

ENGLISH BIMONTHLY

# Jamshedpur RESEARCH 2022

Year 10 Vol. 4 Issue 53

Review

July - August 2022

Year X  
Volume IV  
Issue LII

ISSN: 2320-2750  
RNI: JHAENG/2013/53159

**(Peer-Reviewed, Refereed  
Multi-Disciplinary  
International Research Journal)**

**JRR**

A Publication of  
Gyanjyoti Educational & Research Foundation  
Jamshedpur-831005

Registered with Ministry of Information and Broadcasting, Government of India (RNI)

# Jamshedpur Research Review

(Peer-Reviewed, Refereed, Multi-Disciplinary International Research Journal)

English Bimonthly

Year 10: Volume 4: Issue 53

(July-August 2022)

RNI – JHAENG/2013/53159

ISSN: 2320-2750(PRINT)

Postal Registration No.-G/SBM-49/2019-22

- Dateline: July-August 2022
- Year 10: Volume4: Issue 53
- Place: Jamshedpur
- Language: English
- Periodicity: Bimonthly
- Price: Rs.150
- No. of Pages:(Incl. Cover page):130
- 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



ISSN: 2320-2750(Print)

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

## Disclaimer

*No part of this publication can be produced in any form or by any means without prior permission of the publisher.*

\*\*\*\*

*Jamshedpur Research Review is a government registered open market journal, registered with RNI (Registrar Newspapers in India, under the Ministry of Information and broadcasting, Govt. of India and strictly follows the press rules.*

\*\*\*\*

*Matters related to the research paper such as selection, acceptance, rejection etc., are decided by editorial board committee on the basis of reports of paper reviewers.*

\*\*\*\*\*

*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 any other matters.*

*Jamshedpur Research Review will come under the jurisdiction of Jamshedpur Court only.*

©2022Jamshedpur Research Review

A Publication of  
Gyanjyoti Educational Research  
Foundation

Jamshedpur-83100

## ***Editorial Board***

### ***Editor 1***

**Dr. Mithilesh Kumar Choubey**

Role: Chief Editor, 62, Block-3, Shastrinagar, Kadma, Jamshedpur, Jharkhand -831005

ResearchGate Link-[https://www.researchgate.net/profile/Mithilesh\\_Choubey](https://www.researchgate.net/profile/Mithilesh_Choubey)

Profile: <http://jamshedpurresearchreview.com/chief-editors-profile/>

Phone:09334077378, [Email-editorjrr@gmail.com](mailto:Email-editorjrr@gmail.com),

Website-www.jamshedpurresearchreview.com

### ***Editor 2***

**Prof. Shukla Mahanty**

Role: Associate editor

Former Vice Chancellor, Kolhan University, Chaibasa, West Singhbhum, Jharkhand – 833202

Home page: <https://www.kolhanuniversity.ac.in/index.php/discover/vc-profile.html>

Email ID: [vcKolhanuniversity@gmail.com](mailto:vcKolhanuniversity@gmail.com), [principalshukla@yahoo.co.in](mailto:principalshukla@yahoo.co.in)

Mobile:+91 6582 222589 (O) / 6582 – 255217 (Fax)

### ***Editor 3***

**Prof. Vijay Bahadur Singh**

Dept. Of Commerce & Business Management

Ranchi University, Ranchi, Jharkhand

### ***Editor 4***

**Prof. Pingali Venugopal**

Role: Associate Editor

Office / Residential Address: Associate Professor, XLRI, Jamshedpur, XLRI, CH Area, Jamshedpur- 831001

Home page: <http://acad.xlri.ac.in/facprofile/index.php?116>

Email ID: [pingali@xlri.ac.in](mailto:pingali@xlri.ac.in), Mobile: 9334383822

### ***Editor 5***

**Dr. Neha Tiwari**

Role: Associate Editor

Office Address: Prof- in- Charge Department of Mass Com and video production, Karim City College, Jamshedpur, Jharkhand.' Home page:

[www.karimcitycollege.ac.in/index.php/discover/academic/faculty-department/item/368-neha-tiwari.html](http://www.karimcitycollege.ac.in/index.php/discover/academic/faculty-department/item/368-neha-tiwari.html), Email ID: [nehatiwarikcc@gmail.com](mailto:nehatiwarikcc@gmail.com), Mobile: 9334383822

### ***Copy Editor***

**Dr. Sanjive Singh**

Assistant Professor, Dept of Commerce, Jamshedpur Co-operative College, Jamshedpur, Ph.9431873642

### ***Referee***

- **Dr. H.P Sharma**, Pro Vice-Chancellor, S.K University, Dumka, Jharkhand
- **Dr. Vijay Kumar**, Dept. Of Hindi, Jmashepdur Co-operative College, Jamshedpur, Jharkhand

## Paper Reviewers

- **Dr. Raksha Singh**  
Associate professor, Central University of MP
- **Dr. S Chaturvedi**  
Head of the Department, Department of Commerce and Business Management  
Doranda College, Ranchi(A Constituent unit of Ranchi University, Jharkhand )
- **Dr. P.K Pani**  
Finance officer , 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.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. S.K Pandey**  
HOD, Dept. Of Commerce, J.S College, N.P University, Jharkhand.
- **Dr. Jayant Kumar Dab**  
Assistant Professor, Tamluk College, West Bengal.
- **Dr. Minakshi Pandeya**  
Ranchi, Jharkhand.
- **P. Bala Muralidhar**  
Assistant professor, Department of Commerce (UG and PG),Prabhat Kumar College,  
Contai, West Bengal.
- **Dr. Piali Biswas**  
Assistant professor, Department of Commerce, Jamshedpur Co-Operative College,  
Jamshedpur.
- **Afeef tharavattath**  
Lecturer, Teacher of education at Farook Training College, Kerala.

## ABOUT THE JOURNAL

Started in 2012, Jamshedpur Research Review (ISSN-2320-2750) is a Government registered, Peer- Reviewed, Multi-Disciplinary, English Bi-Monthly Research Journal published by Gyanjyoti Educational and Research Foundation, 62, Block-3, Shastrinagar, Jamshedpur, Jharkhand-831005. Jamshedpur Research Review is one of the most reputed and regularly published research journals in the eastern India. So, for its 53 issues have been published without any break since its inception.

### Our Objectives:

- Jamshedpur Research Review aims to publish multi-disciplinary and trans-disciplinary research papers relevant for India's developing economy.
- Our aim is to promote knowledge and information through publication that are socially relevant, locally need based, nationally important and globally significant.
- The Journal aims to integrate and promote new ideas, concepts and practices, for public welfare and strengthening the civil society.

- **Focus Area:** Social Sciences, Commerce& Management and Environment Studies
- **Periodicity:** Bi-Monthly
- **Website:** [www.jamshedpurresearchreview.com](http://www.jamshedpurresearchreview.com)
- **Blog:** [www.jamshedpurresearchