift that can be given.

## References

1. T. Santhanam and Shyam Sundaram "A Comparison of Blood Donor Classification Data Mining Models" *Journal of Theoretical and Applied Information and Technology* ISSN: 1992-8645 © 2005 - 2011 JATIT & LLS
2. D. Nethrika and Swati S. Deshmukh "To improve Blood Donation Process using Data Mining Techniques" *International Journal of Innovative Research in Computer and Communication Engineering*, ISSN 2320-9798 DOI: 10.15680/ijrcce.2015.0305166
3. T. Santhanam and Shyam Sundaram "Application of CART Algorithm in Blood Donors Classification" *Journal of Computer Science* 6 (5): 548-552, 2010 ISSN 1549-3636, pp.01-05 © 2010 Science Publications
4. Masser, M.B., White, M. Katherine, Hyde and K. Melissa et al., 2009. "Predicting blood donation intentions and behavior among Australian blood donors: Testing an extended theory of planned Behavior model" *Transfusion*, 49: 320-329. DOI: 10.1111/j.1537-2995.2008.01981.x
5. Ferguson, E. and S. Chandler, 2005. "A stage model of blood donor behavior: Assessing volunteer behaviors. *Health Psychol.*, 10: 359-372. DOI: 10.1177/1359105305051423
6. Government of India, 2007. "Voluntary blood donation programme" <http://www.nacoonline.org/upload/Financial%20Publications/Blood%20Safety/voluntary%20blood%20donation.pdf>
7. Mohamed Mostafa, M., 2009." Profiling blood donors in Egypt: A neural network analysis" *Expert Syst. Appl.*, 36: 5031-5038. DOI: 10.1016/j.eswa.2008.06.048
8. Devchand Chaudhari & Dr. Ravindra S. Hegadi" *Data Mining in Blood Platelets Transfusion Using Classification Rule.*" pp:1-8
9. S D Med. 2015 Apr;68(4):149-55. Analysis of blood donor motivations. Paulson N, Travers H. <https://www.ncbi.nlm.nih.gov/pubmed/25946893>
10. Survey Form Link: <https://goo.gl/forms/OwYRAVkmTlf9w0z>
11. Data Analysis for Healthcare: A Case Study in Blood Donation Centre Analysis Michael Chau , Cheuk-Kwong Lee, Chi Wai Chan, Eddie Cheng School of Business The University of Hong Kong, Americas conference on Information Systems (AMCIS), 2010 <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1249&context=amcis2010>
12. A study on analysis of blood donation deferral during blood donation camp at

tertiary-care teaching hospital in south Gujarat region Amit Shah , Prarthana Joshi , Grishama B Aghera , Kamlesh J Shah. International Journal of Medical Science and Public Health | 2016 | Vol 5 | Issue 05, pp 894-897

<http://www.ejmanager.com/mnstemps/67/67-1452231547.pdf>

13. Comparison of R, SAS and Python programming languages, available from:

<https://www.analyticsvidhya.com/blog/2014/03/sas-vs-vs-python-tool-learn/>

14. PharmaKnow.com, “12 reasons to avoid blood transfusions”

<http://pharmaknow.com/12-reasons-to-avoid-blood-transfusion/>

15. Jehova’s witnesses, JW.org, “Why don’t Jehovah’s witnesses accept blood transfusions”

<https://www.jw.org/en/jehovahs-witnesses/faq/jehovahs-witnesses-why-no-blood-transfusions/>

# **STRATEGIC DEBT RESTRUCTURING: WILL IT PATCH THE CRACKS IN INDIAN BANKING SYSTEM MADE BY LARGE CORPORATE DEFAULTERS?**

**Bharat Kumar Meher**

Research Scholar, Department of Commerce, Dr. Hari Singh Gour Central University, Sagar, MP

---

## **Abstract**

The various reasons and causes of NPAs are found out; still no complete solution has been formulated to solve NPAs in Indian banks. Many prudential norms have been followed, many reforms have been made and many strategies have been implemented by the RBI and Indian Banks to get rid of this problem but the success rate is not upto mark. To control these NPAs, banks are now trying to solve one of the major reasons of NPA i.e. large corporate defaulters and implemented a new strategy to solve it called Strategic Debt Restructuring (SDR). The strategy has been enacted with a view to revive stressed companies and provide lending institutions with a way to initiate change of management in companies which fail to achieve the milestones under Corporate Debt Restructuring (CDR). This paper is an attempt to explain the process of SDR, highlights the few cases of SDR in India and to study the various problems faced by banks in using the SDR scheme. Moreover, an attempt has also been made to determine whether the SDR scheme will be effective to manage large corporate NPAs.

**Keywords: Strategic Debt Restructuring (SDR), NPAs, Wilful Defaulter, Corporate Debt Restructuring (CDR), Joint Lenders' Forum (JLF), Curative Management Strategy**

---

## **Introduction**

The post demonetisation impact on banks leads to the drastic demand for banking services and as a result the deposits of the banks have increased at a higher rate. Moreover day by day the banking businesses are expanding even in the rural areas. As it is known that with the increase in business there is also an increase in risk and banking business is not an exceptional one. The major risk that the banking sector of India has been facing since 1991 is increasing amount of Non Performing Assets. Not only the public sector banks but also the private sector banks are under the clutches of NPAs. Though various reasons and causes of NPAs are found out, still no complete solution has been formulated to solve this. Many prudential norms have been followed, many reforms have been made and many strategies have been implemented by the RBI and Indian Banks to get rid of this problem but the success rate is not upto mark. In addition to

that the one of the major reason of NPAs is due to the large corporate defaulters. "According to panel wilful defaulters owe Public Sector Banks a total of Rs 64,335 crore, which constitutes about 21% of the total NPAs." (Lele, 2016) The RBI has decided to take a proper measure so that these large corporate NPAs could be controlled or reduced and decided to implement a new strategy called Strategic Debt Restructuring (SDR).

Strategic debt restructuring is a new mechanism introduced by the Reserve Bank of India in June last year so that banks and financial institutions can easily recover non-performing assets. The Scheme has been enacted with a view to revive stressed companies and provide lending institutions with a way to initiate change of management in companies which fail to achieve the milestones under Corporate Debt Restructuring (CDR). But the new scheme SDR has been implemented in very few cases and is in

developing stage. The study would focus on these few cases and would explain the mechanism of SDR. Moreover this study is also focussed on the problems faced by the banks in using SDR and to analyse whether the SDR is successful in managing large corporate NPAs.

### **Review of Literature**

**(Sen, 2016)** The author make reviews of the prudential norms related to revitalising stressed assets in the economy in which he divided it into 5 parts namely Part-A, B, C, D & E. Part-A deals with the where to apply SDR scheme and who can use it. Part-B deals with the Joint Lenders' Forum Empowered Group and approval of SDR by the creditors. Part-C deals with the Prudential Guidelines on Restructuring of Advances. Part-D is about Flexible Structuring of Project Loans and finally the Part-E which is about the Sale of financial assets to securitisation or reconstruction companies.

**(Bhattacharyya, 2016)** The author discussed about the Joint Lenders' Forum (JLF) and how it helps in SDR. The author stated that to make a stressed company attractive to potential buyers, banks will have to sell the equity cheap and take a haircut to bring the debt-equity ratio to a sustainable level. SDR scheme is beneficial for both the bank and the company. The controllable and uncontrollable causes of NPAs and how SDR scheme will be successful are mentioned in the article.

**(Verma, 2016)** The author considered the SDR scheme as an experiment in banking sector to control NPAs which has been done with 16 troubled companies. There is a prime advantage of SDR i.e. significant relaxation by RBI to banks for a period of 18 months to show those stressed assets as NPAs and the banks are required to make only 5% of provision on those advances for 18 months. The author highlighted few problems in SDR like non availability of any buyer of stake even after 18 months, sudden increase in amount of NPAs after this specified period and SDR rules do not explicitly provide for a partial stake sale and banks have to sell their entire stake in the company to the new

buyer. Few cases related to failure in CDR like Gammon India, Electrosteel Steels, Monnet Ispat, etc. are discussed in the article.

Very few researches have been done in the field of SDR scheme and none of the research have been done related to the impact of SDR on the total debt of those firms whose debt have been processed under this scheme. Hence this could be a viable research gap which should be studied.

### **Objective of the Study**

- To study the concept and mechanism of Strategic Debt Restructuring in India.
- To analyse the problems faced by banks in using SDR scheme.
- To study the impact of SDR scheme on the total debt of the companies gone through SDR scheme.
- To discuss the possibility of success of SDR in managing large NPAs.

### **Hypothesis of the Study**

**H<sub>0</sub>** : There is a significant impact on the total long term debt of the companies gone through SDR scheme.

**H<sub>1</sub>** : There is no significant impact on the total long term debt of the companies gone through SDR scheme.

### **Research Methodology**

The research is Analytical in nature. The data required for this study are collected from secondary sources like newspapers, RBI website, annual reports of companies gone through SDR process, research papers and edited books published by ICAI and ICSI. The data collected through secondary sources are properly tabulated and presented with the help of diagram to provide a clear picture regarding the SDR Mechanism, to the readers. The period of study taken into consideration is of last two years i.e. 2014-15 and 2015-16. Only those companies are considered for this study that has gone through the process of SDR. As the annual reports of few companies are not yet upload in

their websites hence 12 cases out of 16 have been considered as sample in this study. For the purpose of testing Hypothesis Paired t-test would be used with the help of SPSS.

### **Significance of the Study**

The problem of NPA is getting bigger day by day and as per many experts wilful defaulters is one of the biggest cause behind it. The study is basically focussed on a scheme which may help in managing and controlling large corporate NPAs. If large corporate NPAs would be reduced or if recovery could be made from these large NPAs then it could be possible to provide adequate financial assistance to the authentic small borrowers of the society. The study could find out the loopholes or limitation of the new SDR scheme so that steps could be taken by the policy makers to revise it and make it more effective. In addition to that there are many scholars related to the field of banking and finance are not much aware about this scheme, this study would provide them a detail information about the SDR, its mechanism and SDR cases in India.

### **Limitations of the Study**

- Strategic Debt Restructuring is a new and recent strategy. SDR scheme is merely an experiment on the part of RBI and Indian Banks to know whether SDR would be effective tool to manage corporate NPAs. Hence few more years may be required to check its effectiveness.
- Not much research has been done in this area even data related to SDR scheme has not yet been published by the RBI or any other sites like SARFESI, DRT and Lokadalats.
- Only 10 to 12 cases are there under SDR process the success rate of this scheme can only be examined after the completion of 18 months as specified by RBI.

### **About the Problem**

With mounting NPAs, Reserve Bank of India had introduced Strategic Debt restructuring (SDR) scheme in June 2015 to let banks recover their debts from the defaulted companies. It lets the Joint Lenders Forum (JLF) or simply the consortium of lenders to convert a part of their loan in an ailing company into equity. The SDR scheme will provide more power to the banks in managing the loan defaulted company so that they can recover their dues. The Strategic Debt Restructuring (SDR) has been introduced with a view to ensuring more stake of promoters in reviving stressed accounts and providing banks with enhanced capabilities to initiate change of ownership, where necessary, in accounts which fail to achieve the agreed critical conditions and viability milestones. "Therefore, banks should consider using SDR only in cases where change in ownership is likely to improve the economic value of the loan asset and the prospects of recovery of their dues." (Sen, 2016) This scheme is an improved version of the erstwhile Corporate Debt Restructuring, or CDR, mechanism, gives lenders sweeping powers to throw out managements of companies whose assets have turned bad. (Adhikari, 2017) The government has initiated strategic debt restructuring (SDR) in 10 to 12 cases comprising bad loans worth Rs 1 lakh crore. "We have given banks the freedom to fix the projects that were causing bad loans through strategic debt restructuring. They were given the option of even replacing the promoters of the project if need be. So far there are around 10 to 12 cases under SDR with loans worth Rs 1 lakh crore," (National Bureau, 2016) Mr Sinha said at a pre-Budget event organised by a television channel. The whole mechanism of SDR is explained below in detailed along with the conditions and eligibility required to go through the process of SDR.

### **Mechanism of Strategic Debt Restructuring (SDR)**

The process of SDR starts from a meeting of the members of Joint Lenders' Forum (JLF) in which many things have to be taken into

consideration regarding the loan taken by the company. Banks are advised that as soon as an account is reported by any of the lenders to CRILC as SMA-2, they should mandatorily form a committee to be called Joint Lenders' Forum (JLF) if the aggregate exposure (AE) of lenders in that account is Rs 1000 million and above. Lenders also have the option of forming a JLF even when the AE in an account is less than Rs.1000 million and/or when the account is reported as SMA-0 or SMA-1. The JLF may consider the following options when a loan is restructured:

- Possibility of transferring equity of the company by promoters to the lenders to compensate for their sacrifices;
- Promoters infusing more equity into their companies;
- Transfer of the promoters' holdings to a security trustee or an escrow arrangement till turnaround of company. This will enable a change in management control, should lenders favour it.

In the meeting it is also decided by the JLF whether a part of the loan or the entire loan would be converted into equity in the event the borrower is not able to achieve the viability milestones. This should be supported by necessary approvals which also include a special resolution by the shareholders of the borrower company, as required under existing regulations, to enable the lenders to exercise the said option effectively. It must be noted that all the lenders under the JLF must collectively hold at least 51% of the equity shares issued by the company. The decision of converting the debt into equity should be acceptably documented and approved by the majority of the JLF members as early as possible but within 30 days

from the above review of the account. Majority of the JLF implies a minimum of 75% of creditors by value and 60% of creditors by number. For the purpose of changing the ownership, the lenders under the JLF should collectively become the majority shareholder by conversion of their dues from the borrower into equity. The SDR conversion package must be approved by the JLF within 90 days from the date of deciding to undertake SDR. Moreover, the share price for such conversion of debt into equity will be determined as per the method mentioned below:-

(i) Conversion of outstanding debt (principal as well as unpaid interest) into equity instruments should be at a 'Fair Value' which will not exceed the lowest of the following, subject to the floor of 'Face Value' (restriction under section 53 of the Companies Act, 2013):

a. Market value (for listed companies): Average of the closing prices of the instrument on a recognized stock exchange during the ten trading days preceding the 'reference date' indicated at (ii) below;

b. Break-up value: Book value per share to be calculated from the company's latest audited balance sheet (without considering 'revaluation reserves', if any) adjusted for cash flows and financials post the earlier restructuring; the balance sheet should not be more than a year old. In case the latest balance sheet is not available this break-up value shall be Re.1.

(ii) The above Fair Value will be decided at a 'reference date' which is the date of JLF's decision to undertake SDR.

The process of SDR can be properly explained with the help of the chart given below.

### A Flow Chart representing the Mechanism of SDR



### Problems faced by Banks in the Process of Strategic Debt Restructuring

Strategic Debt Restructuring is merely an experiment. It's not simple on the part of the banks to apply SDR with any company. They have to make many costs and benefit analysis before starting the process of SDR. In addition to that there are many problems and limitations are there with the SDR scheme which are mentioned below :-

- 1. Difficult to find New promoter within 18 months:** JLF have to find a new promoter within 18 months from the date of SDR. It is quite difficult for the consortium to find a new promoter who would be interested to invest on the shares of the company gone through SDR process. If the JLF fails to do so then after the completion of 18 months the whole assets would be converted into doubtful assets and 100% provision will be made against it. There may be steep increase in the NPA after that which will again severely deteriorate the profits of the banks in future.
- 2. SDR rules do not explicitly provide for a partial stake sale :** Strategic Debt Restructuring scheme does not provide clear guidelines related to the partial conversion of debt to equity, due to which the banks are unable to adopt the partial stake sale.
- 3. Stressed Environment :** The SDR scheme succeeds only if the company is turned around. Turning around a company in the stressed environment is extremely difficult. This requires disciplined approach and board effectiveness in its oversight function. The new law might not be of much help to lenders as is evident from the fact that loans to listed companies, which are mandated to adopt strict corporate governance norms prescribed by the Securities and Exchange Board of India, turn into NPA.
- 4. Conversion of Debt at a Price below the Current Market Value :** The haircut in deep restructuring could turn out to be smaller than if there is a change in management because an investor will always look for a big discount, a senior banker pointed out. "SDR rules allow banks to convert debt at a price below the current market value or an average of closing prices during the 10 trading days before the JLF decision."(Ghosh, 2017)
- 5. Applicable only for Large Corporate NPAs :** Strategic Debt Restructuring is basically useful only for large corporate NPAs. It cannot be helpful to make recovery of those NPAs related to MSMEs or any other loans.
- 6. Difficulty in Management after SDR:** After the SDR process there will be no role of old management teams. The norms announced by RBI said the new

management should not have any links to the old promoters. (Bureau, 2015) But there is a report of five SDR cases, not wanting to be identified, said the banks are currently using the existing managements to run the company, but with greater external monitoring and oversight. Banks have not completely changed the management in these five companies. It is

difficult for the JLF to find a new management team who could run those companies more efficiently as compared to the older one.

In India 16 SDR cases took place during 2015 the name of which and their details regarding there JLF, lead banker and amount of NPA involved are highlighted.

**Table No. 1. SDR Cases in India**

SL. No.	Name of the Company	Date of SDR	Consortium	Lead Banker	Debt (Rs. Bn)
1.	Adhunik Power and Natural Resources	Dec, 2015	12 lenders	SBIN	31.2
2.	AMW Motors	Dec, 2015	9 lenders including IDBI, PNB, OBC	IDBI	14.3
3.	Ankit Metal and Power	Dec, 2015	14 lenders including SBIN, IDBI, ANDB, SYND, IOB	SBIN	12.8
4.	Coastal Projects	Aug, 2015	15 Includes SBIN, PNB, ICICIBC and AXSB	SBIN	58.1
5.	Electrosteel Steels	Oct, 2015	27 lenders	SBIN	109.9
6.	Gammon India	Nov, 2015	19 lenders including ICICIBC, CBK, and PNB	ICICI	148.1
7.	GOL Offshore Ltd	Dec, 2015	Axis and ICICI Bank	NA	20.0
8.	IVRCL	Sept, 2015	21 lenders	SBIN	103.4
9.	Jyoti Structures	Aug, 2015	21 lenders	SBIN	26.4
10.	Lanco Teesta	Aug, 2015	NA	ICICI	24
11.	Monnet Ispat	Aug, 2015	16 lenders	NA	125
12.	Rohit Ferro-Tech	Nov, 2015	NA	SBIN	26.3
13.	Shiv-Vani Oil & Gas	Sept, 2015	Includes ICICIBC, BOM, SBIN and YES	ICICI	40.1
14.	Transstroy	Dec, 2015	14 lenders including DNBK and UCO	NA	43.0
15.	Visa Steel	Sept, 2015	20 lenders	SBIN	30.9
16.	Alok Industries limited	NA	NA	NA	NA
	<b>Total</b>				<b>813.4</b>

Source: Religare Institutional Research (compiled from Press releases, Media reports, Company annual reports / filings)

The above table depicts the various Strategic Debt Restructuring Cases in India along with the date of SDR process, the number of lenders in the JLF, the lead banker and the amount of NPA involved in the SDR process. Gammon India, Monnet Ispat, Electro Steels and IVRCL

have processed their NPAs which are more than 100 billion, under Strategic Debt Restructuring. Till now only 16 cases of SDR have taken place, the success of which can only be examined after the completion of 18 months from the date of SDR.

**Table No. 2.**

**Total Long term debt position of SDR cases as on 31<sup>st</sup> March, 2015 and 31<sup>st</sup> March, 2016**  
(Amount in Millions)

Sl.No.	Name of the Company	Total Long term Debt Before SDR Process 31 <sup>st</sup> March, 2015	Total Long term Debt After SDR Process 31 <sup>st</sup> March, 2016
1.	Ankit Metal and Power	778.2514	731.1612
2.	Coastal Projects	24007.3500	23212.7800
3.	Electrosteel Steels	8897.2410	8164.0674
4.	Gammon India	35689.7000	29207.6000
5.	GOL Offshore Ltd	993.3800	1060.8400
6.	IVRCL	20419.8400	16073.6300
7.	Jyoti Structures	1301.3942	654.8308
8.	Monnet Ispat	51357.8703	49993.39140
9.	Rohit Ferro-Tech	1402.2236	1323.8861
10.	Transstroy	50.3200	26.1900
11.	Visa Steel	23254.3000	22242.0200
12.	Alok Industries Ltd.	7,2235.0000	8,0136.0000

(Source : Compiled from the Annual Reports of Respective Companies)

The above table reveals the total long term debt of 12 companies as on 31<sup>st</sup> March, 2015 & 31<sup>st</sup> March, 2016. The purpose of this table is to show the impact on the long term debt of companies after they have gone through the Strategic Debt Restructuring process. Among the 12 cases mentioned in the table the long term debt of only two companies i.e. GOL offshore ltd and Alok Industries Ltd have increased even after SDR which may represent

that these two companies have raised further long term loan from somewhere.

**Hypothesis Testing**

For the purpose of determining the significant impact of SDR on the longterm debt of the company Paired t-test has been applied on the data represented in table no. 2

**Table No. 3 Paired Samples T est**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre_SDR - Post_SDR	630.03947	3344.69045	965.52897	1495.07546	2755.15439	.653	11	.527

**Interpretation:**As the Sig. (2-tailed) is more than 0.05 hence it can be said that the null hypothesis is accepted and there is no significant impact of SDR on the long term debt of the companies.

**Conclusion**

The new curative management strategy i.e. SDR may bring a new revolution in the NPA management of large corporate. But still there are few limitations in this strategy which the RBI and the banks should have to review it as soon as possible. As from the observations above even after SDR process there is no significant impact on the longterm debt of the

companies that have gone through SDR which may be due to the low ratio of loan taken from banks to their total long term debt. Many limitations in this strategy have been observed during its experiment in few cases. Apart from that this strategy is specifically for large corporate defaulters so it is better to wait for a while i.e. after the completion of 18 months to examine its effectiveness. The banks should

also make certain provisions if they cannot succeed in this experiment because soon after the completion of 18 months the banks have to make 100% provisions on these assets and such assets will be reconverted into doubtful assets as a result of which there will be steep increase in NPA in future.

### **Findings and Suggestions**

- It is found that clear guidelines have not been given by RBI related to partial stake sale; steps should be taken by RBI to mention clear guidelines on partial stake sale for the smooth running of the SDR process for those companies who want to convert their partial debt into equity.
- Even after SDR the banks are using the same management team to manage those companies. Banks should make proper efforts to find a new and better management team so that the RBI norms would be followed properly and there may be more possibility of efficient management to improve the soundness of company.
- SDR will become a complete failure if the JLF fails to search a new promoter within 18 months from the date of SDR. Banks have to make some provisions to absorb the shocks as there may be sudden rise in NPAs after 18 months.

### **References**

1. Adhikari, A. (2017, January 29). Why RBI's strategic debt restructuring scheme has turned out to be a damp squib. *Business Today*.
2. Bhattacharyya, A. K. (2016, February 7). Making strategic debt restructuring. *Business Standard*.
3. Biswas, S. (2016, June 3). Strategic Debt Restructuring- A new opportunity for the consulting business. Retrieved April 16, 2017, from [www.linkedin.com](http://www.linkedin.com/pulse/strategic-debt-restructuring-new-opportunity-business-shreya-biswas): <https://www.linkedin.com/pulse/strategic-debt-restructuring-new-opportunity-business-shreya-biswas>
4. Bureau, E. (2015, June 9). Reserve Bank of India announces new measures on debt restructuring by lenders . *The Economic Times*, p. 7.
5. Ghosh, S. (2017, January 5). Strategic debt restructuring: With gross NPAs at Rs 7.7 lakh cr, banks for big haircuts, but only with RBI nod. *Financial Express*, p. 1.
6. Lele, A. (2016, February 24). All you need to know about wilful defaulters. *Business Standard*. Mumbai, Maharashtra, India: *Business Standard*.
7. Moneylife Digital Team. (2015, November 4). Strategic debt restructuring: Banks may face large losses, massive surge in stressed asset of 7 companies. Retrieved April 14, 2017, from [www.moneylife.in](http://www.moneylife.in): <http://www.moneylife.in/article/strategic-debt-restructuring-banks-may-face-large-losses-massive-surge-in-stressed-asset-of-7-companies/43919.html>
8. National Bureau. (2016, February 23). Strategic debt restructuring initiated: Sinha. *The Hindu*.
9. Sen, S. (2016, February 25). Review of Prudential Guidelines - Revitalising Stressed Assets in the Economy. Retrieved 4 10, 2017, from [www.rbi.org.in](http://www.rbi.org.in): <https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=10293&Mode=0>
10. Shukla, S. (2016, July 1). SBI invokes Strategic Debt Restructuring of JP Associates . Retrieved April 4, 2017, from [economictimes.indiatimes.com](http://economictimes.indiatimes.com): <http://economictimes.indiatimes.com/industry/banking/finance/banking/sbi-invokes-strategic-debt-restructuring-of-jp-associates/articleshow/53009170.cms>
11. Verma, S. (2016, January 26). Strategic Debt Restructuring scheme: 'A solution, with its own problems'. *Indian Express*.

# **A STUDY ON PERCEPTION OF COMMUTERS TOWARDS SERVICES AND AMENITIES IN LOCAL TRAINS WITH REFERENCE TO MUMBAI SUBURBAN RAILWAYS- INDIA**

**Dr. Pramila S Patil**

Department of Commerce, S.N.D.T. Women's University, Pune, India.

---

## **Abstract**

The satisfaction of a commuter availing rail services largely depends upon the services during travel. The present study focus on perception of the commuters towards the existing services and amenities in local trains, with an objective to device strategically solutions for enhancing the efficacy of services offered by Indian Railways in local trains. The research methodology is empirical, and a survey of commuters (customers) was conducted. The primary data is collected from the 1500 commuters using the services of Central Railway (Mumbai Suburban –from CST to Kasara) and secondary data through journals, websites etc. The findings reveal that factors such as timeliness, cleanliness and hygiene, adequate space, illumination and ventilation, safety and security, nuisance are considered the most important factors determining commuters' satisfaction. Research findings reveal that the efforts taken by Indian Railway in the area of services and amenities in local trains fall short to achieve Commuters satisfaction. No organization can survive without considering their customers and that is not an exception with Railways. Modern market is highly customer oriented. Modern organizations attempt to create and deliver customer value. Customer relationship management is the single strongest weapon to ensure that commuters' satisfaction and their continued patronage to Indian Railways.

**Key Words: Commuters Relationship Management, Amenities, Customer Satisfaction.**

---

## **Introduction:**

Commuters using Railway services are basically customers of Railways. Customers are the heart of the business. With the quickening pace of modernization the Railway commuters today expects much more than he did in the past in the form of amenities. The provision of commuters amenities is therefore one of the important objectives of the Indian Railways both as a business ethics and a social obligation. With reference to Indian Railways, it enjoys the unique position of a monopoly organisation owned and funded by Government of India. The survival, stability and growth receive the support of the sovereignty. Almost Indian Railways enjoy the position of dictating the terms with commuters. This unique privileged position of Indian railways cannot harbor the arrogance of neglecting the Commuters Satisfaction. Indian Railways have to shape the rational view with regards to Commuters Satisfaction to be more effective utility service

as the lifeline of the national transport. Mumbai suburban Railway is the 'Life-line of Mumbai' and is near and dear to the heart of every Mumbaikar and others. Six million Commuter travels daily for livelihood and for education. Daily they spend one to four Hours traveling in trains and the experience in trains has very high impact on their lives. Mumbai Suburban Railways has the highest passenger density of any urban railway system in the world.

## **Literature Review:**

The literature review shows that researchers have identified different factors of customer satisfaction for the rail services in Indian Railways. Christopher Bull (2003), in his article, titled, 'Strategic issues in Customer Relationship management (CRM) implementation', has highlighted on the processes of CRM, the number of customer relationship management (CRM) implementations has grown dramatically in

recent years. However, few academic studies of the issues associated with the implementation of the concept are available. This paper offers a modest contribution through the analysis of a case study of a CRM implementation at a UK-based manufacturing company. The case study illustrates that CRM is a complex and holistic concept, organised around business processes and the integration of information technologies. Jagdish Seth, Atul Parvatiyar and G Shainesh (2002), in their book 'CRM-Emerging Concepts Tools and Application', have focused on significance of CRM by enhancing shareholders value by shifting from a 'share of the market' mindset to the 'share of customer' paradigm through relationship management practices, relationship management help firm to focus on the lifetime value of customers to enhance their relationship with profitable customers. P. C. Sharma & Amitabh (2004), in their paper titled, 'Safety as Key Business Theme! - Indian Railways Perspective', have opined that, Investment in safety is a good business proposition. No service industry can hope to gain and sustain customers if it is not concerned, rather particular, about the safety of its customers which is even true in case of rail transport. Tandon (2006) highlights that improvements have been effected by Indian Railways to minimize ticket dispensing time through modernized passenger reservation systems using computers and the Internet at a large number of stations. He further asserts that the passengers also want efficiency, effectiveness, and politeness in service. Sharma (2006) opined that railway enquiry counters play a pivotal role in customer satisfaction, but railway enquiry service is far from satisfactory in India. Vanniarajan and Stephen (2008) identified the attributes that passengers use to evaluate the service quality of Indian Railways as reliability, assurance, empathy, tangibles, and responsiveness. It was found that passengers were "moderately satisfied" to "satisfied" on these dimensions. Reeti Agarwal (2008), in her paper titled, 'Public Transportation and Customer Satisfaction: The Case of Indian Railways', has opined that in today's competitive market scenario, organizations

increasingly understand the importance of building and effectively managing the relationship with its customers. For building and maintaining healthy relationship with the customer, organizations need to understand and meet the expectations of its customers. Thus it has become necessary to the organizations to identify the parameters that cause customer satisfaction. The study was conducted to find out the factors related to Indian Railways services that have an impact on customer satisfaction the major findings of the study depicts that out of the various factors considered, employee behavior has the maximum effect on satisfaction level of customers with Indian Railways as a whole. TCRP Report 100 (2004) identifies the following elements at railway stations for determining quality: space per passenger (crowding), facilities for disabled persons (ramps etc.), facilities for evacuation, security (including presence of law enforcement personnel, video cameras, and emergency call boxes), visibility, lighting, and clarity of station layout and way-finding.

#### **Rationale:**

The real journey of a commuter is connected with the amenities and services offered in train. The satisfaction level of the commuters needs to be gauged through facilities offered in local trains by Indian Railways. The overall experience of the commuters in the compartment has an impact on the commuters behavior. Research scholars have undertaken studies on various aspects of railway services such as modernisation in ticketing; Tandon (2006), Sharma (2006) opined that railway enquiry counters play a pivotal role in customer satisfaction, Pramila Patil (2012) has analyzed ticketing mechanism at ticket counters, its efficiency and the perception of commuters in Mumbai Suburban where the frequency of travel is much high having highest passenger density in the world. Considering the over rising dependency on Railways and increase in dual income pattern of families. Daily commuters spend one to four hours traveling in trains and the experience in trains has very high impact on

their lives, where they have to undergo a hustle and bustle in boarding trains and get sufficient space in the compartments. The review of literature was conducted to know more and more about railways. In the process it is observed that there is lack of empirical study with reference to services and amenities in the local train and customer satisfaction in Indian Railways with reference to Mumbai Suburban rail services in Central Railway. This revealing fact triggered the idea to conduct an empirical study with reference to Indian Railways, more specifically with reference to Mumbai division of Central Railways. Considering the individual limitations of resources in command the research idea got crystallized to focus on the perception of commuters towards services and amenities in local trains in Indian Railways with special reference to Mumbai Division of Central Railway. The present study focus on the existing services and amenities offered in local trains and the perception of the commuters towards services and amenities in local trains.

### **Objectives of the Study**

- 1) To study the existing services and amenities in local trains in Mumbai Division of Central Railways.
- 2) To study the perception of commuters towards services and amenities in local trains in Mumbai Division of Central Railway.
- 3) To arrive at the strategical solutions to enhance the efficacy of services in Mumbai Division of Central Railway.

### **Methodology:**

**Population of the study-** The population of the study covered the Commuters of suburban rail services in Mumbai division of Central Railways.

**Sampling and Sample-size-**The random sampling method is used for study of the Commuters. The sample size studied is 1500 Commuters in Mumbai suburban rail services.

**Data Collection & Processing:** The study relied upon both Primary and Secondary data:

- a) **Primary data-**The primary data is collected from the commuters using the services of Mumbai division of Central Railway through a well-structured questionnaire.
- b) **Secondary data-**The secondary data gets collected from sources such as relevant books and journals, Newspaper, published and unpublished data and electronic delivered information.

**Data Processing** constituted of recording, editing, classification and tabulation of data.

**Scope of the study:** The geographical scope of the study is Mumbai Division of Central Railway from CST to Kasara stations with respect to Local trains.

**Data Analysis and Interpretations-** The study was conducted by collecting the information from 1500 commuters plying from CST to Kasara in Mumbai division of Central Railway. A Structured Questionnaire was framed using various areas in ticketing mechanism to determine the commuters level of satisfaction using a Four-point rating scale – Strongly Agree, Agree, Disagree and Strongly Disagree, with 3,2,1,0 rating which was further simplified in Favourable and Non Favourable perception of commuters for analyzing the overall satisfaction of commuters towards various facilities at ticket counters. The questionnaire included 16 variables to measure commuters' satisfaction for ticketing mechanism.

**Table. No. 1**

**Perception of Commuters – Services and Amenities in Train**

**(Timeliness, cleanliness and hygiene, nuisance, adequate space, illumination and ventilation, safety and security.)**

Sr.No	Services and Amenities in Train	Favourable%	Non-Favourable%
1.	Trains run as per schedule/time table	86.9	14.1
2.	Trains halt at the designated platform	77.1	22.9
3.	Clean and hygienic compartments	62.5	37.5
4.	Spacious compartments to accommodate all commuters	19.0	81.0
5.	Hawkers in the train	19.2	80.8
6.	Behaviour of ticket checker	80.5	19.5
7.	Trains halt for sufficient time to board and alight	78.5	21.5
8.	Sufficient illumination in trains	82.2	17.8
9.	Proper ventilation in trains	77.5	22.5
10.	Well maintained window Shutters	57.9	42.1
11.	No leakage of water in compartments during rains	59.5	40.5
12.	No cancellation of trains in between journey	65.1	34.9
13.	Feeling of security while traveling in trains	87.5	12.5
14.	Adequate compartments for ladies	14.9	85.1
15.	Adequate facilities for senior citizens	13.3	86.7
16.	Adequate space in compartments for handicapped commuters	39.6	60.4

Source: Computation of Primary data.

Note: The level of satisfaction perceived by commuters

- **0%-33%:- To some extent.**
- **34%-66%:- To a large extent.**
- **67% and above: - To a very large extent.**

**Findings:**

The table no. 1 reveals the following specific findings with reference services and amenities in trains offered by railways in suburban rail services:

1) The perception of commuters towards the timeliness of trains as per schedule/time-table is favourable to a very large extent.

- 2) The perception of commuters towards halting of trains at the designated platforms is favourable to a very large extent.
- 3) The perception of commuters towards clean and hygienic compartments is favourable to a large extent.
- 4) The perception of commuters towards sufficient space to accommodate all commuters in the compartment is non favourable to a very large extent.
- 5) The perception of commuters towards the nuisance of hawkers in compartments is to a very large extent.
- 6) The perception of commuters indicates that the behaviour of ticket checker in the compartment is favourable to a very large extent.
- 7) The perception of commuters indicates that the trains halt for sufficient time to board

and alight from the train is favourable to a very large extent.

- 8) The perception of commuters towards sufficient illumination in trains is favourable to a very large extent.
- 9) The perception of commuters towards proper ventilation in trains is favourable to a very large extent.
- 10) The perception of commuters towards well maintained window shutters is favourable to a large extent.
- 11) The perception of commuters towards non leakage of water in the compartments during rains is favourable to a large extent.
- 12) The perception of commuters towards the non-cancellation of trains in between the journey is favourable to a large extent.
- 13) The perception of commuters regarding the feeling of safety and security in trains is favourable to a very large extent.
- 14) The perception of commuters towards adequate compartments for ladies commuters is non favourable to a very large extent.
- 15) The perception of commuters towards adequate facilities for a senior citizen is non favourable to a very large extent.
- 16) The perception of commuters towards adequate facilities for Handicap commuters is non favourable to a very large extent.

#### **Suggestions in the area of Services in trains**

- a) Hawkers are nuisance in the compartments especially in the second class compartments. On one hand the commuters find it difficult to accommodate in the compartment comfortably and on other hand their continuous disturbance on account of the hawkers. Leniency exhibited by GRP and RPF contributes to inadequacy of control on the illegal hawkers. The Railway authorities therefore should ensure strict supervision and action against such nuisance
- b) Even though separate compartments are allocated for senior citizens the satisfaction of this group is low on account of low awareness and

encroachment by the other commuters. Same is the case with the handicap commuters .Railway authorities should ensure that the facilities are enjoyed by respective group of commuters by periodic checking of credentials of the commuters traveling in these compartments through the existing ticket checkers.

- c) The LED Advertising solutions can be provided in the trains as already implemented in BEST Buses, Mumbai. These LED screens can provide advertising generating a good amount for Railways that can finance the suggestions given in the study.
- d) The LED screens in train can be used to educate and create awareness among the commuters on safety, security, hygiene and cleanliness. This media can be of effective use to tell the successful and impressive achievement of Railways. This can generate goodwill and positive sense of commuters towards Railways.

#### **Conclusion:**

The findings reveal that factors such as timeliness, cleanliness and hygiene, adequate space, illumination and ventilation, safety and security, nuisance are considered the most important factors determining commuters' satisfaction. Research findings reveal that the efforts taken by Indian Railway in the area of ticketing facilities fall short to achieve Commuters satisfaction. Ultimately the study could reveal that, it is required to have the engine of strong strategically constructed CRM that can run the Railways without breakdown and derailment to safely reach the ultimate destination of the maximized commuter's satisfaction and commuters delight.

#### **References:-**

1. Christopher Bull, 'Strategic issues in Customer Relationship management (CRM)

- Implementation'. Business Process Management Journal Vol-9, Issue no 5, pg. no 347-356, 2003.
2. Atul Parvatiyar<sup>1</sup> & Jagdish N. Sheth, 'Customer Relationship Management: Emerging Practice, Process, and Discipline'. Journal of Economic and Social Research 3(2) 2001, 2002, Preliminary Issue, 1-34.
  3. Tandon, R. K. 2006, The Art and Science of Customer Care, EDTT (F)/Railway Board.
  4. Transit Cooperative Research Program (TCRP). 2009. Report 100: Transit Capacity and Quality of Service Manual, 2nd Edition, Part 2: 7.
  5. Transit Cooperative Research Program (TCRP). 2009). Report 100: Transit Capacity and Quality of Service Manual, 2nd Edition, Part 7: 7-48.
  6. P. C. Sharma & Amitabh, 'Safety as Key Business Theme! -Indian Railways Perspective', International Railway Safety Conference perth-2004, Challenges and opportunities for Rail Services.
  7. Pramila Patil, 'Study on Commuters perception towards ticketing facilities in Indian railways' 'International Journal Emerging trends in Management and Business' ISBN 978-81-922144-5-0, pg. 98-107, April 2013.
  8. T. Vanniarajan, A. Stephen, Railqual and passenger's satisfaction: an empirical study in southern railways, Asia pacific business review Jan-March 2008, pg. no 1- 7.
  9. Agrawal, R. 2008. Public transportation and customer satisfaction. Global Business Review 9(2): 257-272.

## **A STUDY ON HEALTH INSURANCE – CHALLENGES AND OPPORTUNITIES**

**Dr. M. Ramachandar Gowda**

Professor, Department of commerce, Bangalore University, Bengaluru, India.

**Leelavathi N**

Research scholar, Department of commerce, Bangalore University, Bengaluru, India.

---

### **Abstract**

This paper is an attempt towards identifying the problems for universal coverage under the scheme of health insurance. It is an empirical study and has been constructed taking into considerations the Health need, social status and the Tax treatment as important variables to analyse the reasons for being Insured and Uninsured and to know whether the Tax exemption is major cause in the behaviour pattern for the development of Health Insurance market. The level of awareness is tested to know its implications in the ratio of Insured and Uninsured. The paper also gives a special focus on analysing the reasons for knowing the Uninsured status of sample individuals. The primary data has been collected having the sample size of 121 respondents from a city in the state of Karnataka (Bengaluru) and analysed using the various statistical tools. It proves that Tax exemption is not the only factor in deciding the Health Insurance coverage, the other factors like risk coverage and need towards good Health conditions also contributes to the idea. The level of awareness is more or less the same between Insured and Uninsured.

**Key words:** Health care, Misfortune, Health need, Social status.

---

### **Introduction**

Life is full of uncertainties as several factors are beyond our control such as accidents, floods, earthquakes, sudden illness etc. which pose a threat and greatly affects the human life. Insurance is one such instrument concerned as a method of sharing the financial burdens of few unfortunates among several fortunate.

Health Insurance coverage is the most prominent variable that can influence access to Health care and fight against misfortune. A '1919 state of Illinois report' suggests that the losses due to missed work were four times greater than a typical family's medical expenses. Health Insurance coverage is one of the several variables that can influence access to Health care. As a part of General Insurance, Health Insurance launched in the year 1986, and the Health industry has grown significantly mainly due to liberalisation of economy and opening up of the market to private players.

'Committee of India vision 2020' formulated by the then planning commission in its report in dec.2002 recognizes and announces

that 'Health Insurance in India can play an invaluable role in improving the Health care system in India'. The advent of many innovative products like family floater plans, top up plans, critical illness plans, and hospital cash has widened the space in Health Insurance market for the initial development and later growth.

Health Insurance premium have been registering a significant CAGR of 24.6% in the preceding ten years. The gross Health Insurance premium underwritten which was Rs.2221 crore in the year 2005-06 has increased to Rs.20, 096 crore by 2014-15. The number of lives covered under Health Insurance policies during FY 2014-15 was 28.80 crore. As per the census of India 2011 the population of India was 121.02 crore.

According to 'world bank', by 2020, more than 25% of Indian's will have access to some form of Health Insurance. There are stand alone Health insurers along with Government sponsored Health Insurance providers. Until recently, to improve the awareness and reduce the procrastination for buying Health

Insurance, the General Insurance Corporation of India and IRDAI had launched an awareness campaign for all segments of the population. The measure of Insurance penetration reflects the level of development of Insurance sector in a country. While Insurance penetration is measured as the percentage of Insurance premium to GDP.

Health Insurance has significant momentum when many hospitals had attempted to get smooth income and face less competition and finally it came with unique decision; that is the elimination of inter hospital competition during the great depression. Advances in medical technology, coupled with rising medical expenditures, contributed to increasing the demand for Health Insurance. Hence the study concentrated mainly on Insurance status of an individual with several policies like Employer sponsored Health Insurance, Individual policies purchased from public or private players, other Government sponsored Health coverage and etc.

The major issues covered in the paper are the implementation of Tax subsidy system and its impacts on demand for Health Insurance and contribution of the same to the development of Health Insurance market, the forces contributed for the unique pattern of development of Indian Health Insurance market after globalisation, whether the annual premium rate of Health Insurance is declining and can any new or additional steps be taken to improve the efficiency of Health Insurance market to match it to global trend.

This paper is an empirical study and has been constructed taking into considerations the Health need, social status and the Tax treatment as important variables to analyse the reasons for being Insured and Uninsured. Hence the study is divided into two groups as clients with Health Insurance and clients without Health Insurance to prove or disprove the hypothesis built on the above mentioned factors. The ultimate focus of the paper is on studying the unique patterns contributed for the growth in Health Insurance market and the effect of Tax system on the Insurance penetrations and finally to suggest for the universal coverage to Health plans.

## **Literature review**

In order to understand the relevance of what may appear to be a debate on an esoteric subject, some information has been reviewed which found useful on the current context.

**Pauly, M. V. (1986)**<sup>1</sup> in his article he summarises that the Tax deductibility pays larger subsidies to higher – income workers and these workers would probably buy Health Insurance in socially adequate amounts even in the absence of a Tax subsidy. The Tax subsidy fails to affect the coverage of the self-employed and those employed in firms currently offering low fringe benefits. And it gives the lowest subsidies to those low income workers who would be most likely to be in need of encouragement.

**Valdiserri,(1995)**<sup>2</sup> this retrospective study demonstrates that large numbers of clients receiving HIV counselling and testing at publicly funded sites report that they don't have Health Insurance – they include racial or ethnic minority group members, adolescents, injecting drug users and persons who are HIV seropositive. Lack of Health Insurance might interfere with subsequent receipt of needed primary care services, especially early interventions for HIV disease. This gap may exist despite the availability of such services developed through other sources, including private sectors. **Swartz, K. (1997)**<sup>3</sup> this analysis compares the march 1994 and march 1995 current population survey (CPS) counts of the number of people with different types of Health Insurance and without any Health Insurance coverage. It shows, the aggregate, net effect of changes in the questions and sample framework that went into effect in march 1995 CPS is that the estimated numbers of non elderly people with Medicaid coverage did not change, but the numbers with champus/VA/military care grew by 18%, private Insurance by 1.8% and Employer sponsored by 7.4%, there was no change in the estimated number of people without Health Insurance. **Ellenbogen(1966)**<sup>4</sup> in his article a comparison was made between two theories of acceptance of Health Insurance among 150 full – time farmers of upstate Newyork. And he summarises that subscription

to Health Insurance is more a function of ability to pay than of Health need. **Thomasson, M.A.(2000).**<sup>5</sup> This study bridges the gap in the literature by analysing how Governmental policies and other incentives influenced the Health Insurance and Health care markets over the period from 1900 to 1960. Taken together, the results underscore the complexity of the US Health Insurance system and reinforce the fact that an understanding of the economic history of Health Insurance and Health care will better inform the modern policy debate.

**Glied (2001)**<sup>6</sup> in his article, he provides an overview of the issues and challenges faced by policymakers in offering Health Insurance Policies to the working Uninsured, whose family incomes are above the federal poverty line. It also suggests the principles which can be used in assessing policy proposals and evaluates the main strategy for coverage expansion.

In contrast with the review of above literatures, the present study planned to focus on Health Insurance, its performance, problems associated with less penetration and also on the benefits of Taxation policy in availing Health Insurance policies and the implications of the same on development of Health Insurance market.

**Objectives**

1. To analyse the factors contributed for the unique pattern of development of Indian

Health Insurance market after globalisation.

2. To study the implications of Tax codes on demand for Health Insurance and market development.
3. To find out the problems for being Uninsured and suggest measures to make them insured.

**Methodology**

The present study is empirical in nature. This also includes the descriptive study which involved the researcher in collecting the primary data by making use of the various research tools for the purpose of the study. Individuals who are holding the Health Insurance policy and individuals who are not holding the Health Insurance policy were the respondents for the study. The study was restricted to the limits of Bengaluru, a city in the state of Karnataka. The sample size obtained for the study was 121 respondents on the basis of convenient sampling and of different age groups.

**Limitations of the study**

- The study was restricted only to the Bengaluru city.

**Analysis and findings**

- **The unique pattern of development of Health Insurance**

**Table 1.1: Trend in Health Insurance premium over the past five years.(Crore) (% age of market share)**

Market share	2010-11	2011-12	2012-13	2013-14	2014-15
Public Sector Non-Life Insurers	6689 (61%)	8015 (61%)	9580 (62%)	10841 (62%)	12882 (64%)
Private Sector Non-Life Insurers	2850 (26%)	3445 (27%)	4205 (27%)	4482 (26%)	4386 (22%)
Stand alone Health Insurers	1492 (13%)	1609 (12%)	1668 (11%)	2172 (12%)	2828 (14%)
Total Non-Life Industry	11,031	13,070	15,453	17,495	20,096

**Source:** IRDAI Annual report, 2014-15

**Note:** Figures in the bracket indicates the market share of various sectors in total H.I Premium.

This millennium has seen Insurance come a full circle in a journey extending to nearly 200 years. The process of re-opening of the sector had begun in the early 1990s and the last decade and more has seen it been opened up substantially. The Insurance Sector is a colossal one and is growing at a speedy rate of 15-20%. As per the reveal in IRDAI, annual report (2007), together with banking services, Insurance services add about 7% to the country's GDP

**Trend in Incurred Claims Ratio**

One of the concerns of Health Insurance segment has been the persistence of high

Incurred Claims Ratio (ICR), which is witnessing increasing trend over the years. While the net ICR was 94 % for 2011-12 and 2012-13, it went up to 97 % in 2013-14 and it was 101 % for the year 2014-15. Among the various class of Health Insurance business, the net ICR is high particularly for Group (Other than Government) business which was more than 100 % for each of the preceding four years and it is also consistently increasing over the years. During 2014-15, the net ICR of Government sponsored Health Insurance business has witnessed a significant rise to 108 % breaching its average level of 90 % witnessed during the preceding three years.<sup>7</sup>

**Table 1.2:** Number of persons covered under Health Insurance.  
(In lakhs)

class of business	2010-11	2011-12	2012-13	2013-14	2014-15
Government	1891	1612	1494	1553	2143
Group (other than Govt.)	226	300	343	337	483
Individual	418	206	236	272	254
Total	2535	2118	2073	2162	2880

**Source:** IRDAI, Annual Report 2014-15

From the table it is witnessed that the Health Insurance market is growing rapidly and strides in development is reaching to all the forms of population. The five years comparative study shows that more number of individuals has taken health insurance policies from public insurance companies. Health Insurance first developed as a protection to unforeseen medical expenses. Coverage which also protected against surgical expenses developed later. However, comprehensive coverage that also insured against expenses incurred during a visit to a physician's office was far less common. Health Insurance developed not only in response to consumer demand, but also because it benefited the hospitals. From the survey conducted it is found that among the sample clients, number of Insured is more than the number of Uninsured and the Health Insurance is reaching to all the categories of age. The unique patterns of the market, innovations in the Health policies which lessened the medical expenditures, the strategic behaviours of hospitals and

monopolistic nature of hospitals have created the demand for Health Insurance. Rising medical expenditures are usually posited as the catalyst for initial development and strategic behaviour of hospitals resulted in the later growth of Health Insurance markets.

**Table 1.3 Self -reported Insurance status of sample clients**

	Holding Health Insurance		Total
	YES	NO	
less than 18 years	4	1	5
18-25 years	18	15	33
26-50 years	42	29	71
more than 51 years	8	4	12
<b>Total</b>	72	49	121

**Table 1.4:** Age \*Type of Health Insurance purchased

	Type of Health Insurance purchased				Total
	Employer sponsored	individual Insurance	Insurance offered by Karnataka Government	other type	
Age less than 18 years	0	3	1	0	4
18-25 years	7	5	4	2	18
26-50 years	19	20	3	0	42
more than 51 years	4	3	1	0	8
<b>Total</b>	30	31	9	2	72

It shows that how the different schemes of Health Insurance have been distributed among the Insured individuals of different age group. From the survey it is found that more number of individuals was covered by individual health insurance taken from public or private insurance players and 41% among sample clients had coverage from employer sponsored schemes. It shows that the level of awareness is more in individuals which made them to personally buy health insurance policies without permitting for compulsions from the environment. The prevalence of Health infrastructure and the technological advancements in medical field may offer

succour, they do not completely substitute for Health Insurance. The Insurance sector in India which initially covered certain areas like life, motor, marine Insurance is gradually making rapid strides to cover the exclusive Health risks contingent on human lives.

Advances in medical technology, coupled with rising medical expenditures, contributed for the increase in the demand for Health Insurance coverage. Key state and many Government policies fostered the scheme of Employer sponsored Health Insurance coverage for the employee and to his dependents.

**Table 1.5:** Gender\*Holding Health Insurance

	Holding Health Insurance		Total
	YES	NO	
Gender Male	39	30	69
Female	33	19	52
<b>Total</b>	72	49	121

It shows the number of male and female who have taken the Health Insurance policy and who have not taken the Health Insurance policy. Socio demographic status of sample clients/ socio- demographic profile of the

sample clients towards the Health Insurance penetration have showed a positive view. Clients without Health Insurance were more likely to be male members among 49 Uninsured respondents.

**Table 1.6:** level of satisfaction\*Holding Health Insurance

	Frequency	Valid Percent
Dissatisfied	1	1.4
Moderately satisfied	9	12.5
Satisfied	51	70.8
highly satisfied	11	15.3
Total	72	100.0

This shows the level of satisfaction among Insured clients. And it can be infer that highest number of respondents have experienced to be ‘satisfied’ from the risk bearing efforts of Health Insurance market.

**Do the customers buy Health Insurance to avail Tax benefits:** This is inferred through the following table of statistics obtained from the source of primary data collected from 121 respondents. Among the options given, and among 121 respondents, 72 respondents that are the Insured respondents opt Health Insurance to serve the special purpose of risk coverage in highest number than availing Tax subsidy. From the above analysis it is clear that Tax subsidy or the Tax benefits that are enjoyed by the customer will not be the ultimate deciding factor to take up the Health Insurance policies. Tax exempt policy initially gave an edge in the Health Insurance market for the increase in the demand for coverage but Tax exemption has not stood as the only element in increasing the coverage. A very less number of respondents that is among 72 Insured persons only 7 persons (9%) say they expect Tax as an important element in purchasing Health Insurance. Non-profit, Tax exempt status initially gave an edge in the market, but it also required to rate the policies based on its coverage and charging the same premium for sick persons the same as Healthier persons became the reason for non-popularity. Historically Health Insurance is

recognized as one of the important elements of Health care.

Table 1.7 Reasons for buying insurance policies

Options	Frequency	Valid percent
Risk coverage	31	43.1
Health conditions	34	47.2
Tax subsidy	7	9.7
Total	72	100.0

**To know the problems for being Uninsured:** As an effort in identifying the reason for health insurance non-subscription the level of awareness has been taken as factor which was tested to know the association between insured group and uninsured group.

**Hypothesis – 1**

**H0:** There is no significant relationship in awareness level among Insured group and Uninsured group.

**H1:** There is a significant relationship in awareness level among Insured group and Uninsured group.

**Table 1.8: Surveyed Samples**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Insured * Uninsured	50	100.0%	0	0.0%	50	100.0%

**Table 1.9 Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.058 <sup>a</sup>	1	.304		
Continuity Correction <sup>b</sup>	.500	1	.479		
Likelihood Ratio	1.040	1	.308		
Fisher's Exact Test				.348	.238
Linear-by-Linear Association	1.037	1	.309		
N of Valid Cases	50				

Since the p-value is arrived at 0.304 is greater than 0.05 the null hypothesis is accepted. Hence it is concluded that there is no significant difference in the level of awareness between the Insured group of individuals and Uninsured group of individuals. In other words the level of awareness is a factor that does not differentiated between Insured individuals and Uninsured individuals. It is not because of the level of awareness the number of Uninsured individuals are increasing. Subscription to Health Insurance policies is more a function of ability to buy than a function of Health need. It is found that individual's chronic Health conditions have greater likelihood of accepting Health Insurance than those without such condition.

**Findings and suggestions**

I. Few clients with even with complete knowledge on Health Insurance has not subscribed to it because of the premium loss. And few have subscribed to Health Insurance without any knowledge on it just because of the force of the agent or just as the other products.

- II. Questions were designed to focus on the number of policy holders on 4 different type of Health Insurance and among the sample clients many have covered under Employer sponsored schemes and around 30 peoples out of 72 respondents have covered under some form of individual coverage like Sind Arogya, Can Bank Insurance, star Health and etc., on the other hand a small percentage is covered under Karnataka Government sponsored Health Insurance like Yashaswini scheme.
- III. In Health Insurance as per the study conducted most of the respondents said risk coverage and good health conditions are the two important elements which made them to opt health Insurance and if it is for the Tax purpose they had an option of other forms of Insurance like life Insurance and etc.
- IV. A very less number of respondents that is among 72 Insured persons only 7 persons (9%) say they expect Tax as an important element in purchasing Health Insurance.
- V. Given that the Tax subsidy lowers the relative price of health Insurance it is

also thought to lead consumers to buy more and increasingly comprehensive Insurance, which further contributes to rising Health care expenditures.

- VI. Looking from the other aspect Tax deductibility pays larger subsidies to higher income workers, and these workers would probably buy Health Insurance in socially adequate amount even in the absence of a Tax subsidy. The Tax subsidy fails to affect the coverage of the self-employed and those employed in firms currently offering low fringe benefits. And it gives the lowest subsidies to those low income workers who would be most likely to be in need of encouragement.
- VII. Along with the level of awareness other factors also contributes for not taking up of Health Insurance policy. People's perception about Health Insurance sometimes discouraged by local culture that stresses on Ayurvedic treatment. Many domestic responsibilities may uninfluence an individual to invest for Health Insurance premiums. Exclusion of many diseases is another concern which influences an individual to not to go for Health Insurance.
- VIII. Premium is paid annually and in case of non use of Health Insurance in any particular year for the reason of no illness, the paid amount will not be refunded. Few treat this as a premium loss and hence subscription is low in Health Insurance. Subscription to Health Insurance policies is more a function of ability to buy than a function of Health need. It is found that individual's chronic Health conditions have greater likelihood of accepting Health Insurance than those without such condition.

### **Conclusion**

- IX. Health Insurance developed not only in response to consumer demand, but also because it benefited the hospital<sup>9</sup>. The advent of many innovative products

like family floater plans, top up plans, critical illness plans, and hospital cash has widened the space in Health Insurance market for the initial development and later growth. And also the growing Health infrastructure, modern equipments, advancements in technology, adoption of foreign technologies in Health care, promised treatments, highly professional practitioners, solution of medical aid for almost all the disease, Health need, low premium rates, social status, are the few factors which have strengthened the Health Insurance market. Along with the above factors the important one to consider for the spur in the demand for Health Insurance is the 'Tax benefits' that an individual can enjoy by availing to Health Insurance subscription in India. The element of Tax initially played an important role in the Health Insurance market in shaping and developing the market and gradually the shift in acceptance of Health Insurance is made towards risk coverage and good Health conditions as there is lot of strides in medical technology and for a common man to avail such benefits Health Insurance need to be the part of his life. As mentioned in the findings Tax subsidy is better to be more to Un-affordable and less to those who are economically adequate in the availing coverage. But still Tax element has its own role to play in the development of Health Insurance market. Government policies towards the Health coverage are also looks favourable.

- X. Taken together the results declares the functionality of Health Insurance market, its performance and major problems for under Insurance and the Tax exemption role in developing the Health Insurance segment in the ever growing and fast track India and this reinforces the fact that an understanding of the economic history of Health Insurance market after

Globalisation and Privatisation and the Health care will better adds to the modern policy debate and to the universal coverage.

## References

1. Source: IRDAI annual report 2014-15
2. Pauly, M. V. (1986). Taxation, Health Insurance, and market failure in the medical economy. *Journal of Economic Literature*, 24(2), 629-675.
3. Valdiserri, R. O., Gerber, A. R., Dillon, B. A., & Campbell Jr, C. H. (1995). Clients without Health Insurance at publicly funded HIV counseling and testing sites: implications for early intervention. *Public Health Reports*, 110(1), 47.
4. Swartz, K. (1997). Changes in the 1995 current population survey and estimates of Health Insurance coverage. *Inquiry*, 70-79.
5. Ellenbogen, B. L., Ramsey, C. E., & Danley, R. A. (1966). Health need, status, and subscription to Health Insurance. *Journal of Health and Human Behavior*, 59-63
6. Thomasson, M. A. (2000). From Sickness to Health. The Twentieth-Century Development of the Demand for Health Insurance. *The Journal of Economic History*, 60(02), 504-508.
7. Glied, S. A. (2001). Challenges and options for increasing the number of Americans with Health Insurance. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 38(2), 90-105.
8. IRDAI, Annual Report 2014-15
9. Thomasson, M. A. (2000). From Sickness to Health. The Twentieth-Century Development of the Demand for Health Insurance. *The Journal of Economic History*, 60(02), 504-508.

## **AGRARIAN DISTRESS IN ANDHRA PRADESH**

**Dr.N.Subba Rao**

Department of Economics, Andhra University, Visakhapatnam

### **Abstract**

Andhra Pradesh is one of the top ranking state with high rate of farmers suicides. In this paper an attempts is made to examine the trends in farmers' suicides across the 13 districts in the state during the last 15 years i.e. 1997-2011 for which published data is available. District wise analysis of suicide deaths of farmers during 1997-2011 showed that all the districts witnessed farmers' suicides. During this period highest percentage of suicide deaths occurred in Anantapuramu (33.82), Kurnool (25.02) and Guntur (13.24). These three districts also reported farmers' suicides during all the 15 years period, under study. Anathapuramu scored 1<sup>st</sup> rank with highest suicide deaths in 10 out of the 15 years under study. In case of Kurnool it is 4 out of 15 years and in Guntur 2 out of 15 years. The regression results showed that farmers' suicides are more in areas with predominantly commercial crops with deficit rainfall. Further, suicides are relatively less in irrigated areas, with higher number of female cattle

and poultry. The study brings to the fore the need to focus on greater access to irrigation and subsidiary occupation like Poultry and Dairying. Agrarian distress has been continuously haunting the farming community across the Country during the last three decades in particular. This is true of Andhra Pradesh one of the top ranks state with high rate of farmers' suicides. In this paper an attempt is made to examine the trends in farmers' suicides across the 13 districts in the State during the last 15 years i.e., 1997-2011, for which published data is available. Incidence of Farmers' suicides in Andhra Pradesh 1997-201. In Andhra Pradesh, 1,934 farmers committed suicide between 1997 to 2011. All the districts are affected by this phenomenon during the last 15 years. Select features on district wise scenario during the past 15 years are presented in Table 1

**Table-1**

### **SELECT FEATURES OF DISTRICT-WISE FARMERS SUICIDES IN ANDHRA PRADESH 1997-2011**

S. No.	District	No. of years Reporting suicides	No. of suicide deaths				Total suicides during 1997-2011	
			Low	Year	High	Year	No.	%
1.	Ananthapuramu	15	9	1997	95	2008	654	33.82
2.	Chittoor	12	1	2001	33	2004	154	07.96
3.	Cuddapah	11	1	2001	26	2007	115	05.95
4.	East Godavari	9	1	2001	4	2004	24	01.24
5.	Guntur	15	1	2002	69	2004	256	13.24
6.	Krishna	12	1	1997	23	2004	65	03.36
7.	Kurnool	15	1	2003	77	2004	484	25.02
8.	Nellore	9	1	2000	7	2003	31	01.60
9.	Prakasam	11	1	2000	44	2004	104	05.38
10.	Srikakulam	6	1	2000	4	2004	11	00.57
11.	Vizianagaram	1	1	2004	1	2004	2	00.10
12.	Visakhapatnam	7	1	2007	9	2004	23	01.19
13.	West Godavari	4	1	2007	8	2004	11	00.57
<b>Total</b>		<b>15</b>	<b>28</b>	<b>1997</b>	<b>355</b>	<b>2004</b>	<b>1934</b>	<b>100.00</b>

Sources; Llaiah Macharla : "Determinants of farmers suicides in Andhra Pradesh

**SELECT FEATURES OF DISTRICT WISE FARMERS' SUICIDES IN ANDHRA PRADESH  
1997-2011 (Contd.....)**

	Districts	Relative Ranks of districts in suicides during the last 15 years															No. of years reporting farmers suicides
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1.	Ananthapuramu	10	4	1	-	--	-	--	--	--	--	--	--	--	--	--	15
2.	Chittoor	--	1	2	7	2	-	--	--	--	--	--	--	--	--	--	12
3.	Cuddapah	--	--	--	--	3	3	3	--	2	--	--	--	--	--	--	11
4.	East Godavari	--	--	--	2	1	1	--	3	--	1	--	1	--	--	--	9
5.	Guntur	2	1	8	-	1	3	--	--	--	--	--	--	--	--	--	15
6.	Krishna	--	--	--	3	3	3	3	--	--	--	--	--	--	--	--	12
7.	Kurnool	4	8	1	1	1	-	--	--	--	--	--	--	--	--	--	15
8.	Nellore	--	1	--	1	1	1	1	2	--	1	1	--	--	--	--	9
9.	Prakasam	---	1	1	4	1	3	1	--	--	--	--	--	--	--	--	11
10	Srikakulam	--	--	--	1	1	-	--	2	1	-	1	--	--	--	--	6
11	Vizinagaram	--	--	--	--	--	-	--	--	--	--	--	--	--	--	1	1
12	Visakhapatnam	--	--	--	--	--	-	1	3	3	--	--	--	--	--	--	7
13	West Godavari	--	--	--	--	--	-	--	2	1	1	--	--	--	--	--	4

Source: as Ex Ante

As noted earlier, while there is no single district untouched by this distress, some are affected during all the 15 year period while this is not so in few cases. In the three districts, Anantapur, Kurnool and Guntur farmers suicides took place every year during the past 15 years. Next in order are Chittoor, Krishna, Cuddapah and Prakasam reporting suicides for 11 to 12 years during the past 15 years. This concentration is rather less in North Coastal districts of Srikakulam, Vizianagaram and Visakhapatnam is an exceptional case witnessing suicides in only one year i.e., 2004 affecting one farmer.

Year-wise examination of data, during the last 15 years show, suicide deaths are not reported at all in many districts before 2003 and where reported in few districts the no of cases are very few. In 2004, all the districts are affected by this phenomenon and also recorded higher number of cases during last 15 years. Why 2004 resulted in devastating experience needs to be probed in detail?. District-wise rain fall data during the 10 year period 2001-02 to 2011-12 shows that the three year preceding 2004 are consecutive years of deficit rain fall. Of the total suicide deaths in the State during

1997-2011, the highest percent is reported in Anantapur (33.82) Kurnool (25.02) and Guntur ((13.24). Together, these three districts account for more than 70 percent of the farmers deaths. Next in order are Chittoor (7.96) Cuddapah (5.95) and Prakasam (5.38). The last consisting of North Coastal and Godavari districts are less affected up to 2011. The relative ranks of the 13 districts during the last fifteen years also clearly reflect the above observation. To, illustrate Anantapur scored 1<sup>st</sup> rank with highest suicide deaths in 10 years out of the fifteen years, Kurnool 4 out of 15 years and Guntur 2 out of 15 years. This shows, that this is not rare occurrence in an year or two but a persistent and recurring problem in some districts. This calls for probing deep into the factors which are unique to those districts for evolving appropriate measure to avert these in feature. With a view to identify the socio-economic variables having a bearing on the inter-district variations in the rate of suicides, the following multiple regression model has been used.

$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_7 x_7 + u$  is where

- y : Rate of suicides per one lakh farmers.
- x<sub>1</sub> : Gross irrigated area to total cropped area.
- X<sub>2</sub> : Percentage of area under non-food crops to total cropped area.
- x<sub>3</sub> : Bank credit per hectare of total cropped area.
- x<sub>4</sub> : Poultry per rural household.
- x<sub>5</sub> : Female cattle per rural household.
- x<sub>6</sub> : Ratio of share in area to share in holdings among small farmers.
- x<sub>7</sub> : No. of years of deficit rain fall during 2001-2002 to 2011-2012.

$\beta_i (i = 0 \dots 7)$  are regression coefficients to be estimated.

The correlation matrix showed positive and significant relationship between Rate of suicides and percentage of area under non-food crops. In respect of other variables the signs though not found to be significant are positive in case of no of years of deficit rain fall. Negative association is found between x<sub>2</sub>. x<sub>3</sub>. x<sub>4</sub>. x<sub>5</sub>. X<sub>6</sub>. This shows that farmers suicides are negatively associated with irrigated area, poultry per rural household, Cattle per rural

household and ratio of share of small farmers in operated area to share in operational holding. The results of the estimated correlation coefficient matrix and the multiple regression models are furnished below (Table 2). The correlation matrix indicates that the problem of multicollinearity is not of a severe problem basing on either Klein or Heady tests. The estimated regression equation is:

$$y = 0.625 + 0.009 x_1 + 0.010 x_2 - 0.0001 x_3 + 0.0022 x_4 + 0.098 x_5 - 0.408 x_6 + 0.015 x_7 \quad \text{----- (0.687)}$$

1.327) (0.790), (0.798)  
 (0.128) (0.642) (1.250),  
 R<sup>2</sup> = 0.647.

The coefficient of multiple determinations is 0.647 and it indicates that the selected explanatory variables are explaining about 65 percent of the variation in the dependent variable. Most of the regression coefficients

have registered the expected signs with a priori economic logic, but none of them are found to be significant even at ten percent level of significance.

**Table 2**

**Correlation Matrix for the Rate of suicide of Farmers and related variables in Andhra Pradesh 2011**

S.No.	Y	X1	X2	X3	X4	X5	X6	X7
Y	1.00	-.485	.629	-.208	-.426	-.119	-.583	.364
X1		1.00	-.778	-.671	.621	-.426	-.203	.605
X2			1.00	-.334	-.458	.298	-.008	-.762
X3				1.00	.644	-.242	-.062	.168
X4					1.00	-.003	-.486	.512
X5						1.00	-.180	.169
X6							1.00	-.024
X7								1.00

The above relationships clearly show that in areas with predominantly commercial crops and with deficit rain fall the farmers suicides are more. Conversely farmers' suicides are likely to be less in irrigated areas, areas with relatively higher number of female cattle and poultry per rural household and in areas where small farmers share in area is equal to or higher than their share in operational holding. To, sum up, during 1997 to 2011, all the districts in Andhra Pradesh witnessed farmers suicides. During this period highest percentage of suicide deaths occurred in Anantapuramu (33.82), Kurnool (25.03) and Guntur (13.24). These three districts also reported farmers' suicides during all the 15 years period, under study. Anathapuramu scored 1<sup>st</sup> rank with highest suicide deaths in 10 out of the 15 years under study. In case of Kurnool it is 4 out of 15 years and in Guntur 2 out of 15 years. The regression results showed that farmers' suicides are more in areas with predominantly commercial crops with deficit rainfall. Further, suicides are relatively less in irrigated areas, with higher number of female cattle and poultry. The study brings to the fore the need to focus on greater access to irrigation and subsidiary occupations like Poultry and Dairying.

**References**

1. Government of Andhra Pradesh, 2012, Statistical Abstract of Andhra Pradesh 2012, Bureau of Economics and Statistics, Hyderabad.
2. Llaiah Macharla, 2015, "Determinants of farmers suicides in Andhra Pradesh; An analysis" International Journal of Academic Research Vol.2, Issue-2, April-June,
3. Mohana Rao R. M. 2004, Suicides among Cotton Growers in Andhra Pradesh, Nabard Chair Unit, Dept. of Applied economics, Andhra University, Visakhapatnam.
4. Murty, K. Radhakrishna et. Al, 2005, Agrarian Distress and farmers suicides in Andhra Pradesh: An Interdisciplinary Study (Andhra University, Visakhapatnam.
5. Parthasarathy .G Shameen, 1998, Suicides of Cotton farmers in Andhra Pradesh An exploratory study Economic and Political Weekly Vol.33 No March, PP720-726.
6. Rao Muralidhar .B and G. Venkata Siva Reddy 2006, Crisis in Agriculture and Farmers Distress: with particular reference to farmers suicides in Anantapur District of Andhra Pradesh" Edited by K .Dasratharamiah, M. Jayaraj, Sustainable Agriculture in Drought Prone Regions Serials Publications, New Delhi.
7. Suryanarayana.D 2006, "Farmer's Suicides and Rehabilitation" Edited by K.Dasratharamiah, M.Jayaraj, and Title of the book Sustainable Agriculture in Drought Prone Regions- Serials Publications, New Delhi.

## **CHANGING SCENARIO OF TRIBAL LIVING IN GLOBALISED ERA: AN INDIAN PERSPECTIVE**

**Bishnuprasad Mohapatra**

Research Scholar, Department of Sociology, Utkal University, Bhubaneswar Odisha

---

### **Abstract**

The traditional mode of subsistence living among tribals has been based on barter system, shifting cultivation, hunting, and collection of forest products in the specific ecological niche from generation to generation. But, the present state of tribal living is changing from its traditional system due to the growth of urbanization, industrialization, cash economy etc. which are promoted by the state itself in the capitalist mode of production. In this changing scenario the sustainable subsistence living of tribal people is now under risk because they are becoming the victims of marginalization and pauperization through land alienation, displacement, poverty etc. in the modern development process. The present paper make an attempt to discuss traditional way of living and highlights state of changing scenario of tribals in India.

**Key Words: Tribal Living, Nature, Culture, Subsistence Economy, Ecology, Development**

---

### **Introduction**

In India tribal communities always have been at the centre of discussion among the Sociologists, Anthropologists, Social Scientists, Administrators, Non-government Organizations and Missionaries. The present decade witnessed drastically changes and transformations among the Indian tribal people and their way of living and as a major factor behind the study of tribal communities in Indian society. The issues of change and transformation of tribal society have been marked from the British colonial period and the process accelerates during recent years with the influence of liberalization, privatization and globalization model (LPG) of development. The changes that occurred among majority of tribal communities have significantly diminishes their way of living, livelihood, culture, ecology, religion, beliefs etc in the nature culture nexus. To address the issues attached to changing perspective of tribals there are different approaches i.e. Isolation, Assimilation and Integration were forwarded, besides that research, policies, programmes, plans and projects have been continuously implemented by all the stakeholders to bring them into mainstream society. But the facilities

provided by the stakeholders a small section of tribal peoples take the advantage and a larger chunk of tribal people marginalized in the whole development process. The question arises where is the fault? some people believed that fault is inherited in the implementation aspect of the plan and programme and on the other side people argued that the plane and the programmes implemented for the tribal people are not based on their need (nature culture based) rather the programmes focused on top-down approach. In this light the present paper discussed the traditional way of tribal living and highlights state of changing scenario among tribals people way of living in India.

### **Geographical Setting and Demographical Profile of Tribal Communities:**

Indian society is constituted of and based on different social groups i.e. religion, class, caste, communities and every groups have their own identity. The identity of these social groups are differentiated as higher, lower, scheduled, untouchables etc in the society. In the stratification system scheduled tribal communities occupy the lower strata. Their identity known from their distinctive way of

living, tradition and cultural practices in the country side and it varies from one geographical area to other. The tribal communities generally lived in the forest and hilly areas with different ecological setting. In India the distribution of tribal communities divided into three major zones i.e. North East, Central and Southern (Sarkar and Dasgupta 2000). These three zones are divided on the basis of geographical and cultural settings. The ecological setting of every tribal community links to their life and cultural practices with traditional knowledge in local environment. They represent an enormous diversity in terms of size, language traits, ecological situation, physical features, and extent of acculturation and with different mode of living.

In India, according to census 2011 there are 635 tribal communities constitute 8.6 percent of the country total population among them 75 communities are recognized as Particularly Vulnerable Tribal Groups (PVTGs) resides in different parts of the country. In the distribution of scheduled tribal population by the different state Madhya Pradesh comes first with 14.7 percent followed by Maharashtra 10.1 percent, Odisha 9.2 percent, Rajasthan 8.9 percent, Gujarat 8.6 percent, Jharkhand 8.3, Chhattishgarh 7.5 percent, Andhra Pradesh 5.7 percent, West Bengal 5.1 percent, Karnatak 4.1 percent, Assam 3.7 percent, Meghalaya 2.5 percent and rest of the state contributes 11.6 percent for the total scheduled tribal population in India . On the basis of tribal inhabitants Government of India marked tribal dominated areas as fifth and sixth scheduled areas. Fifth scheduled areas covered 9 states as Andhra Pradesh, Jharkhand, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Chattisgarh, Odisha and Rajasthan. Whereas north east states like Assam, Meghalaya, Tripura , Mizoram comes under sixth scheduled areas in India.

### **Tradition of Nature Culture**

India is the country characterized by cultural and religious pluralism and this pluralism is the unique feature of Indian tradition. The value of culture and religion regulate the life of

individuals in the society. The practices of culture and religion vary from social groups to social groups in India and tribal communities have no such exception. Tribal communities have their own culture and religion practices and identity which are different from the mainstream society. The practices of culture and religion are found very simple with rich in ethos, views and values. The culture of tribal communities is rooted in the way of life within their ecological surrounding. The tribal communities express their cultural uniqueness in their rituals, beliefs, language, social organization, festivals, song, dance, their dress, food, ornaments, art and craft and their way of life. The important factor is that they lived in the ecological niches which are rich in biodiversity and they have played a crucial role in conservation and management of forest through the traditional knowledge to protect the ecosystem and eco restoration, it further notice that they live with harmony in culture nature nexus (Isaac 2013).

Religion generally conceived as man's relation to supernatural power and it expressed through perform of various beliefs and worships. Religion found as the central focus of social and cultural life. There are different theories to understand the evolution of religion in society, but Spencer and Tylor's notion of religious beliefs in primitive society found essential. They describe how a primitive society understands the natural facts and phenomena. Another scholar Malinowski highlights religion arising from basic human needs (Troisi 1979). If we interpret the religious beliefs of tribal peoples in India, they worship the nature from which their basic needs are fulfilled. The culture of religious practices and beliefs move around the life giving forces surrounded within their environment and festivals observed in relation to the nature. Tribal groups have a totemistic religion links to trees, plants and animals (D'Souza 2006). Their festivals are mostly derived from the agricultural activity and life goes through the nature. They created a symbiotic relation with nature and built up their social, cultural and religious lives around the close proximity with nature (Hembrom 2003). Hill, Forest and land not only consider a habitat

and for economic gain for tribals but also a ground for the culture formation and consider as the habitat of their god and goddess (Shukla 2012), which protect their sustainable subsistence living and wellbeing. They believe that their whole life and work is regulated by the supernatural beings. All the religious and ritual performances are aimed at stimulating the natural process in their habitation. The whole religious belief among tribals moves around sacred geography, sacred being, sacred specialist and sacred performances (Sarkar & Dasgupta 2000). These sacred ritual and religious celebrated with the performance of rich verity songs and dance matching with the context. It has a long tradition in their culture. The culture of dance and music among the tribals developed and maintained by themselves as a traditional knowledge from one generation to generation. They perform these performances only for their inner satisfaction and express their joys, sorrows, passion and appreciation in man nature nexus (Sondge 2012). Most of the songs and music reflected natural phenomena what mostly they observed in their ecology and nature is the main source, inspiration and subject matter of songs.

The food and dietary practices of the tribal households generally restricted to their geographical surrounding and based on their traditional cultural practices. The dietary practice regulated through the seasonally availability of foods in the region. The main sources of food resources collected from cultivation and forest. In cultivation they generally cultivate subsistence crops to paddy, millets, rice, cereals etc, whereas from forest they collect roots, leaves, fruits, vegetables, flowers, seeds etc. which nutrient value is so high. It is clear that tribals not only depend on nature for their daily needs and livelihood but also it provides calorie, protein and minerals for their existence (Sarkar & Dasgupta 2000). Food collected from the forest plays a vital role in strengthening food security among the tribal communities over the year and also in the emergency time i.e. famine.

The condition of health and treatment among the tribal people closely associated within the environment in general and forest

ecology in particularly. Every culture has its own beliefs and practices concerning diseases and treatment and culture of a society determine the practices of health culture. These practices of health culture among the tribal people controlled and regulated by the long tradition of supernatural beliefs, religion, rituals. There exists a nexus between health, ecology, culture and nutrition. The ecohealth condition of the tribals influenced through the age old folk and traditional medicines i.e. herbs, plants; collect from the forest (George 2006). Use of these tradition practices of healing not only helps for health care and medicine knowledge development but also helps in conservation of cultural practices, ecology and biodiversity. However, in tribal community the tradition of nature, culture, religion and practices are interlinked. Their religion, songs, dance, food and nutrition, beliefs, health culture practices linked to their nature and particularly to their ecological surrounding. Each cultural practice is linked and dependent to each other in one or more sense. Their sustainable living moves around their traditional practices and within the nexus of nature, culture and religion.

### **Self-Reliant Economy Structure**

The Economy structure of tribal communities mostly influence by their socio-cultural, geographical and demographic setting. The economic opportunities are extremely limited in tribal areas with influence of natural, cultural and moral factors. The practices of economic activity may be traced back from the hunting, barter and forest based economy within the natural setting next to shifting cultivation and animal husbandry which are the pre-agricultural stages. This system of subsistence economy based on the proper utilization of land and forest resources within the customary rights of tribal community. Besides these economic activities, they are also engaged in settled cultivation, fishing, horticulture, basket making, wood work, pastoralism, non timber forest product collection etc., with relation to their biodiversity, natural environment and traditional knowledge. They develop their knowledge and skill around their environment

through the observation and experimentation to sustainable utilization of natural resources for their economic gain.

Karl Polanyi in his work on 'Economic History' defined economy in two ways i.e. formal and substantive. The formal economy rest on the maximization of profit and based on laws of mind and on others substantive economy rest on the fulfillment of one's needs with based on laws of nature with the notion that to live they have to eat. The notion of substantive economy was relevance to the tribal society Because neither the tribal economy is neither profit oriented nor based on individualist notion. The tribal economy was self reliant in nature with not surplus motive production and only lived for hand to mouth with dignity and optimality. They collect only essential and needed food for a specific couple of days for their survival (Srivastava 2008) and totally depend upon the available natural resources, which they treated as renewable and develop a culture of sustainable use of these resources (Fernendes and D'Souza 2006, Fernendes, Menon and Viegas 1988). The share of economic activity among men and women in tribal society is a major concern. Both men and women actively participated in the household and economic activity for their day to day living. In fact the participation of women in economy or livelihood generation found comparatively more responsibility and significant than men counterpart. Tribal women closely associated with the forest from which they collect both fuel wood and non timber forest products like flower, edible fruits, vegetables etc throughout the year. Besides food gathering from the forest and selling in the local market they also actively participated in the agricultural works with their male members and they also collect raw materials for their traditional craft making like rope, basket etc. The tribal peoples sell the crafts in the nearest markets for cash, food grain and to supplement their daily earning (Mukhopadhyay 2002). It also marked that women dominate in the domestic market economy place while selling and purchase of the products (Mehrotra 2008). However, the structure of tribal economy is closely linked to their geographical areas with

nature and environment resources availability. This economy-culture-nature nexus is subsistence because these natural resources which they treated as life and livelihood is renewable and develop a culture of sustainable use of these resources for to use in long run.

### **Changing Perspective in Tribal Way of Living**

Change is an unchangeable phenomenon in a society and no society is static, it is always dynamic in nature. Change in a society or group happens with the influence of both internal and external factors, the speed of change also varies with these factors. A society or group have their own culture traits i.e. beliefs, practices, value, norms etc, which co-ordinate their way of living. These traits are hurdles and resists to the outer forces and maintain integration in the society. Change in on one cultural trait leads to undergo change in other aspects of culture and moved around the entire society (Das 2005). Besides cultural change of any community or society, economic (production) change also brings changes in socio-cultural aspects. Marx proceeds that the changes in economy brings changes other aspects of society and there is a casual relationship between economic transformation and social change.

Change in tribal society of India has no such exception. Tribal communities have been marked undergoing changes from their traditional way of socio-culture, ecological and economic life, and that changes transform the tribal society. The changes in the subsistence living started with the introduction of monarchical ideas and immigration of outsiders to the tribal areas with non-egalitarian values (Hembrom 2003). During colonial era forest laws were propagated, which restricted the indigenous and tribal peoples from forest land and resources. British rules over the forest resources started first in demand of timbers for the development of railway lines, building and second for the exploitation of mineral resources available in tribal areas (Sen 2012). Since they are unaware of colonial administrative rules and laws, they did not know how to overcome from the exploitation and how to get their land

legally (Srivastava 2008). In these days their existence, habitation and culture have been subjected to the vested interest and under the brutal force of the state by setting up reserved forest to harass natural resources. It not only leases the forest for industrial, mining and other purposes but also diminish the customary rights of tribals which they enjoy from generations (Topno 2003). The process not only forced tribals to enter in labour market for their earning and livelihood gain but also without appropriate knowledge or skill. They come across the other groups of people where they feel inferior in front of host communities at the same time the freedom of tribal people came to be reduced due to the entry of outsiders in their areas.

The tribals always moved around the nature faced confronts due to modern development process which mostly based on the indiscriminate exploitation of resources for the betterment of human society, but within the human society the process forget to include the tribals (Topno 2003). The process not only evacuated them from their ecology where they were all in all, but now they becoming serfs, marginalized, dehumanized, pauperized and displaced from their mother land. As a result the classless and egalitarian based on community living with co-operation and reciprocity become more materialistic and individualistic due to competition for availability of scares resources. The inter-personal relationship based on kinship, mutual help and cooperation have become more impersonal and disappeared. In the process of alienation they lost the homogeneity and solidarity which is the tribal characters. Individualistic activity leads to breaking up village organization, institution and cooperation.

With the introduction of market economy by the state as well as elite and capitalist section of peoples in the tribal areas in the name of mainstreaming and civilizing the tribal, have brought significant change in the socio-cultural life of tribals. This notion of development model breakdown the closed tribal society to a larger extent and opened up for the outsiders. Different anthropological and sociological studies found that the unique

language traits of the tribal peoples are disappearing day by day from their oral tradition and assimilating themselves to regional languages for to cope with market economy. The self reliant economy or livelihood of tribals was totally disrupted due to growth of cash economy, urbanization, industrialization, deforestation, restriction on forest resources, land alienation, displacement etc, which are regulated through the land and forest resources. The processes change their traditional subsistence livelihood structure by restricting them from their productive resources. Indebtedness among the tribals found higher with the introduction of money economy with linking to market forces. The problem is when barter system changed to cash system with the introduction of revenue in cash by colonial government and money lenders came forward to lend cash to tribals to meet the revenue requirements. In the process barter system gradually diminished by market economy (Behera 2013).

Food insecurity, poor intake of nutrition and high incidence of poverty exhilarate the poor health status of tribals. Their ecohealth care system, forest foods, taboos, local drinks and hard work contributes significant to the wellbeing of tribals. But with the interaction with market forces changed their food habit and dietary pattern due to exploitation of forest resources, on the needy time they could not fulfill their daily nutritional requirements and as a result incidence of malnutrition are found widespread in the tribal areas (ibid). At the same time health care practices also changes among the tribal households, due to education, awareness, contact with the outsiders and non availability of traditional medicine from the forest. As a result their dependency to government health care services increased but with low human capital and less access to credit further marginalized their life.

Religion plays an important role in the life of tribals and while contact with outsiders in a deprived condition few missionaries established and provided their services for the tribal areas. Christian Missionaries is one of them, who established their centres in the tribal

areas. They established schools, hospitals and co-operative credit societies to help the tribal peoples to get employment, to free from money lenders and provide health care services during their sick periods. This missionary has their own belief, practices and values. The extension of welfare services helps them to influence the tribals towards Christianity. Those tribals comes under the influence have changed their religion and also it is now difficult to identify Christian and non-Christian tribals in a particular tribal villages, because both lived in the closed proximity. On other side Hindus never tried to impose their religious practices to the tribals. But the change of a tribal to Hinduism is process of continuing since long back (Das 2005) and tribals generally called as backward hindus in Indian society. However, the beliefs, practices and ritual of tribals transferred from the traditional practices due to cultural contact with other neighborhood community, caste and class.

Once again development induced displacement severely affect the tribal people. The projects sacrifice their culture, values, customs, practices, nature and everything they were attached to in their habitation. In the name of mega development projects for nation interest displacement creates socio cultural genocide among tribal communities and require huge land acquisition, deforestation and depletion natural resources for their establishment. As a result the sustainable livelihood of tribal is now under threat because they are becoming the victims of land alienation, poverty, indebt and bonded labour. Mohapatra in 2016 reveals that the traditional livelihood structure of the study village in the pre-displacement era was self sustainable while the modern livelihood structure has now become more fluctuating and causing livelihood insecurity off and on. It is also found that people of this area are quite deficient in five categories of capitals or assets, which are pre-requisites for strengthening their livelihood. Poor education, low skill, low natural resource base and insufficient infrastructure in the changed environment of modern development push the aboriginal ecosystem people into livelihood insecurity. Further loss of shelter,

religious and sacred places, community places etc. the ecosystem people loss the identity and culture as a symbol of family cohesion, cooperation, mutual support. The process also change the food habits; in pre displacement periods the tribals grown and consume millets but after post displacement period the food habits change to rice. (Veerabhadru and Subramanyam 2013). In the resettlement habitations host people see them backward and underdeveloped, it make the tribal feel inferior towards their own tradition and culture. While illustrating a group of tribal women who are displaced from Sardar Sarovar Dam, they found unwilling to sing their traditional songs in their won festivals in the displaced sites, when asked they answer that the songs are backward and host people laugh at the songs (Dharmadhikary 2001). The deities of tribals, hills, caves, sacred groves, folklore and wisdom are greatly affected. Due to loss of access to sacred forest land, their place of worship and place of cremation over which they have traditional and legal rights from generation. As a result loss of social capital which leads to strain and breakdown of the social system. After displacement and loss of social capital lead to loss of self esteem in the post displacement periods or in the new settlement areas (Singh 2015).The displaced tribals are frequently affected by various diseases like malaria, fevers, typhoid, diarrhea, cholera, skin diseases etc. and Alcoholism became very rampant and most of their income goes towards it, as a result they are suffer by tuberculosis and liver disorders, it leads to spend most of their earning to cure the diseases with non availability of traditional medicinal practices and herbal medicines. It also found that all post displacement colonies are lacking public health care facilities, sanitation and protected drinking water. (Veerabhadru and Subramanyam 2013). It is now observed that because of land alienation, development-induced displacement problem and their failure to get themselves resettled and rehabilitated in the changed environment of the tribal regions, the tribals populace is now subjected to distress migration under the decreasing condition and degradation of local natural resources. It is found to be

posing a threat to their traditional means of sustainable living.

### **Concluding Remarks**

In the twenty first century world is marked by its structure of change and transformation in every sphere of individual live. This change and transformation of a society or individual is a continuous process influenced by number of factors. In the context of India and Indian society the structure of change and transformation started during the colonial period and tribal communities of India found no such exception. The tribal communities have marked significant changes in their way of living from its tradition due to both pull and push factors. The tradition of nature culture nexus among the tribals links to their subsistence living, economy, religion, beliefs, practices, value, knowledge, health and nutrition, festivals, songs etc in their habitation. Their habitation is closely associated with the ecology, particularly to the forest resources. The changes from the subsistence living started with the influence of both outsiders and state, first British colonial restriction on use of forest resources followed by revenue collection, cash economy, market economy, industrialization, urbanization etc. The processes not only impose restriction on them but also exploit their life saving resources from their ecology. Further in the name of civilizing and mainstreaming the tribal peoples in the backward areas development projects displaced tribals form their habitation and also from their sustainable resources.

However, the sustainable subsistence living of tribals in the backward areas transferred towards an insecure feature. The changes in the community based production system of tribals leads to changes in other socio-cultural aspects of tribal life what Marx highlighted as changes in economy will change the overall system and it is found also that changes in the socio-cultural life brings changes in their economy activity of the tribals. The problems attached to the tribals in contemporary discourses are the byproduct of mainstream development model and ideology of liberalization, globalization and privatization in the India. The process not only alienated their territory, economic subjugation, socio-cultural genocide, violation of human rights but also creates ecological risk in these regions by deforestation, pollution, soil erosion etc. in the natural environment in which they living harmoniously with nature culture nexus from generation. Within the past and present state of tribals living has shown a drastically transformation from nature culture nexus to market economy culture with influence from political economic system. The process further questions the future state of tribal living in this political economic system where exploitation, victimization, marginalization and pauperization continuing over their dignified living in the democratic sphere. In the democratic system of the state it need to be protect the human rights of tribals through their own perspective of nature culture nexus for their dignity and sustainable subsistence living within the ecology.

### **References**

1. Veerabhadru, B and V. Subramanyam (2013) 'Displacement, Migration and Occupational Change among the project displaced tribal communities in India: a study of Peddagadda reservoir', IOSR Journal of Humanities and Social Science, vol. 14(3): 26-35.
2. Singh, M. R. (2015) 'Mining and its Impact on Tribals in India: Socio-Economic and Environmental Risks', International Journal of Social Science and Humanities Research, Vol. 3(2): 429-439
3. Dharmadhikary, Shripad (2001) 'Displacement, Development and

- Large Dams', Social Change, Vol. 31 (1 & 2): 104-109
4. Chacko, P. M. (2005) 'Tribal Communities and Social Change', New Delhi: Sage Publication.
  5. Burman, B. K. R. (2005) 'Meaning and Process of Tribal Integration in a Democratic Society', in P. M. Chacko (eds.) 'Tribal Communities and Social Change', pp. 83-96. New Delhi: Sage Publication.
  6. Das, T.C. (2005) 'Nature and Extent of Social Change in Tribal Society of Eastern India' in P. M. Chacko (eds.) 'Tribal Communities and Social Change', pp. 97-113. New Delhi: Sage Publication.
  7. Dixit, N. K. (2006) 'Tribals in India', Delhi; Vista International Publishing House.
  8. D'Souza, A. (2006) 'The Traditional Angami Naga Forest and Water Management : Implications for Climate Change and sustainable Tribal Living', in W. Fernandes and N.G. D'Souza (eds.) 'Climate Change and Tribal sustainable living: Responses from the Northeast', pp. 88-113. Guwahati: North Eastern Social Research Centre and Indian Network of Ethics and Climate Change.
  9. Fernandes, W and N. G. D'Souza (2006) 'Climate Change and Tribal sustainable living: Responses from the Northeast', Guwahati: North Eastern Social Research Centre and Indian Network of Ethics and Climate Change.
  10. George, B. (2006) 'An Experimental Tribal Community, Environment , Ecohealth, and Socio-economic Project in Raigad, Maharashtra', in W. Fernandes and N.G. D'Souza (eds.) 'Climate Change and Tribal sustainable living: Responses from the Northeast', pp. 69-87. Guwahati: North Eastern Social Research Centre and Indian Network of Ethics and Climate Change.
  11. Mukhopadhyay, L. (2002) 'Tribal Women in Development', New Delhi: Publication Division, Government of India.
  12. Forde, C. D. (1963) 'Habitat Economy and Society: A Geographical Introduction to Ethnology', London: Methuen and Co. Ltd.
  13. Sarkar, A and S. Dasgupta (2000) 'Ethno-Ecology of Indian Tribes', Jaipur: Rawat Publication.
  14. Troisi, J. (1979) 'Tribal Religion: Religious Beliefs and Practices among Santals', New Delhi: Manhor.
  15. Saraswati B. (1991) 'Tribal Thought and Culture', New Delhi: Concept Publishing House.
  16. Sondge, T.P. (2012) 'Adivasi Culture and Politics', Kanpur: Chandralok Prakashan.
  17. Isaac, S. (2013) 'Sourcebook on Tribal Culture Change and Mobility', New Delhi: Random Exports.
  18. Srivastava, S. P. (2008) 'The Development Debate: Current Concerns and Emerging Perspectives', in S. K. Chaudhury and S. M. Patnaik (Eds.) 'Indian Tribes and the Mainstream', pp.221-238. Jaipur: Rawat Publications.
  19. Mehrotra, N. (2008) 'Situating Tribal Women', in S. K. Chaudhury and S. M. Patnaik (Eds.) 'Indian Tribes and the Mainstream', pp.107-123. Jaipur: Rawat Publications.
  20. Mohapatra, B. P. (2016). 'Livelihood Status among Marginalised Community (SCs and STs): A Study of Parajapondi Village of Koraput District,

- Odisha, in Sheeladitya Paul and Subikash Chowdhury (eds) *Issues in Rural Livelihood*, pp.11-28, Kolkata: Progressive Publishers
21. Deogaonkar, S. G. and S. S. Deogaonkar (2003) *'Tribal Dance and Songs'*, New Delhi: Concept Publishing Company.
22. Behera, M.C. (2013) *'Tribal Development in India: Reality Contours of Possibilities'*, 5th Prof. Ajit Kumar Mitra Memorial Lecture, Koraput: Council of Analytical Tribal Studies.
23. Singh, K. S. (2008) *'Tribal and the Mainstream of Indian Society and Culture'*, in S. K. Chaudhury and S. M. Patnaik (Eds.) *'Indian Tribes and the Mainstream'*, pp.63-68. Jaipur: Rawat Publications.
24. Sen, R. K. (2012) *'Adivasis in India in the Pre and Post Liberalization Era: Problems, Policies and Suggestions'*, 4th Prof. Ajit Kumar Mitra Memorial Lecture, Koraput: Council of Analytical Tribal Studies.
25. Roy, S. K. (2011) *'The Adivasis in a Liberal Democratic Order and Their Struggle for a Self'*, in B. Ghosh (eds.) *'Interrogating Development: Discourses on Development in India'*, pp.81-103. Jaipur: Rawat Publications.
26. Misra, P. K. (2014) *'Place of Food gathering and Hunting Peoples in Indian society and Their Transformation'*, *The Eastern Anthropologist*, Vol. 67 (3-4): 275-302.
27. Srivastava, V. K. (2008) *'On Tribal Economy and Society'* *The Eastern Anthropologist*, Vol. 61 (4): 533-548.
28. Hembrom, M. (2003) *'A Socio-Philosophical Change in Tribal Life'*, in Padmaja Sen (eds.) *Changing Tribal Life: A Socio-Philosophical Perspective*, pp. 31-40. New Delhi: Concept Publishing Company.
29. Topno, S.N.M. (2003) *'Development Conflicting Ideologies'*, in Padmaja Sen (eds.) *Changing Tribal Life: A Socio-Philosophical Perspective*, pp. 121-127. New Delhi: Concept Publishing Company.

# **IMPACT OF LEVERAGE ON FINANCING PATTERN OF CORPORATE SECTOR IN INDIA –A COMPARATIVE STUDY OF PUBLIC SECTOR COMPANIES DURING PRE AND POST LIBERALIZATION**

**Baljinder Singh**

Assistant Professor, Department of commerce, Pbi . Uni.TPD. Malwa College RampuraPhul.

**Dr.Amandeep Singh**

Associate Professor, University School of Business Study ,Punjabi University Guru Kashi Campus Talwandi Sabo

---

## **Abstract**

Indian economy is developing economy where growth of country is depends on corporate sector. But the growth of corporate sector depends on its financial sources and their proper utilization .This paper is focused on impact of leverage on Financing pattern of corporate sector in India –A comparative study of public sector companies during pre and post liberalization. Research is based on secondary data which has been collected from proress, annual reports of the companies.

**Key word: leverage, liberalization, capital structure, financing pattern**

---

## **Introduction**

All type of business organist ion (manufacturing, trading, and service) must create facilities or carrying on its operations. These facilities are created by acquiring fixed and current assets.The decision pertaining to acquisition of these assets is known as investment decisions .Once the investment decision has been made , it create a need for determine appropriate amount from different sources of finance for fulfilling the investment needs .This is known as capital structure decision. A company should plan its capital structure decision on its incorporation and all other decision should be made to accomplishing the same.

Capital structure decision plays a significant role in corporate financial management. It is the combination of debt and equity that funds an organization’s strategic plan. It supports strategic firm goals, maximizing value, optimizing flexibility and minimizing cost. The firm can issue many different securities in different combination, but it attempts to find, that combination which

maximize overall value. The choice between debt equity to finance firms’ assets involves a trade-off between risk and return. The use of more debt may harmful for the survival of firm, while conservative use of debt may deprive the firm in leveraging return to equity owners. It requires there must be proper and strategic management of capital structure ensures access to the capital needed to fund future growth and enhance financial performance. The choice of combination debt and equity depend on the various factors. Generally it is observed that debt equity norm of 2:1 for financing the in private sector. But a standard norm with regard to debt equity ratio for all industrial units is neither desirable nor practicable as a condition it differs from industry to industry. A company considered highly leveraged when it uses too much debt verses equity and may find freedom of actions restricted by its creditors and /or may have its profitability hurts as a result of paying more interest costs. This paper justify the first objective the capital structure within Indian corporate sector and to identify pattern of financing during the period of pre and post liberalization among public sector companies.

For the purpose research four measures of leverage i.e. total debt to equity, total debt to total assets, long term debt to equity and short term debt to equity ratios has used been for examine capital structure and financing pattern of corporate sector in India

### **Objectives of Study**

To examine the capital structure within Indian corporate sector and to identify impact of leverage on pattern of financing during the period of pre and post liberalization among public sector companies.

### **Research Methodology**

The present research is based on secondary data. In order to achieve the objective, a sample of 25 public sector companies has been obtained, which is be collected from annual reports of the different companies, prowess, official directory of Bombay stock exchange etc. For the purpose of data analysis Mean, SD, CV, CGR, T value, and Trend values are calculated. The reference period of study is for pre liberalization is 1980 to 1990 and for post liberalization is 2000 to 2012.

### **Limitation of research**

It is based on secondary data and limited to only up to availability of annual reports companies

### **Review of literature**

**Fromm (1962)** has conducted the study on inventory business cycle and economic stabilization in inventory fluctuation and economic stabilization. Results shows that internal flow of funds was more important factor. Capital structure forms an important segment of the factor that have a bearing on output growth in firm \ industry. **Panda (1970)** conducted study on cost of internal equity as a source of fund. He concluded that firms have not followed a specific rule in fixing financial standards but their own logic operates. An investment will be accepted if return from it exceeds the cost of funds. The author is not in favor of treating the funds retained by firm as free cost. He stresses that the opportunity cost of retained earnings is the cost. **Parsad (1970)** indicated in his study the Impact

of corporate leverage taxation on financial policies of companies. He tried to study the corporate tax system in India with its general implication on the financial policies of cement industry. He defines that the method of financing leverage has impact owing to rise of tax incidence with increase in borrowing against funds. **Vaidyanathan (1977)** has done the work on investment behavior of selected industries in private corporate sector in India. Main objective of the study was to analyzed the behavior of certain selected private industries in India in respect of their fixed investment. **Schneller (1980)** has done the work on taxes and optimal capital structure of firm. He argues that when individuals differ in tax rates imposed on their interest income, value maximization is meaningless. He concluded that debt should be used as long as present value of liquidity to bond holders is lower than the proceeds received when bonds are issued and where rate at which dividends are taxed and conditions for debt financing for earning retaining firm are more severe than those of the dividends. **Aggarwal (1982)** conducted the study on profits investment and financing behaviors of automobile manufacturing industry in India. He concluded that the industry mainly sustains through profits and then through dividends and retained earnings. The effect of sales on investment demand is not fully confirmed. **Kaur (1995)** has examined the study on prevailing practices regarding cost of capital and capital structure. She divided the study into two parts, first concerned with current practices of capital structure by Indian companies and second concerned with determining the relationship between capital structure and other identified variables. She concluded that most of companies were using weighted average cost of capital. She also found that capital is invariant to change in capital structure in all selected industries. **Dennis and Raymond (2000)** did a survey on capital structure decision of Hongkong firms. He found that the financing and investment decisions are made simultaneously and the firm within the same industry tends to have more similar capital structure though it is not a deliberate choice of management. **Williamson (2002)** analyzed the debt and equity are not merely alternative modes of finance, but also as alternative modes of governance. Corporate governance is meant to create some rules and

regulations which would ensure that external investors and creditors in a firm can get their money back and would not simply be expropriated by those who are managing the firm. **Staritz (2003)** conduct the research on Financial structure, Investment, and emerging Economic development. A flow of funds Analysis of emerging countries. Thus the non-financial corporate sector in emerging countries analyzed finance a greater part of investment by external sources and within external sources by stock markets compared to developed countries. **Panigrahi (2010)** has conducted the work on capital structure of Indian corporate sector changing trend. The main objective of the study was changing trend of capital structure pattern of Indian companies during the pre and post liberalized era as well as in recent past. He analyzed 300 Indian private sector companies comprising 20 different sectors from the period 1999-2000 to 2007-08. He grouped the industries on the basis of age, size, nature etc. and he found that govt. played a dominant role in for allowing the limited resources for public investment. He found that India has to concentrate on domestic capital formation in order to achieve this goal. We have to promote private corporate investment from Indian nationals as well as non-resident Indians. **Karpal and Bodla (2011)** has done the work on financing pattern of corporate India under liberalized era 1991 to 2008 main objective of the study was to know source of finance of different companies and to study changes, if any in financing pattern of corporate in India during the liberalized period. The result indicate that a declining trend of debt equity ratio and debt to total assets ratio after initiation of financial sector reforms in India. Also a significant variation across industry group with respect to financing pattern. **Beena (2011)** has done the work on financing pattern of India corporate sector under liberalization with focus on acquiring firm abroad. The main objective of the study was to analyze financing pattern of Indian corporate sector and to identify the pattern of resource mobilized by Indian firms acquiring from abroad. She found that Indian private corporate sector mobilized large share of sources through external sources and she also

found that Indian stock market does not play major role in Indian manufacturing sector.

## ANALYSIS

### Capital Structure and Financing Pattern of Public Sector Companies

Table 4.1 shows the values of mean, standard deviation, coefficient variation, C.G.R, t value and trend value of long term debt to equity ratio of public sector companies. On an average, the debt-equity ratio of public sector companies lies in the range of 0.42 in case of M S T C Ltd. to 5.94 in case of National Buildings Construction Corporation Limited during pre-reform period. However, the mean debt-equity ratio (MDER) is recorded from 0.03 in case of India Tourism Development Corporation limited to 5.13 for Rural Electrification Corporation Limited during post-reform period. Overall, the public sector companies have registered 2.53 and 0.96 MDER during pre and post-reform periods respectively that reveals debt has lost its significance as a source of finance for public sector companies in India during post-reform period as compared to pre-reform period. The public sector companies become capable to generate enough cash to satisfy its debt obligations during post reform period. Moreover, the table 4.1 discerns a sharp decline in the proportion of debt to equity during post-reform period as compared to pre-reform period for the public sector companies. However, the industries namely H M T Limited, Hindustan Copper Limited, and I T I Limited have registered an increase in the proportion of debt to equity during post-reform period as compared to pre-reform period. Noticeably, except these companies, all other companies have registered low volatility as SD values indicate during post-reform period as compared to pre-reform period. The CV values of both pre and post-reform periods show high variations for individual industries. However, overall CV value has registered slightly high for post-reform period. The C.G.R. values depict that the number of companies with negative C.G.R. of debt-equity ratio has increased from 10 companies in pre-reform period to 21

companies in post-reform period. Moreover, overall C.G.R. value which recorded 9.95 percent during pre-reform period has become negative value of -1.74 during post-reform period. It means that majority of the public sector companies become less risky after reforms. Noticeably, only two companies namely Indian Oil Corporation Ltd. and Scooters India Ltd realized debt-equity ratio significant at 1% level negatively during pre-liberalization period. However, after liberalization, there were 9 companies have recorded their debt-equity ratio highly negative with significant at 1% level.

Highly positive trend values of debt-equity ratio are indicator of sharp increase in the debt liabilities and the percentage of assets of a business being financed by debts are accumulating. The companies namely Coal India Limited, Hindustan Organic Chemicals Limited, and Oil India Limited that have highly positive trend values of debt-equity ratio during pre-reform period registered negative trend values of debt-equity ratio during post-reform period. Overall, trend value of debt-equity ratio is recorded 2.1744 during pre-reform period as compared to -0.0121 during post reform period. It means that the public sector companies have been taking little debt during post-reform period and become more dependent on internal finance and thus come under low-risk taking industry. Table 4.2 brings out the values of mean, standard deviation, coefficient variation, C.G.R, t value and trend value of short term debt to equity ratio of public sector companies. On an average, the debt-equity ratio of public sector companies lies in the range of 0.32 in case of I T I Limited to 2.21 in case of Balmer Lawrie & Co. Limited during pre-reform period. However, the mean debt-equity ratio (MDER) is recorded from 0.02 in case of Oil India limited to 4.58 for Hindustan Organic Chemicals Limited during post-reform period. Overall, the public sector companies have registered 0.91 and 1.23 MDER during pre and post-reform periods respectively that reveals debt has gained its significance as a source of finance for public sector companies in India for short period during post-reform period as compared to pre-reform period. The public sector companies become capable to generate enough cash to satisfy its debt obligations during post reform period. Moreover,

the table 4.2 reveals that out of 25, 14 the public sector companies have registered a decline in the proportion of debt to equity during post-reform period as compared to pre-reform period. However, the industries namely Andrew Yule & Co. Ltd., H M T Limited, Hindustan Copper Limited, Hindustan Organic Chemicals Limited, I T I Limited, M S T C Ltd. and National Buildings Construction Corporation Ltd. have registered a marked increase in the proportion of debt to equity during post-reform period as compared to pre-reform period. Noticeably, Hindustan Organic Chemicals Limited have registered highest volatility (7.89) followed by Hindustan Copper Limited (4.82), I T I Limited (4.25) etc. as SD value indicate during post-reform period as compared to pre-reform period.

In case of T values, the number of companies that have registered their short term debt-equity ratio significant at 1% level has increased from 4 during pre-liberalization period to 12 during post-liberalization period out of which 7 companies have realized positive short term debt-equity ratio significant at 1% level. It means that these companies have experienced an increase in their short term debt liabilities after liberalization. Thus, null hypothesis that there is no change in short term debt-equity ratio during both periods stands rejected. Overall, trend value of debt-equity ratio is recorded 0.0492 during pre-reform period as compared to -0.6620 during post reform period. The companies viz. Rashtriya Chemicals & Fertilizers Ltd., H M T Ltd., Hindustan Copper Limited, I T I Ltd. and Steel Authority of India Ltd. that experiencing positive trend values of debt-equity ratio during pre-reform period have registered a negative trend after reforms. It means that these public sector companies have been taking less risk during post-reform period and become less competitive after reforms.

**Table 4.1: Mean, SD, CV, CGR, T value, and Trend of Long Term Debt to Equity values of public sector companies.**

Serial No	Name of company	Before liberalization						After liberalization					
		Mean	SD	CV	C.G.R.	T Values	Trend	Mean	SD	CV	C.G.R.	T Values	Trend
1	Andrew Yule & Co. Ltd	4.73	5.25	111.01	5.76	0.682	0.2169	3.46	3.07	204.33	10.51	1.147	0.4881
2	B E M L Ltd.	4.90	5.27	107.54	7.61	0.880	0.3069	0.10	0.21	217.19	-43.97	-1.933 <sup>#</sup>	-2.4655
3	Balmer Lawrie & Co. Ltd.	2.37	1.00	42.25	-13.17	-2.747 <sup>#</sup>	-0.1771	0.52	0.57	110.17	-1.29	-0.089	-0.0221
4	Bharat Heavy Electricals Ltd.	1.63	1.64	100.23	14.96	1.470 <sup>@</sup>	0.2180	0.05	0.04	96.32	-37.54	-9.353 <sup>*</sup>	-0.1415
5	Coal India Ltd.	4.98	5.44	165.42	34.91	0.648	4.7380	0.22	0.15	66.84	-17.75	-3.041 <sup>*</sup>	-0.0065
6	H M T Ltd.	0.57	0.26	44.44	0.60	0.058	-0.0500	3.38	2.21	143.58	-15.96	-9.728 <sup>*</sup>	-0.0367
7	Hindustan Copper Ltd.	1.81	1.54	85.13	13.50	1.477 <sup>@</sup>	0.2218	2.20	2.01	149.51	-24.50	-2.772 <sup>#</sup>	-1.9670
8	Hindustan Organic Chemicals Ltd.	4.86	5.51	165.46	36.18	0.608	4.7019	2.08	1.76	84.75	-43.39	-8.870 <sup>*</sup>	-0.5691
9	I T I Ltd.	0.79	1.05	132.00	26.61	1.977 <sup>#</sup>	0.2263	1.97	3.74	190.43	-1.74	-0.229	0.0940
10	India Tourism Deve. Corp. Ltd.	1.44	1.29	89.54	0.30	0.019	-0.0404	0.03	0.05	166.00	-50.15	-6.060 <sup>*</sup>	-0.3671
11	Indian Oil Corpn. Ltd.	0.89	1.02	115.38	-22.83	-2.943 <sup>*</sup>	-0.2168	0.66	0.19	28.23	-43.02	-5.905 <sup>*</sup>	-0.0056
12	M M T C Ltd.	1.17	0.89	76.29	18.69	1.374 <sup>@</sup>	0.1576	0.04	0.01	277.92	-1.58	-0.645	-0.0161
13	M S T C Ltd.	0.42	0.27	65.65	0.75	0.098	0.0152	0.29	0.24	83.11	-22.92	-2.875 <sup>*</sup>	-0.0014
14	N H P C Ltd.	1.17	1.01	86.37	-11.82	-1.234 <sup>@</sup>	-0.2099	0.61	0.11	17.46	-10.79	-0.947	0.0150
15	National Buildings Construction Corpn. Ltd.	5.94	4.86	165.14	-43.97	-1.933 <sup>#</sup>	-2.4655	0.08	0.27	331.80	-3.47	-0.186	-0.0324
16	National Fertilizers Ltd.	2.24	4.04	180.09	29.19	1.469 <sup>@</sup>	0.5708	0.22	0.21	97.59	-6.32	-1.137	0.0010
17	Neyveli Lignite Corpn. Ltd.	1.36	1.55	114.06	15.60	0.889	-0.0363	0.26	0.09	33.73	5.68	2.590 <sup>#</sup>	0.0156
18	Oil & Natural Gas Corpn. Ltd.	5.16	4.25	159.75	19.35	0.906	-0.3249	0.06	0.09	156.02	-45.37	-9.628 <sup>*</sup>	-0.0169
19	Oil India Ltd.	4.20	3.62	111.25	113.29	1.650 <sup>@</sup>	3.7208	0.04	0.03	89.13	-35.17	-0.947	-0.0092
20	Rashtriya Chemicals & Fertilizers Ltd.	1.64	1.71	104.12	-23.14	-2.284 <sup>#</sup>	-0.4380	0.14	0.14	98.43	11.06	1.645 <sup>@</sup>	0.0167
21	Rural Electrification Corpn. Ltd.	1.15	1.50	130.23	-14.49	-0.907	-0.2932	5.13	0.93	18.02	2.25	1.860 <sup>#</sup>	0.1135
22	Scooters India Ltd.	1.23	1.12	90.36	-32.42	-5.539 <sup>*</sup>	-0.3275	0.31	0.13	41.51	-4.63	-1.501 <sup>@</sup>	-0.0189
23	Shipping Corpn. Of India Ltd.	1.81	1.86	102.25	-14.16	-1.295 <sup>@</sup>	-0.1610	0.51	0.20	38.67	-0.88	-0.288	-0.0002
24	State Trading Corpn. Of India Ltd.	2.02	1.91	94.60	-32.67	-2.538 <sup>#</sup>	-0.2263	0.31	0.19	35.13	-3.85	-0.945	0.0003
25	Steel Authority Of India Ltd.	5.50	5.13	165.27	-39.32	0.393	-2.8693	1.39	1.63	117.51	-22.36	-3.909 <sup>*</sup>	-0.3005
26	Overall value pub co	2.53	2.49	112.15	9.95	0.393	2.1744	0.96	0.89	115.73	-1.74	-1.342	-0.0121

Source: Note: \* Significant at 1% Level, # Significant at 5% Level @ Significant at 10% Level

**Table 4.2: Mean, SD, CV, CGR, T value and Trend of Short term debt to equity values of public sector companies.**

serial No	Name of company	Before liberalization						After liberalization					
		Mean	SD	CV	C.G.R	T Values	Trend	Mean	SD	CV	C.G.R	T Values	Trend
1	Andrew Yule & Co. Ltd.	1.51	1.05	69.93	16.65	3.221 <sup>*</sup>	0.2084	2.19	3.79	173.00	-2.04	-0.230	0.1859
2	B E M L Ltd.	1.30	1.25	95.65	29.84	1.992 <sup>#</sup>	0.2358	0.21	0.17	80.52	11.94	1.224	0.0075
3	Balmer Lawrie & Co. Ltd.	2.21	0.96	43.43	-9.32	-1.923 <sup>#</sup>	-	0.03	0.04	150.92	-37.58	-5.692 <sup>*</sup>	-
4	Bharat Heavy Electricals Ltd.	1.78	1.21	68.09	-17.32	-1.671 <sup>@</sup>	-	0.03	0.07	252.01	-39.53	-6.178 <sup>*</sup>	-
5	Coal India Ltd.	0.66	0.73	110.66	-23.59	-3.398 <sup>*</sup>	-	0.12	0.09	73.73	-12.58	-1.285	-
6	H M T Ltd.	0.93	0.62	65.93	-0.67	-0.109	0.0193	2.87	3.79	131.80	-16.37	-2.059 <sup>#</sup>	-
7	Hindustan Copper Ltd.	0.85	0.68	79.91	29.39	2.621 <sup>#</sup>	0.0879	2.82	4.82	170.60	-43.59	-5.822 <sup>*</sup>	-
8	Hindustan Organic Chemicals Ltd.	0.44	0.34	75.76	29.39	-1.350	-	4.58	7.89	172.08	30.71	5.789 <sup>*</sup>	1.2727
9	I T I Ltd.	0.32	0.25	77.46	4.10	0.475	0.0295	2.71	4.25	156.67	-14.82	-3.136 <sup>*</sup>	-
10	India Tourism Devp. Corpn. Ltd.	0.51	0.33	64.36	1.10	0.162	0.0127	0.14	0.13	88.45	32.97	6.858 <sup>*</sup>	0.0294
11	Indian Oil Corpn. Ltd.	0.43	0.5	118.10	39.71	5.777 <sup>*</sup>	0.1223	0.29	0.12	40.25	4.97	1.636 <sup>@</sup>	0.0152
12	M M T C Ltd.	0.68	0.41	59.64	3.38	0.582	0.0427	1.73	1.53	88.47	26.23	5.471 <sup>*</sup>	0.3409
13	M S T C Ltd.	0.34	0.54	157.12	-2.27	-0.146	0.0236	3.14	1.74	55.40	9.64	1.545 <sup>@</sup>	0.1535
14	N H P C Ltd.	0.86	0.54	63.12	-14.80	-2.594 <sup>#</sup>	-	0.04	0.04	106.96	-22.16	-3.062 <sup>*</sup>	-
15	National Buildings Construction Corpn. Ltd.	0.98	0.84	85.95	-18.36	-1.278	-	4.42	3.52	149.51	-36.68	-9.146 <sup>*</sup>	-
16	National Fertilizers Ltd.	1.30	0.65	49.95	-1.33	-2.762 <sup>#</sup>	-	0.33	0.19	59.44	0.70	0.125	0.0078
17	Neyveli Lignite Corpn. Ltd.	1.13	0.69	61.73	-17.64	-5.233 <sup>*</sup>	-	0.40	0.36	88.70	60.28	2.928 <sup>*</sup>	0.0871
18	Oil & Natural Gas Corpn. Ltd.	0.75	0.79	105.06	-19.59	-2.675 <sup>#</sup>	-	0.16	0.23	144.13	41.11	3.902 <sup>*</sup>	0.0445
19	Oil India Ltd.	0.67	0.81	122.16	-11.74	-1.153	-	0.02	0.03	138.36	-9.82	-0.751	0.0016
20	Rashtriya Chemicals & Fertilizers Ltd.	0.31	0.49	131.34	61.95	1.090	4.6652	0.37	0.23	62.14	-11.21	-1.497 <sup>@</sup>	-
21	Rural Electrification Corpn. Ltd.	0.71	1.04	146.56	-11.44	-1.083	-	0.38	0.30	78.86	16.25	3.594 <sup>*</sup>	0.0569
22	Scooters India Ltd.	1.21	1.03	85.49	-34.93	-2.734 <sup>#</sup>	-	0.46	0.69	148.82	20.68	2.380 <sup>#</sup>	0.0714
23	Shipping Corpn. Of India Ltd.	2.03	1.67	82.44	-23.92	-2.734 <sup>#</sup>	-	1.26	1.45	115.61	90.67	2.436 <sup>#</sup>	0.0736
24	State Trading Corpn. Of India Ltd.	1.17	1.84	156.47	-10.33	-0.565	0.0419	1.53	1.36	88.90	31.24	3.977 <sup>*</sup>	0.2921
25	Steel Authority Of India Ltd.	0.24	0.29	123.60	-8.02	-0.641	0.0142	0.47	0.59	125.40	-26.91	-6.402 <sup>*</sup>	-
26	Overall value pub co	0.91	0.77	106.33	-5.60	-0.402	0.0492	1.23	1.49	155.78	-3.14	-0.775	-0.662

Source:

Note: \* Significant at 1% Level, # Significant at 5% Level @ Significant at 10% Level

**Table 4.3: Mean, SD, CV CGR, T value and Trend of Total debt to Equity Values of public sector companies.**

Serial No.	Name of company	Before liberalization						After liberalization					
		Mean	SD	CV	C.G.R.	T Values	Trend	Mean	SD	CV	C.G.R.	T Values	Trend
1	Andrew Yule & Co. Ltd	5.03	2.37	146.56	-6.56	-0.858	-0.0701	4.65	1.85	191.84	5.95	0.683	0.6740
2	B E M L Ltd.	3.36	2.79	231.87	19.37	1.263	0.3324	0.30	0.24	79.97	-0.46	-0.050	-0.0146
3	Balmer Lawrie & Co. Ltd.	3.39	2.79	229.51	19.77	1.177	0.3367	0.54	0.59	110.24	-37.86	-12.248*	0.1478
4	Bharat Heavy Electricals Ltd.	1.31	0.54	40.85	-7.58	-2.309#	-0.1023	0.06	0.06	106.93	-26.88	-7.700*	0.0160
5	Coal India Ltd.	0.99	0.28	28.05	-4.55	-1.063	-0.0366	0.28	0.22	80.72	-19.01	-19.762*	0.0551
6	H M T Ltd.	1.21	0.14	11.25	-0.07	-0.073	-0.0024	4.25	2.68	139.54	-21.65	-2.593#	2.3815
7	Hindustan Copper Ltd.	1.52	0.54	35.73	0.30	1.683@	-0.0609	3.99	2.01	162.07	-67.23	-11.829*	1.1708
8	Hindustan Organic Chemicals Ltd.	0.54	0.29	55.52	-9.46	-2.279#	-0.0609	3.66	2.29	139.39	15.85	2.991*	1.3667
9	I T I Ltd.	2.44	1.35	55.31	7.67	0.951	0.2082	3.67	2.93	169.61	-17.67	-4.370*	0.8245
10	India Tourism Devp. Corpn. Ltd.	1.82	0.98	54.07	-4.04	-0.453	0.0333	0.13	0.24	182.08	-12.70	-0.518	0.0340
11	Indian Oil Corpn. Ltd.	0.97	0.66	67.81	19.79	3.267*	0.1479	0.95	0.23	24.40	0.18	0.086	0.0009
12	M M T C Ltd.	2.44	1.44	58.88	-3.94	-0.441	-0.0617	1.73	1.53	88.13	25.69	5.346*	0.3395
13	M S T C Ltd.	0.61	0.71	116.17	-27.01	-5.494*	-0.1694	3.28	1.72	52.34	7.66	1.378@	0.1455
14	N H P C Ltd.	1.06	1.48	139.87	-25.27	-3.252*	-0.2868	0.65	0.13	20.39	-2.69	-1.932#	0.0196
15	National Buildings Construction Corpn. Ltd.	0.27	0.32	115.09	15.86	1.746@	0.0544	4.92	2.51	140.21	-30.01	-9.387*	2.5780
16	National Fertilizers Ltd.	2.14	1.90	275.54	13.24	0.654	0.7527	0.52	0.41	79.42	-2.55	-0.385	0.0064
17	Neyveli Lignite Corpn. Ltd.	2.23	5.87	262.87	20.06	1.072	0.7392	0.27	0.09	32.88	5.21	2.332#	0.0146
18	Oil & Natural Gas Corpn. Ltd.	0.42	0.58	135.99	21.08	2.463#	0.1116	0.07	0.09	137.33	-44.69	-5.089*	0.0178
19	Oil India Ltd.	0.40	0.58	146.04	29.61	2.280#	0.1233	0.06	0.04	64.47	-25.21	-4.071*	0.0076
20	Rashtriya Chemicals & Fertilizers Ltd.	4.62	1.98	239.31	61.43	4.351*	6.7051	0.51	0.21	40.81	2.60	0.689	0.0164
21	Rural Electrification Corpn. Ltd.	1.31	1.36	104.17	-17.16	-2.799#	-0.2650	5.51	1.02	18.46	3.19	2.931*	0.1704
22	Scooters India Ltd.	1.35	1.39	103.68	48.54	4.709*	0.3808	1.43	1.99	139.61	17.74	2.563#	0.2323
23	Shipping Corpn. Of India Ltd.	0.69	0.71	103.22	-6.17	-0.578	-0.0102	0.51	0.19	38.65	-0.91	-0.294	0.0003
24	State Trading Corpn. Of India Ltd.	1.35	1.34	99.32	9.83	0.974	0.2508	1.6	1.36	84.67	31.25	5.945*	0.3070
25	Steel Authority Of India Ltd.	1.95	1.63	83.55	-31.14	-4.766*	-0.3808	1.86	2.19	117.95	-22.97	-4.616*	0.4199
26	Overall value pub co	2.13	1.52	117.26	6.82	-0.597	-0.0894	1.97	1.32	97.41	-8.68	-0.442	0.3596

Source:

Note: \* Significant at 1% Level, # Significant at 5% Level @ Significant at 10% Level

**Table 4.4: Mean, SD, CV, CGR, T and Trend Value of Total Debt to Total Assets Values of Public Sector Companies.**

Serial No.	Name of company	Before liberalization							After liberalization				
		Mean	SD	CV	C.G.R.	T Values	Trend	Mean	SD	CV	C.G.R.	T Values	Trend
1	Andrew Yule & Co. Ltd.	0.82	0.32	38.69	-9.64	-4.311*	-0.0740	0.43	0.15	35.89	4.65	1.831#	0.0170
2	B E M L Ltd.	0.66	0.47	71.36	-19.54	-1.952#	-1061	0.12	0.09	76.33	3.66	0.375	0.0002
3	Balmer Lawrie & Co. Ltd.	0.15	0.13	86.03	4.32	0.308	0.0075	0.15	0.16	106.64	-61.07	-10.870*	-0.0396
4	Bharat Heavy Electricals Ltd.	0.19	0.14	72.19	-0.65	-0.045	-0.0112	0.03	0.03	107.77	-28.39	-7.548*	-0.0058
5	Coal India Ltd.	0.16	0.16	93.73	4.89	0.327	0.0215	0.17	0.12	75.34	-17.68	-20.711*	-0.0307
6	H M T Ltd.	0.47	0.52	110.90	-24.55	-1.554@	-0.0953	0.61	0.14	23.62	-1.09	-0.493	-0.0041
7	Hindustan Copper Ltd.	0.75	0.39	51.89	3.88	0.433	-0.0259	0.39	0.34	85.57	-61.74	-8.991*	-0.0842
8	Hindustan Organic Chemicals Ltd.	0.66	0.46	70.05	-15.99	-2.381#	-0.0773	0.82	0.19	23.26	6.53	7.156*	0.0472
9	I T I Ltd.	0.17	0.15	90.22	7.33	0.500	0.0240	0.42	0.22	51.35	-14.07	-3.711*	-0.0382
10	India Tourism Devp. Corpn. Ltd.	0.30	0.15	48.45	1.15	0.101	0.0078	0.01	0.02	166.04	-39.07	-3.570*	-0.0018
11	Indian Oil Corpn. Ltd.	0.29	0.12	40.89	9.87	2.598#	0.0255	0.29	0.05	17.80	-0.12	-0.081	-0.0011
12	M M T C Ltd.	0.31	0.14	46.58	8.07	1.163	0.0179	0.23	0.12	52.59	9.97	2.141#	0.0211
13	M S T C Ltd.	0.17	0.10	59.77	-18.17	-1.355	-0.0065	0.28	0.08	28.62	3.25	1.451@	0.0086
14	N H P C Ltd.	0.62	0.50	80.39	-20.41	-1.355	-0.0725	0.34	0.05	15.09	-2.65	-3.096*	-0.0096
15	National Buildings Construction Corpn. Ltd.	0.17	0.18	106.58	7.57	-0.152	0.0282	0.11	0.11	101.48	-2.58	-0.480	-0.0036
16	National Fertilizers Ltd.	0.14	0.15	110.68	-1.93	-0.152	0.0106	0.20	0.11	53.66	3.69	2.188#	0.0062
17	Neyveli Lignite Corpn. Ltd.	1.82	4.38	240.52	17.71	0.930	0.2562	0.16	0.04	24.24	-39.86	-4.768*	-0.0103
18	Oil & Natural Gas Corpn. Ltd.	1.81	4.38	241.77	23.52	1.225	0.2628	0.04	0.06	138.89	-25.55	-4.275*	-0.0059
19	Oil India Ltd.	5.02	10.38	206.65	54.27	1.484@	2.0304	0.04	0.03	64.87	-8.202	-0.295	-0.0016
20	Rashtriya Chemicals & Fertilizers Ltd.	0.23	0.15	68.16	4.82	0.415	0.0163	0.23	0.07	29.53	0.40	2.330#	0.0031
21	Rural Electrification Corpn. Ltd.	0.19	0.11	55.62	12.68	3.172*	0.0228	0.79	2.6		12.62	3.039*	0.0576
22	Scooters India Ltd.	1.24	2.31	186.39	33.10	2.047	0.4878	0.39	0.29	76.78	1.55	0.727	0.0059
23	Shipping Corpn. Of India Ltd.	0.29	0.19	66.00	-18.87	-6.673*	-0.0530	0.26	0.08	28.56	10.76	1.944#	0.0160
24	State Trading Corpn. Of India Ltd.	0.47	0.13	27.76	-0.25	-0.060	-0.0013	0.17	0.09	53.64	-11.18	-3.147*	-0.0385
25	Steel Authority Of India Ltd.	0.45	0.22	47.83	-0.28	-0.056	0.0078	0.31	0.19	60.71	-1.65	-2.512#	-0.1194
26	Overall value pub co	18.68	12.62	67.56	14.56	2.625#	2.7305	6.97	0.72	10.39	-40.73	-8.921*	-0.0273

Source:

Note: \* Significant at 1% Level, # Significant at 5% Level @ Significant at 10% Level

Table 4.3 brings out the values of mean, standard deviation, coefficient variation, C.G.R, t value and trend value of total debt to equity ratio of public sector companies. The data reveals that the public sector companies have recorded a decline in the proportion of debt to equity during post-reform period as compared to pre-reform period. Overall, the public sector companies have registered 2.13 and 1.97 the mean debt to equity ratio (MDER) during pre and post-reform periods respectively that reveals role of debt as a source of finance for public sector companies in India has declined during post-reform period as compared to pre-reform period. On an average, the debt to equity ratio of public sector companies lies in the range of 0.27 in case of National Buildings Construction Corporation Ltd. to 5.03 in case of Andrew Yule & Co. Ltd. during pre-reform period. However, the MDER is recorded from 0.06 in case of Bharat Heavy Electricals limited to 5.51 for Rural Electrification Corporation Ltd. during post-reform period. Out of 25 sampled companies, only 10 companies namely Andrew Yule & Co. Ltd., H M T Limited, Hindustan Copper Ltd., Hindustan Organic Chemicals Ltd., I T I Limited, M S T C Ltd., National Buildings Construction Corporation Ltd., Rural Electrification Corporation Ltd., Scooters India Ltd., and State Trading Corporation of India Ltd. have revealed increment in their MDER after reforms. All the other sampled public sector companies have been reducing their debt obligations during post reform period. Overall the public sector companies have registered a decline in SD value during post-reform period as compared to pre-reform period indicating more dependency over equity funding.

The overall CV value of total debt-equity ratio during post-reform period indicates sharp decline in fluctuations as compared to pre-reform period. It means with the growth of equity contributions after reforms, business of the sampled public sector companies became more stable. The C.G.R. values depict that the number of companies with negative C.G.R. of debt-equity ratio has increased from 11 companies in pre-reform period to 15 companies in post-reform period. Moreover,

overall C.G.R. value which recorded 6.82 percent during pre-reform period has become negative value of -8.68 during post-reform period. Highly negative trend values of debt-equity ratio are indicator of sharp decrease in the debt liabilities and the percentage of assets of a business being financed by debts are diminishing. The T values indicate that the number of companies that have registered their total debt-equity ratio significant at 1% level has increased from 6 during pre-liberalization period to 13 during post-liberalization period out of which 9 companies have realized negative total debt-equity ratio significant at 1% level. It means that these companies have registered a decline in their total debt liabilities after liberalization. Thus, null hypothesis that there is no change in total debt-equity ratio during both periods stands rejected. The companies namely B E M L Ltd., Balmer Lawrie & Co. Ltd., Hindustan Copper Limited, and Indian Corporation Limited, National Buildings Construction Corporation Ltd., Oil & Natural Gas Corporation Ltd. and Oil India Ltd. with highly positive trend values of debt-equity ratio during pre-reform period registered negative trend values of debt-equity ratio during post-reform period. Overall, trend value of debt-equity ratio is recorded -0.0894 during pre-reform period as compared to -0.3596 during post reform period. It means that the sampled public sector companies have started less relying on debt during post-reform period. By reducing their debt liability and more dependency on equity market, they are playing their business safely instead being competitive after reforms. Table 4.4 brings out the values of mean, standard deviation, coefficient variation, C.G.R, t value and trend value of total debt to total assets ratio of public sector companies. It is held from the data that the public sector companies have registered a sharp decline in the proportion of debt to assets during post-reform period as compared to pre-reform period. On an average, the debt to assets ratio of public sector companies lies in the range of 0.15 in case of Balmer Lawrie & Co. Ltd. to 5.02 in case of Oil India Limited during pre-reform period. However, the mean debt to assets ratio (MDAR) is recorded from 0.03 in

case of Bharat Heavy Electricals limited to 0.82 for Hindustan Organic Chemicals Ltd. during post-reform period. Overall, the public sector companies have registered 0.58 and 0.27 MDAR during pre and post-reform periods respectively that reveals role of debt as a source of finance for public sector companies in India has declined during post-reform period as compared to pre-reform period. Out of 25 sampled companies, only 7 companies namely Coal India Limited, H M T Limited, Hindustan Organic Chemicals Ltd. I T I Limited, M S T C Ltd., National Fertilizers Ltd., Rural Electrification Corporation Ltd. have revealed increment in their MDAR after reforms. All the other sampled public sector companies have been reducing their debt obligations during post reform period. Overall the public sector companies have registered a decline in SD value during post-reform period as compared to pre-reform period indicating more dependency over equity funding. The overall CV value of post-reform period indicates sharp decline in debt to assets ratio fluctuations as compared to pre-reform period. It means with the growth of equity contributions after reforms, business of the sampled public sector companies became more stable. The C.G.R. values depict that the number of companies with negative C.G.R. of debt-equity ratio has increased from 10 companies in pre-reform period to 21 companies in post-reform period. Moreover, overall C.G.R. value which recorded 9.95 percent during pre-reform period has become negative value of -1.74 during post-reform period. It indicates the growth of debt to assets ratio become negative after reforms and hence debt liabilities of the public sector companies have declined after reforms. This might be due to the disinvestment policy adopted for public sector utilities by government of India after reforms. Furthermore, in case of T values only 3 companies have realized their total debt-total assets ratio significant at 1% level (out of which one negatively) during pre-liberalization period. However, after liberalization, there were 12 companies have recorded their total debt-total assets ratio with significant at 1%

level. Noticeably, overall companies have registered their T value of 2.625 significant at 5 % level during pre-liberalization period as compared to highly negative T value of -8.921 significant at 1 % level during post-liberalization period. It means that these companies have registered a sharp decline in their total debt liabilities and more dependency on equities after liberalization. Thus, null hypothesis that there is no change in total debt-total assets ratio during both periods stands rejected.

It is evident from the trend values that except the companies namely M M T C Limited, National Fertilizers Ltd., Rashtriya Chemicals & Fertilizers Ltd, Rural Electrification Corporation Ltd., and Scooters India Ltd., all other companies that have positive trend values of debt-assets ratio during pre-reform period registered negative trend values of debt-assets ratio during post-reform period. Overall, trend value of total debt-total assets ratio is recorded 2.7305 during pre-reform period as compared to -0.0273 during post reform period. It means that the public sector companies have been taking little debt during post-reform period and become more dependent on internal finance and thus come under low-risk taking industry.

### **Conclusion**

A paradigm shift in financing pattern of public sector companies have been found after liberalization as majority of the sampled companies are being more dependent on internal finance and thus come under low-risk taking industry Thus, null hypothesis that there is no change in the financial ratios during both periods stands rejected and the alternative hypothesis is being acceptable for both the sampled public and private companies. The acceptance of alternative hypothesis means liberalization has certain impact on the financial pattern of the sampled companies.

## References

1. Aggarwal, RN (1982), Analysis of profits and investment and financing behavior of Indian automobile industry, Ph.D. thesis, Department of Economics, Delhi University.
2. Banz, Rolf W. (1981) Journal of Financial Economics , Vol. ,No. Northan- Holland, publishing company, pp.3-18,
3. Bhole, LM ; and Mahakud Jitendra (2004), Trend and Determinants of Corporate Capital Structure, A penal data analysis, Finance India, Vol. XVIII, No.1, pp. 37-55.
4. Beena, P.L (2011), Financing pattern on India Corporate sector under liberalization with focus acquiring firm abroad, Working Paper no. 440, www.cdseedu.co.in, 12-09-11
5. Chandarakumarmanglam, S; and P. Govindasamy(2010),Leverage analysis and its impact on profitability to selected cement industries in India, European Journal of economics , finance and Administrative sciences ,ISSN 1450-2275, Issue27, pp.53-66.
6. Dennis, Fan K.K.; and Raymond, W (2004), A survey on Capital Structure decision in Hongkong firms, Review of pacific basis financial market and policies. Vol. 3, No.3, pp. 347- 65.
7. Fromm, Gray (1962), Inventories, business cycle and economic stabilization in inventory fluctuations and economic stabilizations, US. Congress, joint economic committee report.
8. Jain, Suman Kumar (1992), Capital Structure Policy of Indian Corporate Sector, Ph.D. thesis, Department of Business Management and commerce, Punjabi University Patiala.
9. Kaur, Kuldeep (2008), Determent of Debt Equity Mix an analysis of Indian Firms, Finance India, Vol. XXII, No. 2, June, pp. 487-500
10. Kaur, Jatinder (1995), Capital structure Practices in India, Ph.D. Thesis, Department of Commerce, Punjabi University Patiala.
11. Kaur, Paramjit (1995), Cost of Capital of An empirical study of selected companies. Ph.D. thesis, Department of Commerce, Panjab University Chandigarh.
12. Karpal, Amita ; and B.S Bodla (2011), Financing pattern of corporate sector under liberalized era, www.google.co.
13. Leeuw's, De Frank (1962), The demand for capital goods by manufacturers, econometrical, Vol. 30, No. 30, July, pp. 407-23.
14. Panigrahi, Ashok Kumar, (2010), Capital Structure of Indian Corporate Sector, Asian Journal of Management research, Vol. 1, No. 1, www.ipublishing.co, 25-09-11 pp. 283-98.
15. Panda, GS (1970), Cost of internal equity as source of fund, Indian Journal of commerce, Vol. No. 23, December, pp. 189-93.
16. Pandey, IM (1979), Effect of Liquidity structure and leverage on cost of equity of DFI, Chartered Accountant, Vol. 30, No. 7, October, p 92.
17. Schneller, Meir I (1980), Taxes and optimal capital structure of firm, Journal of Accounting and finance, Vol. XXXV, No.1, March, pp. 119-25.
18. Shekhar, Chander (1997), Financial leverage its determinants Impact on cost of capital and share holder return, Journal of accounts, Vol. XI, No. 2, September, pp. 82-93.
19. Staritz ,Cornelia, (2003), A research paper on financial structure , investment and economic development a flow of funds analysis of emerging countries, www.google.com.
20. Vaidyanathan, R. (1977), Investment behavior of selected industries in private corporate sector in India, thesis abstract, Indian Institute of Management, Calcutta.
21. Williamson, OE (2002), The Theory of Firm as Governance Structure : From Choice to contract, Journal of Economics Perspective, Vol. 16, No. 3, summer, pp. 171-95.

# **CORPORATE SUSTAINABILITY REPORTING: A STUDY OF SOCIAL SUSTAINABILITY ASPECT BY SELECTED INDIAN CORPORATIONS**

**Ritu Mittal**

Assistant Prof. in Economics, Panjab University Constituent College, Nihal Singh Wala, Moga

**Monika Chaudhary**

Assistant Prof. in Commerce, Panjab University Constituent College, Nihal Singh Wala, Moga

**Rajni Bhalla**

Assistant Prof. in Commerce, Panjab University Constituent College, Nihal Singh Wala, Moga

---

## **Abstract**

The changing global environment has forced the corporations now to change the way of dissemination of information regarding their operations on corporate social responsibility and corporate sustainability issues. Corporate sustainability reporting is getting very popular in these days but still in India it is just at nascent stage. But research proves that its importance is growing year after year. As far as Indian scenario is concerned there is only limited number of companies which are showing their sustainability plans and performance to the various stakeholders. Indian corporations are following Global Reporting Initiative (GRI) guidelines to prepare the sustainability reports. The present paper is an attempt to analyze the growth of sustainability reporting in India and the information which is used to be disclosed by the corporations with the help of such reports from the social aspect of the sustainability reporting. While reporting the social aspect in the sustainability reports the organizations used to disclose the various policies and strategies which they have formulated or planning to formulate for the efficient and responsible use of the available resources of the organization which will not result into any environmental damage to the society. This research paper also shows that the companies are presenting their sustainability performance to the various users with the help of websites and also through published reports. In this research paper the case studies of some companies like TCS, Reliance Industries, and WIPRO are discussed which helps us to know the practical application of sustainability reporting in India. The areas of social sustainability reporting are tried to be explored in this research paper. The data has been collected through secondary sources like published literature on the corporate sustainability and also from the websites of the companies and annual reports, sustainability reports and other related published material by the companies.

**Key Words:** Corporate Sustainability, Corporate Social Responsibility, GRI Index, Indian Companies.

---

## **Introduction**

The interdependence between human societies and the natural surroundings is the base of concept of sustainability. Natural resources are pressurized by the current economic and social development pattern, and may intimidate the sustained health and prosperity of human societies. The National Environmental Policy

Act of 1969 articulated a growing interest in understanding the importance of the relationship between humans and the environment in this concern. The very language of the act foreshadows ideals soon to be of great significance globally (Tarsha, F. J., 2012). Sustainability is rapidly becoming a tactical precedence for businesses. Around the world, we can see encouraging examples of pioneering

firms that have renowned the crucial aspect of sustainability and created strategies and solutions to effectively respond to the issue. For a growing number, the concept of sustainability goes far beyond corporate social responsibility (CSR). It has become the strategic lens through which they view their businesses. Sustainability offers an irrefutable opportunity to gain viable advantage, drive innovation and generate real bottom-line results for the organizations (Senko, T., 2011). During the last two decades, Information about sustainability reporting has become widespread. By adopting regulations or listing requirements Governments and stock exchanges have promoted sustainability reporting. A growing number of regulations are emerging across the world, mandating the disclosure of environmental, social, and economic data. In recent years, mounting social (e.g., poverty, deteriorating social fairness, and corruption) and environmental (e.g., climate change, water usage, and waste) global challenges have generated pressures on companies to adopt a more efficient management of sustainability reporting by disclosing how they are utilizing, developing (or depleting) and usually, affecting human capital and natural resources (Ioannou, I., 2014). In this paper, we focus on the reporting of social sustainability by the selected companies of India. There is a need to develop a long-term vision for playing an active part in creating a more inclusive and greener world that support the environment, and improve the quality and availability of healthcare and education. There are a number of encouraging initiatives seek reporting standards for the companies as the Global Reporting Initiative Activities. The activities of CSR not focused only on the plants of the firms but also on the welfare needs of the community i.e. promoting community health related services, eradicating poverty, hunger & malnutrition, enhancing living standards and employment opportunities, ensuring environmental sustainability etc.

#### **Principles of responsibility reporting:**

1. Businesses should conduct and govern themselves with ethics, transparency and accountability

2. Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle
3. Businesses should promote the well-being of all employees
4. Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.
5. Businesses should respect and promote human rights
6. Businesses should respect, protect, and make efforts to restore the environment
7. Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.
8. Businesses should support inclusive growth and equitable development
9. Businesses should engage with and provide value to their customers in a responsible manner

(Source: Godrej Business Responsibility Report 2014-15)

#### **Objectives of the study:**

The study has conducted to attain the following objectives:

- To find out the extent of social sustainability reporting by the selected companies.
- To examine that whether reporting of such companies coincides with the Global Reporting Index (GRI) guidelines or not?

#### **Research hypothesis:**

$H_0^1$ : There is no significant difference between the social corporate sustainability reporting of the selected companies and the GRI guidelines.

$H_0^2$ : The selected companies are reporting maximum information primarily with the help of sustainability reports and also with the use of annual reports for their social indicators.

### **Research methodology:**

Historical, analytical and case study approaches of research are used to complete this research. Historical-analytical method has been taken into consideration while observing the annual and sustainability reports of the companies and while analyzing the other literature relevant to the study. Case study method, an empirical technique is applied to study the various dimensions and impact of corporate sustainability reporting practices on the performance of the companies under study. Data analysis techniques have been taken into consideration to examine analytically the sustainability and annual reports of the selected companies under study. To select adequate literature for the paper three methods have been followed i.e. (a) Systematic search of academic and business literature on Corporate Sustainability (b) random search of business articles, research papers, white papers and books on Corporate Sustainability (c) Detailed search of the annual and sustainability reports of TCS, Reliance and WIPRO.

### **Corporate Sustainability Reporting With Social Aspect of Indian Corporations**

Sustainability is about balanced development that meets the needs of present without compromising the efficiency of future generation. The recent industrial development leads to environment degradation i.e. climate change, water crisis, biodiversity loss. Directly or indirectly climate change can lead to hunger, water scarcity, health problems and poverty over varying time frames. Large scale migration and displacement as a result of climate change related emergencies like extreme heat, floods and droughts, tropical storms and Changing patterns of infectious diseases. Cost of climate change is very high and inaction can create risks of major disruption to economic and social and herein lays the implications to businesses. (Wipro Sustainability Report 2013-14). The viewpoint of WWF Living Planet Report, "To support the current lifestyle engaged by human beings required 1.5 planets and this figure is called the current ecological foot print of mankind." In

recent years the social dimension (or 'social sustainability') has gained increased recognition as a fundamental component of sustainable development. Social aspect is differently expressed in the sustainability reports if compared with the annual reports of the corporations. Annual reports also communicate information on this aspect but the annual reports deal with the past behavior of the corporations. As compared to annual reports, sustainability reports also disclose the future course of action of the organizations.

### **Why Social Sustainability Needed:**

The Environmental, Social and Governance Responsibility are the integral part of business. The International Auditing and Assurance Standards Board released a proposed new standard for Assurance Engagements on Greenhouse Gas Statements. But continued progress and collaboration among standard setters will be critical to furthering the meaningful reporting of sustainability initiatives globally (Senko, T., 2011).

Social responsibilities include:

- Social responsibility includes generation of employment opportunities to the persons of society.
- Improved labor management relations are part of social responsibilities.
- Social responsibility also involves various welfare programmes such as improved working conditions, training and education programmes for workers.
- No discrimination on the basis of gender, nationality etc.
- Support towards abolition of child labor and all forms of forced labor.
- Proper grievance redressal mechanism for workers.
- Various community development programmes along with corruption free organization.
- Responsibility towards customers such as quality product, customer privacy and proper product labeling etc.

**VARIABLES OF SOCIAL SUSTAINABILITY**

**Variables of Social Sustainability Reporting**

<b>Indicators</b>	<b>TCS</b>	<b>WIPRO</b>	<b>RELIANCE</b>
<b>1.Diversity and Inclusion</b>	Gender diversity of 33% is achieved by employing more than 1,00,000 female employees and global workforce of TCS comprises of 122 different nationalities.(TCS Annual Report,2014-15)	The workforce of Wipro includes 31% women employees along with employees of 101 nationalities.(Wipro Sustainability Report,2013-14)	The workforce of Reliance Industries include persons of Indian origin and 48 expatriates. information about gender diversity is not disclosed fully in annual and sustainability reports of Reliance Limited.(Reliance Annual Report 2014-15)
<b>2.Training and Education</b>	TCS' senior consultants conduct training programs for faculty, to keep them abreast with technology developments and provide them with an industry perspective.(TCS Annual Report 2014-15)	Programmes such as UPSCALE which aims at multi-skilling workforce on a cluster of Technologies are conducted by Wipro. 3% increase in satisfaction with training and development(Wipro Sustainability Report, 2013-14)	Reliance Industries provide training and education facilities to its employees which include(i)Health, safety and environment training (ii)Function specific technical training (iii)Leadership training(iv) Cross-functional training(v)Soft-skills training (vi)Site-specific training etc.(Reliance Industries Sustainability Report, 2013-14)
<b>3.Labour Management Relations</b>	Step towards improving labor management relation has been taken by adopting participative management and by assessing the needs of specific projects for learning and development plan of the year.(TCS Sustainability Report, 2013-14)	Wipro offers Workplace safety and security, Comprehensive Medical benefits coverage ,Progressive compensation and benefit programs to its employees in order to maintain labor management relations.(Wipro sustainability report,2013-14)	Reliance Industries maintains good labor management relations as during previous years nor any grievance on part of employee neither any case of discrimination has been reported. (Reliance Industries Sustainability Report, 2013-14)
<b>4.Promote Employability</b>	To promote employability company has introduced various programmes such as ACTC for visually impaired and UDAAN for Kashmiri youth.(TCS Annual Report,2014-2015)	To promote employability Wipro has introduced two programmes(i) WASE (Wipro Academy of Software Excellence) and WiSTA (Wipro Software Technology Academy) both programme has enrolled with 1347 and 697 new enrolments respectively. Career Hub: An integrated online career development platform has introduced with its help. Over 5200 employees have selected their aspired roles through the tool and are working towards reaching their goals.(Wipro Sustainability Report,2013-14)	To promote employability in rural areas Reliance Foundation is providing help to semi skilled and unskilled workers. (Reliance Industries Sustainability Report 2013-14)(( <b>Transforming lives through RF Information Services</b>

<b>5.Community Development Programme</b>	TCS is working to deploy a sustainable model to improve Education, Healthcare and Environment and promote Economic Empowerment in rural areas across India.(TCS Sustainability Report 2013-14)	Wipro is Associated with 60 organizations at different levels of engagement. And is Working closely with 35 organizations & supported 67 projects. Which helps in Developing strategic focus on a few themes and areas like ecology, social sciences, languages, affective education, creating education material and public advocacy.(Wipro Sustainability Report,2013-14)	During FY 2014-15, RIL spent ` 760.58 crore on community development initiatives such as rural transformation, healthcare, education, environment, protection of national heritage, art and culture, and disaster response.(Reliance Industries Annual Report 2014-15)
--	--	---	--

**SOCIAL PERFORMANCE INDICATORS AS PER GRI GUIDELINES:**

The various social performance indicators as per the GRI guidelines are tabulated below from the reporting level of the various aspects involved in the social sustainability reporting by the selected companies in the paper. The various aspects are categorized in four parts named employment, human rights, society and product responsibility indicators.

**(A) Employment**

Aspect	TCS	Wipro	Reliance industries
<b>LA1:Total workforce by employment type, employment contract, and region, broken down by gender</b>	Reported fully in sustainability reports.	Shown fully in annual reports	Partially reported in sustainability reports as Reliance Industries does not make distinction between geographical areas within India and consider India as one region.
<b>LA2:Total number and rate of new employee hires and employee turnover by age group, gender, and region.</b>	Reported fully in sustainability reports.	Shown fully in annual reports.	Fully reported in sustainability reports.
<b>LA3:benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.
<b>LA15:Return to work and retention rates after parental leave, by gender.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(B) Labour/management relations**

Aspect	TCS	Wipro	Reliance Industries
<b>LA4:Percentage of employees covered by collective bargaining agreements.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
<b>LA5:Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

**(C) Occupational health and safety**

<b>Aspect</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>LA6:Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.
<b>LA7:Rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities by region.</b>	Reported fully in sustainability reports.	Fully shown in annual and sustainability reports.	Fully reported in sustainability reports.
<b>LA8:Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
<b>LA9:Health and safety topics covered in formal agreements with trade unions.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(D) Training and education**

<b>Aspect</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>LA10:Average hours of training per year per employee by gender, and by employee category.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
<b>LA11:Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.</b>	Reported fully in sustainability reports.	Fully shown in annual and sustainability reports.	Fully reported in sustainability reports.
<b>LA12:Percentage of employees receiving regular performance and career development reviews, by gender.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(C) Diversity and equal opportunity**

<b>Aspect</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>LA13:Composition of governance bodies and breakdown of employees per employee category according to gender, age group,</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

minority group membership, and other Indicators of diversity.			
---	--	--	--

**(F) Equal remuneration for women and men**

Aspect	TCS	Wipro	Reliance Industries
<b>LA14: Ratio of basic salary and remuneration of women to men by employee category, by Significant locations of operation.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**2. Human rights**

**(A) Investment and procurement practices**

Aspects	TCS	Wipro	Reliance Industries
<b>HR1: Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
<b>HR2: Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.
<b>HR3: Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(B) Non-discrimination**

Aspect	TCS	Wipro	Reliance Industries
<b>HR4: Total number of incidents of discrimination and corrective actions taken.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

(C) Freedom of association and collective bargaining

Aspect	TCS	Wipro	Reliance Industries
<b>HR5:Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

(D) Child labor

Aspect	TCS	Wipro	Reliance Industries
<b>HR6:Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

(E) Forced and compulsory labor

Aspect	TCS	Wipro	Reliance Industries
<b>HR7:Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

(F) Security practices

Aspect	TCS	Wipro	Reliance Industries
<b>HR8:Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.</b>	Reported fully in sustainability reports.	Partially shown in annual and sustainability reports.	Fully reported in sustainability reports.

(G) Indigenous rights

Aspect	TCS	Wipro	Reliance Industries
<b>HR9:Total number of incidents of violations involving rights of indigenous people and actions taken.</b>	Reported fully in sustainability reports.	Not shown in annual and sustainability reports.	Fully reported in sustainability reports.

(H) Assessment

Aspect	TCS	Wipro	Reliance Industries
<b>HR10:Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

(I) Remediation

Aspect	TCS	Wipro	Reliance Industries
<b>HR11:Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

1. Social Society

(A) Local communities

Aspect	TCS	Wipro	Reliance Industries
<b>SO1:Percentage of operations with implemented local community engagement, impact assessments, and development programs.</b>	Reported fully in sustainability reports.	Partially shown in annual and sustainability reports.	Fully reported in sustainability reports.
<b>SO9:Operations with significant potential or actual negative impacts on local communities.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.
<b>SO10:Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

(B) Corruption

Aspect	TCS	Wipro	Reliance Industries
<b>SO2:Percentage and total number of business units analyzed for risks related to corruption.</b>	Reported fully in sustainability reports.	Fully shown in annual and sustainability reports.	Fully reported in sustainability reports.
<b>SO3:Percentage of employees trained in organization's anti-corruption policies and procedures.</b>	Reported fully in sustainability reports.	Fully shown in annual and sustainability reports.	Fully reported in sustainability reports.
<b>SO4:Actions taken in response to incidents of corruption.</b>	Reported fully in sustainability reports.	Fully shown in annual responsibility reports.	Fully reported in sustainability reports.

(C) Anti competitive behavior

Aspect	TCS	Wipro	Reliance Industries
<b>SO7: Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(D) Compliance**

Aspect	TCS	Wipro	Reliance Industries
<b>SO8: Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**4. Social: Product Responsibility**

**(A) Customer health and safety**

Aspect	TCS	Wipro	Reliance Industries
<b>PR1: Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.</b>	Reported fully in sustainability reports.	Not shown in annual and sustainability reports.	Partially reported in sustainability reports. All significant products and services of Reliance Industries comply with health and safety related regulatory requirements.
<b>PR2: Total number of incidents of noncompliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(B) Product and service labeling**

Aspect	TCS	Wipro	Reliance Industries
<b>PR3: Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.</b>	Reported fully in sustainability reports.	Not shown in annual and sustainability reports.	Partially reported in sustainability reports.
<b>PR4: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

<b>PR5:Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
--	---	--------------------------------	---

**(C) Marketing communication**

<b>Aspect</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>PR6:grams for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.
<b>PR7:Total number of incidents of noncompliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports.

**(D) Customer privacy**

<b>Aspects</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>PR8:Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.</b>	Reported fully in sustainability reports.	Partially shown in annual reports.	Fully reported in sustainability reports.

**(E) Compliance**

<b>Aspects</b>	<b>TCS</b>	<b>Wipro</b>	<b>Reliance Industries</b>
<b>PR9:Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.</b>	Reported fully in sustainability reports.	Fully shown in annual reports.	Fully reported in sustainability reports

**Findings of the study:**

- The companies under study are presenting information on the lines of GRI guidelines.
- TCS have fully mentioned the aspects which are not reported as per the GRI guidelines in their sustainability reporting.
- The impact of social sustainability reporting contains labor welfare, customer welfare obligations fulfilled.
- The companies under study are disclosing their social sustainability information with the help of sustainability reports and also with the aid of annual reports.
- Reliance industries have fully mentioned the aspects which are not

reported as per the GRI guidelines in their sustainability reporting.

- Both quantitative as well as qualitative information is presented by the companies in their reports.

### **Conclusion**

In this paper, the evidence has been provided that the Indian corporations are also now actively participating in the corporate sustainability reporting practices and the companies under study all are following GRI guidelines for the reporting. As the concept is not very popular in India but still there is a positive effort among the Indian corporations to follow this modern practice of reporting and to make the stakeholders available with the more efficient and transparent information both in the qualitative and quantitative terms. This paper only covers the social aspect of sustainability reporting but this is not the end in itself. There are various other indicators like economic, corporate governance & environment etc. which are also reported by the Indian corporations in these days. This paper helps in understand that how the social phenomenon is studied in qualitative and quantitative terms to benefit the organization and society as a whole.

### **Limitations of the study**

The limitations of the study involves that the study only covers a social aspect of sustainability reporting and all other aspects are not the part of this study. The study also only depends on the secondary sources for the information. The companies involved in the

study are only three which restrict the generalization of this study.

### **References:**

1. Ioannou, I. and Serafeim, G., 2014, The Consequences of Mandatory Corporate Sustainability Reporting: Evidence from Four Countries, Working Paper, pp 5-6.
2. UPS Corporate Sustainability Report: Supplement Data, 2014, pg 5.
3. Ted Senko et al, KPMG International Corporate Sustainability : A Progress Report, 2011, pp 5-7.
4. Tarsha Eason, et al, A Framework for Sustainability Indicators at EPA, 2012, pg 10.
5. Wipro Sustainability Report 2012-13, pg. 44 .
6. Shailesh. 2013. Greenhouse Gas Management at Wipro Ltd. for the Changing Planet. pg:1.
7. Wipro Sustainability Report 2013-14, pp.36-156.
8. TCS Corporate Sustainability Report, 2013-14, pp: 24-98.
9. Godrej Business Responsibility Report 2014-15, pp 129-137.
10. Reliance Industries Limited, Partnering India's new Future. Sustainability, Sustainability Report 2013-14, pp. 81-105.
11. Reliance Industries Annual Report 2014-15, pp.63-98.
12. Sustainability Reporting Guidelines accessed from <https://www.globalreporting.org/resource/library/G3.1-Guidelines-Incl-Technical-Protocol.pdf> on 28 August 2015.
13. Wipro GRI index accessed from <http://www.wiprosustainabilityreport.com/gri-index>. on 27 August 2015.
14. TCS Annual Report 2014-15, pp.03-123.

# **INSTITUTIONAL FINANCE: AN ACHILLES HEEL TO AGRICULTURAL SECTOR**

**Sibanarayan Mishra**

PhD research scholar, Dept of A&A Economics, Utkal University, Vanivihar, Odisha

---

**Abstract:** Agricultural credit not only gives financial assistance to the rural population but also explore the opportunities for enterprises and poor farmers to start new business and farming activity. Development of agriculture through technological improvement is largely influenced by credit. But availability and accessibility of credit is a major challenge in rural India. The aim of the study is to investigate various challenges of credit market in rural areas. The study is to be carried out to examine the trends of rural credit in India and Odisha which is a powerful tool for enhancing production, productivity and also tries to investigate the credit flow to agriculture according to land holding size. Literature substantiates that credit flow from institutional sources has increased with the passage of time but the requirement of credit has not been fulfilled. Non-institutional source of credit still constitutes 44% of the rural credit in India. The outstanding advance of credit to agricultural sector and number of borrowers availing credit from scheduled commercial banks has witnessed an uneven trend during the last decade. There is a signifying variation in direct finance to farmers according to the size of land holding over the years. Giving more emphasis to marginal and small farmers with adequate amount of credit flow from institutional sources can revive and transform the rural economy.

**Key words:** credit availability, direct finance, indirect finance, institutional finance, land holding

---

## **Introduction**

Despite being a cliché, the statement that agriculture plays a crucial role in the development of the Indian economy is still true. This line is justified not only on the basis of contribution to GDP but also on the basis of contribution to employment. The growth of agricultural sector has been reviewed from time to time and found agricultural credit an important factor in development of this sector. Till recent days non-institutional credit have significant place in rural credit system that is 44% as stated by 70<sup>th</sup> round of NSSO. Interest rate in non-institutional credit is quite high enough which creates problems of repayment of debt on the part of farmer. Not only interest rate but also failure in crop production becomes a factor for non repayment of debt. Therefore the farmer falls into the debt trap.

Though the volumes of disbursement of agricultural credit from institutional sources have increased with passage of time (Muhammad iqbal 2003) but it has not fulfilled the requirements of farmers. One of the most important determinants of growth in agricultural output is availability of productive

credit in required quantities (J S SOGO TEMI 2004). But credit availability by institutional sources is not in timely manner so this causes time cost of credit on the production of farmer. The amount of credit sanctioned to the farmer is insufficient and inadequate which leads to underutilisation of credit by the farmer in the way of consumption use. Less attention to small and marginal farmer is a big challenge in institutional credit. In connection with the above discussion the proposed study is going to analyse the factors affecting access to formal source of agricultural credit and to discuss the utilisation of agricultural credit by farmers.

## **Conceptual background:**

Development of agricultural credit systems have always been a complicated affair and this is clear from India's history. Traditionally, Government assistance to the agriculture has taken from "taccavi" loans – an ancient form of state help to enable the farmer to tide over emergencies such as flood or famine. Regular assistance by Government to finance the emergent needs of the agriculturalist on a regular basis dates back to the land

improvement loan act of 1883 and the agriculturists' loan act 1884. This problem was also noticed by our colonial masters and to this date, providing a formal system of credit seems to be a challenge. In 1904 cooperative societies act was passed and co-operatives were seen as the premier institutions for disbursing agricultural credit. In 1935 Sir Malcolm Darling submitted a report on cooperative credit to Government of India under Sec 54 - RBI to set up an Agricultural Credit Department and expert staff to advice central and state governments, state cooperative banks and to co-ordinate RBI functions for agricultural credit. Report of All India Rural Credit Survey in 1954 recommended for foundation laid for building a broader credit structure. Apart from visualising cooperatives as an exclusive agency for provision credit to agriculture, recommended setting up of SBI and using it to extend commercial banking facilities to rural and semi-urban areas. Social control and nationalisation of commercial banks (1969 and then 1980) played catalyst role to efforts of leveraging the bank system for extending agricultural credit. Following the recommendations of the "Committee to Review Arrangements for Institutional Credit for Agriculture and Rural Development", the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 to give financial support to rural farmers. NABARD also administers the Rural Infrastructure Development Fund (RIDF), which was set up in 1995-96; the corpus of RIDF is contributed by scheduled commercial banks to the extent of their shortfall in agricultural lending under the priority sector target.

### **Review of literature:**

Mohan Rakesh (2006) analysed the trends in rural credit in India relating to equity and efficiency. This paper also discusses the progress of agricultural credit and changing face of agriculture in India. He has found that nationalisation of banks in 1969 and subsequent spread of rural bank branches reduced the share of moneylenders in agricultural credit. The study also found that though the overall flow of institutional credit has increased over years, there are several gaps in the system like inadequate provision of credit to small and

marginal farmers and problems in medium and long-term lending.

Jain Varindra and Shing Surjit (2014) examines the question of credit flow, indebtedness and demand for credit among marginal, small, tribal and dalit farmers. It has found that credit flow to agriculture has increased to multiple times over the years through the institutional sources but at the same time non-institutional credit sources becoming prominent. The study also have found that better-off farmers getting major benefits of credit where as farmers belonging to socially deprived classes of SC and ST are continued to experience discrimination in both access and the magnitude of benefits.

Pradhan K Hemanta and Dinakar B.L (1990) studied to evaluate the changing pattern of rural credit in India during 1961-81 which includes the incidence of rural debt, supply of credit by sources, demand for credit according to purpose and interest rate pattern of debt. The study have found that institutional agencies like commercial banks and cooperatives have stepped up progressively their role in rural and curtailing the interest rate charged by the private money lenders. And demand of small cultivator is more in favour of family expenditure from non-institutional agency.

Muhammad Iqbal et.al (2003) Studied to investigate the impact of institutional credit on agricultural production in Pakistan. The study found that there have positive and significant relationships between institutional credit and agricultural GDP. Satish.P(2006): analyzed the nature and relationships between institutional credit, indebtedness and farmer suicide in Punjab. He has found that the growing institutional credit after nationalization of banks is not uniform with the demand for credit. The study also reveals that there have no direct causal relationships between institutional credit, indebtedness and suicide in rural Punjab.

R. Ramakumar and Pallavi Chavan (2008) studied to analyse the trends in supply of agricultural credit in India during 1990-2006. The study had found that the growth rate of credit flow to agriculture from commercial banks in the period 2000 to 2006 was 20.5 per cent per annum, which was significantly higher than the corresponding growth rate in the period between 1990.

Khalid S. Mohamed and Andrew E. Temu (2008) studied access the effect of formal source of credit on adoption of technology by small hold farmers. The study finds that factors like extension contacts intensity, household size, number of accesses to credit, and value of productive assets have significant influence on adoption of agricultural technology.

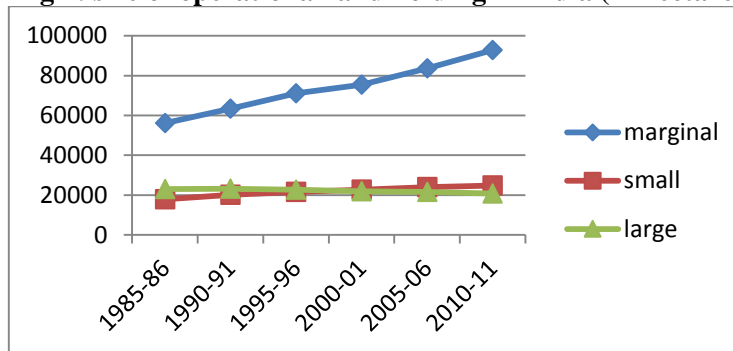
**Objectives:**

- ❖ To study the status of agricultural land holding in India and Odisha
- ❖ To examine the trends of institutional finance to agriculture in India and Odisha

**Research methodology:**

Research methodology is divided into two parts namely data source and techniques for interpretation. Data has been collected from secondary sources such as RBI website, Agricultural census, NABARD, Economic survey etc. Data has been processed in MS excel to provide some figure and result. Agricultural sector continues to be the worsen sector of the economy from past time. Land concentration and land diversification have demerits in different way. Changing scenario of operational land holding gives an insight into agricultural system of the economy. With the passage of time change in size of operational holding in India is described in figure 1.

**Fig 1: size of operational land holding in India (in hectare)**

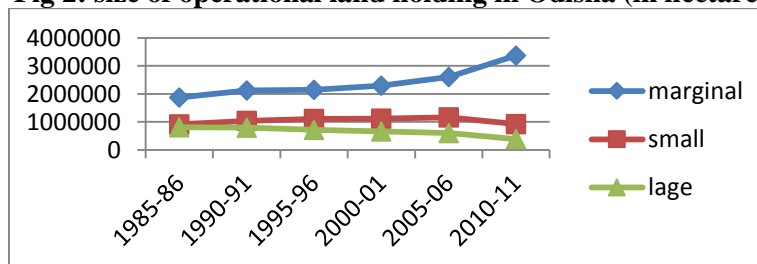


**Source: Agricultural census of various years**

Fig 1 shows that over the time there is a change in operational land holding in agriculture in India. Land fragmentation has increased the number of operational land holding in India. Over year 1985-

86 to 2010-11 the marginal operational hand holding have increased with a high rate. Small size operational land holding has also increased but with a lower rate. Large size operational land holding shows a decreasing trend over the years.

**Fig 2: size of operational land holding in Odisha (in hectare)**

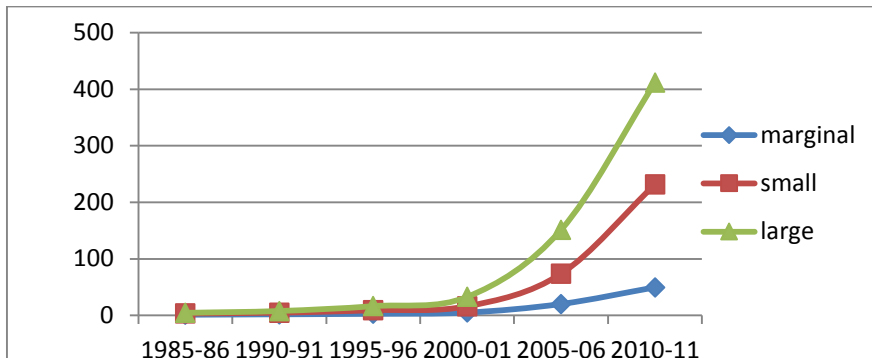


**Source: Agricultural census of various years**

The scenario of operational land holding in Odisha is not different from India. Over the years marginal size operational land holding has increased with a high rate. But the difference is that small size of operational land

holding shows decline trend from 2005-06 to 2010-11. And large size operational land holding has decreased over the years.

**Fig 3: Ratio of credit to operational land holding in India (in lakhs)**

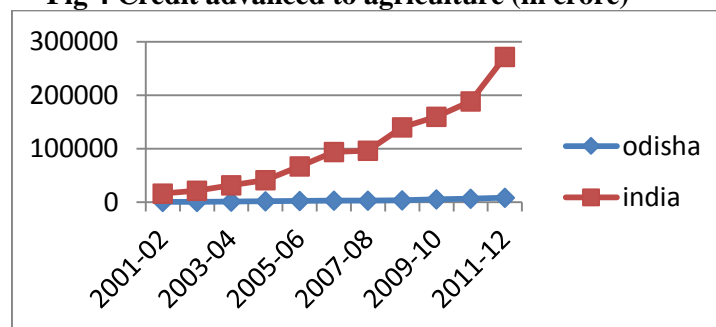


Source: own calculation

The ratio of credit to operational land holding shows the ability to avail institutional finance by the farmers. The figure depicts that over the year the ability to access institutional finance of large farmers have gone up with a high rate. Though the operational land holding of large

farmers is declining over the years, but credit availing by them is increasing. Oppositely as number of operational land holding of marginal farmer is increasing with high rate, but credit availing is not increasing with that rate. So this figure shows the ability of farmer to access institutional finance as per land holding size varies.

**Fig 4 Credit advanced to agriculture (in crore)**

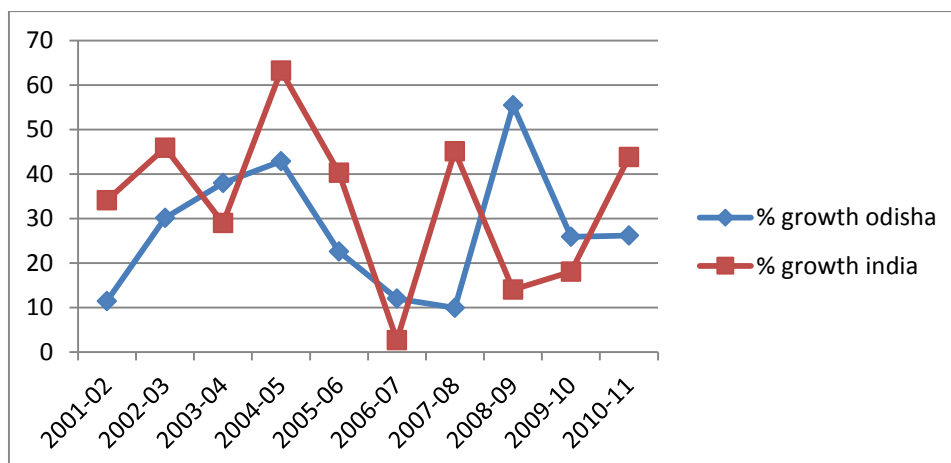


Source: RBI data base and Odisha Economic survey 2014-15

The credit flow to agricultural sector from institutional sources shows a significance difference between India and Odisha. There is an increasing trend of flow of institutional finance to agriculture both in India and Odisha but the change is different. The increasing trend

of institutional finance to agricultural sector in India shows a higher rate than that of Odisha. As India having a higher increase in institutional finance to agricultural sector, it has not fulfilled the requirement of agricultural sector. There is a high shortfall in the institutional finance. So Odisha is far away from its objective being an agriculturalist state.

**Fig 5: Growth of credit advanced to agricultural sector from SCB**



Source: own calculation

The growth rate of institutional finance to agricultural sector shows a more variation both in India and Odisha. The growth rate of formal finance in India is comparatively more than that of Odisha. The higher fluctuation on the growth rate in institutional finance gives a clear picture of instability in credit assistance to agricultural sector. In modern era credit is regarded as an important input to agricultural sector. So instability in credit gives a result of instability in agricultural production.

#### Credit situation in India

Both direct and indirect finance is important for development of agriculture in India. But the roll of direct finance is comparatively more than indirect finance. Indirect finance helps farmers in reducing cost to some extent. But direct finance provides the incentive to adopt the equipments and technology financed indirectly. In this regard direct finance is more important than indirect finance. Till 1993 direct finance was only considered as priority sector lending of 18% of agricultural and allied activities. But after 1993 both direct and indirect finance considered as priority sector lending of agriculture & allied activity.

**Table 1: share of direct and indirect finance in total finance in percentage**

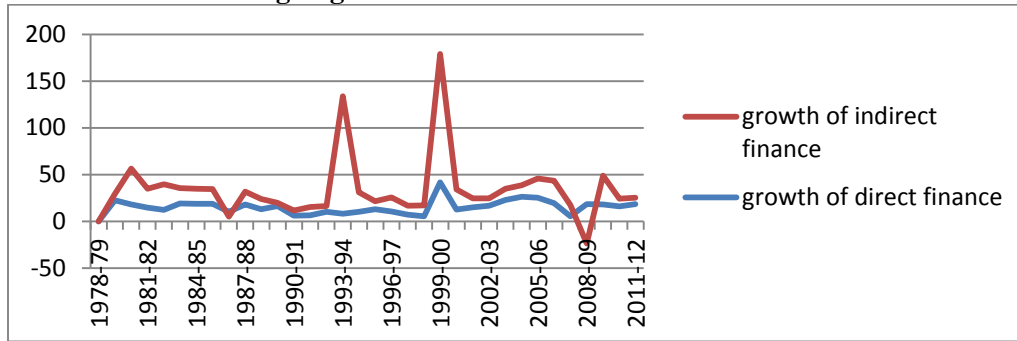
year	share of direct finance	share of indirect finance	Total
1980-81	74.47	25.53	100
1985-86	72.34	27.66	100
1990-91	77.38	22.62	100
1995-96	62.39	37.61	100
2000-01	48.38	51.62	100
2005-06	54.28	45.72	100
2010-11	68.15	31.85	100
2011-12	70.38	29.62	100

Source: RBI data base

The above table shows a picture of direct and indirect finance in Indian economy. The share of direct finance was very high in 1980-81 i.e. 74.47 percent. But in last decade the share of

direct finance has reduced. The indirect finance has increased significantly. In the year 2000-01 and 2005-06 the share of indirect finance was almost half of total finance.

**Fig 6: growth of direct and indirect finance**



Source: RBI data base

The figure depicts very uneven growth rate of both direct finance and indirect finance. After indirect finance considered being priority sector lending of agriculture and allied activities in the year 1999-2000 the growth rate of indirect

finance was maximum. In the time period of 2007-08 both direct and indirect finance growth rate had declined but indirect finance was negative growth rate. With a general overview the figure shows that the growth of indirect finance is more than direct finance.

**Table1: Trends in target and achievement of Annual Credit Plan (ACP) in Odisha (in crore)**

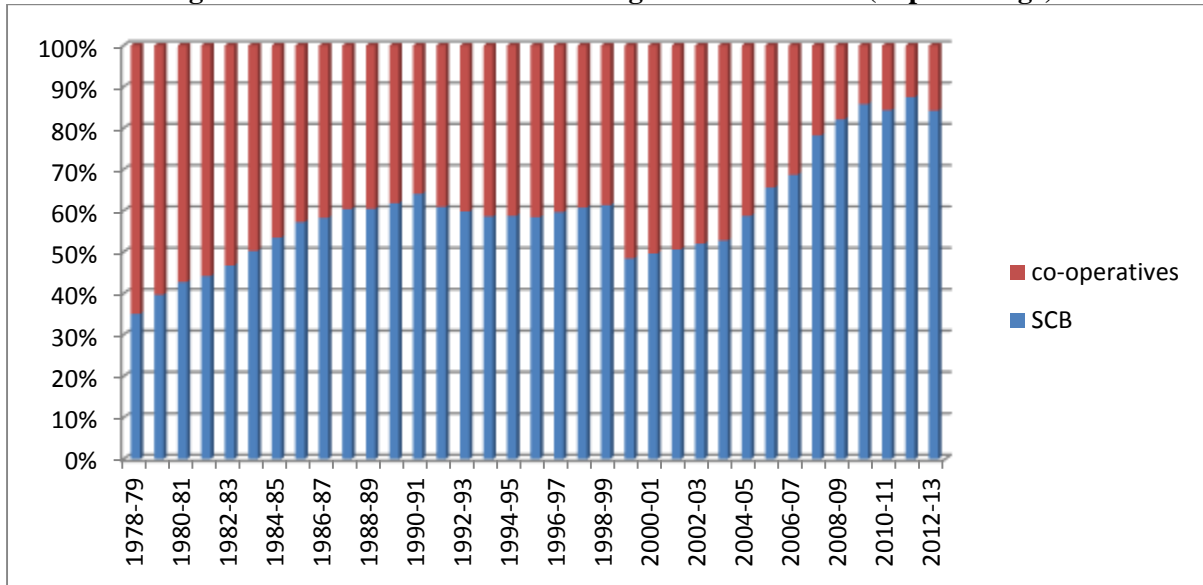
Year	Total ACP			Agricultural ACP		
	Target	Achievement	% of target	Target	Achievement	% of target
2010-11	16903.69	16611.24	98.26	9165.79	6751.81	73.66
2011-12	25233.43	19359.2	76.71	12924.00	8519.67	65.92
2012-13	27789.28	21910.93	78.84	14178.86	10454.14	73.73
2013-14	34270.97	20955.77	61.14	19520.00	12581.65	64.46
2014-15	40001.01	28014.18	70.03	22975.36	15028.23	65.41

Source: RBI (BBSR) report October 2015

The achievement of Annual Credit Plan (ACP) is an indicator of flow of credit to agricultural sector. It is noticeable from the table that the total achievement of ACP is higher than that of the ACP achievement in agricultural sector over the year 2010-11 to 2014-15. Further on an

average during this period the achievement of ACP in total achievement of 77 percent against the achievement of agricultural sector of 69 percent. The reason behind low level of target achievement of ACP in agriculture may be such as high rate of NPA in agricultural sector, low level of collateral in agricultural sector, insecure of banks from farmers.

**Fig 7: institution wise credit flow to agriculture in India (in percentage)**

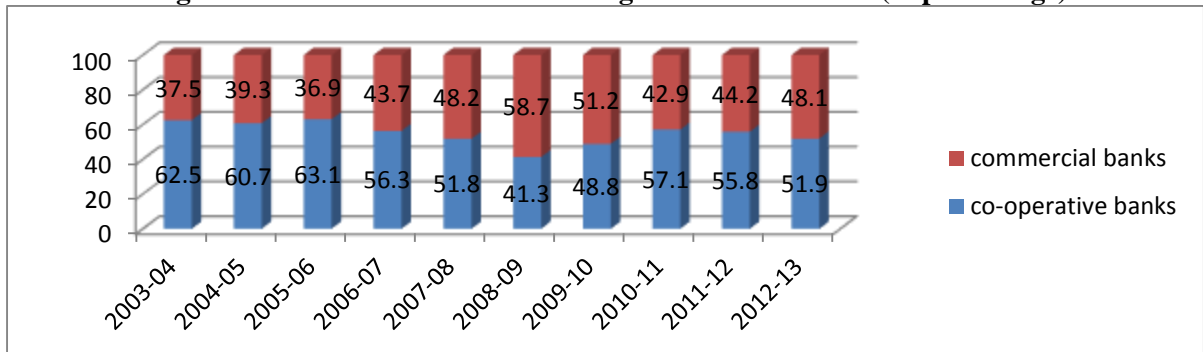


**N.B. - Schedule Commercial Bank includes RRBs Source: RBI data base**

The share of co-operative banks was 65 percent in 1978-79. But the share of co-operative banks has gone to a decreasing trend. Co-operative bank meets the immediate requirement of small

and marginal farmer. But in 2012-13 the share of co-operative banks has gone down to 16 percent. At the same time the credit share of commercial bank has gone up to a higher percent.

**Fig 6: Institution wise credit flow to agriculture in Odisha (in percentage)**



**N.B.-Commercial banks include RRBs Source: RBI (BBSR) Report October 2015**

Commercial bank and co-operative bank are two major credit providing institution in Odisha. Over the years from 2003-04 to 2012-13 contribution of co-operative banks have slightly more than commercial bank. But the share of commercial banks is increasing over the time period against the decreasing trend of co-operative banks.

**Findings:**

- The study has found that number of marginal operational land holding is increasing at a higher rate both in India and Odisha.
- The credit flow to agricultural sector is increasing but not at a stable rate. The growth of credit flow is uneven and instable both in India and Odisha.

- The increasing trend of credit flow in India is comparatively more than Odisha.
- The share of indirect finance has gone up to a higher percentage in last decade.
- The growth of indirect finance is more than growth of direct finance
- The average achievement in total ACP that is 77% is higher against the achievement in agricultural sector 69% in Odisha.
- The trends in share of commercial banks in total agricultural credit in India and Odisha have increased over the years.

### **Conclusion:**

The study gives a picture of status of agriculture in India and Odisha. The marginal size of operational land holding is increasing with a higher rate both in India and Odisha. But the institutional finance is more in favour of large size of operational land holding farmers. The ability to access institutional finance of large farmer is more than that of marginal farmers. The study concludes that larger the land holding more is the access to formal source of finance by the farmers in India. The share of direct finance has decreased over time and the growth rate is also less than indirect finance.

### **Suggestion:**

To strengthen agricultural sector there is a need to improve institutional finance to agricultural sector with adequate amount. With in agricultural sector marginal and small farmers are more vulnerable in nature. Therefore higher attention should be given to marginal and small farmers in access to credit from institutional source. With increase in indirect finance the direct finance should be increased with higher rate to avail the benefits of indirect finance.

### **References:**

1. Temu, K. S. (2008). Access To Credit And Its Effect On The Adoption Of

- Agricultural technologies: The Case Of Zanzibar. Research Center on International Cooperation of the University of Bergamo , 45-89.
2. Chavan, R. R. (2008). Revival of Agricultural Credit in the 2000s: An Explanation. Economic and Political Weekly , 57-63.
3. Mishra, R. (2014). Institutional Credit and Rural Development: A Case Study of Dasarathpur Block of Jajpur District, Odisha. Journal of Commerce & Management Thought , 625-634.
4. Mohan, R. (2006). Agricultural Credit in India: Status, Issues and Future Agenda. Economic and Political Weekly , 1013+1015-1017+1019-1023.
5. Dinakar, H. K. (1990). Rural Credit In India: An Evaluation Of Its Changing Pattern During 1961-81. Giordano Dell-Amore Foundation , 193-213.
6. Muhammad Iqbal, M. A. (2004). The Impact of Institutional Credit on Agricultural Production in Pakistan. Pakistan Institute of Development Economics, Islamabad , 469-485.
7. Obeta, M. E. (1992). Agricultural Credit In Nigeria: Performance At Farm Level. Giordano Dell-Amore Foundation , 173-184.
8. Olubiyo, J. S.-T. (2004). The Role Of Agricultural Credit In The Development Of Agricultural Sector: The Nigerian Case. Giordano Dell-Amore Foundation , 101-116.
9. Satish, P. (2006). Institutional Credit, Indebtedness and Suicides in Punjab. Economic and Political Weekly , 2754-2761.
10. Singh, V. J. (2014). Agricultural Finance in India A Study of Small, Marginal, Dalit and Tribal Farmers. Jaipur: The Indian Council of Social Science Research.

## **LOOK EAST TO LOOK ACT: 25 YEARS OF INDIA'S SOUTH EAST ASIAN DIPLOMACY**

**Murari Singh**

Research Scholar, Centre for West Asian Studies, Jamia Millia Islamia, New Delhi. E-mail id murariavinash@gmail.com Contact No. 8587098854

---

### **Abstract**

For over two decades, India's "Look East" policy has shaped the way the country deals with its neighbours in the Asia-Pacific region, leading to substantially deeper economic, institutional, and security relations. Driven in part by India's strategy of counter-balancing China's influence, the policy was initially aimed at diplomatic and economic engagement with Southeast Asia. But over the years, the policy has evolved to include broader security and defense ties across the whole Asia-Pacific, with India signaling its willingness to play a greater strategic role in the region. Given the swiftly changing security dynamics in the region, Indian PM Narendra Modi - who swept to power in a landslide victory in the April-May election - rechristened the approach as the "Act East" policy, stating the importance of also seeking deeper ties with partners such as Japan, Vietnam, South Korea and Australia. This presentation will trace the evolution of India's south East Asian diplomacy broadly last two decades but in first part of paper it will start with brief discussion on India's approach to its south East Asian neighbours and examine factors which have influenced this approach. Then in second part of paper, presentation will discuss factors which were responsible for India going for increased outreach with this region in form of Look East policy. It will also discuss features of this policy. In next part it will discuss benefits which accrued to both side as a result and challenges faced on that front. In the final part, presentation will analyse reasons which forced India to be more vigorous which resulted in rechristening the policy in the form of "Act East".

**Key Words: South East Asia, Diplomacy, Look East, Look Act**

---

### **India and Southeast Asia**

India's relations with Southeast Asia dates back to first century A.D. All over Southeast Asia, one can find plentiful symbols of these ancient times. Indian culture, religion, art, architecture, and languages have left a long-lasting impact on many countries of Southeast Asia. Southeast Asia, located between two cultural worlds, namely, India and China, and situated between the Indian Ocean and the Pacific Ocean. It comprises Myanmar, Thailand, Malaysia, Singapore, Laos, Cambodia, Vietnam, Indonesia, Philippines and Brunei covering a total land area of 4.5 million square kilometers. These countries together have a population of about 510 million<sup>1</sup>. Southeast Asia is regarded as an important region for India's security. Its

situation in the East and Persian gulf in the West constitute a close circle of Indian security. After World War II, it was regarded that the security of India and the security of Southeast Asia were interdependent. Geographically, Southeast Asia is nearer to India. It controls sea-lanes, which are regarded as the life line for the maritime countries of the world including India. Andaman and Nicobar Islands make India maritime neighbor of Burma, Thailand, Malaysia, and Indonesia. The distance between the Indian Island called 'Indira point' and the Indonesian Island of 'Sabang of Sumatra' is only about 100 miles. Southeast Asia, therefore, is considered an important area from the point of India's defense needs. Further, India and Southeast Asia have shared security interests and cannot remain impervious by the

---

<sup>1</sup> Lakshmana Chetty, A., "Southeast Asia: a region in the spot light," Dialogue, July-September 2003, p.11.

developments taking place in each other's sphere. India was aware that its neighbours serves as springboards for an attack on it which nearly happened during the World war-II.<sup>2</sup> India's policy towards Southeast Asia has been consistent and there had been no major changes regarding her approach or strategy towards the region ever since her independence. India had always favored close and friendly relations with individual countries of the region. All the countries of the region faced more or less similar problems in the Post-World War era but there were obvious diversities among them from the point of view of their colonial backgrounds and accordingly developed different socio-political systems. process of decolonization again worked as a catalyst to bring the two regions close.

### **India's policy towards Southeast Asia during the Cold War period:**

The emergence of Cold War ushered in an era of alliances and counter-alliances. India, in a new global environment, has clearly indicated that it did not want to be included in the politics of the Cold War. Strategic compulsion and socio economic, political need compelled India to choose a new and neutral path. New Delhi's reaction to the bipolar world, therefore, stood apart from the experiences of Southeast Asian countries, most of whom were becoming part of Cold War military alliance. Clearly, during the Cold War years, India's foreign policy towards South-East Asian countries was influenced to a larger extent by their super power relations and internal unrest within that region. India and Southeast Asian countries gained independence after a long and continuous colonial rule, so there was a similarity in this context also. Even before India got formal independence, It organized Asian Relations Conference in New Delhi from March 23 to April 2, 1947, in which 25 Asian countries participated. There was a lot of enthusiasm for regional cooperation from Sri Lanka and Burma. India organized a conference on Indonesia in New Delhi on

December 20, 1947, to express support for armed struggle against the Dutch effort to continue its colonialism. In addition to Indonesian issue, resolution was also passed for regional integration at the conference. A key stride towards the collaboration of Asian and African countries was taken at the Bandung Conference in the form of a policy and common approach to their problems in 1955. Many other efforts were made by India and participated in several conferences to explore possibilities of such cooperation at regional level.<sup>3</sup> Despite the insistence on Asian solidarity by various leaders during the anti-colonial struggles in the post-Second World War period, there was negligible cooperation between the Asian countries. All attempts by India to forge cooperation among Asian countries did not work to the satisfaction of all concerned. The inter-state dispute, tensions, distrusts and apprehensions among the individual countries and the tussle for leadership between India and China were main factors behind the failure of India's attempt towards regional cooperation in Asia and Africa in general and Southeast Asia in particular.<sup>4</sup> Many of these countries have the presence of Chinese populations and their It compelled them to get involved with China diplomatically. Philippines and Thailand became part of the military alliance led by the USA, named Southeast Asian Treaty Organization (SEATO).

After the China-Indian border dispute of 1962, India's South-East Asia policy was getting derailed further. Countries like Indonesia and Malaysia started doubting India's commitment to non-alignment policy post Indo-Soviet Peace and Friendship Treaty of 1971. Nuclear experiment conducted by India in 1974, the introduction of a new joint service command in islands of Andaman and Nicobar, and giving approval of Haig Samin Vietnamese Kampuchean government only augmented exclusion of India from Southeast Asian countries.<sup>5</sup> In Post Cold War period, talks with ASEAN for cooperation was not going anywhere. So, during the Cold War years, India and ASEAN remained isolated and their relations were without any essence. As per India's point of view, maintaining cordial relations with ASEAN will not generate any obvious benefits, whether political, economic or strategic.

<sup>2</sup> Ton That Thien, *India and Southeast Asia, 1947-1960*, (Geneva, 1960), p.68.

<sup>3</sup> Naidu, G.V.C. 1996. 'India and Southeast Asia', *World Focus*, 17 (10-12), October- December: 82-84.

<sup>4</sup> Gonsalves, Eric (ed). 1991. *Asian Relations*. New Delhi: Lancer International.

<sup>5</sup> Nanda Prakash, "Strategic significance of the Andamans," *Indian Defence Review*, Vol.17, No.3, July-September 2002, pp.12-24.

### **Shifting Trends in India's policy towards Southeast Asia:**

The years between 1989 and 1991, formed a turning point in the history of the 20 Century witnessing a series of rapid and puzzling events-like the reunification of Germany, the collapse of the Communist Parties in Eastern Europe and the Soviet Union, the impact of the Gulf war on the functioning of the United Nations Security Council and the end of Cold War giving way to a new multi-polar world and new global order, characterized by positional shifts among all the actors. The ideological struggle between Capitalism and Communism went in no time and paved the way for globalization.<sup>6</sup> Post Cold War era changed the foreign policy priorities, India and these countries signaled new priorities in the changing world order. India started moving towards Southeast Asia to build a strong economic, strategic and political relationship, and on the other hand, South East Asian countries also reciprocated and came out of historical baggage. Changes in India's approach can be attributed to many factors. The Open Door Policy adopted by China during the 1980s helped it in emerging as an economic giant in Asia. On the contrary, India was still adhering to Socialist policies of the Nehru era. China considered this region very important and started to expand political, economic and military influence there. Under these circumstances, India liberalized its economy with an aim to compete with China, which considered this region as an area of its natural influence and started to expand political, economic military presence.<sup>7</sup>

When Cold War ended, India's economy was in a disappointing situation. Increasing inflation, government subsidy, interest payments and declining remittances in the second half of 1980, all contributed to decline in India's economy. There was a

significant increase in non-productive expenditure. In 1980-81, it was seen that defense expenditure increased from 15.9 percent to 16.9 percent in 1987-88 and increased to about 19 percent in 1990-91. Subsidy increased from 8.5.1 percent since 1981-81 to 11.4 percent in 1989-90.<sup>8</sup> Due to the collapse of the Soviet Union, there was a serious consequence for India. The Soviet Union was a reliable country as far as supply of arms, petroleum and to some extent financial aid was concerned. It was also a major partner and a large market of Indian consumer goods. So sudden collapse of Soviet system denied India valuable business partner. The Soviet Union always supported India diplomatically at United Nations and its model of the centralized economy was highly admired. So, India was left without any support at United Nations Security Council.

At the end of Cold War, there was a tendency at the international level to go for free market economy. So in 1991, Prime Minister Narasimha Rao issued a note to the Foreign Ministry and its diplomatic posts to pay more attention to the economic aspects of external relations of India abroad.<sup>9</sup>

At least, Indian policy makers had come to know about the impact of the 12-year head start, that China had gained over India as a result of its increasing relations with Southeast Asian countries including political and economic linkages. It was also a feeling that until India took steps to reduce the gap with China and develop relations of political leadership, economic nature and collaborate with elites of this region, it would eventually make itself less and less meaningful with reduced economic and political footprint in the region. In September 1995, then Indian Finance Minister Manmohan Singh underscored the significance of this region by saying that It shall soon be the tiger economy of the world. We want to participate in this process.<sup>10</sup> The

---

<sup>6</sup> Chakraborty Tridib, "India's Southeast Asia Policy", n.9, p.157.

<sup>7</sup> Gupta Pranay, "Rhetoric of Ideology or Job Creation?," *The Straits Times*, 23 September 2004, cited in Khalid Mohammad, "Southeast Asia in India's post-Cold War Foreign Policy", n.6, p.3.

<sup>8</sup> Bhattacharya B.B, "India's Economic Crisis: Debt Burden and Specialization," (BR Publishing

Corporation, New Delhi, 1992). Cited in Nanda Prakash, *Rediscovering Asia: Evolution of India's Look East Policy*, (Lancer Publishers, New Delhi-2003) ppp.267-268.

<sup>9</sup> Dixit, J.N. 1996. *My South Block Years: Memoirs of a Foreign Secretary*. New Delhi:

<sup>10</sup> 'Southeast Asia in India's post-Cold War Foreign Policy',

emergence of the Asian Tigers and the growth of ASEAN as leading economies of Asia provided further thrust for the Indian policymakers to look at the East as a possible avenue for conducting economic transaction. The onslaught of the liberalization, privatization and globalization processes was on the rise and there was no escape for the Indian economy.

It was also an understanding that India's desire to become a permanent member of the United Nations Security Council is not possible without the support of East and Southeast Asian countries.

Changes at international and regional political-strategic level in the late 1980s paved the way for the positive development of ASEAN-India relations. Breakdown of ideological barriers made India adopt a more pragmatic approach.<sup>11</sup> Since the end of the Cold War, India's strategic worldview has clearly emphasized actual politics based on the acquisition and exercise of economic and military power.<sup>12</sup> India understood the importance of entering into cooperation with these countries rather than waiting for a response from another side. According to Prem Shankar Jha, 'the dark side of the East Asian success story is that there will inevitably be a loser and that India could be one of them'.<sup>13</sup>

**The Look East Policy:** Economic reforms associated with integrated forces of globalization, frustration with the process of integration within South Asia; and India's inconvenience on the renewed concern about newborn and powerful China and its impact on India's security, as well as Beijing's growing growth in the Asia-Pacific region, has made India rethink the basic objectives of its foreign policy.

While India was opening up in the

world market, it became aware of the increasing trend towards regionalism and expressed the apprehension that it would be marginalized by the dynamic mobility that advances the global economy. India's policy of look east in 1991, under P. V. Narasimha Rao, had taken a certain shape after he became Prime Minister. Indian economic reforms of 1991 assured ASEAN to give India the status of regional dialogue partner for tourism, commerce, investment and science, and technology. subsequently, India formally launched Look East Policy.<sup>14</sup>

Indian Prime Minister P.V. Narasimha Rao expounded the new 'Look East' policy of India in his much-publicized and well-received 'Singapore Lecture' at the Institute of Southeast Asian Studies.

In his lecture, Rao said:

"While in those days, the Cold War was at its peak and therefore, the super powers were looked upon with some caution mixed with suspicion, it is gratifying to note that the ASEAN can today speak from a position of strength at the same table with the USA, Russia, China, Japan ... India has already taken steps to liberalize its currency regime, open the economy to more imports and investment and educate its people on the benefits of exposure to the outside world. The Asia Pacific would be the springboard for our leap into the global market place."<sup>15</sup>

With the start of Look East Policy in 1991, bilateral relations between India and ASEAN have progressed rapidly. The relationship was upgraded to Sectoral Dialogue Partnership in March 1993 in three areas, trade, investment and tourism. Officials of both nations held a meeting in New Delhi on 16-17 March 1993, which identified specific areas of cooperation in targeted areas.

---

<http://www.scribd.com/doc/29438405/Southeast-Asia-in-India-s-post-Cold-War-Foreign-Policy>

<sup>11</sup> Nanda, Prakash. 2003. *Rediscovering Asia: Evolution of India's Look-East Policy*. New Delhi: Lancer.

<sup>12</sup> Mattoo, Amitabh. 2001. 'ASEAN in India's Foreign Policy', in Frederic Grare and Amitabh Mattoo (eds), *India and ASEAN: The Politics of India's Look East Policy*. New Delhi: Manohar, 91-118

<sup>13</sup> Jha, Prem Shankar. 1992. 'Stagnation and Sovereignty', *The Hindu*, 15 July, p. 9.

<sup>14</sup> Ram, A.N., "India's Look East Policy: A Perspective," in Kesavan K.V. (ed.), *Building a Global Partnership: Fifty Years of India-Japanese Relations* (Lancer books, New Delhi, 2002), p.8

<sup>15</sup> Nanda, Prakash *Rediscovering Asia: Evolution of India's Look-East Policy*. New Delhi: Lancer. 274-275

Because of continuous efforts, India-ASEAN relations were upgraded in December 1995 in Bangkok and it was made a full-fledged dialogue partnership. It enhanced the dialogue between ASEAN and India, from the senior officials to the level of the Ministry and enabled India's participation in ASEAN Minister's Conference. In July 1996 at ASEAN's post-ministerial conference in Jakarta, ASEAN Indian ministers underlined an approach of shared fate and cooperation in all areas such as infrastructure, human resource development, science and technology and tourism for cooperation.

I.K. Gujral remarked that he saw India's Full Dialogue Partnership status as a window to India's progressive participation in other ASEAN like groupings, like APEC and the Asia-Europe Meetings (ASEM).<sup>16</sup>

### **Policy Objectives of the Look East Policy**

Under the Look East policy, four broad objectives have been pursued in the several years since its initiation: (i) regional economic integration, (ii) reform and liberalization, (iii) sustained economic growth and (iv) development of the North-eastern region. The emphasis placed on each of these objectives has been different at different points of time during the past years. More recently, the emphasis has been on developing the North-eastern region through economic integration with East and Southeast Asia.

### **Regional Integration:**

The main objective of the Look East policy is economic integration with East and Southeast Asia. India realized that its East Asian neighbors achieved rapid economic growth and that it was lagging behind. Fascinated by the East Asian economic miracle, the Indian elite came to realize that the East Asian open economic system could be a model for its own development strategy. Thus, New Delhi wanted

to expand ties with these high-performing economies with the aim of getting integrated into the process of economic regionalization in East Asia.

To some extent, Look East Policy is a response to the working of other regional groupings like North American Free Trade Area (NAFTA), the European Union (EU) and the general market of the South (MERCOSUR). In this rapidly regionalized world, it was believed with increasing closeness to East Asian countries, India's positions well get strengthened in comparison to other regional partners.

In the words of Indian Prime Minister Manmohan Singh, 'this century is going to be Asia's century' and, furthermore, India along with China 'is going to be a major economy of this century. This is part of our "Look-East" policy'.<sup>17</sup>

According to G.V.C. Naidu,

In an effort to create regional cooperation through Look East Policy, India adopts three-dimensional approach

These are:

- i. To renew political contacts with the ASEAN member nations;
- ii. To increase economic interaction with Southeast Asia (trade, investments, science and technology and tourism); and
- iii. To forge defense links with several countries of this region as a means to strengthen political understanding."<sup>18</sup>

### **Reform and Liberalization**

Although Look East Policy is the result of India's economic reform and liberalization in 1991, the policy was aimed at more reforms to liberalize trade and investment to create deeper economic integration with East and Southeast

---

<sup>16</sup> Gujral, I.K. 1996a. 'Statement By His Excellency Mr. I.K. Gujral: Minister of External Affairs and Water Resources of India', Singapore, accessed from <http://www.aseansec.org/4756.htm> (accessed on 10 July 2009).

<sup>17</sup> Singh, Manmohan. 2004. 'PM's address at the inauguration of New Capital Complex of Assam', 21 November, accessed from <http://pmindia.nic.in/speech-details.php?nodeid=43> (accessed on 12 March 2009).

<sup>18</sup> Naidu, G.V.C. 1996. 'India and Southeast Asia', *World Focus*, 17 (10-12), October-December: 82-84.

Asian countries. India tried to reduce trade barriers and liberalize the investment system. It has signed an agreement during the Bali Summit in 2003 to form a free trade and investment sector with ASEAN. They are ready to implement the FTA till 2016 till for all Asian countries but for the Asian-5 deadline will be 2011. Framework Agreement has declared India's preliminary harvest program of immediate deliverables and one-way trade priorities in favor of least developed members of the group. In 2005 India has accomplished a comprehensive economic cooperation agreement with Singapore. She has also entered into several agreements with Thailand and Singapore. ASEAN-India Free Trade Agreement was signed in August 2009 with 10 members of ASEAN.

### **Rapid Economic Growth:**

After India initiated its economic liberalization, Look East policy became more than a foreign policy means, but it also provided development options in the form of synchronization with globalization and as well as the emergence of Asia as an economic powerhouse. According to Prime Minister Manmohan Singh: "it was also a strategic shift in India's vision of the world and India's place in the evolving global economy."<sup>19</sup>

It was with the initiation of Look East Policy in 1991 that India started extending itself to East and Southeast Asian priority in its foreign policy plans. Thus, exploitation of East Asia's growth for India's development was an important reason.

When Indian economy began to grow at a high rate from the second half of 1990, increased focus on rapid growth became an important motive. India's strong economic relations with East Asia would help it to access development opportunities in different parts of Asia.<sup>20</sup>

---

<sup>19</sup> Singh, Manmohan. 2004. 'PM's address at the inauguration of New Capital Complex of Assam', 21 November, accessed from <http://pmindia.nic.in/speech-details.php?nodeid=43> (accessed on 12 March 2009).

<sup>20</sup> Ramchandran, Sushma. 2006. 'India should aim at becoming part of Asian economic community', *The Hindu*, 9 April, accessed from

It is also encouraging East Asian investment in transport, communication and energy sectors to keep pace with its expanding economy. It believes that for India's continuous economic development East Asia is very important, especially when international economic activities are becoming increasingly competitive and other areas are growing very slowly and getting protectionists too.<sup>21</sup>

### **Development of the North-eastern Region:**

This foreign Policy initiative is also a tool to reduce India's internal developmental inequality. As far as economic development is concerned, the north-eastern states have remained behind and after independence, this gap has become widespread and widened. Due to feeling of neglect, there has been a variety of disturbances experienced here. With the launch of the Look East Policy, India does not see this region as a culture de-sac but in the form of an Eastern gateway. Through a network of pipelines, roads, railways, and network, along with south-east Asia, efforts are made to connect with eastern region. This will help in the development of north-eastern states in a variety of ways like infrastructure, communication, trade, investment, logistics, agricultural business and other commercial activities. Due to this potential, the North-Eastern states have supported the Look East policy.

In fact, look east policy has been considered as a new mantra for the development of the North-Eastern region.

### **Progress In Indian ASEAN Relations:**

ASEAN has provided various opportunities through many forums, which has strengthened the dialogue and mutual understanding between countries in the region. It facilitates

<http://www.hindu.com/2006/04/09/stories/2006040906001700.htm> (accessed on 21 July 2008).

<sup>21</sup> Dong, Zhang. 2006. 'India Looks East: Strategies and Impact', AUSAID Working Paper, September, accessed from [http://www.usaid.gov/au/Publications/Documents/india\\_east.pdf](http://www.usaid.gov/au/Publications/Documents/india_east.pdf) (accessed on 17 October 2010).

management of relations in East Asia.<sup>22</sup> In 1992, From Sectoral Dialogue Partner status, India graduated in December 1999 to position of Full Dialogue Partner. In 2002, this relationship was further expanded in Phnom Penh Indo-Asian Summit. In 2005, despite the Chinese reservation, India joined the EAS. "In 2012, in memory of the 10th anniversary of the India-ASEAN Summit, the two sides signed a Strategic Partnership Agreement, which led to the strengthening of relationship. In 2012, commemorating the tenth Anniversary of the India-ASEAN Summit."<sup>23</sup> India-ASEAN Trade 2013 was \$ 79 billion, and then set a target of \$ 200 billion by 2020. FTA signed was really a springboard to the economic integration of India in the region. After several rounds of talks, FTA on services and investments were signed on September 8, 2014. Its execution is expected to give important incentives to trade and investment activities. Earlier UPA government in India has been heavily criticized for signing the biased agreement (not just in the goods, in services), which proved to be harmful to India's business interests. Subsequently, as expected initially, while India's export was insignificant, imports from the ASEAN countries increased significantly. As far as services segment of FTA is concerned, Indonesia, Philippines, and Thailand took several months to take a final decision about giving its nod. In fact, the Philippines has not yet confirmed the agreement, because it is anticipating that Indian service sector may dominate the Asian services market. If this act is implemented faithfully, then India's share in total trade is bound to increase, making this agreement a "win-win situation".

For India, as this agreement provides an opportunity for its services sector, it will

significantly increase the number of natural persons or employees or workforce. It clarifies issues related to business visitors and contractual service suppliers, domestic rules, recognition, market access, national treatment, transparency, participation in developing countries, the joint committee on services, and dispute settlement and other benefits.<sup>24</sup>

This agreement will have an additional benefit as it will make way for Regional Comprehensive Economic Partnership (RCEP) which includes ASEAN members and its six associate countries.<sup>25</sup> India will have access to market of member countries and will get benefitted greatly due to price competitiveness.<sup>26</sup> It will definitely augment India's day to day trade with countries of the region, especially with China and Japan. India's service sector comprising IT, telecommunication, business process outsourcing (BPO), knowledge process outsourcing (KPO) and banking services, is likely to earn huge profit.<sup>27</sup>

Due to India's continuous economic growth and increasing strategic presence in this area, its enormous ability to balance China, ASEAN has started accepting India as a natural partner. Countries of the region are worried about growing insecurity due to China's increasing domineering nature and are appreciative of India's diplomacy which is consistent with USA and ASEAN view of the regional security environment. Changed perception has greatly enhanced India's efficacy as a potential force in the region.

In the meantime, India realized the significance of economic and military skills in foreign policy. As its economic prowess was gaining strength, it started getting associated with major powers including the United States. India's note-worthy anti-piracy activities in the

---

<sup>22</sup> Institutional engagements between India and ASEAN have been multilayered. ASEAN Regional Forum (ARF), ASEAN + 1 Framework (summit level meetings (between ASEAN and India), EAS, and lately, the ASEAN Defence Ministers' Meeting (ADMM) Plus are to name a few.

<sup>23</sup> For details, please see, <http://www.aseansec.org/5738.htm>.

<sup>24</sup> "India signs FTA in services, investments with ASEAN, Will help professionals get

greater market access, says FICCI," *The Tribune*, September 9, 2014, <http://www.tribuneindia.com/2014/20140910/biz.htm#1>.

<sup>25</sup> The six countries are India, China, Japan, South Korea, Australia and New Zealand.

<sup>26</sup> Mishra Rahul, "RCEP: Challenges, opportunities for India," *The Jakarta Post*, August 2, 2013.

<sup>27</sup> *ibid*

region get it rewarded in the form of a seat in ADMM Plus. Indian increasing importance was again got recognized, when in 2004, coastal states of the Straits of Malacca strongly opposed the suggestion made by the U.S. Navy for a regional initiative to deal with terrorism, piracy issues but were ready to accept assistance from India as far as improving the maritime safety of Straits Were concerned.<sup>28</sup> “Thailand and other Southeast Asian countries have been appreciative of India's growing presence in this area. Indonesia and Malaysia did not protest against the Indian and American naval maintenance works in the Straits of Malacca in 2001 and 2002, is proof of India's growing acceptance in this area.”<sup>29</sup> India's 'Eastward Looking Policy has always had aim of strengthening its position in the broad Asia-Pacific, and to fulfill this objective India became increasingly involved in South East Asian Maritime Security.<sup>30</sup>

#### **Transition to Act East Initiative:**

Prime Minister Narendra Modi led National Democratic Alliance government changed "India's Look East Policy" as the "Act East" policy. "Act East Policy" is aimed at not only including ASEAN member countries but also bring in countries of broader Asia-Pacific region and collaborate in political, strategic, cultural and economic domains”.<sup>31</sup>It gets

reflected in ongoing efforts to strengthen relations with Australia, Japan, and South Korea. Modi's tour of Japan and Australia can be seen as a step in that direction. Within a few months of assuming office, Modi changed it to "Act East Policy" to re-evaluate the "Look East Policy", without reducing the essence and achievements of the past.” In his address at the India-ASEAN Summit, Modi said: A new era of economic development, industrialization and business has started in India. Externally, India's Look East Policy has become an ' Act East Policy'.<sup>32</sup> incidentally, the statement given by Sushma Swaraj during the Vietnam trip on August 26, 2014, is also noteworthy. She addressed Indian head of the mission and told them that India should not only look "eastwards" instead "act east". Prioritization of Modi government to this region is clearly visible as Vietnam is the third in Southeast Asian region visited by Foreign Minister after assuming office.<sup>33</sup>

In order to strengthen India's bigger position in the defense architecture of the region, she talked about suggestion of Modi that "Five Ts" is necessary for making India a superpower. They are Tradition, talent, tourism, trade, and technology. She also stressed upon better land, sea and air connectivity between India and South-East Asian countries, apart from this, the institution to institution and people's relations are also important.

---

<sup>28</sup> Ram A.N, *Two Decades of India's Look East Policy* (New Delhi: Manohar Publisher, 2012), 77.

<sup>29</sup> “India-Thailand Relations in East Asian Security Dynamics,” in SD Muni and Vivek Chadha, *Asian Strategic Review (New Delhi: Pentagon Press,2014)*, 171-172.

<sup>30</sup> Bradford John, “Southeast Asian maritime security in the age of terror: threats, opportunity, and charting the course forward,” IDSS working paper, No. 75, April 2005.

<sup>31</sup> Act East finds mention in the US-India joint statement. “Noting India's 'Act East' policy and the United States' rebalance to Asia, the leaders committed to work more closely with other Asia Pacific countries through consultations, dialogues, and joint exercises. They underlined the

importance of their trilateral dialogue with Japan and decided to explore holding this dialogue among their Foreign Ministers.” For details see, U.S.-India Joint Statement, *The White House, Office of the Press Secretary*, September 30, 2014, <http://www.whitehouse.gov/the-press-office/2014/09/30/us-india-joint-statement..>

<sup>32</sup> English Rendering of the India-ASEAN Summit Opening Statement by the PM,”<http://www.narendramodi.in/english-rendering-of-the-india-asean-summit-opening-statement-by-the-pm/> November 12, 2014.

<sup>33</sup> She also visited Myanmar and Singapore, the other two critically important countries for India in the ASEAN region.

“In the inaugural address at the Third Round Table Conference of Think Tank of the ASEAN-Bharat Network of Hanoi, she outlined the importance of greater trade and investment relations between India and ASEAN and the need to speed up the existing integration of economic space between India and countries of the region.”<sup>34</sup>

“Intensive defense cooperation with Vietnam, Singapore, and Indonesia are gaining importance in India's policy. For example, the Indo-Indonesia Integrated Patrol Team (IND--CORPAT) has now been extended to joint bilateral exercises and as mentioned above, India and Australia will be their first bilateral naval exercise in 2015.”<sup>35</sup> During his visit to Vietnam, Swaraj stressed upon increasing defense cooperation with leaders of Vietnam, which was discussed again during President Pranab Mukherjee's visit to Vietnam next September.

India is seen as a potential security provider in this area and supplies of BrahMos to Vietnam can be a step by step process to strengthen this role. Indian Prime minister's Make in India initiative which supports R & D in the defense sector, indigenization of defense industry, inviting more FDI in defense, and with cooperation of Japan, Israel, Singapore, the United States and Vietnam in this regard, India can be in a league of major military powers in coming years. India offered Vietnam \$ 100 line of credit to build Offshore Patrol Vessels for Vietnam's Coast Guard construction of which has been contracted to Indian firm Larsen and Toubro .” During the ASEAN and EAS meetings in Myanmar, the nuances of Modi's policy were highlighted on the issue of South China Sea .It was reflected in India's assertive stance on south china sea disputes.

By Obtaining more oil blocks on the Vietnam coast, it reflects India's intention in the South China Sea its action will be guided solely by “enlightened self-interest” neither by any iota of fear or favor. Pointing to China's infrastructure projects in Pakistan's occupied Kashmir (PoK), India has clarified that prior to advising India to stay away from Vietnam's oil blocks, It should think about the third party non-participation in the disputed area.”<sup>36</sup>His statement signals that China should adhere to international norms, and contribute making regional environment peaceful. Participants in south china sea dispute like Philippines and Vietnam consider India as capable match against China's increasing weight.so, India is broadly considered as a key power and important stakeholder in East Asian Security architecture.<sup>37</sup>

Now India is not considered as a remote neighbor. projects such as Dawei Deep Sagar Port, India, Myanmar and Thailand Triple Highway and Kaladan Multi-Modal Transit Transport are an important factor in integrating India further in the region. These cooperation initiatives are the result of coming together "Look East" of India and the "Look West" policy of Thailand.

The region is no longer of less importance for India and vice-versa. Contrary to earlier perception in which China has always been considered as "power of result" in comparison to India's image of "benign power", through "Look East Policy", India has attempted to change that perception by increasing its presence in the region and coming to help in any unforeseen circumstance. "Act East Policy" seems to further establish India's presence by explaining that India is a culturally diverse country respects diversity, steadfastly

---

<sup>34</sup> . For details see, <http://www.indiawrites.org/tag/asean-india-connectivity/>.

<sup>35</sup> “India-Indonesia coordinated patrol graduates into joint exercise,” The Hindu, February 6, 2014, <http://www.thehindu.com/news/national/indiaindonesia-coordinated-patrol-graduates-into-joint-exercise/article5661161.ece>.

<sup>36</sup> “Differences came out during Narendra Modi-Xi Jinping meet ahead of BRICS Summit,” *The Economic Times*, July 25, 2014, [http://articles.economictimes.indiatimes.com/2014-07-25/news/52026341\\_1\\_south-china-sea-pok-gwadar-port](http://articles.economictimes.indiatimes.com/2014-07-25/news/52026341_1_south-china-sea-pok-gwadar-port).

<sup>37</sup> ana Hashmi, “South China Sea Imbroglia: An Indian Perspective,” *Air Power* 8, no. 1 (Spring 2013, January-March): 149-166

adhered to the policy of non-interference in domestic affairs of other countries, and never had any conflict with ASEAN member country. However, it still leaves India behind China due to lack of capability. During the 1960s, China's "power of consequence was more than evident as far as intervention in Indonesian domestic politics, Intermittent dispute with the Philippines, opposition to Sprattli and Paracel islands.

China's economic development and unprecedented up-gradation of military capabilities have made it a major power which is always in conflict with the USA. On the contrary, countries of this region have admired India as being a "generous power". India's distinct record of having widespread cultural diversity, the policy of non-interference in domestic affairs of other countries, and not having any conflict with any ASEAN member country till now, established this image. However, it still leaves India far behind as far as recognition as power in eastern Asia is concerned especially compared to China. When India opposed the Comprehensive test ban treaty (CTBT), on the ground of its being unfair and discriminatory, protest from side of ASEAN was not too much. In 1998, when India conducted a series of nuclear tests, ASEAN's reaction was mild, despite the fact that ASEAN has always advocated and worked for "nuclear weapon free zone".

However, India's application for APEC was not accepted in 1997, because It was thought that as far as capability is concerned, still not enough to make It "the power of results". Then, India understood the importance of economic and military dimensions in foreign policy. As its economic reforms began to pay, ASEAN grouping was given additional importance along with other major powers. This opened the way for enhanced cooperation with ASEAN.

Countries like Singapore and Vietnam recognized India's ability to become important in this area. When EAS was being established in 2005, then there was a change in attitude towards India. India along with Australia and New Zealand were being

considered as founding members. However, China and Malaysia opposed this proposal and instead preferred ASEAN +3 to be the sole member. Beijing was also very keen to host the EAS meeting. But, Japan rejected the Chinese proposal and proceeded ahead with ASEAN's plan for EAS, which was aimed at ASEAN having a central role to play. India's entry as an EAS member was considered as a major achievement. Its remarkable economic development and impressive military capability strengthened its case for membership. In addition, the operation of its rapidly-tsunami HADR (Humanitarian Assistance and Disaster Relief) in South-East Asian waters proved its naval efficiency. It established India as the power to think in terms of dealing with international non-traditional security hazards in this area. After Nargis, during the HADR operation, India helped Myanmar in a big way. As part of improved activism in the larger Asia-Pacific region and its eastward engagement intended at increasing its presence in Southeast Asia, India also became a continuous and regular participant in South East Asian Maritime Security."<sup>38</sup>

### **Conclusion:**

Changes are made as a result of the cumulative change from time to time. The transition from the first stage of "Look East Policy" to next Phase ie, "Act East Policy" is a suitable example. As India is preparing for "Act East Policy", there will be many expressions in the process of transition, both underlying and clear. India like China, Japan, and other major powers United States wants to have an image of a responsible major power. In this endeavor, active, systematic and comprehensive engagement with this region at all levels is being exercised. India's true obsession with Indian subcontinent has caused great harm to its foreign relations. It had the best card to play in this area, but unfortunately, played very badly in the past.

Till now, lack of comprehensive economic and strategic partnership with the region is the biggest obstacle, as far as India's

---

<sup>38</sup> Bradford John , "Southeast Asian maritime security in the age of terror: threats, opportunity, and charting the

course forward," IDSS working paper, No. 75, April 2005.

aim of a big role in the Indian subcontinent is concerned. Despite the signing of several agreements, trade volume is still below par, which is hampering India's regional ambition.

By the way, India-ASEAN FTA in goods and services will prove to be a litmus test for India. The importance of extended cooperation in Modi Government's "Make in India" has been emphasized further. However, "Despite good intentions of Modi, the Act East Policy in Delhi is much far behind achieving credibility in Asia. But steps like creating more business-friendly environments for faster implementation of transparency projects; Visa liberalization to increase defense cooperation can make a way forward.<sup>39</sup> Clearly, India needs to be "power of consequence" to "walk in harmony" with countries in the region"

#### Endnotes:

1. Lakshmana Chetty, A., "Southeast Asia: a region in the spot light," Dialogue, July-September 2003, p.11.
2. Ton That Thien, *India and Southeast Asia, 1947-1960*, (Geneva, 1960), p.68.
3. Naidu, G.V.C. 1996. 'India and Southeast Asia', *World Focus*, 17 (10-12), October-December: 82-84.
4. Gonsalves, Eric (ed). 1991. *Asian Relations*. New Delhi: Lancer International
5. Nanda Prakash, "Strategic Significance of the Andamans," *Indian Defence Review*, Vol.17, No.3, July-September 2002, pp.12-24.
6. Chakraborty Tridib, "India's Southeast Asia Policy", n.9, p.157.
7. Gupta Pranay, "Rhetoric of Ideology or Job Creation?," *The Straits Times*, 23 September 2004, cited in Khalid Mohammad, "Southeast Asia in India's post-Cold War Foreign Policy", n.6, p.3
8. Bhattacharya B.B, "India's Economic Crisis: Debt Burden and Specialization," (BR Publishing Corporation, New Delhi, 1992). Cited in Nanda Prakash, *Rediscovering Asia: Evolution of India's Look East Policy*, (Lancer Publishers, New Delhi-2003) ppp.267-268.
9. Jaffrelot, Christophe. 2003. 'India's Look East Policy: An Asianist Strategy in Perspective', *India Review*, 2 (2), April: 35-68.
10. Dixit, J.N. 1996. *My South Block Years: Memoirs of a Foreign Secretary*. New Delhi
11. *Southeast Asia in India's post-Cold War Foreign Policy*, <http://www.scribd.com/doc/29438405/Southeast-Asia-in-India-s-post-Cold-War-Foreign-Policy>
12. Nanda, Prakash. 2003. *Rediscovering Asia: Evolution of India's Look-East Policy*. New Delhi: Lancer.
13. Mattoo, Amitabh. 2001. 'ASEAN in India's Foreign Policy', in Frederic Grare and Amitabh Mattoo (eds), *India and ASEAN: The Politics of India's Look East Policy*. New Delhi: Manohar, 91-118
14. Jha, Prem Shankar. 1992. 'Stagnation and Sovereignty', *The Hindu*, 15 July, p. 9.
15. Ram, A.N., "India's Look East Policy: A Perspective," in Kesavan K.V. (ed.), *Building a Global Partnership: Fifty Years of India-Japanese Relations* (Lancer Books, New Delhi, 2002), p.8
16. Gujral, I.K. 1996a. 'Statement By His Excellency Mr. I.K. Gujral: Minister of External Affairs and Water Resources of India', Singapore, accessed from <http://www.aseansec.org/4756.htm> (accessed 10 July 2009).
17. Singh, Manmohan. 2004. 'PM's address at the inauguration of New Capital Complex of Assam', 21 November, accessed from <http://pmindia.nic.in/speech-details.PHP?nodeid=43> (accessed on 12 March 2009).
18. Ramchandran, Sushma. 2006. 'India should aim at becoming part of Asian economic community', *The Hindu*, 9 April, accessed from <http://www.hindu.com/2006/04/09/stories/2006040906001700.htm> (accessed on 21 July 2008).
19. Dong, Zhang. 2006. 'India Looks East: Strategies and Impact', AUSAID Working Paper, September, accessed from [http://www.ausaid.gov.au/Publications/Documents/india\\_east.pdf](http://www.ausaid.gov.au/Publications/Documents/india_east.pdf) (accessed on 17 October 2010)
20. Institutional engagements between India and ASEAN have been multilayered. ASEAN Regional Forum (ARF), ASEAN + 1 Framework (summit level meetings (between ASEAN and India), EAS, and lately, the ASEAN Defence Ministers' Meeting (ADMM) Plus are to name a few.
21. For details, please see, <http://www.aseansec.org/5738.htm>
22. India signs FTA in services, investments with ASEAN. Will help professionals get greater market access, says FICCI," *The Tribune*, September 9.
23. Mishra Rahul, "RCEP: Challenges, opportunities for India," *The Jakarta Post*, August 2, 2013
24. Ram A.N, *Two Decades of India's Look East Policy* (New Delhi: Manohar Publisher, 2012), 77.

<sup>39</sup>. Raja Mohan.C, "Not so easy to Act East," *The Indian Express*, November 22,

2014, <http://indianexpress.com/article/opinion/columns/not-so-easy-to-act-east/>.

25. India-Thailand Relations in East Asian Security Dynamics,” in SD Muni and Vivek Chadha, *Asian Strategic Review (New Delhi: Pentagon Press,2014)*, 171-172.
26. Bradford John, “Southeast Asian maritime security in the age of terror: threats, opportunity, and charting the course forward,” IDSS working paper, No. 75, April 2005.
27. Act East finds mention in the US-India joint statement. “Noting India’s ‘Act East’ policy and the United States’ rebalance to Asia, the leaders committed to work more closely with other Asia Pacific countries through consultations, dialogues, and joint exercises. They underlined the importance of their trilateral dialogue with Japan and decided to explore holding this dialogue among their Foreign Ministers.” For details see, U.S.-India Joint Statement, *The White House, Office of the Press Secretary*, September 30, 2014, <http://www.whitehouse.gov/the-press-office/2014/09/30/us-india-joint-statement>.
28. English Rendering of the India-ASEAN Summit Opening Statement by the PM,” <http://www.narendramodi.in/english-rendering-of-the-india-asean-summit-opening-statement-by-the-pm/> November 12, 2014.
29. For details see, <http://www.indiawrites.org/tag/asean-india-connectivity/>
30. “India-Indonesia coordinated patrol graduates into joint exercise,” *The Hindu*, February 6, 2014, <http://www.thehindu.com/news/national/indiaindonesia-coordinated-patrol-graduates-into-joint-exercise/article5661161.ece>.
31. “Differences came out during Narendra Modi-Xi Jinping meet ahead of BRICS Summit,” *The Economic Times*, July 25, 2014, [http://articles.economictimes.indiatimes.com/2014-07-25/news/52026341\\_1\\_south-china-sea-pok-gwadar-port](http://articles.economictimes.indiatimes.com/2014-07-25/news/52026341_1_south-china-sea-pok-gwadar-port)
32. ana Hashmi, “South China Sea Imbroglia: An Indian Perspective,” *Air Power* 8, no. 1 (Spring 2013, January-March): 149-166.
33. Bradford John, “Southeast Asian maritime security in the age of terror: threats, opportunity, and charting the course forward,” IDSS working paper, No. 75, April 2005.
34. Raja Mohan.C, “Not so easy to Act East,” *The Indian Express*, November 22, 2014, <http://indianexpress.com/article/opinion/columns/not-so-easy-to-act-east/>

# **FACTOR INFLUENCING SUCCESS OF WOMEN E-ENTREPRENEURSHIP: AN EMPIRICAL STUDY OF NORTHERN INDIA**

**Meenakshi Atri**

Assistant professor, Punjab University Constituent College, Moga

**Dr Harvinder Singh Mand**

Assistant Professor, University College, Dhuri

---

## **Abstract**

E-Entrepreneurship among women is growing at an exponential rate. Recent research on e-commerce and e-entrepreneurship has shown that both fields boost local and global economic growth. Yet very few studies have been conducted to investigate the factors influencing women in e-entrepreneurship. This paper investigated the influence of demographic and psychographic traits on the e-entrepreneurial intention of women in northern India. The empirical study was predicated on the need to consider both demographic variables and psychographic traits. The survey design was employed in this study. The target population for the research was made up of 96 women who run business through own websites. Data were analyzed using frequencies and percentages, factor analysis. Results indicated that there is high e-entrepreneurial intention among the respondents. The finding again indicated that demographic variables such as gender, age, religion and psychographic variable affect responses given by respondents

---

## **INTRODUCTION**

The term 'entrepreneurship' comes from the French verb 'entreprendre' and the German word 'unternehmen', both mean to 'undertake'. By grave and Hofer in 1891 defined the entrepreneurial process as 'involving all the functions, activities, and actions associated with perceiving of opportunities and creation of organizations to pursue them'. Joseph Schumpeter introduced the modern definition of 'entrepreneurship' in 1934. According to Schumpeter, "the carrying out of new combinations we call 'enterprise' and 'the individuals whose function it is to carry them out we call 'entrepreneurs'. Schumpeter tied entrepreneurship to the creation of five basic new combinations namely: introduction of a new product, introduction of a new method of production, opening of a new market, the conquest of a new source of supply and carrying out of a new organization of industry. Peter Drucker proposed that entrepreneurship is a practice. Entrepreneurship begins with action, creation of new organization. The organization may or may not become self sustaining and in fact, may never earn significant revenues. But, when individuals create a new organization,

they have entered the entrepreneurship paradigm. Entrepreneurship is not a new concept nor is it the product of 19<sup>th</sup> or 20<sup>th</sup> century as noted in western literature (Jones & wadhvani, 2006). Although the word was first used French economist 'Cantillon' in 1755 and revised by Jan B say at the beginning of 19<sup>th</sup> century as a practice entrepreneurship is older than that. Business has been revolutionized by the ability to use the internet and the world wide web together, exchange of disseminate information (McDonald and Burton, 2002) with clear gains for internet users (Koukova and Ratchford, 2001). Online business reduces the number of intermediaries, search and transaction cost, along with benefits of network externalization, would provide opportunities for radical change. The educated women would never like to confine themselves within the boundaries of their house. They want equal rights, respect, and value from their male counterparts. Indian women, however, still have a long way to go in order to achieve better position and equal rights because Indian society have deep-rooted traditions with male dominated sociological set up. Since, women

are thought to be weaker sex, therefore, they are made to rely on men either inside of a family or outside, during their whole life. In Indian culture, men treat them as subordinates and they are only supposed to execute their decisions, in a typical family structure. Although, women represent half of the brainpower available on earth, even then, they remain the most underutilized and suppressed resource of the world. Despite all such social problems, India is having a plethora of women's success stories. A change in Indian society's social fabric has increased women's aspirations for better lifestyle and educational status. They have managed to succeed in such tough and competitive patriarchal society with their perseverance, hard work and diligence. Women's persuasiveness, ability of learning quickly, open and free style of problem solving, ability to encourage people, ability to take chances, know the ways of winning and losing gracefully are the real strengths of women entrepreneurs in India. Entrepreneurship has been considered as a possible solution to address poverty in developing countries. It is a means of coping with unemployment problems by providing new job opportunities, and it is also seen as an engine of economic progress and job creation. It has great contribution to economic development of developing countries. Because of this, most of the developing countries are encouraging their citizens to pursue entrepreneurship (Hurry, 2007).

According to Kolvereid (1996), an intention plays a very relevant role in the decision to start a new firm (become an entrepreneur). Intention is a state of mind which motivates individuals to attain some specific goal. In the case of entrepreneurship, the intention to choose entrepreneurship as a career choice is called Entrepreneurial intention. The theory of planned behavior (Ajzen, 1991), suggests that entrepreneurial intention is the single best mechanism through which countries gain awareness about the state of entrepreneurship in their countries. It is also a means through which countries evaluate their citizens; whether they are potentially entrepreneur or not. This is because of the fact that an entrepreneurial intention is a single best predictor of entrepreneurship (Krueger, Reilly and Carsrud, 2000). Due to this, many countries

of the world were organized under one umbrella of Global university Entrepreneurial spirit students' survey (GUESS) to get the status of their students' entrepreneurial intention, and to identify hurdles and pitfalls when pursuing an entrepreneurial career, and also based on the survey result; to take appropriate policy measures that will stimulate entrepreneurship in their country (Sieger, Fueglistaller and Zellweger, 2011).

### **Reasons for Women Becoming Entrepreneurs**

The glass ceilings are shattered and women are found indulged in every line of business. The entry of women into business in India is traced out as an extension of their kitchen activities, mainly 3P's, Pickle, Powder and Pappad. But with the spread of education and passage of time women started shifting from 3P's to modern 3E's i.e., Energy, Electronics and Engineering. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures. Women Entrepreneur is a person who accepts challenging role to meet her personal needs and become economically independent. A strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. With the advent of media, women are aware of their own traits, rights and also the work situations. The challenges and opportunities provided to the women of digital era are growing rapidly that the job seekers are turning into job creators. Many women start a business due to some traumatic event, such as divorce, discrimination due to pregnancy or the corporate glass ceiling, the health of a family member, or economic reasons such as a layoff. But a new talent pool of women entrepreneurs is forming today, as more women opt to leave the corporate world to chart their own destinies. They are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation.

### **Concept of E- Entrepreneurship**

E- Entrepreneurship is reference companies that operate only on the internet, that are desirous of becoming an e-entrepreneur need to

do a lot of exercise venturing into online business. It is the ability to run business on the internet noticeable feature of net-preneurship are connectivity and input intellectual capital. Under the e-entrepreneurship the business electronically conducted with customers, suppliers and other external business partners using the internet as an enabling technology. There are more than 80 million internet users today and this has been growing at a rapid pace.

### **Status of women e- entrepreneurs**

For a very long time now, women have proven that they not only excel in each and every field, but they can do it better if not equally well as compared to men. So it is with entrepreneurship too. Women entrepreneurs are taking the plunge and starting up to follow their dreams and create lasting enterprises. From India brand equity foundation survey, it was concluded that **58%** women entrepreneurs need good knowledge and resources about entrepreneurship and **54%** women entrepreneurs wants more workshop and hands on experience on startups. **63%** women entrepreneurs have bootstrapped or self funded their venture, **50%** women entrepreneurs are in the services sector, which is followed by 29% women in E-Commerce. **46%** women entrepreneurs feel that starting up as a married woman with kids is the hardest and **42%** women entrepreneurs feel that starting up is difficult at all the time.(www.ibef.org)

### **Changing role of women from traditional business to e-entrepreneurship**

The new trend no doubt has enabled women entrepreneurs to change the way they work, and interact with their communities and networks. The correct technology when introduced and embraced by women entrepreneurs cedes positive economic and social remuneration for their immediate family, community and nation. Women's financial progression and entrepreneurial activity are supported through Information and communications technologies (ICTs), which include mobiles, computer devices and the internet, which enable women entrepreneurs to experience advanced business practices, and severing gender barriers imposed due to tradition in both the social and economic

spaces. The emergence of technology and the Internet has brought about many changes to the way that businesses are now run. The relationship between technological skill and firm development, particularly to entrepreneurs is crucial. The importance of ICT to women entrepreneurs cannot be undermined. In the past women had to deal with men personally and face to face, business through the Internet does not require this aspect. Therefore, face to face business dealings are minimized and women entrepreneurs will not be faced with much discrimination.

E-Entrepreneurship intention has been extensively study by various researchers in economics, management, sociology, psychology, as well as in anthropology due to its importance to the development of an economy by way of employment generation and wealth creation. The study on E-Entrepreneurship intention includes factors influencing entrepreneurship intention such as education and training, personality traits, perceived feasibility, gender, religion, age, culture, as well as ethnicity.

Entrepreneurial intention arguably plays an important role in the decision to create a business (Linan & Chen, 2009). Research has shown that various factors such as need for achievement, propensity to take risk, tolerance for ambiguity, locus of control, self-efficacy, and egoistic passion, can affect a person's intention to undertake in different entrepreneurial activities, (Shane, Locke, & Collins, 2003). These motivational factors for entrepreneurship have also been suggested to vary among human groups (Haus, Steinmetz, Isidor, & Kabst, 2013; Linan & Chen, 2009).

Entrepreneurial intention is defined as willingness of an individual's to perform entrepreneurial behavior, to engage in entrepreneurial action, to be self-employed, or to establish new business (Dohse and Walter, 2010). It usually involves inner guts, ambition and the feeling to stand on one's feet (Zain et al., 2010). An individual may have potential to be an entrepreneur but not make any transition into entrepreneurship unless they have such intentions (Mohammad et al., 2009). Birds (1988) proposed that entrepreneurial intention refers to individuals' states of mind that aimed at creating new venture, developing new

business concept or creating new value within existing firms.

In developing countries like India, self-employment intention is more important as far as creation of self-employment opportunities and reduction of unemployment situations are concerned. Entrepreneurship intention is vital to the development of an economy by way of employment generation and wealth creation.

## **Review of literature**

**Davidsson, P. (1995)** Investigated an economic-psychological model of factors that influence individual's intentions to go into business for themselves is developed and tested. The model was tested on a large sample of 35-40 years old Swedish subjects. A mail questionnaire with multiple indicators of the concepts in the model was distributed to 300 subjects each in 6 different regions. A response rate of over 70 percent was obtained. However, the analyses suggested that part of the influence of background factors is not mediated by the used psychological constructs. It was concluded that the model neatly summarizes and integrates much of what we know from previous research about factors that influence individual's entrepreneurial inclinations, and also adds some new insights

**Steinberg (2003)** discussed the various factors influencing the E-Entrepreneurship. The Study was conducted on E-Entrepreneurship in the Greater London business area, which provided intriguing findings about the changes in the social meaning of E-Entrepreneurship since the dotcom crash. The study used a sample of 42 dotcom entrepreneurs who had started a small business in the wake of the dotcom crash in 1999/2000 or who had business which survived the crash. In the view of the entrepreneurs surveyed, entrepreneurship in e-business was different to classic entrepreneurship. In terms of skills and knowledge, E-Entrepreneurship requires not only basic business skills and expert knowledge, but also the social skills necessary to be able to relate to other disciplines and sectors. The study also found that the dotcom crash had proven to be a positive turning point for a new generation of entrepreneurship, which would open up e-

businesses and endeavor to establish a new professional identity within e-business.

**Martin et al. (2005)**, explored how information communication technologies (ICT) and the internet offer new opportunities for women to develop as E-Entrepreneurs. The study used qualitative research methodology for case studies of female entrepreneurs and thematic grid analysis to form a major part of text analysis. The study shows the background of small firm development and innovation as well as personal and company characteristics, personal contacts and IT networking in obtaining information and customers.

**Ndubisi et.al. (2005)** investigated the extent and pattern of information and communication technology (ICT) usage by women entrepreneurs in Malaysia, as well as the impact of personal traits on usage. All the members of the National Association of Women Entrepreneurs in Malaysia (NAWEM) were surveyed, out of which a 62% usable response rate was achieved. The results of the analysis show that slightly above 50% of the respondents are using seven out of the eight varieties of systems presented. Seven out of the ten job tasks listed were done using computer technology by more than 60% of the respondents. A total of 78% of the respondents use basic systems and 48% use advanced systems. A total of 92% of respondents use systems for administrative purposes, 42% for planning, and 52% for control purposes. Mean usage differs among racial groups, educational levels, industry type, computer experience, and size of organization (measured by number of employees). Personal traits such as innovativeness and risk-taking propensity are significantly correlated with usage

**Linan et.al. (2006)** studied the Entrepreneurial Intention Model -which is adapted from the Theory of Planned Behavior- on a sample of 533 individuals from two quite different countries: one of them European (Spain) and the other South Asian (Taiwan). A newly developed Entrepreneurial Intention Questionnaire (EIQ) has been used which tries to overcome some of the limitations of previous instruments. Structural equations techniques were used in the empirical analysis. Results

were generally satisfactory, indicating that the model was probably adequate for studying entrepreneurship. Support for the model was found not only in the combined sample, but also in each of the national ones. However, some differences arose that may indicate demographic variables contribute differently to the formation of perceptions in each culture.

**Zhao (2007)** explored key issues and challenges facing e-entrepreneurship and e-innovation through case studies. The case studies draw mainly upon interviews with senior managers of the case companies and documentary research of the companies publications. It was found that e-entrepreneurship and e-innovation needs to be replaced closely to market needs and gain market credibility.

**Gelderen et.al. (2008)** presented a detailed empirical investigation of the entrepreneurial intentions of business students. The authors employ the theory of planned behavior (TPB), in which intentions are regarded as resulting from attitudes, perceived behavioral control, and subjective norms. The methodology used was a replication study among samples of undergraduate students of business administration at four different universities (total n = 1,225). Five operationalisations of intentions were used as well as a composite measure. Prior to the main study, qualitative research conducted at two other universities (total n = 373) was held to operationalise the components of the TPB. The results showed that the two most important variables to explain entrepreneurial intentions are entrepreneurial alertness and the importance attached to financial security.

**Lee et.al. (2009)** examined the entrepreneurial intentions and the person-environment (P-E) fit literatures, and applied a multilevel perspective, and examined why individuals intend to leave their jobs to start business ventures. By using a sample of 4192 IT professionals in Singapore, suggested that work environments with an unfavorable innovation climate and/or lack of technical excellence incentives influence entrepreneurial intentions, through low job satisfaction. Moderating effects suggested that an individual's innovation orientation strengthens the work-environment to job-

satisfaction relationship; self-efficacy strengthens the job satisfaction to entrepreneurial intentions relationship.

**Jamali, D. (2009)** examined the interplay of constraints and opportunities affecting female entrepreneurship in developing countries. The researcher adopted an integrative multi-level research design and an interpretive research methodology, capitalizing on in-depth interviews with ten women entrepreneurs to explore their perceptions and interpretations of constraints and opportunities facing female entrepreneurship in the Lebanese context. The findings clearly illustrate the relevance of micro, meso and macro-level factors in entrepreneurship research and the usefulness of integrating multiple lens and units of analysis to capture the complexity of the women entrepreneurship experience in any particular context.

**Sebora et al. (2009)** focused on the relationships between entrepreneurial characteristics (achievement orientation, risk taking propensity, locus of control, and networking), e-service business factors (reliability, responsiveness, ease of use, and self service), governmental support, and the success of e-commerce entrepreneurs. The target population for the study consists of 1,794 e-commerce entrepreneurs who registered with the department of business development, ministry of commerce, Thailand. The sample selection was based on the criterion that the firm had to be established for at least two years. The result confirmed that the achievement orientation and locus of control of the founders and business emphasis on reliability and ease of use functions of e-service quality are positively related to the success of e-commerce entrepreneurial ventures in Thailand. Founder risk taking and networking, e-service responsiveness and self service, and governmental support were found to be non significant.

**Faud et al. (2011)** opined that women entrepreneurs have contributed important roles of business, includes the ICT-related business in Malaysia. The researcher developed a demographic profile revealing characteristic of the Malaysian women entrepreneur. The study was conducted among 150 women

entrepreneurs in Malaysia that were listed in USAHANITA's online directory which who are focused on conduct ICT-based business. The analysis highlighted the complexity of demographic issues among Malaysia women entrepreneurs.

**Jyoti et al. (2011)** explored the affecting variables and impact on orientation and satisfaction. The proposed model and hypotheses were tested by using the data collected from boutiques, beauty parlors, carpet making units, and general stores in Jammu and Kashmir (India). Univariate, bi-variate, and multi-variate techniques were used for data analysis. Out of 13 paths eight relationships were significant while five relationships were insignificant in structural equation. It was found that all factors affect orientation highly as compared to satisfaction.

**Razak et al. (2012)** investigated some of the issues and challenges towards the acculturation of ICT among rural women entrepreneur in Malaysia. It examined the 1 Nita Project which was funded by Ministry of Science, Technology and Innovation (MOSTI) Malaysia and the main organizer was .My Domain Registry of Malaysia. It was found that programme has trained more than 400 women entrepreneurs thus far and will continue to train another women entrepreneur at rural communities in six zones of Malaysia. In terms of economic impact, relatively 30% of the participants have expressed increased in sales up to 40%. The challenges faced in the implementation of the project dealt with the application of new technology. While computer and language competency were some of the major challenges, issues related to technology, literacy, stability as well as hardware availability and internet access points also played a major role.

**Aryanto (2012)** explored online entrepreneur profile in Indonesia and its activities and second, profiles of e-learning entrepreneurship in Indonesia. The study used secondary data provided by the Indonesian Ministry of Communications and Information Technology. Total respondent were 1280 companies scattered throughout Indonesian cities such as Jakarta, Yogyakarta etc. it was undertaken by browsing some internet sites that offer distance learning on online entrepreneurship used

Indonesian language as the medium of instruction .it was found that online entrepreneur education still limited on giving the information and motivation to the online audiences to promote entrepreneurship education in Indonesia.

**Peng et.al. (2012)** investigated the student's entrepreneurial intention level and its influencing factors. Based on a survey of 2,010 senior university students from nine universities in Xi'an, China showed that the perceived subjective norm of university students has significantly positive influence on their entrepreneurial attitude and the entrepreneurial self-efficacy while all these factors influence their entrepreneurial intentions significantly. It also examined the influence of other factors such as individual/psycho- a logical factor, family background factors and social environment factors, and further discusses its policy implications.

**Guvo, G.D., (2013)** examined entrepreneurial intention and determinants. Specifically, the study tried to examine the impact of Gender, Family background, Social norm, Entrepreneurship education, perceived government policy and Perceived access to finance to entrepreneurial intention of university students in Addis Ababa. The quantitative approach was employed as research design. Simple Random sampling technique was used to draw sample from population. Data was collected through questionnaire and collected data was analysis through descriptive statistics, independent t-test and correlation analysis. The result indicated that there is significant positive relationship exist between Social norm and entrepreneurial intention. The result indicated that there is not significant positive relationship exist between perceived access to finance and entrepreneurial intention.

**Morgan et al. (2013)** studied to identify, integrate and assess current empirical research on e-business and firm internationalization. Sample included 12 descriptive papers, 20 theory building papers and 39 theory testing studies papers. Data was collected through surveys, interview and web content analysis

.multivariate technique and SEM was used. It was found that GOE and performance is more likely to be indirect than direct.

**Najim et al. (2013)** attempted to shed light on the effects of entrepreneurship dimensions on small businesses. The independent variables selected for the study were related to the five dimensions of entrepreneurship—characteristics of entrepreneur, entrepreneurship support policy, general environment, entrepreneurship activities, and information and electronic entrepreneurship—and its effect on survival and growth opportunities of small projects (the dependent variables). The research results and analysis revealed no significant impact on growth opportunities for small businesses. There was significant support for policy enhancing the general environment and chances for business survival and growth. There was no impact from information and electronic entrepreneurship on survival and growth chances.

**Balachandaran et al. (2013)** studied the impact of information technology on entrepreneurship (e-entrepreneurship). It was based on secondary data. Secondary data was based on journals, websites etc. It was found that Netpreneur was a premium member in the community. It provides service to the community including employment.

**Pulka et al. (2014)** examined the cognitive, affective, and behavioral components of student's attitude and to examine the overall attitude of students towards Entrepreneurship education in Nigerian universities. The respondents were students from five selected universities in north eastern Nigeria. Purposive sampling was used in selection of the universities, while simple random sampling was employed in selection of the respondents. The instrument used was structured questionnaire based on Likert scales ranging from strongly agree to strongly disagree on four points. 400 questionnaires were distributed, but only 375 were successfully retrieved and analyzed. The results indicated that the students' cognitive component of attitude is rated at 84.31%, affective at 83.34%, while behavioral component at 78.72%. The overall attitude is at 82.12%.

**Ukpere et al. (2014)** revealed the social media platforms and their impact in unlocking the financial success of women entrepreneurs globally has been widely observed and quite vital to the new generation of gender-based ventures that are digitally driven through the use of technology. Both formal and informal women-owned ventures have been observed to adopt social media platforms to grow their communities as a medium for keeping in touch and current and ground feedback on products and services from existing and prospective clients.

**Pourhossein et al. (2014)** introduced E-Entrepreneurship as a new concept and tried to clarify the role of e-entrepreneurship in economic growth and investigates productivity of new e-ventures that are related to the concept. Some cases like google.com, ebay.com, and amazon.com have been evaluated for the paper because having international customers and giving global services make these companies as means of entrepreneurship and their founder as e-entrepreneur. These empirical studies of e-entrepreneurship and e-innovation demonstrate that the success of e-business is inextricably linked to a combination of entrepreneurship and innovation, and that the two are enablers and key drivers of e-business.

**Benani et al. (2014)** investigated factors fostering e-entrepreneurship acceptance in a developing country, Morocco. It suggests a model based on Technology Acceptance Model (Davis et al., 1989) extended by three added constructs "Trust", "Image" and "Risk". The study was conducted at national school of business and management located in Agadir city, south of Morocco. It concerned 56 students, considered as future entrepreneurs, representing 62% of the target population (90 students). Results showed that the suggested model explained 40% of total variance in the intention to accept e-entrepreneurship by these entrepreneurs. It also revealed that Perceived Usefulness, Perceived Ease of Use, Trust, Image and Risk influenced significantly the Moroccan future entrepreneurs' intention to accept e-entrepreneurship. However, Attitude showed no significant impact on the intention.

**Batool et al. (2015)** studied various determinants of e-entrepreneurial intention towards online business. The entrepreneurial attitude orientation (EAO) scale was used to measure the e-entrepreneurial attitudes. A survey approach was adopted by sending questionnaires to 2420 people. non probability purposive sampling was used. Results showed that personal control, self esteem, and creativity with mediating role of self efficacy were found to have significant and positive relationships with online self-employment intention. The findings provided important insight to promote and produce a positive image of e-entrepreneurship as a career. Furthermore, the result showed that the effect of creativity or innovativeness is mediated by entrepreneurial self efficacy.

**Nandanwar (2015)** identified factors fostering e-entrepreneurship acceptance in the Indian entrepreneurs. It was based on secondary data. The emerging importance of the concept e-entrepreneurship was highlighted with different dimensions i.e. GEM (Global Entrepreneurship Monitor) along with modifications. It was found that major factors that influences the e-entrepreneurship is TAM with TIR. The PU, PEOU, Attitude, Image, Risk and Trust with intention were the keys to success for e-entrepreneurship.

**Chan et al. (2015)** conducted qualitative exploratory research of women online entrepreneurship in various small sized enterprises in Malaysia. The in-depth interviews as the main method of data collection and directed content analysis as the method of data analysis. Women were found to have the ability to leverage on the social network environment linking the physical real world and the virtual world. The social environment was also found to have impact on the impact on the development of some entrepreneurial leadership qualities such as sharing as opposed to command, throughout the women's entrepreneurial involvement.

**Parnami et al. (2015)** studied the emergence of women as e-entrepreneur in India. Secondary sources like websites, journal etc used to collect data. It was found that reason for choosing online marketplace was minimum investment, ease of working from home, global reach.

**Lock et al. (2015)** explored the challenges facing female entrepreneurs in Kenya. The study draws on primary research conducted through face-to-face surveys with female entrepreneurs in Kenya in a wide range of sectors, all of whom have their own micro enterprises. It was found that female entrepreneurs in Kenya face far fewer barriers to starting micro-enterprises now than ever before and that it was proving to be a widely successful model for women to lift themselves and their families. The study presented original research on the growing phenomenon of female entrepreneurship in Kenya as a means of alleviating poverty. It considered how trend was related to the growing availability of micro-finance.

**Jekwu, O.W., (2016)** investigated the role of psychosocial factors (entrepreneurial self-efficacy, fear of failure, social support, and gender) on entrepreneurial intention among Nigerian graduates. The research adopted a survey design. 210 participants were selected purposively and randomly for the study. Results revealed that there were significant a relationship among the variables of the study. It showed that entrepreneurial self-efficacy significantly predicts entrepreneurial intention. It was also found that graduates who have high fear of failure did not have lower significant entrepreneurial intention than those with low fear of failure. Those with high entrepreneurial self-efficacy have higher significant entrepreneurial intention than those with low entrepreneurial self-efficacy. Male graduates significantly score higher on entrepreneurial intention than female graduates.

With the help of reviews of literature it is found that the most of the studies for promoting women in E-Entrepreneurship have been conducted in foreign countries. Although many studies have been focused on e-commerce, but no study has been conducted on women in E-Entrepreneurship in India. Therefore, there is a great need to conduct a study related to E-Entrepreneurship based on women. This study will be an attempt to measure the impact of demographic, psychographic, motivational and e-service factors on the success of women in E-Entrepreneurship.

**Need of the study**

Entrepreneurship has been a male-dominated phenomenon from the very early age, but time has changed the situation and brought women as today's most memorable and inspirational entrepreneurs. In almost all the developed countries in the world women are putting their steps at par with the men in the field of business. There is a great need to explore E-Entrepreneurship among women, that can highly fruitful for the economy. Moreover, this kind of entrepreneurship can be considered as a solution to the dilemma faced by women in managing and balancing between their career and family life. In view of the growing number of women in E- Entrepreneurship in India, it is important to conduct research involving factors influencing women to start as an E-Entrepreneur.

**Database and methodology**

The research required to investigate and assess the intention of women in E-entrepreneurship through demographic and psychographic

variables. This study is based on primary data. The primary data was collected with the help of questionnaire. The questionnaire was developed with the help of literature survey in consultation with practioners, experts in this business domain. The leading journals of national and international repute were search for topic related to e- entrepreneurship. The self structured questionnaire was developed and improved with the help of pre pilot and pilot survey. The questions were rated 5 point Likert scale. The scale was refined with the scale reliability co-efficient alpha was calculated. Later, large scale survey was conducted from the women respondents in the field of e-entrepreneurship. The unit of analysis was practioners of women in e-entrepreneurship.the frame of reference was women in e-entrepreneurship in the selected states of northern India i.e. Delhi (NCR), Haryana, and Punjab. The data was collected through snowball sampling targeting 96 e-entrepreneurial women. The data was digitized on SPSS spreadsheet and appropriate tools and technique was applied.

**ANALYSIS AND INTERPRETATION**

The demographic profiles related to women in e-entrepreneurship are as follows:

**TABLE I: DEMOGRAPHICS PROFILE**

	<b>Demographic Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>state</b>	Punjab	10	10.4
	Haryana	30	31.2
	Delhi (NCR)	56	58.3
<b>Age group</b>	From 26 to 35 years old	43	44.8
	From 36 to 45 years old	48	50.0
	46 years and above	05	5.2
<b>Education</b>	diploma/certificate	00	00
	bachelors degree	05	5.2
	post graduate degree or any other	91	94.8
<b>Annual income</b>	2,50,000-5,00,000	05	5.2
	5,00,000-7,50,000	10	10.4
	Above 7,50,000	81	84.4
<b>Marital status</b>	Single	22	22.9
	Married	74	77.1
<b>No. of employees</b>	1-4	10	10.4
	5-9	00	00
	10-15	10	10.4
	16 or more than 16	76	79.2
<b>Size of family</b>	Nuclear	62	64.6

	Joint	34	34.4
<b>work before you become e-entrepreneur</b>	employed as full time	49	51.0
	as a part time	18	18.8
	homemaker	29	30.2
<b>product you sell online</b>	Clothing	20	20.8
	footwear	05	5.2
	mobile tablets and	05	5.2
	accessories	03	3.1
	computer and accessories	15	15.6
	beauty and personal care	10	10.4
	jewellerys	38	39.6
	others		

Based on the table 1, in terms of state it shows that most of the Women E- Entrepreneurs belong to Delhi (NCR) with highest representation at 56 respondents (58.3%) and lowest at 10 respondents (10.4 %) belongs to Punjab state. In terms of geographical region, 100 % represents women e- entrepreneurs from city no Women in E-Entrepreneurship one belongs to city or village. In terms of the age group it shows that those within the age of 36-45 years old made up the highest representation at 50.0%.The lowest age group involved entrepreneur at the age of 46 and above which was 5.2 %.From the above result it revealed that women who run their business through own website with highest qualification of post graduate and others with 91 respondents (94.8%) and least qualified women have bachelors degree with 5 respondents (5.2%).the result shows that being an E- Entrepreneurial Women they earned income more than 7,50,000 with 81 respondents (84.4%), between income 5,00,000-7,50,000 with 10 respondents (10.4%) and at last 5 respondents (5.2%) within income group 2,50,000-5,00,000. In terms of marital status, the tabulated results revealed that the highest representation were those already married with 74 respondents (77.1%), followed by single status with 22 respondents (22.9%).

Mostly, women who are married is the one who being successful, because they gain a support from their husband and family, while those with the single status showed the lowest because they are lack of experience and lack of capital. From the above the result shows that number of employees in their business has more than 15 employees with respondents 76 (79.2%) and least number of employees between 1-4 employees and 10-15 employee with respondent 10(10.4%).

Before became an E- Entrepreneur most of women worked as a full employed with 49 respondents (51.1%) and lowest worked as homemaker with respondent 29 (30.2%).majority of women who sell product online comes under others category with respondent 38(39.6%) and the category of product belong to computer and accessories with lowest among 03 respondents (3.1%).

### **Factor analysis**

All requirements were met and we proceeded for factor analysis using principal component analysis. The results are as:

**Table 2: Scale statistics**

Variable	Initial	Extraction	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Mean	Std. Deviation	N
Enjoy web pages	1.000	.464	.522	.840	3.0938	1.52231	96
Productivity Enhancement	1.000	.632	.637	.801	3.1562	1.64367	96
Work Voluntarily	1.000	.833	.547	.808	2.9271	1.52346	96
self confidence	1.000	.798	.593	.804	2.4375	1.65950	96
Creative	1.000	.542	.337	.825	2.0729	1.33176	96
money is not imp	1.000	.786	.391	.817	3.1458	1.64783	96
potential not than MR	1.000	.922	.145	.830	2.3438	1.42036	96
plan before task	1.000	.750	.697	.799	3.1042	1.51816	96
sense of competition	1.000	.725	.697	.798	3.0104	1.57276	96
innovativeness	1.000	.748	.523	.809	2.8854	1.52087	96
less attention for own credibility	1.000	.814	.591	.804	2.4792	1.71052	96
will not fulfill my abilities	1.000	.874	.610	.803	2.6146	1.75541	96
developing a plan important	1.000	.728	.213	.828	3.1146	1.62137	96
like action plan	1.000	.917	.156	.830	2.3438	1.42036	96
prefer clear structure	1.000	.673	.297	.823	3.1146	1.62137	96
make definite engagements	1.000	.727	.553	.807	3.0729	1.56437	96

**Reliability validity and unidimensionality:**

The cronbach’s alpha of scale is .824 (Table 4) which is a good indicator to go ahead as the value of the cronbach’s alpha coefficient of 0.6 and above is good for research in social science (Cronbach, 1990). Also the corrected-item-total correlation > 0.5 and inter-item correlation is more than 0.3. Here, it is pertinent to mention that corrected-item-total correlation > 0.5 and inter-item correlation >0.3 (Table 2 & 3) is

good enough for reliability of the scale (Hair et al., 2009). The value for communalities using principal component analysis ranged from .542 to .922 (Table 2). Here, it is pertinent to mention that communalities >0.5 is sufficient for the explanation of constructs (Hair et al., 2009). All these values show factors analysis has extracted good quantity of variance in the items. Hence, all the requirements of reliability, validity and unidimensionality are met.

**Table 3: Correlation Matrix of e-entrepreneurial women intention**

	Enjoy web page	Productivity Enhancement	Work Voluntarily	Self confidence	Creative	Money is not imp	Potential not than MR	Plan before task	Sense of competition	Innovativeness	Attention for own credibility	Will not fulfill my abilities	Developing a plan important	Action plan	Clear structure	Definite engagements
Enjoy web pages	1.00															
Productivity Enhancement	.540	1.00														
Work Voluntarily	.515	.551	1.00													
Self confidence	.346	.542	.313	1.00												
Creative	.429	.354	.205	.033	1.0											
Money is not imp	.315	.228	.507	.173	.13	1.0										
Potential not than MR	.262	.217	.237	.363	.39	.27	1.00									
Plan before task	.201	.470	.290	.634	.13	.313	.369	1.00								
Sense of competition	.388	.643	.435	.672	.11	.32	.149	.656	1.00							
Innovativeness	.350	.470	.919	.395	.09	.54	.411	.238	.383	1.0						
Attention for own credibility	.251	.677	.434	.756	.17	.10	.220	.528	.742	.29	1.00					
Will not fulfill my abilities	.193	.561	.316	.911	.202	.18	.242	.643	.673	.35	.805	1.00				
Developing a plan important	.264	.241	.118	.250	.26	.32	.161	.162	.086	.05	.009	.310	1.00			
Action plan	.243	.008	.147	.172	.40	.16	.979	.188	.258	.26	.177	.216	.198	1.0		
Clear structure	.341	.139	.248	.169	.16	.16	.038	.461	.136	.12	.137	.278	.560	.23	1.0	
Definite engagements	.259	.352	.682	.312	.14	.65	.173	.338	.487	.57	.404	.359	.138	.32	.18	1.00

According to the scale used if all the 16 items get a rating of 5 each, the total score would be 70. The mean score of the respondents is 44.91 (Table 4). The correlation matrix is computed as shown in Table 2. The mean correlation is 0.321 and it varies from .359 to .979 with a range 1.39 There is a sufficient correlation to go ahead with factor analysis. Factor analysis is done using SPSS software with varimax rotated, Principal Component Analysis. The scale reliability is made for factors so classified.

First of all, KMO and Bartlett’s test of Sphericity has been applied to ensure the suitability of factor analysis and sample adequacy. Kaiser (1974) recommends a bare

minimum of 0.5 and values between 0.5 and 0.7 are mediocre, value between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great values and above 0.9 are superb. Barlett’s test examines the null hypothesis that the original correlation matrix is an identity matrix.

It is observed from the table 2 that KMO value is .559 which indicates that sample data is fit for applying factor analysis test. Further, the sig.

value of Bartlett's is significant ( $p < 0.001$ ), thus the factor analysis is appropriate

**Table 4: Rotated Component Matrix**

Variables	Factors			
	F1	F2	F3	F4
will not fulfill my abilities	.917			
less attention for own credibility	.879			
self confidence	.876			
strong sense of competition	.784			
plan before task	.728			
Productivity Enhancement	.725			
money is not imp		.862		
Work Voluntarily		.822		
Innovativeness		.798		
make definite engagements		.796		
potential not than MR			.926	
like action plan			.923	
Creative			.672	
developing a plan important				.821
prefer clear structure				.773
Enjoy web pages				.594
Eigen value	5.494	2.647	2.188	1.606
% variance	34.338	16.544	13.673	10.036
Cumulative% variance	34.338	50.882	64.555	74.591
Cronbach's Alpha= .824, Kaiser-Meyer-Olkin Measure of Sampling Adequacy= .559, Bartlett's Test of Sphericity (Approx. Chi-square= 1.16133, Df= 120, Sig=0.000, Mean= 44.91				

a. Rotation converged in 6 iterations.

Table 4 shows the factor analysis of the sixteen variables; this analysis extracted four factors from the sixteen variables. Each factor was defined by at least 3 items except the one factor. Factor 1 loaded on the six variables. This factor can be labeled as **achievement orientation**, as these six variables revealed the intention of women related expectation of doing something better or faster than anybody else as it is the strongest predictor of entrepreneurial behavior (McClelland 1961; Babb and Babb 19952). That is, it will not full fill my abilities , less attention for own credibility, self confidence strong sense of competition, plan before task , Productivity Enhancement All these elements were considered as the predominant predictors of women entrepreneurial decisions. This factor alone has explained 34.33% of the total variation in the factor analysis. Factor 2 was correlated most highly with the first five variables; i.e. money is not imp, Work Voluntarily, innovativeness, make definite engagements, , women do not work voluntarily because of psychological reasons, monetary rewards in E-entrepreneurial women is less as compared to potential, innovativeness through E-entrepreneurship is greatly at risk. It might be labeled as **personal control**. This factor has explained 16.54% of the total variation in the factor analysis and indicates the importance of this factor in the study of women e-entrepreneurial behavior.

The third factor has explained 13.67% of the total variation in the factor analysis and might be labelled **creativity** It includes three variables; i.e. potential not than MR money is regarded as important for E-entrepreneurial women, like action plan, creative. The fourth factor might be labelled **entrepreneurial self-efficacy**. It includes three variables; i.e. developing a plan important, prefer clear structure, Enjoy web pages. The forth factor has explained only 13.67% of the total variation in the factor analysis

## CONCLUSION AND DISCUSSION

With the help of E-entrepreneurship today, many women have become financial independent by selling product online. The Indian women have to perform two opposite roles in this developing economy where she has built career and to take care of household

chores also so with help of e-entrepreneurial business she can perform both the role excellently by working at home. Women through e-entrepreneurship getting freedom from working from the comfort of their homes. A large numbers of women sellers are selling products online though their own websites such as health care, home furnishing, jewellery, handicrafts, fashion apparel. The main reason for choosing online market place is minimum investment, ease of working from home, global reach. Still women entrepreneurs are facing problems while selling their product online so efforts has been made to solve their problems like there must be work shop and training programmes on start up as most of women e-entrepreneur are facing problem because they don't know the process of starting the e-venture. There should be continuous efforts to inspire, encourage, motivate and cooperate women e-entrepreneur. Government and Non government agencies must also come forward to help and encourage women to become an e-entrepreneur. So there is huge scope in E-entrepreneurship as it is still very young in India. Women e-entrepreneurs must be focused on acquiring their dream.

## References

1. Aryanto (2012), "Online Entrepreneurship in Indonesia: eLearning Preparations", Special Issue of the International Journal of the Computer, the Internet and Management, 19(2), 1-5.
2. Balachandaran, V., Sakthivelan, M.S. (2013), "Impact of Information Technology on Entrepreneurship (e-Entrepreneurship)", Journal of Business Management & Social Sciences Research (JBM&SSR), 2(2), 51-56.
3. Batool, H., Rasheed, H., Malik, M.I., Hussain, S. (2015), "Application of Partial Least Square in Predicting E-Entrepreneurial Intention among Business Students: Evidence from Pakistan", Journal of Innovation and Entrepreneurship, 4(6), 1-16.
4. Benani, A., and Oumlil, R., (2014), "Acceptance of E-Entrepreneurship by Future Entrepreneurs in Developing

- Countries: Case of Morocco”, *Journal of Entrepreneurship: Research & Practice*, vol. 2014, pp.1-10
5. Chan. (2015), “Women Online Entrepreneurship and Social Environment in Malaysia: Some Preliminary Findings”, *Journal of Social Sciences and Humanities*, 10-21.
  6. Davidson, J., “Determinants of Entrepreneurial Intentions”, RENT IX Workshop, Italy, Nov. 23-24, 1995)
  7. Faud, N., Bohari, A.M. & Hin, C.W. (2011), “Women Entrepreneurs in ICT Related Business in Malaysia: A Demographic Survey”, *International Journal of Business and Management*, 6(10), 127-137
  8. Gelderen, M. V., Brand, M., Prag, M. V., Bode wes, W., Poutsma, E., Gils, A. V., (2008), “Explaining entrepreneurial intentions by means of the theory of planned behavior”, *Career Development International*, 13 ( 6), pp. 538-559
  9. Guyo, G.D., (2013), “Entrepreneurial Intention and Its Determinants: Evidence from University Students in Addis Ababa”, PhD Thesis, Addis Ababa University
  10. Jamali, D., (2009), “Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective”, *Gender in Management: An International Journal*, 24(4), pp.232-251
  11. Jekew, O.W., (2016), “Psychosocial predictors of entrepreneurial intention among Nigerian graduates”, *International journal of psychology and counseling*, 8(6), pp 73-86
  12. Lee, L., Wong, P.K., Foo, M.D., Leung, A. (2009), “Entrepreneurial intentions: The influence of organizational and individual factors” MPRA Paper No. 16195
  13. Linan, F., Chen, Y.W. (2006), “Testing the Entrepreneurial Intention Model on a Two-Country Sample” **Document de Treball** núm. 06/7
  14. Lock, (2015), “The Impact of Female Entrepreneurship on Economic Growth in Kenya”, *CIMR Research Working Paper Series, Working Paper No 26*, 1-21.
  15. Maier, (2007), “Empowering Women through ICT-Based Business Initiatives: An Overview of Best Practices in E-Commerce/E-Retailing Projects”, *Information Technologies and International Development*, 4(2), 43-60.
  16. Martin, L.M. & Wright, L.T. (2003), “No gender in cyberspace? Empowering entrepreneurship and innovation in female-run ICT small firms” *International Journal of Entrepreneurial Behavior & Research*, 11(2), 162-178
  17. Morgan. (2013), “Global Online Entrepreneurship: Past Research and Future Directions”, *Adam Smith Research Foundation. Working Papers Series*, 1-18.
  18. Nandwar, (2013), “E- entrepreneurship– Gateway to Global Business: Opportunities and Challenges to Indian Corporator”, *International Journal for Administration in Management, Commerce and Economics*, 115-119. (<http://ijamce.org/pdf/jan20.pdf>)
  19. Ndubisi, N.O., and Kehramamn, C. (2005), “Malaysian women entrepreneurs: understanding the ICT usage behaviors and drivers”, *Journal of Enterprise Information Management*, 18(6), pp. 721-739
  20. Parnami, M., Bisawa, T. (2015), “The Rise of Indian Women Entrepreneur in E-commerce”, *IOSR Journal of Business and Management (IOSR-JBM)*, 17(10), 36-40.
  21. Peng, Z., Lu, G., Kang, H. (2012), “Entrepreneurial Intentions and Its Influencing Factors: A Survey of the University Students in Xi’an China Vol.3, Supplement, 95-100 Published Online December 2012 in SciRes
  22. Pourhossein, M. and Omran, S.N. (2012), “The Role of E-Entrepreneurship in the Net Economy of Developed and Developing Countries”, *Arabian Journal of Business and Management*, 3(11a), 48-54

23. Pulka, B.M., Rikwentishe, R., Ibrahim, B. (2014), "An Evaluation of Students' Attitude towards Entrepreneurship" *lobal Journal of Management and Business Research: An Administration and Management*, 14(8), version 1.0,
24. Razak, N.A., Aziz, J., Hashim, F., Amir, Z., Zulkilf, S.H. (2012), "The Acculturation of ICT among Rural Women E-Entrepreneurs: Issues and Challenges", *SELECTED TOPICS in EDUCATION and EDUCATIONAL TECHNOLOGY*, 278-283.
25. Sehora, C.T., Lee, M.S. & Sukasame, N. (2009), "Critical Success Factors of E-Commerce Entrepreneurship: An Empirical Study of Thailand", *Journal of Small Business Economic*, 32(3), 303-316
26. Steinberg, A. (2003), "The re-definition of expert knowledge in e-entrepreneurship: a study on the sense-making of success and decision-making amongst e-entrepreneurs in the wake of the dotcom crash". London: London School of Economics, 32-40
27. Ukpere, C.U., Slabbert, A.D., Ukpere, W.I. (2014), "Rising Trends in Social Media Usage by Women Entrepreneurs across Globe to Unlock Their Potential for Business Success", *Mediterranean Journal of Social Sciences*, 5(10), 551-559
28. Zhao, (2007), "Issues and Challenges Facing E-Entrepreneurship and E-Innovation", *Managing Worldwide Operations & Communications with Information Technology*, 945-950

Websites:

- I. [www.ibef.org](http://www.ibef.org)
- II. <http://www.womensweb.in/articles/women-entrepreneurship-in-india/>
- III. <http://yourstory.com/2014/06/state-of-women-entrepreneurship/>
- IV. [www.investopedia.com/terms/e/entrepreneur.asp](http://www.investopedia.com/terms/e/entrepreneur.asp)
- V. [www.entrepreneur.com/encyclopedia/entrepreneur](http://www.entrepreneur.com/encyclopedia/entrepreneur)
- VI. <http://economictimes.indiatimes.com/small-biz/entrepreneurship/women-entrepreneurs-show-the-way-for-workplace-gender-parity/articleshow/46571466.cms>
- VII. <http://economictimes.indiatimes.com/tech/internet/how-the-internet-is-empowering-village-level-women-entrepreneurs/articleshow/46560452.cms>
- VIII. [http://articles.economictimes.indiatimes.com/2014-03-09/news/48029445\\_1\\_women-entrepreneurs](http://articles.economictimes.indiatimes.com/2014-03-09/news/48029445_1_women-entrepreneurs).

# **PERFORMANCE OF MICRO ENTERPRISE RUN BY SHGs IN WEST BENGAL**

**Dr. Swapan Kumar Barman**

Assistant Professor, Department of Commerce (UG & PG), Prabhat Kumar College, Contai, Purba Medinipur. West Bengal

---

## **Abstract**

SHGs based Microfinance (MF) programme is a remarkable attainment, in respect of rapidly popular larger anti-poverty programme through implementing various micro enterprises in India. The main operational framework of microfinance is formation of self-employment Micro Enterprise (ME) as an anti-poverty programme.

MF refers to the entire range of financial services of savings, credit, money transfer, insurance along with skill training and other related service to the poor people. The rationality of MF was that easy access to small amount of loans would lead to asset creation in the hands of the poor households, which is having influence in raising their income. Access to micro credit can contribute to long term significant impact on rural poor in terms of increase in their income, involvement with self-employment Micro Enterprise (ME).

The main objectives of the study to examine performance of Micro Enterprise (ME) run by SHGs in West Bengal. Sample Micro Enterprise (ME) run by SHGs are selected from four districts in West Bengal. Multistage random sampling method is adopted for the study at different levels.

To assess the performance of ME run by SHGs, various ME has been categorized into four categories like Agricultural based Enterprise, Non-Agricultural based Enterprise, Animal husbandry based Enterprise, and Other Households Enterprise. Sixteen number of ME have been selected from each of the category run by SHGs. Thus, a total 64 ME have been selected for the study. To examine the performance of Micro Enterprise (ME) run by SHGs various tools and techniques like cost-volume-profit (C-V-P) analysis, Break-Even-Analysis, ratio analysis, return on investment (ROI), Net Income, percentage, average etc. has been used.

The study conclude that all the classified Micro Enterprise (ME) run by SHGs are profitable by which SHG members increased their income and they were economically uplifted during the study period.

**Key Words:** Microfinance, Micro Enterprise (ME), Performance, CVP & ROI

---

## **Introduction**

SHGs based Microfinance (MF) programme is a remarkable attainment, in respect of rapidly popular larger anti-poverty programme through implementing various micro enterprises in India. The main operational framework of microfinance is formation of self-employment Micro Enterprise (ME) as an anti-poverty programme. SHGs based Microfinance (MF) programme is a remarkable attainment, in respect of rapidly popular larger anti-poverty programme through implementing various micro enterprises in India. The main operational framework of microfinance is formation of self-employment Micro Enterprise

(ME) as an anti-poverty programme. By and large, most of the SHG members live close to each other; that means they are well-informed about each other's IGAs / Micro enterprise (MEs) and information regarding economic activities is freely available. SHG programme can contribute to a long term increase in income of the households belonging to SHG members with the involvement of IGAs / MEs through easy access to credit. SHG approach is being recognized as a new way of rural development programme throughout the world as well as in our country including the state of West Bengal. The exclusive SGSY-SHG approach premeditated by anti-poverty programmes for generation of self-employments in rural areas

have been redesigned and rationalized in order. Key issue of SGSY is selecting economic activities on the availability of local resources

### **Objectives**

- i) To analyze cost and profitability of the Micro Enterprises (MEs) of SHGs under SGSY in West Bengal
- ii) To analyze return and CVP of the Micro Enterprises (MEs) of SHGs under SGSY in West Bengal

### **Literature Review**

Recent literatures highlight a number of significant features regarding performance of Micro Enterprise (ME) run by SHGs in West Bengal. The existing literatures on performance of SHGs are reviewed here:

**Badatya, K. C., Wadavi, B. B. and Snanthi, B. B., and Ananthi, S. (2006)**, made an evaluation in the study series on 'Microfinance for micro enterprises - An impact evaluation study of self-help groups'. The study has been conducted in the state of Andhra Pradesh spreading over three districts and covering 56 SHGs with 310 SHG members. The study could identify the positive impact of group dynamics within SHGs and the changes in the pattern of enterprise mix among the SHG members. The study examined the impact of different Income Generating Activities (IGAs) and Micro Enterprises (MEs) with the help of some economic indicators like investment and return, profit margin, net income percentage, ratio of sales to operating cost and total cost, loan repayment performance, etc. The study also analyzed that income and employment were generated by SHG members after SHG situation and had a positive impact on the incremental net income. **Ganagaiah, C., Nagaraja, B., Naidu, C. V. (2006)**, in their studies on 'Impact of self-Help Groups on income and employment: a case study' in the states of Andhra Pradesh revealed that SHGs had a favorable impact on employment and income on the rural poor. The field level study showed that annual income of the SHG members significantly increased from selected income generating activities. It also observed that farm based activities like agriculture, could generate highest income and non-farm activities could create the highest number of

employment-days. **NABARD, Bombay (1989)**, made a case study on 'Studies on self-help groups of the rural poor' covering 46 SHGs spread over 11 states with 20 Self-Help Promotion Institutions (SHPIs). The study stated that majority of the SHGs made effective use of common funds i.e., they are involved in economic activities. **Nair, T.S. (2005)**, made a study to find out the strength of microfinance performance in respect of different microfinance model like Grameen model, individual banking model, and SHG-model. In this study, performance was measured in terms of repayment rates, development of micro credit by economic activities, global outreach of micro credit and other financial sustainability indicators. **Satish, P. (2005)**, showed that SHG-based microfinance is an instrument to achieve the goal of poverty alleviation and an effective system of introducing SHGs to micro-enterprise. The study found that a large number of SHG-members are availing loans for taking up micro-enterprises. **Tripathy, K.K. (2006)**, showed that micro credit was one of the effective strategies to generate employment and sustain the income of the households of rural poor through SGSY self-help group, NABARD-SHG, and others. The study also reflected that it was an effective weapon in the war against rural poverty through community based micro enterprise and success of the economic activities taken up by the members of SHG. **Soundarapandian, M. (2006)**, attempted to analyze the growth of SHGs and role of micro finance in rural entrepreneurship. The study showed that there was a positive growth rate of SHGs with Bank loan in India over the years under study. The study also indicated the performance and achievements of the SHGs in employment and income generating activities through the involvement of different rural enterprise. The study also found from case study of 216 women groups that they were running the micro enterprise with the help of SGSY assistance

### **Research Gap**

From the above literature survey, it is found that different studies were conducted with respect to Micro Enterprises (MEs) run by SHGs in India. These are only a few of the huge literatures available on the subject. But, so far no regional

level detailed study has been done with respect to Micro Enterprises (MEs) run by SHGs in the State of West Bengal. Hence, this endeavour may be considered as the first time attempt in this direction.

### Research Methodology

- **The Universe:** The universe for the study incorporated the intact sample Micro Enterprises (MEs) run by SHGs under SGSY. The study has been conducted in four districts selected from total district in West Bengal.
- **Period of Study:** A study period of five years from 2008-09 to 2014-15 has been selected for the study.
- **Reference year of the Study:** The field survey was conducted during January to March, 2015. Therefore, the reference year for the study is 2015. All the economic parameters are measured at reference year price.
- **The Sampling Method:** Multistage random sampling method is adopted for the study at different levels to select district, block, SHGs and Micro Enterprise (MEs).

**Sample Size and Distribution:** The sample SHGs are selected from 4 districts namely Purba Medinipur, Paschim Medinipur, Bankura and Purulia.

**Stratification of the Sample:** Sample Micro Enterprise run by SHGs has been stratified in the Agricultural based Micro Enterprises, Non-Agricultural based Micro Enterprises, Animal husbandry based Micro Enterprises, and Other Households Micro Enterprises.

**Data Requirement and Sources of Data:** The first step in any statistical inquiry must be the collection of the relevant data. The data may be of two types: primary and Secondary. Primary data are those, which are collected for a specific purpose directly from the field of enquiry and hence are original in nature. Primary data are collected from primary sources in different district through personal contact and interview with the help of structured questionnaire. Interviews have been conducted with the SHG members selected by sampling method mentioned earlier.

### Tools and Techniques for Data Analysis

a. **C-V-P Analysis** -To judge the managerial performance of MEs / IGAs run by the SHG members we have employed cost-volume-profit (C-V-P) analysis. C-V-P is an important tool which is used to examine the relationship between various ingredients of profit planning, namely, sales price, fixed cost, variable cost, sales volume, and sales mix.

#### b. Ratio Analysis:

i) Contribution = Sales (S) – Variable cost (VC)

ii) Profit-Volume (P/V) Ratio or Contribution Sales (C/S) Ratio =  $\frac{C}{S}$

iii) Break-even-point (BEP) =  $\frac{\text{Fixed Cost}(FC)}{P/V \text{ Ratio}}$  (in rupees)

iv) a) Margin of Safety (M/S) =  $\frac{\text{Profit}}{P/V \text{ Ratio}}$  (in absolute terms)

Or Actual Sales – Break Even (BE) sales

$$b) \text{ M/S (As \% of Sales)} = \frac{\text{Actual Sales} - \text{BE Sales}}{\text{Actual Sales}} \times 100$$

c) To analyze the profitability with respect to managerial performance of the classified ME<sub>s</sub>/ IGA<sub>s</sub> run by sample SHGs, we have used ratio analysis technique. Those ratios are:

- i. Gross profit ratio =  $\frac{\text{Gross profit}}{\text{Sales}} \times 100$
- ii. Net profit ratio =  $\frac{\text{Earning after Tax (EAT)}}{\text{Net Sales}} \times 100$
- iii. Operating profit ratio =  $\frac{\text{EBIT}}{\text{Net Sales}} \times 100$
- iv. Contribution ratio =  $\frac{\text{Contribution}}{\text{Sales}} \times 100$

(d) **Return on Investment (ROI):** ROI for the IGAs / MEs units has been generalized in respect of some factors, like cost of inputs, price of output, gross income, net income, etc. Estimated cost and benefits have been worked out with valuation at the reference year prices in 2014-2015. Economics of ME<sub>s</sub> units covered under study have been also analyzed with the help of ratio analysis like sales to operating cost, sales to total cost, and net income to sales, etc.

**VI. Performance Analysis**

**i). MEs -wise Investment and Return analysis**

Investment and return of classified Micro-enterprises run by sample SHGs in West Bengal are analyzed. Summary result of investment and return according to classified MEs run by sample SHG are presented in Table – 01

**Table – 01: MEs-wise Investment and Return**

Micro Enterprises (MEs)	Total Cost (TC) Rs.	Sales (S) Rs.	Net Income (NI) Rs.	S to TC (%)	NI to S (%)
Agricultural based Micro Enterprises	44380	60940	16560	137	27
Non-Agricultural based Micro Enterprises	35970	45808	9838	127	21
Animal husbandry based Micro Enterprises	59858	76983	17125	129	22
Other Households Micro Enterprises.	33810	43790	9980	130	23

Source: Field survey

\*Total cost (TC) is the combination of variable cost and fixed cost. , NI = Net Income

Table – 01 reveals that the profitability of Micro Enterprises run by sample SHGs. In percentage form, net income to sales is the highest for Agricultural based Micro Enterprises (27%) and the least for the non-farm activity (21). The table shows that ROI has been satisfactory for all ME<sub>s</sub> during the period under study. Therefore, this analysis leads to the acceptance of the fourth hypothesis of our study. Enterprises' category-

wise ROI in terms of sales value has also been generalized. It indicates that total income is higher for Animal husbandry based Micro Enterprises (Rs. 76983), followed by Agricultural based Micro Enterprises (Rs. 60940), Non-Agricultural based Micro Enterprises (Rs. 45808), and Other Households Micro Enterprises (Rs.43790). In terms of net income earned, Animal husbandry based Micro Enterprises

occupied higher return (17125), followed by Agricultural based Micro Enterprises (16560), Other Households Micro Enterprises (9980), and Non-Agricultural based Micro Enterprises (9838).

**ii) Classified Micro Enterprises (MEs)-wise Cost-Volume-Profit (C-V-P) Analysis:**

To examine the managerial performance efficiency of SHG members in respect of their enterprise, C-V-P analysis has been adopted. Summary results of C-V-P analysis according to classified MEs run by sample SHGs are represented in Table – 02. It is observed that contribution is higher (Rs. 38322) for products

under Animal husbandry based Micro Enterprises produced by SHG members, followed by products of Agricultural based Micro Enterprises (Rs. 29651), Non-Agricultural based Micro Enterprises (Rs.20654), and Other Households Micro Enterprises (Rs. 12874). This clearly indicates that product of the Animal husbandry based Micro Enterprises is more profitable to the SHG members than others. As per result of P/V ratio, it is found that all enterprises are satisfactory and Animal husbandry based Micro Enterprises products earn higher profit (58%), followed by Agricultural based Micro Enterprises products (55%), Non-Agricultural based Micro Enterprises (49%), and Other Households Micro Enterprises (35%).

**Table – 02**

**MEs-wise Result of C-V-P Analysis of the Sample**

Micro Enterprises (MEs)	Contribution (Rs.)	P/V Ratio (%)	B.E. Sales (Rs.)	M/S (Rs.)	M/S Ratio
Agricultural based Micro Enterprises	29651	49%	21609	39331	64%
Non-Agricultural based Micro Enterprises	20654	45%	22533	23275	51%
Animal husbandry based Micro Enterprises	38322	50%	27894	49809	64%
Other Households Micro Enterprises.	12874	29%	9549	34241	78%

Source: Field Survey

**Table – 03: Classified MEs -wise Result of Ratio Analysis (Reference Year: 2014-2015)**

Micro Enterprises (MEs)	Gross Profit Ratio (%)	Net Profit Ratio (%)	Profit Margin Ratio (%)	Contribution Ratio (%)	Operating Ratio (%)
Agricultural based Micro Enterprises	35	31	34	49	35
Non-Agricultural based Micro Enterprises	24	22	24	45	24
Animal husbandry based Micro Enterprises	34	30	34	50	34
Other Households Micro Enterprises.	29	25	28	29	29

Source: Computed

Margin of safety (M/S) reflects that members of SHGs with Other Households Micro Enterprises (78%) are operating with higher safety than Animal husbandry based Micro Enterprises and Agricultural based Micro Enterprises (64%), and Non-Agricultural based Micro Enterprises (51%). It indicates that Other Households Micro Enterprises activity is a more strengthened activity than that of other all Micro Enterprises (ME). Overall, we conclude that all the classified Micro Enterprises are profitable. This clearly concludes that through any MEs run by SHG members they increased their income by which the poor members were economically uplifted during the study period.

### **iii) MEs -wise Ratio Analysis**

Profitability of classified MEs run by SHGs members is analyzed with the help of ratio analysis. Table – 03 presents the results of some ratios regarding profitability of product produced by sample SHGs.

Table – 03 reveals that gross profit is higher for product produced under Agricultural based Micro Enterprises (35%) by the SHGs members, followed by Animal husbandry based Micro Enterprises (34%), Other Households Micro Enterprises (29) and Non-Agricultural based Micro Enterprises (24%). Net profit ratio indicates that Animal husbandry based Micro Enterprises earn more profit than that other MEs. It also indicates that SHG members with Animal husbandry based Micro Enterprises performed with management ability to operate the MEs with sufficient success not only to recover from revenues of the period, the operating expenses and the cost of loans, but also to leave a margin of reasonable comparison to the owners for remunerating their capital investment and risk assumption. Operating ratio shows that operating expenses is higher Agricultural based Micro Enterprises (35%) by the SHGs members, followed by Animal husbandry based Micro Enterprises (34%), Other Households Micro Enterprises (29) and Non-Agricultural based Micro Enterprises (24%).

### **VII) Conclusions**

Enterprise category-wise rate of return in terms of sales value indicated that all are profitable and financially strong. This clearly indicated that SHGs had performed efficiently and effectively in their activities. The SGSY programme had

significant impact on employment generation among the rural poor due to their participation in SHGs. Finally, the present study concluded that the long run existence of the SHGs were significant. Sustainability of MEs run by SHGs in the sample district of West Bengal was also tested to find it to be active in poverty alleviation. Through SHGs women got economically empowered because women could improve their entrepreneurial skill and also could innovate new things by not depending on others. Entrepreneurship among rural poor women no doubt improved the wealth of the nation in general and households in particular. It is further observed that all the MEs run effectively and profitably through proper managerial efficiency of the SHG members which leads to positive impact on the incremental income of the SHG members. Overall it can be concluded that SHG members with classified MEs significantly performed their managerial activities during the study period. The major limitation of the study is poor availability of systematic data on Income Generating Activities (IGAs) / Micro enterprise (MEs) run by SHGs. In spite of these limitations, further study can be carried out by comparing the other district and also with the districts of other states. The present study can also be carried out by taking a larger sample size and by applying other models of SHGs i.e., NABARD Model, Co-operative Model etc. From the study it was marked that less percentage of members were engaged in project link. They were not prepared to take up the whole burden of running MEs. Therefore, instead of imbibing the same or similar culture among the members, they need to be trained to credit & savings activities to IGAs at the initial stage and then to be upgraded to MEs with asset creation. In this situation DRDAs should properly arrange for skill upgradation training for every member.

### **References**

1. ABARD (1989), Studies on Self-Help Groups of the Rural Poor, Bombay, pp.5-20
2. Badatya, K. C., Wadavi, B. B., Ananthi, S (2006), 'Microfinance for micro enterprises - impact evaluation study of self-help groups', Evaluation Study
3. Ganagaiah, C., Nagaraja, B., Naidu, C. V., (2006), 'Impact of Self-Help

- Groups on income and employment: A case study', *Kurukshetra*, vol. 54, No. 5, March, pp.18-23
4. Jain, S.P. and Narang, K. L. (1990), *Cost Accounting*, 12<sup>th</sup> edition, Kalyani Publishers, New Delhi – LUDHIANA, Part-V, pp.5.9 to 5.20.
  5. Khan, M. Y. and Jain, P. K. (2009), *Financial Management*, Tata McGraw Hill Publishing Co. Ltd., New Delhi, Chapter – 6, pp. 6.18 – 6.20.
  6. Nair, T. S. (2005), 'The transforming world of Indian Microfinance', *Economic & Political Weekly*, Vol. XL. No. 17, April 23-29, pp.1695-1698.
  7. Satish, P. (2005), 'Mainstreaming of Indian Microfinance', *Economic & Political Weekly*, Vol. XL, No. 17, pp.1731-1737.
  8. Sengupta, B.H. and Chowdhury, B.G. (2009), *Cost and Management Accounting*, Dey Book Concern, Kolkata 700073, Chapter 24, pp. 1275 to 1277.
  9. Soundarapandian, M. (2006), 'Microfinance for rural entrepreneur's issues and strategies', *Kurukshetra*, Vol. 54, No. 11, September, pp.14-16.
  10. Tripathy, K. K. (2006), 'Micro-credit intervention and poverty alleviation', *Kurukshetra*, Vol. 54, No. 11, September, pp.4-8.

## **SOCIAL REPORTING PRACTICES OF SELECT BANKS**

**Chanpreet Kaur**

Research scholar, Department of commerce, Delhi School of Economics, University of Delhi

**Dr. Ritu Sapra**

Associate Professor, Department Of Commerce, Delhi School Of Economics, University Of Delhi

---

### **Abstract**

In the present paper the Social Reporting practices of some select Indian banks is studied in order to gather an insight on how the banking companies are fulfilling the social obligations being in financial sector and also being a service provider. There are few studies focussing on financial sectors for the purpose of studying the social disclosures, therefore an attempt has been made to carry out a short piece of analysis on Banks in relation to their social reporting. The study provides some meaningful information regarding Quality and Level of Disclosures.

**Key words: Social Reporting, Index, Dimensions, Quantitative Disclosure, Quality, Level.**

---

### **Introduction**

Social Reporting is the term used to denote the records maintained by the organisations which are exclusively related to social activities carried out by them. Social reporting is day by day becoming an important aspect of the reports of the organisations due to the necessity of knowing their role in the betterment of the society these organisations are embedded in. The main purpose of profitability and financial success seem incomplete without involving those responsible directly or indirectly for the functioning of the organisations, be it Employees, workers, sweepers, environment, natural resources, investors, creditors, suppliers, consumers and general public at large. All of these have some role or the other to play that the organisations exist as they are. To quote a couple of definitions of Social Accounting and Reporting we have, Abbott and Monsen (1979) who wrote “Whereas accounting traditionally is considered to be a body of techniques for recording the financial transactions of the firm, the goal of social accounting is to add social categories pertaining to social impact of the firm into the firm’s formalised accounting system”. As quoted from Ramanathan (1976), social accounting is defined as “the process of selecting firm level social variables, measures, and measurement procedures; systematically developing information useful for evaluating the firm’s

social performance; and communicating such information to concerned social groups, both within and outside the firm”. There are various guidelines for the reporting of Social activities by the companies both India and Abroad. Some are mandatory while some are not. Some of them are ISO140001, GRI guidelines, AA1000 Assurance Standards. “The GRI Reporting Framework is intended to serve as a generally accepted framework for reporting on an organization’s economic, environmental, and social performance. It is designed for use by organizations of any size, sector, or location. It takes into account the practical considerations faced by a diverse range of organizations – from small enterprises to those with extensive and geographically dispersed operations. The GRI Reporting Framework contains general and sector-specific content that has been agreed by a wide range of stakeholders around the world to be generally applicable for reporting an organization’s sustainability performance.” (GRI Protocol), SEBI guidelines on Voluntary disclosure; section 135 of Companies Act 2013 for compulsory disclosure of 2% of the average net profit to be spent in CSR activities, Environmental disclosure under Companies Rules 2014. The present paper studies the social reporting practices in terms of quality and level for Indian Banks. It enables us to know how the Indian Banking Industry is carrying out its social reporting.

## **Review of Literature**

The paper by Murthy (2008) emphasised on the requirement of sector specific studies on social disclosures. Human Resource was the most disclosed followed by Community Development, Service Contribution and Environmental Issues respectively. Within each section, if we see, Training in Human resources, Education in Community development, Product safety in Service contribution and conservation of energy were mostly disclosed. The paper stressed upon to increase the voluntary disclosures in Environmental part in order to increase value of the firm. The concluding paragraph gave few reasons for disclosures such as shortage of skilled labour for most disclosure under Human resources, competitiveness of software firms for product safety.

In the paper by Shankar and Panda (2011), the corporate social reporting has been analysed by carrying out the content analysis of chairman statement and CEO messages in Annual reports of 40 companies divided into two groups Core and noncore and four Industries namely Iron and Steel and Cement in Core group and Textile and Automobile in Non Core Groups. The themes were Profits consisting of profit and growth, Transactional Concerns consisting of People within and People with out and Contextual Concerns with Community development, Environmental Affairs, Government Action and Economy which were measured by number of sentences. The content has been further classified as qualitative, Quantitative and Declarative. As far as descriptive analysis is concerned the most popular theme was Profitability followed by People with in People without Environmental affairs Trade Government action and lastly Rural Development and Urban affairs. Regarding the type of disclosures most of them are Qualitative followed by Quantitative and then declarative, however the tests indicate variation in industry wise comparisons of types of disclosures.

The paper by Singh Srivastava and Rastogi (2013) studies the CSR practices of four large banks in India, SBI and PNB from public sector and ICICI and HDFC from Private sector. The paper intended to comment on the rising awareness and evolvement of reporting

related to CSR in the banks after the RBI circular related to CSR in banking sector issued in the year 2007 directing banks undertake CSR activities. The paper presents a view of the instances from the Annual reports of the four banks related to CSR. The analysis is for one year period 2009. The paper also shows that all the banks are in level 3 of Karmayog CSR rating and HDFC is in level 2. The banks although the largest ones such as SBI and ICICI are disclosing amount of spend but all the banks others are not doing so.

Sharma and Mani (2013) have studied the corporate social responsibility reporting of the banks in India for a period of 3 years, concluded that public sector banks have higher contribution than the private sector banks, and the top performers financially did not perform well on the corporate social responsibility area. Mahbuba and Farzana (2013) analysed the relationship between CSR and profitability of Dutch Bangla Bank, while measuring the CSR in terms of expenditure made towards social activities and the results show significant positive relationship between the variables. The paper by Maheshwar and P Kaura (2014) studies the content of the environmental reporting in the annual reports of 30 listed firms on BSE for the years 2011 to 2013. The study used thematic analysis by categorising the environmental information into six categories such as water discharge, Air emission, solid waste disposal, installation of effluent treatment plants, research on new methods of production and environmental policy. The study also used statement analysis by categorising the statements into three categories, Qualitative, Quantitative and Thematic. The number of statements was used as a measure of analysis. The result revealed that most of the disclosures were qualitative and least was declarative. The results of thematic analysis show that the companies are disclosing Air emissions the most followed by solid waste disposal, the least has been disclosed about the research on new methods of production to reduce environmental pollution which is matter of concern highlighted in this study. The author gives suggestions in this regard. Ajide et al. (2014) studied the impact of corporate social responsibility activities on the profitability of the Nigerian banks. The study used the index developed by Branco and Rodrigues (2006).

The results indicated positive relationship between profitability and CSR of the banks. The paper by Karthikeyani (2016) is an analysis of social reporting in top 100 companies on BSE 200 index. The analysis is based on content analysis method and measurement of items is through number of words. Four variables of social reporting are identified and the growth rate of the reporting of such variables is studied. The companies which are positioned first and last in terms of reporting of each variable are also mentioned about in the paper for each year of analysis period. The results show that social reporting has increased over a period of 5 years from 2007-08 to 2011-12 and within each category. Among the companies which ranked first in terms of social reporting there is only ONGC throughout in two dimensions and three more which have the first position in other two dimensions, depicting some sort of stagnancy in the reporting companies, as during such a time period of five years other companies could have come up and reported more and replaced the already existing first positioned firms. But the author concludes "there has been a growing tendency to report more on the commitment of the companies to the common cause, in general". Community involvement is the most disclosed category followed by environment, Employee details and Products.

While the above studies are the ones which were considered specially for the present paper, and many other studies which were looked through were Baker and Naser (2000), Wiseman (1982), Hossain and Islam (2006), Singh Srivastava and Rastogi (2013) among many others.

### **Objectives of the study**

1. To study the level of social reporting of banking companies
2. To study the quality of the social reporting of banking companies
3. To rank the dimensions from most disclosed to least disclosed in terms of both level and quality
4. To rank the banks in terms of quality and level
5. To know the most common disclosure type, general short disclosure or detailed non quantitative disclosure or quantitative disclosure
6. To know if level is greater than quality

### **Research methodology**

**Sample:** A small sample of nine Banking companies is included in the present study which comes from the population of top 100 companies by Market capitalisation listed on NSE.

**Data collection:** The main source of data is the Annual reports of the banking companies and also the website content is too considered.

**Methodology:** The data has been arranged according to a social disclosure index of Branco and Rodrigues (2008) which comprises of 30 items divided into four dimensions namely Environment, Human Resources, Customer and Community. The level of social reporting is measured by giving un weighted scores, 0 for no disclosure and 1 for disclosure of an item. The quality is measured by giving weighted scores from 0 to 3 ,0 being no disclosure similar to un weighted scores and 1 meaning general non-specific disclosure through a word or a line 2 meaning detailed non quantitative disclosure 3 being quantitative disclosure. Unlike a few researches which have bifurcated the quality on the basis of financial as well as non-financial disclosure, the financial disclosure in this paper has been included in quantitative disclosure only, in order to avoid giving financial disclosure superiority over other forms of quantitative information, as social accounting does not measure everything in monetary terms but in benefits and costs which can be in any numerical form and financial disclosure is only one of the forms of disclosure. The maximum score for level is 33 for the overall level and 9 for Environment, 11 for Employees or Human Resources, 6 for consumer and 7 for community dimensions of social disclosure index. The maximum score for quality is 99 for overall disclosure quality, 27 for Environmental disclosure, 33 for Human Resources, 18 for Consumer and 21 for Community related disclosure. The maximum scores for level is equal to number of items in each dimension and total number of items in the index for overall level and for quality the maximum scores are obtained by multiplying the highest score with the number of items in each of the dimensions and total number of items with maximum score of quality which is 3 for maximum score of

overall quality. For studying the differences between the level and quality of disclosures right tailed paired t statistic is used. Also average scores in percentage form for comparing level and quality have been used. Frequency tables are used to analyse the maximum number of times an item is disclosed by the banking companies in the level case and also the maximum number of times (banks) the type of disclosure is made in the quality case. This enables to find out which type of disclosure is commonly used by the banking companies out of the three namely General and non-specific, detailed qualitative or quantitative disclosure.

### **Hypothesis:**

The following hypothesis is framed after considering the above objectives

- $H_1(0)$ : There is no difference in the quality and level of disclosures
- $H_1(1)$ : The level of disclosure is higher than the quality of disclosure
- $H_2(0)$ : There is no difference in the ranking of level of disclosures and quality of disclosures among banks.
- $H_2(1)$ : There is difference in the ranking of level of disclosures and quality of disclosures among banks.

Moreover, the index has been adopted from the studies conducted by Branco and Rodrigues in 2006, 2008 and another study conducted by Ajide Monsuru and Abdulazeez on Nigerian Banks. The original index in the study on Portuguese banks conducted by Branco and Rodrigues consists of 23 items, but depending

on the requirement of the present paper and Indian scenario of disclosures, the index has been modified and in this paper the index consists of 33 items. Ranking has been used to differentiate the banks in terms of quality and level. The importance given to a particular category of disclosure quality is measured using frequency which measures the number of times an observation is repeated. In the entire disclosure base the total number of observations is  $33 \times 9 = 297$  out of which Environment dimension comprises of 81 observations, Human Resource Dimension comprises of 99 observations, Consumer 54 observations and Community 63 observations. The number of observations is counted for each category of disclosure quality in order to find out the most common and least common form of disclosure overall and within each dimension. For the purpose of determining if the percentage level scores are greater than the percentage quality scores, paired sample t test is used. For the purpose of comparison of the rankings of level and quality (bank wise) of overall disclosures and Spearman's rank correlation is used to know the degree of relationship and also Wilcoxon signed Rank test, as both enable us to know the difference between the rankings, if the correlation is high then one can infer that the difference between the ranks is not much, but to know the difference between the ranks exactly significant or not one has to use Wilcoxon signed rank test. In the entire analysis a standard significant level of 5% is maintained. The analysis of reports for non-financial disclosures is carried out for one year 2015-16. The following sections of the paper give the glimpse of the analyses and results thereof, and the suggestions and limitations are enumerated thereafter.

**Analysis and results**

**Level of social reporting**

Table1. Level of disclosures (absolute numbers)

BANKS	ENVIRON (9)	HR (11)	CUSTOMER(6)	COMMUNITY(7)	TOTAL(33)	%AGE	RANK
PNB	9	7	4	5	25	75.75758	4
BANK OF BARODA	7	10	4	3	24	72.72727	5
YES BANK	7	10	5	5	27	81.81818	2
INDUSIND	7	9	4	6	26	78.78788	3
AXIS	8	6	5	4	23	69.69697	6
ICICI	8	9	5	5	27	81.81818	2
KOTAK MAHINDRA	8	8	5	6	27	81.81818	2
SBI	8	9	6	7	30	90.90909	1
HDFC	5	9	5	3	22	66.66667	7

Table 1. shows that the State Bank of India has the highest disclosure in terms of level as it is disclosing 30 items out of 33 items of disclosure leaving one item namely EMS and Audit in Environment, ESOS, and Employee Remuneration. The second highest bank in terms of overall level of disclosure are ICICI , Kotak Mahindra and Yes bank, at the third position is IndusInd Bank, PNB is at fourth position, Bank of Baroda and Axis Bank at fifth and sixth position respectively. Very few banks have disclosed all the items in a particular dimension. For instance Punjab National Bank has full disclosure level in Environment

dimension. State Bank of India has full disclosure in Customer dimension; State Bank of India also has full disclosure in Community dimension. Each of the dimensions have a highest discloser, if not full discloser, such as PNB in Environment, Bank of Baroda and Yes Bank in HR, SBI in Customer, and SBI in Community. The next table gives the percentage form of the level disclosures of various banks. This has helped in measuring the aggregate disclosure of all the banks for each dimension. Hence the ranks can be obtained for each of the dimensions in terms of level.

**Table2. Level of Disclosures (percentage form) and Ranking of Dimensions**

Banks	Envion%L	HR%L	CUST%L	COMM%L
PNB	100	63.63636	66.66667	71.42857
BANK OF BARODA	77.77778	90.90909	66.66667	42.85714
YES BANK	77.77778	90.90909	83.33333	71.42857
INDUSIND	77.77778	81.81818	66.66667	85.71429
AXIS	88.88889	54.54545	83.33333	57.14286
ICICI	88.88889	81.81818	83.33333	71.42857
KOTAK MAHINDRA	88.88889	72.72727	83.33333	85.71429
SBI	88.88889	81.81818	100	100
HDFC	55.55556	81.81818	83.33333	42.85714
AGGREGATE %	82.71605	77.77778	79.62963	69.84127
RANK	1	3	2	4

As it can be seen from the above table the highest disclosure in terms of level is made under the Environment category, followed by Customer category, HR category and Community category respectively. Environment category has the highest level of disclosures due to the applicability of Companies rules 2014. Most of the environmental disclosures are not voluntary. Moreover, Community disclosures have the last ranking in terms of level because many banks are focussing on a few selected areas of Community namely Education Health and Empowerment of people. Very few banks have disclosed about sports, art and culture and charity and disaster relief. Education Health and Empowerment are still the focussed areas of large number of Banks in terms of contributing towards community. Customer and HR disclosures have received second and third rank respectively. Within Customer disclosure, all the banks disclose about products and services, Complaints / satisfaction as mentioned in business responsibility reports, and except one bank for each item of customer category all the banks disclose, Customer relationship, Product and Service quality satisfaction, Consumer safety/ fraud detection. One more item which the banks have given negligible importance to is provision for old/ disabled customers, except one bank namely State Bank of India, no doubt the highest in the ranking of Level of disclosures attributing to such peculiarities in disclosures. HR related

disclosures also have many areas which are most commonly disclosed by all the banks and also the less disclosed areas. All the banks disclose about profiles, employment of minority/ women, benefits, training, health and safety except one, employee involvement except one and ESOS except two banks. On the other hand the less disclosed areas under HR category are Industrial relations, Employee morale, though some banks which have disclosed used the term satisfaction, Disabled employees and Employee remuneration, considering the fact that in the reports mostly the remuneration related to Managerial personnel is given.

**Quality of reporting**

As stated earlier in the methodology section the quality is measured by quantifying the three criteria namely general non -specific disclosure as 1, detailed non quantitative disclosure as 2 and quantitative disclosure as 3 and 0 being no disclosure as in the case of level. The rationale for studying the quality of disclosures is to know with how much depth the banks are working towards the non-financial endeavours, to basically know if they are merely illustrating general terms of disclosures or they have some specific targets or activities or achievements related to the non-financial efforts. The disclosures are shown in absolute form in the following table (see Table 3a and 3b)

**Table 3(a) Quality of disclosures (absolute number scores)**

BANKS	ENVIRON (27)	HR (33)	CUSTOMER (18)	COMMUNITY (21)	TOTAL (99)	%QUALITY	RANK
PNB	16	19	11	12	58	58.58585859	7
BANK OF BARODA	15	28	11	9	63	63.63636364	5
YES BANK	20	23	12	14	69	69.6969697	4
INDUSIND	21	25	10	17	73	73.73737374	2
AXIS	21	15	14	12	62	62.62626263	6
ICICI	12	24	12	15	63	63.63636364	5
KOTAK MAHINDRA	18	22	12	18	70	70.70707071	3
SBI	19	22	14	20	75	75.75757576	1
HDFC	9	24	13	9	55	55.55555556	8

From the above table we derive the ranking for the banks based on the quality scores obtained by them. SBI is still at the first position and HDFC in the last position.

**Table 3(b) Quality of disclosures (percentage form)**

BANKS	ENVIRON%	HR%	CUSTOMER%	COMMUNIT Y%
PNB	59.25926	57.57576	61.11111	57.14286
BANK OF BARODA	55.55556	84.84848	61.11111	42.85714
YES BANK	74.07407	69.69697	66.66667	66.66667
INDUSIND	77.77778	75.75758	55.55556	80.95238
AXIS	77.77778	45.45455	77.77778	57.14286
ICICI	44.44444	72.72727	66.66667	71.42857
KOTAK MAHINDRA	66.66667	66.66667	66.66667	85.71429
SBI	70.37037	66.66667	77.77778	95.2381
HDFC	33.33333	72.72727	72.22222	42.85714
AGGREGATE QUALITY	62.13992	68.01347	67.28395	66.66667
RANK QUALITY	4	1	2	3

The table (Table 4(a)) below gives a comparative review of the rankings of the banks of both the level of social disclosures and quality of social disclosures.

**Table 4(a). Comparison of Ranks (overall) Bankwise**

Banks	Rank Quality	Rank Level
PNB	7	4
BANK OF BARODA	5	5
YES BANK	4	2
INDUSIND	2	3
AXIS	6	6
ICICI	5	2
KOTAK MAHINDRA	3	2
SBI	1	1
HDFC	8	7

In the above table the total ranks for quality are 8 and that for level are 7. The banks which have got equal ranking for the disclosure as well as level are SBI at first rank and Bank of Baroda at fifth rank and Axis bank at sixth rank. Rest all the other ranks are close to each other. The

difference between the ranks obtained by banks for quality and level for overall disclosure is also studied by Spearman's rank correlation and Wilcoxon signed rank test, the results of which are given below

Table 4(b). Correlation between ranks

			RANK QUALITY	RANK LEVEL
Spearman's rho	RANK QUALITY	Correlation Coefficient	1.000	.800**
		Sig. (2-tailed)	.	.010
		N	9	9
	RANK LEVEL	Correlation Coefficient	.800**	1.000
		Sig. (2-tailed)	.010	.
		N	9	9

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

Table 4 (c) Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
RANK LEVEL - RANK QUALITY	Negative Ranks	5 <sup>a</sup>	3.80	19.00
	Positive Ranks	1 <sup>b</sup>	2.00	2.00
	Ties	3 <sup>c</sup>		
	Total	9		

- a. RANK LEVEL < RANK QUALITY
- b. RANK LEVEL > RANK QUALITY
- c. RANK LEVEL = RANK QUALITY

**Test Statistics<sup>a</sup>**

	RANK LEVEL - RANK QUALITY
Exact Sig. (2-tailed)	.219 <sup>b</sup>

- a. Sign Test
- b. Binomial distribution used.

The above results of Spearman's rank correlation and Wilcoxon signed rank test show that there is no significant difference between the ranks of level of disclosures and that of quality of disclosures. One also wishes to see

the importance in terms of disclosure, given by the banks to each dimension and to the items within each dimension. This has been discussed in the following paragraphs

**Table 5. Environmental disclosure frequency of quality by categories (bank wise frequency)**

BANKS	0 = no disclosure	1 =general non specific disclosure	2= detailed non quantitative disclosure	3= quantitative disclosure
PNB	0	3	5	1
BANK OF BARODA	2	1	4	2
YES BANK	2	0	1	6
INDUSIND	2	0	0	7
AXIS	1	1	1	6
ICICI	1	5	2	1
KOTAK MAHINDRA	1	2	2	4
SBI	1	2	1	5
HDFC	4	2	2	1
Total of each category of quality	14	16	18	33

In Table 5. The quality of is measured by the number of times each quality type is disclosed by each bank , highest number of times the category of quality that occurs under Environment dimension is Quantitative disclosures (category3), followed by category 2 , category 1 disclosure and category 0 disclosures respectively. The items which have not been disclosed under environmental dimension are Environmental Audit and lending and investment policy of the banks considering Environment. Companies avoid disclosing these two important items in any form. Maximum number of 1's is obtained by Environmental policy item followed by Repair and Prevention of environmental damage and

Aesthetics. Maximum number of 3's is obtained by Energy Efficiency (7 out of 9 times) and Sustainability (6 times) , reason could be the mandate under Companies rules 2014 for Environmental disclosure. Maximum number of 2's is obtained by Recycling, Repair and Prevention (3 times each) and conservation of natural resources (4 times). The least number of 2's or 3's is obtained by EMS/ Audit which is mostly 0 or 1, hence the companies should have a proper Environmental Management System and an Audit independent one to be regularly done, otherwise the reports related to Environment and Social ventures of the banks shall be rendered unauthentic or unreliable.

**Table 6. Human Resource disclosure quality by categories of quality (bank wise frequency)**

BANKS	0 = no disclosure	1 =general non specific disclosure	2= detailed non quantitative disclosure	3= quantitative disclosure
PNB	4	0	2	5
BANK OF BARODA	1	1	0	9
YES BANK	1	3	1	6
INDUSIND	2	1	0	8
AXIS	5	1	1	4
ICICI	2	0	3	6
KOTAK MAHINDRA	3	0	2	6
SBI	2	1	3	5
HDFC	2	0	3	6
Total of each category of quality	22	7	15	55

Under Human resource disclosure, the maximum number of no disclosures is received by Industrial relations (5) Morale (4), Disabled

employee (4) and employee remuneration (4). Employee benefits, minority / women employment, training and employee profiles have received the maximum 3's , employee consultation or involvement is mostly non quantitative and detailed receiving four 2's ,three 3's and a 0 and a 1. The banks do not quantify the involvement of the employees or

the consultation of the employees such as number of ideas generated or number of ideas implemented or number of employees consulted or involved. Hence the banks need to work upon measurement of morale or motivation level of the employees and carry out activities to improve the same, and also increase their involvement.

**Table 7. Customer disclosure quality by categories of quality (bank wise frequency)**

BANKS	0 = no disclosure	1 =general non specific disclosure	2= detailed non quantitative disclosure	3= quantitative disclosure
PNB	2	0	1	3
BANK OF BARODA	2	0	1	3
YES BANK	1	0	3	2
INDUSIND	2	0	2	2
AXIS	1	0	1	4
ICICI	1	0	3	2
KOTAK MAHINDRA	1	0	3	2
SBI	0	1	2	3
HDFC	1	1	0	4
Total of each category of quality	11	2	16	25

Within Customer disclosure the least disclosed area is Provision for old or disabled customers in which only one bank has disclosed the information. The bank is none other than State Bank of India. Rest all the disclosures are either in non-quantitative detailed form (consumer safety/ fraud prevention and Customer relationship, product and service quality satisfaction) or quantitative form (Consumer

Complaints/ satisfaction and Products and Services). Also it can be seen from the table above that the maximum number of times quantitative disclosure is used followed by Non quantitative detailed and then no disclosure and finally general disclosure. The banks have to make an effort to reduce the no disclosure category for Human resource disclosure to the last position

**Table 8. Community disclosure quality bank wise frequency**

BANKS	0 = no disclosure	1 =general non specific disclosure	2= detailed non quantitative disclosure	3= quantitative disclosure
PNB	2	1	1	3
BANK OF BARODA	4	0	0	3
YES BANK	2	0	1	4
INDUSIND	1	0	1	5
AXIS	3	0	0	4
ICICI	2	0	0	5

KOTAK MAHINDRA	1	0	0	6
SBI	0	0	1	6
HDFC	4	0	0	3
Total of each category of quality	19	1	4	39

In Community disclosure maximum number of items is under the disclosure category 3, unfortunately followed by category 0 of no disclosure. General disclosure is negligible. Hence the most disclosed fall under quantitative disclosed category such as education, public health and Empowerment of disadvantaged sections of society. The least disclosed is Art and culture only 3 banks disclose it followed by Sports (4 banks), disaster relief and Charitable donations (5 each). Even if these are less disclosed areas under community dimension

these are disclosed under category 2 or category 3 of disclosure quality by the banks which have disclosed them. The banks need to disclose these overlooked areas of community as well along with education health and empowerment. Charity and Empowerment seems to be conflicting though, there is more disclosure in empowerment than charity, may be because the banks have realised that charity simply shall not enable the people to be self sufficient in all aspects of life but empowerment shall fulfil this purpose.

**Table 9(a) Total Frequency of each quality type under each dimension**

Dimensions /Category of Quality	Environment Max observations=81=9*9	HR Max observations=99=11*9	Customer Max observations=54=6*9	Community Max observations=63=7*9	Total observations =297
0	14	22	11	19	66 (22.22%)
1	16	7	2	1	26 (8.75%)
2	18	15	16	4	53 (17.84%)
3	33	55	25	39	152 (51.17%)

Max observations=no. of banks \*no. of items in a dimension

In the above table, one can infer that maximum number of banks disclose the information of social importance according to the category number 3, which is in quantitative terms. Hence 51% of the disclosure is in quantitative terms, followed by 22% as no disclosure, 18% approx according to detailed non quantitative methods and around 9% as general non specific disclosure. Hence the quality of the disclosure in terms of the order of the four categories of the disclosure is good, but the figures say that only 51% of the overall non financial disclosure is in quantitative terms. Here one thing to note

is that, in quantitative terms, both qualitative disclosures along with quantitative and only quantitative are also included, this sub bifurcation of quantitative disclosure into two more sub categories which is purely quantitative and qualitative along with quantitative can be considered in future researches. Hence non quantitative detailed disclosure retains lesser share in the overall quality at 18%, which can be comprehended as purely non quantitative and detailed disclosure. However, most of the times thee highest quality of the disclosures can be associated as

quantitative along with qualitative detailed information, but here we are just concerned with quantitative inclusive of qualitative information if any, which has come out to be reported as 51% of the overall disclosure, the figure needs improvement though but certainly not an appalling one as more than half of the disclosures are in the highest quality category number 3. One can also see the percentage of disclosures under each category by only taking into account the disclosed observations.

Therefore total disclosed observations are  $9 \times 33 = 297$ , from which we can subtract the observations not disclosed at all, which gives the results as  $297 - 66 = 231$  disclosed observations. The percentage of the observations falling under category 1 2 and 3 of social disclosures can now be computed as number of observations in each quality category divided by total number of disclosed observations. The results are as follows:

Table 9(b) Total frequency in percentage form avoiding no disclosure category.

Category	Percentage
1	11.25
2	22.94
3	65.80

**Difference between quality and level of disclosures dimension wise analysis**

The difference between quality of disclosures and level of disclosures was studied to know if the disclosure levels were significantly higher than the disclosure qualities as the figures of the average disclosure levels show that they are higher than that of quality. For this purpose Paired sample T test was used, for each

dimension and overall disclosures. All the results were insignificant and the null hypothesis that there is no difference between the level and quality could not be rejected due to lack of enough evidence. The results for each dimension are given below all of them are insignificant.

Table 10. Paired sample t test for environment level and quality difference

	ENV%L	env%Q
<b>Mean</b>	82.71605	62.13992
<b>Hypothesized Mean Difference</b>	0	
<b>t Stat</b>	0.363797	
<b>P(T&lt;=t) one-tail</b>	0.362718	
<b>t Critical one-tail</b>	1.859548	

Table 11. Paired sample t test for difference between the HR quality and Level

	HR%L	HR%Q
Mean	77.77778	68.01347
t Stat	0.058402	
P(T<=t) one-tail	0.477431	
t Critical one-tail	1.859548	

Table 12. Paired sample t test for difference between the Customer quality and Level

	CUS%L	CUS%Q
Mean	79.62963	67.28395
t Stat	0.128394	
P(T<=t) one-tail	0.450503	
t Critical one-tail	1.859548	

Table 13. Paired sample t test for difference between the Community quality and Level

	COM%L	COM%Q
Mean	69.84127	66.66667
t Stat	-0.11718	
P(T<=t) one-tail	0.454802	
t Critical one-tail	1.859548	

**Conclusion and suggestions**

The paper intended to study the social reporting practices of the Banking sector in India. For that purpose 9 banks belonging to top 100 companies by market capitalisation listed on National stock exchange were taken as a sample. The banks have shown interesting results in terms of the subject of the study. The major results are elucidated in the paragraphs that follow.

First and foremost objective was to study the level and quality of social disclosures of the banks, for which an index of social disclosure based on the study of Branco and Rodrigues (2006) was used, a little modified for some of the items to form the basis of measuring the Indian Bank’s reports. The study made use of the published sources of the banks such as Annual reports, Business responsibility

reports forming part of annual reports and sustainability reports. The analysis has shown that the banks disclose the Environment dimension the most which is followed by the disclosure of Customer, Human Resources and Community. There are certain items which have been neglected or paid least attention to by the banks and are equally important as others. To name a few they are, Environmental Audit, Environmental Aesthetics, Employee remuneration, morale, Industrial relations, disabled customers, art and culture and sports. Hence the banks must make an effort to bring these areas of social importance to life through their activities which shall be further reflected in their reports. As far as the quality of reporting is concerned, the banks disclose maximum part of their disclosures in quantitative form as analysed previously, 65% of the social disclosures made are in quantitative form which

is a good sign. The second most disclosed method is category 2 and in the end we have category 1. Hence all that banks need to improve upon is the non disclosure of some of the items mentioned above which has formed a larger hollow gap in the disclosure quality reducing it to 51% when the quality measured along the 0 category too. Among the banks SBI is the best bank in terms of both Quality and

Level of disclosures and HDFC is at the last position in terms of both. There is no particular difference found in the rankings obtained by these banks for quality and level of disclosures. Another objective was to rank the dimensions from most disclosed to least disclosed in terms of both quality and level, the rankings are shown in the analysis are put together in the following table.

Table 14. Ranking of Dimensions for Quality and Level of disclosures.

Dimensions	Rank Quality	Rank Level
Environment	4	1
HR	1	3
Customer	2	2
Community	3	4

The above table shows contrasting ranks for Environment HR and Community. Only Customer disclosures have the same position in both quality and level. Environment disclosures are best in terms of level but worst in terms of quality. Customer disclosures are at equal position; HR is the best in terms of quality but at the third position in terms of level. Community has a difference of one rank position between quality and level showing Level rank lower than quality.

Another objective was to know if the level of disclosures was higher among the banks than the quality of disclosures for which we used paired sample t test for each dimension and the results depicted no significant difference between the level and quality percentage scores concluding that the banks consider both as equally important. Hence the only conclusion that must be followed by banks is to enhance the disclosure in terms of level so that other areas which are neglected in the society also get revived.

**Limitations and future scope**

The present study is based on the Banking sector which is a part of Service based industries, the main idea behind choosing this sector for studying the social disclosures was that most of the studies in the literature are based on manufacturing sector industries and very few focus on the service based industries. Since banks are the ones which channelize the

savings of the public in various areas in the form of loans granted it is therefore necessary to see how socially and environmentally responsible the banks are while performing their businesses. In future the study can be replicated to other financial sector service providers also. Moreover it can be extended to non-financial sector service providers too. The study mainly comprises of descriptive analysis of the quality in terms of only three categories, more variants of quality can be added in future researches. The present study can be extended to include the factors determining the social and environmental disclosures and also their impact on the investment decisions. The present study has used an index adopted from a study based on analysis of social disclosures of Portuguese banks, although modified; a new index can be further developed.

**References**

1. Abbott, W. F., & Monsen, R. J. (1979). On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of Management journal*, 22(3), 501-515
2. Abu-Baker, N., & Naser, K. (2000). Empirical evidence on corporate social disclosure (CSD) practices in Jordan. *International Journal of Commerce and Management*, 10(3/4), 18-34.

3. Ajide, F. M., & Aderemi, A. A. (2014). The effects of corporate social responsibility activity disclosure on corporate profitability: Empirical evidence from Nigerian commercial banks. *IOSR Journal of Economics and Finance (IOSRJEF)*, 2(6), 17-25.
4. Castelo Branco, M., & Lima Rodrigues, L. (2006). Communication of corporate social responsibility by Portuguese banks: A legitimacy theory perspective. *Corporate Communications: An International Journal*, 11(3), 232-248.
5. Branco, M. C., & Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics*, 83(4), 685-701.
6. Hossain, M., Islam, K., & Andrew, J. (2006). Corporate social and environmental disclosure in developing countries: Evidence from Bangladesh.
7. Karthikeyani  
[http://ijariie.com/adminuploadpdf/corporate\\_social\\_reporting\\_practice\\_in\\_india\\_c\\_1196.pdf](http://ijariie.com/adminuploadpdf/corporate_social_reporting_practice_in_india_c_1196.pdf)
8. Mahbuba, S., & Farzana, N. (2013). Corporate Social Responsibility and Profitability: A Case Study on Dutch Bangla Bank Ltd. *International Journal of Business and Social Research*, 3(4), 139-145.
9. Maheshwari, M., & Kaura, P. (2014). Corporate Social Reporting and Disclosure Practice in India: An Empirical Investigation. *International Journal of Research*, 1(8), 1099-1109.
10. Murthy, V. (2008). Corporate social disclosure practices of top software firms in India. *Global Business Review*, 9(2), 173-188.
11. Ramanathan, K. V. (1976). Toward a theory of corporate social accounting. *The Accounting Review*, 51(3), 516-528.
12. Singh, N., Srivastava, R., & Rastogi, R. (2013). CSR practices & CSR reporting in Indian Banking Sector. *International Journal of Scientific and Research Publications*, 3(12), 1.
13. Sharma, E., & Mani, M. (2013). Corporate social responsibility: An analysis of Indian commercial banks. *AIMA Journal of Management & Research*, 7(1/4), 0974-497.
14. Shankar and Panda  
[http://www.zenithresearch.org.in/images/stories/pdf/2011/Dec/ZIBEMR/3\\_ZIBEMR\\_VOL1\\_ISSUE3.pdf](http://www.zenithresearch.org.in/images/stories/pdf/2011/Dec/ZIBEMR/3_ZIBEMR_VOL1_ISSUE3.pdf)
15. Wiseman, J. (1982). An evaluation of environmental disclosures made in corporate annual reports. *Accounting, Organizations and Society*, 7(1), 53-63.

Websites:

1. [www.moneycontrol.com](http://www.moneycontrol.com)
2. [mca.gov.in](http://mca.gov.in)
3. [www.sebi.gov.in](http://www.sebi.gov.in)
4. [www.globalreporting.org](http://www.globalreporting.org)

# **FACTORS AFFECTING TO ESTABLISHMENT OF A PPP PROJECT IN HEALTHCARE SECTOR IN WEST BENGAL: AN EMPIRICAL STUDY**

**Mrinal Maity**

Research Scholar, Vidyasagar University, Paschim Medinipur,

E-mail: mrinalmaity2007@rediffmail.com

---

## **Abstract**

Public-Private-Partnership is now a popular name worldwide. Public health infrastructures are not sufficient to fulfill the demand of the vast population of our country. Government had taken major reforms strategy – one of which partnerships with private partner to deliver healthcare services. State Govt. of West Bengal also has taken some initiative to serve the patients through Public-Private-Partnerships. Though, these are not sufficient in respect to demand. Govt. has to take initiative to establish more and more partnerships in this sector. But there are certain factors which has given hindrance to establish such projects. We have selected 15 such factors from different existing literatures and by these factors we made a structured questionnaire with five point Likert scale. These questionnaires were distributed to the professionals of PPP projects in healthcare. Total 153 professionals have given their valuable opinion and with this we have done factor analysis to know the principal factors through SPSS. Before that we used KMO (0.711) and Bartlett Test of sphericity ( $P < 0.01$ ), result shows that factor analysis is appropriate with this data set. Factor analysis revealed that appropriate factor groupings for fifteen critical factors in healthcare projects are: Project implementability, Effective procurement, Govt. willingness, Availability of partners in inflationary situation, availability of fund. T test was executed to know any difference in opinion about the factors between private and public sector professionals and result shows that in all the cases their opinion are equal except Govt. are not willing to establish PPP projects and Project completion time is too long. It can be concluded that Govt. has to think over this factors to implement PPP projects in healthcare sector.

**Key words: Public-Private-Partnership, factor analysis, questionnaires, professionals etc.**

---

## **Introduction:**

In a competitive atmosphere, govt. around the world is concentrating on new ways to finance projects, building infrastructure and deliver services. Public-private-partnerships (PPP's or P3's) seem to be an instrument to bring together the strengths of both sectors. In order to maximize efficiency and innovation of private enterprise, PPP can provide desired capital to finance govt. programs and projects, thereby relating public funds for core economic and social programs (Sehgal, Dubey, Tiwari 2015). It is widely accepted that govt. infrastructures are insufficient to serve the public especially in healthcare sector. Public- private-partnerships in healthcare sector are a major reforms strategy adopted by the govt. of developed and also developing countries. Since, 1990 govt. of West Bengal engaged with private partners to deliver healthcare service. But only some diagnostic center and fare price medical shop running under different hospitals. These are not sufficient because demand is increased day by day. As the public hospitals are not met the demand, the patients has to go private

hospitals by expanding more, many of them even sale their property to meet the expenditure. It is the crucial time to think about the establishment of PPP hospitals in West Bengal. There is no standard method of PPP implementation as each country adopts the process as appropriate for its own culture, economy, political climate and legal system (Raj Kumar et. al 2013). The unique contribution of this paper is that it highlights not only the important success factors for establishment of PPP hospitals in West Bengal, but also put forward the differences in the opinion of the two parties (public and private) because each party play a different role in a PPP contract.

## **Significance of the study:**

It is widely accepted that public infrastructures in healthcare sector are not sufficient. Because of growing population Govt. alone cannot fulfill the demand of qualitative and quantitative care of patients. Govt. has taken the right decision to collaborate with private partner and serve the people. But if we look into the data published by the Ministry of Finance, GOI, that highest number

of collaboration made in transportation sector especially in road construction. Partnerships in healthcare sector are very few. Govt. of West Bengal take initiative to provide some diagnostic test centers, fair price medical shops, laundry service, supply of food, security service in different hospitals. These are also not sufficient against demand. So far Govt. has not taken any initiative to establish a hospital under public-private partnership. It is very crucial time to know the most influencing factor or factors behind a new establishment of PPP project in healthcare sector.

#### **Literature Review:**

**Hardcastle, et al. (2005)** in their study identify eighteen critical success factors associated with construction of PPP projects in UK. For this study they used one questionnaire including these factors. They found that the Cornbach's alpha is 0.767 suggesting that the data collected for the critical factor analysis are reliable. The factor analysis showed that seventeen CSFs can be grouped into five principal factors for CSFs for UK construction PPP/PFI projects: effective procurement; project implementability; government guarantee; favorable economic conditions available financial market. **Patel, Ramani, et.al (2007)** in their study they use 13 cases of PPP models in different parts of India and assess these carefully. They critically reviewed the cases through contract documents, govt. resolutions, memorandum of understanding, other available documents and also taken feedback from public and private partners as well as operational issues. After analysis of case studies they have indicates the factors that influences success (failure) of PPP in the health sector in India for urban health services. The factors are selection of partners, serving the poor and vulnerable, roles and responsibility of partners, performance monitoring, managerial capacity, quality of services, degree of autonomy, term length of agreements, dispute resolution mechanism, exit mechanism. Last of all they indicate the key of successful partnership that each partner respects the contributions from all other partners, as each partner offers complementary skills. No single partner should ever assume higher importance over others. **Jacobson and Choi (2008)** adopted a qualitative analysis using in-depth interviews and observations to examine principal factors that contribute to successful PPP projects. Ten success factors were investigated. The results show that

'high degrees of commitment' and 'shared vision between the client, architect, and contractor' are the most important factors for construction success. **Jacobson and Choi (2008)** conducted a study by using in-depth interviews and observations to identified principal factors that contribute to successful PPP projects. Ten success factors were identified: 'specific plan/vision', 'commitment', 'open communication and trust', 'willingness to compromise/collaborate', 'respect', 'community outreach', 'political support', 'expert advice and review', 'risk awareness', and 'clear roles and responsibilities'. The results show that 'high degrees of commitment' and 'shared vision between the client, architect, and contractor' are the most important factors for construction success. **Chan, Lam, Cheung and Ke (2010)** in a study in China, identified 18 critical success factors for adopting a PPP project. They used one questionnaire to collect the view of Chinese experts. The result of the survey was analyzed by the factor analysis technique. In findings they grouped 18 CSFs into 5 underlying factors including factor 1-stable macroeconomic environment; factor 2-shared responsibility between public and private sector; factor 3-transparent and efficient procurement system; factor 4-stable political and social environment; factor 5-judicious government control. They use KMO and Bartlett's test for sphericity. **Dada and Oladokun (2012)** in their research identified a number of critical sub-factors on some selected PPP projects from the perspective of both the public and private sector. The findings of the study suggest that there are significant differences in the perception of both the public and private sectors on the rankings of the SSFs on PPP projects in Nigeria. **Ismail and Ajija (2013)** studied on PPP projects in Malaysia, to know the importance of the CSFs as per the opinion of the respondent, to know the differences about the importance of the CSFs between the public and private sector, to make a comparative analysis about the importance of the top CSFs for PPP implementation in Malaysia with three other countries that have adopted PPP. They used one questionnaire to determine the opinion of public and private sector on the key CSFs of PPP project in Malaysia. They included 179 responses and analyze it with the help of SPSS to rank the importance of the CSFs and to examine the difference in the perceptions between the government and private sectors; favorable legal framework, sound economic policy and availability of finance market are the top five CSFs of PPP implementation. There were no

significant differences in the perception of the public and private sector. There were mixed result concerning the comparison of CSFs between Malaysia and three other countries. **Rajkumar, kumar and Krishnamurthy (2013)** in a study identify the various critical factors influencing the infrastructure development projects under public private partnership. They restricted their study to analyzing BOT and BOOT projects which come under the Indian scenario only. They have selected eight projects from different sectors for case study. Near about fifty critical factors identified and out of which change in laws, delay in project approval and permits, land acquisition and operation cost overrun are the most frequent factors. **Kahwajian, Baba, et al. (2014)** in their study tried to find out the key critical success factors that affect PPP construction projects in Syria. They identified critical success factors (CSFs) from different existing study and made a questionnaire with these factors. They used Statistical Package for Social Sciences (SPSS) to analyse the data. They divided the data in two groups and used Sample t-test to find any significant difference in perception of the public and private sectors related to the importance of the Critical Success Factors for the PPP projects in Syria. The result showed that there is no significant difference between the public and private sector perception. They concluded that the main problems facing PPP projects in Syria are lack of legislations, weakness in the administrative and legal competencies of the public sector, immaturity of the partnership experience in the private sector and inexperienced private and public consulting organizations in Syria.

#### ***Discussion about the significant of the factors:***

The factors are identified from the existing literature and also from the opinion of the professionals who are involved with PPP projects in health sector. The significant of the factors determined are elaborated below:

- **Availability of partners:** Availability of partners is very vital factors for PPP projects. All the success of PPP depends upon the partners, if good partners are not available then the objectives of the model go in heal.
- **Govt. willingness:** Future of the PPP projects totally depends upon the govt. willingness, if govt. are not willing to make partnership then partnerships are not increased.
- **Availability of funds:** For execution of any project funds are the most critical factors. Where from the funds are collected it is to be decided at first and then how much provided by the each partners.
- **Insufficient project supervision:** As it is partnership project, the problem arises with the supervision of the project. Question arises who can supervise the project? For this project can be delayed.
- **Inflation:** When prices of the all commodities rising simultaneously. For this factors project can be delayed. So, it can be considered as important factors.
- **Foreign exchange fluctuation:** Some time foreign partners are interested to invest in PPP project. So, fluctuation in currency is to be considered when PPP projects are implemented.
- **Imperfect contract:** Partnership depends upon the agreement of the partners, if the agreement is imperfect then partnership cannot be survive in long term. So, it is one of the important factors.
- **Delay in approval:** Most of the time projects are delayed due to govt. approval. So, it is to be considered as factors for implementation of PPP projects.
- **Inadequate competition:** There may be some inadequate competition between the private partners. It will be very harmful for PPP project in healthcare.
- **Difficulty in land acquisition:** In West Bengal population density is so high; land is very scares resource in this state. So, acquisition of land is very vital factors for this study.
- **Change in market demand:** Market demand may be changed in passage of time, if demand is fall the objective of the project may not be full field. So, demand is one of the most influencing factors.
- **Project completion time:** As it is a joined project long time may be required for implementation of PPP projects in healthcare. So, we introduced this factors to know this factor is how much effective to establishment of PPP project.
- **Inadequate law:** Still some countries do not have a well established legal framework for PPP projects. Although

PPP involves a great deal of legal structuring and documentation to deal with potential disputes amongst PPP parties. So, it can be considered a factor for PPP project.

- **Political opposition:** Political support is required for success of PPP projects. Without the necessary political support, an approval for public expenditure on public project and work would not be granted (Jacobson and Choi 2008). So, we includes this factor in the study to know is there any political interference for establishing PPP project in healthcare.
- **Change in legislation:** If the govt. of a country frequently changes, the stability of any project may hamper. Because political view of every govt. is different.

#### **Objectives of the study:**

1. To identify the important factors as perceived by the overall respondents.
2. To identify any difference about the importance of factors perceived by the public and private respondents.

#### **Research Hypotheses:**

**H01:** There is no significant difference in the opinion of public and private professionals about the factors affecting to establishment of a PPP projects in healthcare in West Bengal.

**H11:** There is significant difference in the opinion of public and private professionals about the factors affecting to establishment of a PPP projects in healthcare in West Bengal.

#### **Research Methodology**

**Data source and Study area:** Primary data are used for the study. Data are collected through structured questionnaire from the hospital professionals involved in Public-Private-Partnership projects in healthcare sector in all over West Bengal.

**Data collection and sample size:**Data for the study were collected through structured questionnaires administered on hospital professionals and stake

holders who have been involved in PPP projects in healthcare. The questionnaire comprises fifteen factors collected from the opinion of the different executives of PPP projects and also from existing literatures. The questions were asked in statement form on a five point Likert scale rating from 1 to 5 and 5 being the highest of the rating. The professionals have to put their opinion by choosing 1= "strongly disagree", 2= "disagree", 3= "neutral", 4= "agree" and 5= "strongly agree". Purposive sampling technique was used to collect data from those respondents directly involved in PPP projects in the study area. A total of 170 professionals were asked but 17 were refused to give their opinion. So, a total of 153 (90%) respondents were given their valuable opinion out of which 84 professionals from public sector and 69 from private sector and found to be suitable for the study.

**Tools and Techniques:** The data were analysed by using the statistical package for the social science (SPSS) software. Descriptive statistics of mean was computed to rank the factors and ranked the factors according to the opinion given by the overall respondents and also differently by the public and private sector group independently. Factor analysis was done to know the principal factors which having most impact on establishment of PPP projects in healthcare sector. Also an independent sample t test was carried out to examine the differences in the perception of the factors between respondents groups.

**Result and Discussion:** Table 1 shows the result of group statistics and we found that the mean value of each factors as per the opinion of public and private sector professionals near to same. Further we use independent T test to know any difference in opinion of public and private sector professionals. Table-2 shows the result of the test. From the result it is seen that in every cases except in two cases null hypotheses are accepted i.e.  $p > .05$ . So, it can be said that in all the cases there are no difference in opinion about the different factors between public and private professionals. But in case of factor 2 (Govt. are not willing to establish PPP projects) and 12 (Project completion time is too long)  $p < .05$ , null hypotheses are rejected i.e. there are slight difference in opinion in these two cases.

**Table-1**  
Group Statistics

private_public		N	Mean	Std. Deviation	Std. Error Mean
part_available	public	84	3.1667	.87582	.09556
	private	69	3.3333	.77964	.09386
govt._willing	public	84	3.0595	.97377	.10625
	private	69	3.3768	.85923	.10344
funds_available	public	84	3.5119	.79901	.08718
	private	69	3.6087	.64665	.07785
insuf_superv	public	84	3.9405	.86917	.09483
	private	69	3.8696	.72585	.08738
inflation	public	84	3.2500	.70923	.07738
	private	69	3.3333	.72084	.08678
foreign_fluctu	public	84	3.2262	.81183	.08858
	private	69	3.3188	.88272	.10627
imper_contract	public	84	3.6190	.61907	.06755
	private	69	3.6377	.66357	.07988
delay_permit	public	84	4.0000	.79152	.08636
	private	69	3.9130	.70166	.08447
inadeq_tender	public	84	3.3810	.91710	.10006
	private	69	3.4058	.82816	.09970
land_difficult	public	84	4.3452	.78378	.08552
	private	69	4.2029	.90065	.10843
change_demand	public	84	3.5714	.66379	.07243
	private	69	3.5652	.62962	.07580
poject_long	public	84	4.0595	1.06817	.11655
	private	69	3.6522	1.06862	.12865
inade_law	public	84	3.4048	.87975	.09599
	private	69	3.4783	.90112	.10848
poli_opposition	public	84	3.5476	.88365	.09641
	private	69	3.6232	1.00149	.12057
change_lagis	public	84	3.4524	.68380	.07461
	private	69	3.5797	.65092	.07836

**Table-2**

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
part_available	Equal variances assumed	.349	.556	-1.2	151	.221	-.16667	.13548	-0.43436	.10102	

	Equal variances not assumed			-1.2	149.99	.215	-.16667	.13394	-.43133	.09799
govt_willing	Equal variances assumed	.423	.516	-2.1	151	.036	-.31729	.15012	-.61389	-.02069
	Equal variances not assumed			-2.1	150.20	.034	-.31729	.14828	-.61028	-.02430
funds_availabl	Equal variances assumed	3.384	.068	-.81	151	.418	-.09679	.11931	-.33252	.13894
	Equal variances not assumed			-.82	150.97	.409	-.09679	.11688	-.32772	.13414
insuf_superv	Equal variances assumed	1.662	.199	.540	151	.590	.07091	.13124	-.18840	.33022
	Equal variances not assumed			.550	150.95	.583	.07091	.12895	-.18388	.32570
inflation	Equal variances assumed	.146	.703	-.71	151	.474	-.08333	.11608	-.31269	.14603
	Equal variances not assumed			-.71	144.35	.475	-.08333	.11627	-.31315	.14648
foreign_fluctu	Equal variances assumed	1.149	.285	-.67	151	.501	-.09265	.13721	-.36374	.17844
	Equal variances not assumed			-.67	140	.504	-.09265	.13834	-.36616	.18086
imper_contract	Equal variances assumed	.097	.756	-.17	151	.858	-.01863	.10390	-.22392	.18665
	Equal variances not assumed			-.17	141	.859	-.01863	.10461	-.22545	.18818
delay_permit	Equal variances assumed	.525	.470	.711	151	.478	.08696	.12224	-.15457	.32848
	Equal variances not assumed			.720	150	.473	.08696	.12080	-.15174	.32565
inadeq_tender	Equal variances assumed	1.133	.289	-.17	151	.862	-.02484	.14268	-.30675	.25706
	Equal variances not assumed			-.17	149.61	.861	-.02484	.14125	-.30395	.25427
land_difficult	Equal variances assumed	1.262	.263	1.04	151	.298	.14234	.13622	-.12681	.41149
	Equal variances not assumed			1.03	135.8	.304	.14234	.13809	-.13075	.41543
change_deman	Equal variances assumed	.162	.688	.059	151	.953	.00621	.10538	-.20201	.21443
	Equal variances			.059	147.86	.953	.00621	.10484	-.20096	.21338

	not assumed									
poject_long	Equal variances assumed	.257	.613	2.347	151	.020	.40735	.17358	.06439	.75031
	Equal variances not assumed			2.347	145.26	.020	.40735	.17359	.06426	.75044
inade_low	Equal variances assumed	.019	.890	-.509	151	.612	-.07350	.14451	-.35902	.21202
	Equal variances not assumed			-.507	143.89	.613	-.07350	.14485	-.35981	.21281
poli_opposn	Equal variances assumed	2.481	.117	-.496	151	.621	-.07557	.15249	-.37686	.22572
	Equal variances not assumed			-.490	136.90	.625	-.07557	.15438	-.38084	.22970
change_lagis	Equal variances assumed	.255	.614	-1.17	151	.243	-.12733	.10873	-.34215	.08749
	Equal variances not assumed			-1.17	147.71	.241	-.12733	.10820	-.34115	.08649

**Factor analysis:**

Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. It is also a mathematical tool which can be used to examine a wide range of data sets. The idea behind the factor analysis is that the data that we observe are a function of some smaller number of unobserved variables called factors. This technique extracts maximum common variance from all variables and puts them into a common score. A suitable data set is very essential for factor analysis i.e. a) sample size of the data: different literature argued that five to ten respondent per factor known as good sample size ( In our study we have used fifteen factors and our sample sizes of data are 153, near about ten respondents per factors), b) fulfill the Kaiser-Meyer-Olkin measure and Bartlett’s Test of Sphericity, c) and also the test of communalities which are discussed bellow: (There are three steps in conducting factor analysis: assessment of the suitability of the data for factor analysis, factor extraction and factor rotation.)

**Kaiser-Meyer-Olkin measure and Bartlett’s Test of Sphericity**

The usefulness of the model was evaluated before using Factor Analysis in this paper. The sampling adequacy using Kaiser-Meyer-Olkin (KMO) and Bartlett’s test of sphericity can be used to test of the appropriateness (Fox and Skitmore 2007). The KMO compares the observed correlation coefficients to the partial correlation coefficients. Small values for the KMO indicate problems with sampling. The KMO index range from 0 to 1, with 0.60 suggest as the minimum value for a good factor analysis (Tabachnick & Fidell 2001). From the table-3 it can be observed that KMO value is 0.711 which is above 0.60; so we should be confident that factor analysis is appropriate for this data. From the Bartlett’s measure it is found to be highly significant as the value  $p < 0.001$ , it indicates factor analysis is appropriate with this data set to know the factors that affecting to establish PPP projects in healthcare sector in West Bengal .

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.711
Bartlett's Test of Sphericity	Approx. Chi-Square	869.963
	df	105
	Sig.	.000

**Communalities:**

Strong data in factor analysis means uniformly high communalities without cross loadings, plus several variables loading strongly on each factor. In practice these conditions can be rare (Mulaik 1990; Widaman 1993). Item communalities are considered “high” if they are all .8 or greater (Velicer and Fava 1998). But this is unlikely to occur in real data. More common magnitudes in the social sciences are low to moderate communalities of .40 to .70. If an item has a communality of less than .40, it may either a) not be related to the other items, or b) suggest an additional factor that should be explored. In our study we found from table-5, that all the communalities are above .40; so data reduction is possible.

**Factor extraction:**

Factor extraction involves fixing the smallest number of factors that can be used to best represent the interrelations among the set of variables. There are a number of extraction techniques like Principal components, Principal factors, image factoring, maximum likelihood factoring, Alpha factoring, unweighted least squares and generalized least squares. We used Principal component analysis for our study. It ascertains how well the factors explain the variation. The first factor accounts for greatest amount of common variance. In PCA there are three techniques like Kaiser’s criterion/ Eigen values rule, Scree test and Parallel analysis. In our study we use only Kaiser’s criterion which is discuss below:

**Table-4  
Communalities**

	Initial	Extraction
part_available	1.000	.751
govt._willing	1.000	.841
funds_available	1.000	.684
insuf_superv	1.000	.659
inflation	1.000	.704
foreign_fluctu	1.000	.782
imper_contract	1.000	.506
delay_permit	1.000	.808
inadeq_tender	1.000	.460
land_difficult	1.000	.735
change_demand	1.000	.664
poject_long	1.000	.721
inade_law	1.000	.795
poli_opposition	1.000	.721
change_lagis	1.000	.656

Extraction Method: Principal Component Analysis.

**Kaiser’s criterion/ Eigen values Rules:**

Eigen value is the criteria for determining the number of factors. According to the Kaiser criterion, Eigen values are a good criterion for determining a factor. If Eigen value is greater than one, we should consider that a factor and if less than one, then we should not consider that a factor. From the total variance explained table-5 we see that there are five factors based on Eigen values>1 and this explained 69.908% of the variance of the data set.

**Table-5**  
Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.697	24.644	24.644	3.697	24.644	24.644	2.704	18.030	18.030
2	2.830	18.869	43.514	2.830	18.869	43.514	2.633	17.551	35.581
3	1.536	10.239	53.752	1.536	10.239	53.752	2.135	14.235	49.816
4	1.279	8.524	62.276	1.279	8.524	62.276	1.624	10.825	60.641
5	1.145	7.632	69.908	1.145	7.632	69.908	1.390	9.267	69.908
6	.985	6.564	76.472						
7	.710	4.736	81.208						
8	.555	3.702	84.910						
9	.466	3.106	88.016						
10	.400	2.665	90.681						
11	.383	2.555	93.237						
12	.301	2.006	95.243						
13	.268	1.784	97.027						
14	.237	1.580	98.607						
15	.209	1.393	100.000						

Extraction Method: Principal Component Analysis.

**Rotated Component Matrix:**

Table 6 shows the rotated factor matrix for the study. Factor loadings more than .50 were chosen in this study because loadings equals to 0.50 is considered as moderate value. After performing Varimax Rotation Method with Kaiser Normalization, factor grouping-1 can be named as project implementability- comprised of four items with factor loading form 0.515 to 0.802. The critical success factors in project implementability are change in legislation, political opposition; project completion time is too long and imperfect contract. Factor grouping-2 named as effective procurement- comprises of four items with factor ranging from 0.577 to 0.869 and the items are delay in

permit, change in demand, insufficient supervision and inadequate competition for tender. Factor grouping-3 named as Govt. willingness- comprises of two items, gov. willingness with factor loading 0.912 and foreign exchange fluctuation with factor loading 0.842. Factor grouping-4 named as availability of partners' in inflationary situation- comprises of three items, inadequate law with factor loading 0.805, inflation with factor loading 0.618 and partners availability with factor loading 0.511. Factor grouping-5 named as availability of funds- comprises of two items, availability of funds with factor loadings 0.785 and acquisition of land with factor loading 0.583.

**Table-6**

Rotated Component Matrix <sup>a</sup>					
	Component				
	1	2	3	4	5
change_lgis	.802				
poli_opposition	.790				
poject_long	-.754				
imper_contract	-.515				
delay_permit		.869			

change_demand		.772			
insuf_superv		.694			
inadeq_tender		.577			
govt._willing			.912		
foreign_fluctu			.842		
inade_law				-.805	
inflation				.618	
part_available				.511	
funds_available					.785
land_difficult					-.583
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations.					

**Conclusion:**

It is widely accepted that public-private partnership can provide a wide variety of net benefits for society, including: enhance the service opportunity to the poor patients, reducing the cost and time of project implementability, enhance the opportunity of employment, transfer the major risk to the private sector and also reducing the cost of the services. Factor analysis revealed that five factor groupings (accounting for about 69.908% of the overall variances between factors) for critical success factors for implementation of PPP project in healthcare sector in West Bengal: Project implementability, Effective procurement, Govt. willingness, Availability of partners in inflationary situation, availability of funds. So, these five factor groupings represent the basic elements of critical success factors for PPP project development and both public and private sector partners' should considered these factors for successful implementation of PPP projects in healthcare sector in West Bengal.

**Limitations of the study:**

This study has some limitations. First, factors used in this study may not provide exclusive list of critical success factors for PPP implementation in West Bengal. There may be some other factors which can be considered for further study. Second, only 153 professions have given their opinion in the current study. Further study can be done with the opinion of more and more professionals. Third, in this

study we have taken only one state as our study area but further study can be done with the whole country. In spite of these limitation, this study provide some useful information to the government and private sector partners about the important factors that need to be emphasized in ensuring the successful implementation of PPP project in healthcare sector in West Bengal.

**References:**

1. Chan, Lam, et al.(2010).Critical success factors for ppps in infrastructure developments: Chinese perspective, *Journal of Construction Engineering and Management*,vol.136 no.5.doi:10.1061/(ASCE)co.1943-7862.0000152.
2. Dada, & Oladokun.(2012). Analysis of critical success sub-factors for public-private partnerships in Nigeria. *Alam Cipta*.vol.5(2).
3. Ismail, S., & Ajija, Sh. R., (2013). Critical success factors of public private partnership (ppp) implementation in Malaysia. *Asia-pacific Journal of Business Administration*, 5(1), 6-19. ISSN 1757-4323.
4. Jacobson,C.,& Choi,S.O.(2008). Success factors: public works and public-private partnerships. *International Journal of Public Sector Management*, 21(6),637-657.
5. Jefferies, M., Gameson, R. and Rowlinson, S. (2002). Critical Success

- Factors of the BOOT Procurement System: Reflection from the Stadium Australia Case Study. *Engineering Construction and Architectural Management*. 9(4). Pp. 352-361.
6. Kahwajian, A., Baba, S., et al. (2014). Identification of Critical Success Factors (CSFs) for Public Private Partnership (PPP) Construction Projects in Syria. *Jordan Journal of Civil Engineering*, Volume 8, No. 4.
  7. Hardcastle, Edwards, et al., (2005). Critical success factors for PPP/PFI projects in the UK construction industry: a factor analysis approach. In proceedings: public private partnerships e opportunities and challenges. February 22. Hong Kong Convention Exhibition Centre, Hong Kong, p. 75e83.
  8. Patel, Ramani et al. (2007). Implementing a public private partnership model for managing urban health in Ahmedabad. Indian Institute of Management Ahmedabad, Research and Publication, W.P. No. 2007-09-03.
  9. Qiao, L., Wang, S. Q., Tiong, R. L. K. and Chan, T. S. (2001).framework for Critical Success Factors of BOT Projects in China. *The Journal of Project Finance*. 7(1). Pp. 53-61.
  10. Rajkumar, k., Anandakumar, S., and Krishnamurthy, V., (2013), A study on critical factors influencing the infrastructure development projects under public private partnership. *International Journal of Emerging Technology and Advanced Engineering*. Volume 3, Issue 12, ISSN 2250-2459. [www.ijetae.com](http://www.ijetae.com).
  11. Sehegal, R., Dubey, A. M., and Tiwari, N., (2015). A conceptual framework on critical success factors for implementation of public private partnership (ppp) based on literature review. *International Journal of Science, Technology and management*. Volume 4, special issue 01. ISSN (online) : 2394-1537. [www.ijstm.com](http://www.ijstm.com).
  12. Stonehouse, J. H., Hudson, A. R., and O' Keefe, M. J. (1996). Private-Public Partnerships: The Toonto Hospital Experience. *Canadian Business Review*. Ottawa. 23(2). Pp. 17-20.
  13. Tabachnik, B.G., & Fidell, L.S. (2001) *Using Multivariate Statistics* (4th ed.). New York: HarperCollins.

**भगवान विरसा मुंडा की पावन धरती पर महामहिम राष्ट्रपति श्री रामनाथ कोविंद जी का हार्दिक अभिनंदन**

**झारखण्ड स्थापना दिवस के शुभ अवसर पर राज्य की सवा तीन करोड़ जनता को हार्दिक बधाई**

15 नवंबर का ये दिन हमारी जिनगी का सबसे पवित्र दिन है। आजादी के बाद से ही भगवान विरसा मुंडा की धरती को अलग राज्य बनाने की भांग उठ रही थी जिसे पूरा किया पूर्व प्रधानमंत्री आरल रल आदरणीय श्री अटल बिहारी वाजपेयी जी ने। पंडित दीनदयाल उपाध्याय के आशुदय के षण षर चलकर हम समाज के आखिरी व्यक्ति तक विकास पहुंचाने के लिए कृतसंकल्पित हैं।

2022 तक हमें प्रधानमंत्री श्री नरेंद्र मोदी जी के सपनों का न्यू इंडिया बनाया है और ये सभी संभव हैं जब हम लू झारखण्ड का निर्माण कर सकें। 2022 तक हमें ऐसे झारखण्ड का निर्माण करना है जहां कोई बेरोजगार ना रहे, कोई बंदी न रहे। आज भगवान ने तथा आप सब ने मुझे सेवा का मौका दिया है जिसे मैं पूरी लगन और निष्ठा से निभा रहा हूँ। मेरा आपसे वादा है कि आप 1 कदम चलिए, मैं 4 कदम आपके साथ चलूंगा। मेरा केवल एक ही मकसद है कि विकास के मामले में हम झारखण्ड को देश में पहले नंबर पर लेकर जाए।

**मुख्यमंत्री स्वास्थ्य बीमा योजना**  
60 लाख में से 57 लाख वार्षिक परिवारों का प्रति परिवार 2 लाख रुपये का स्वास्थ्य बीमा निशुलक मुफ्त

**जोहार योजना**  
3 हजार परिवारों की 100 करोड़ रुपये की मुफ्त आवास और बसरी योजना के लिए जनसंख्या संगठनों को 8-4 लाख तक की सहायता दी जाएगी।

**108 मि:सुल्का ऐंजुलेंस सेवा**  
जब भी को कोई भेडिशन हमसे होती है तब तक 108 मुफ्त आपके पास पहुंचेगी ऐंजुलेंस

**हो रहे हैं सपने साकार... ये है रघुवर सरकार**

©  
Copyright Jamshedpur Research Review 2017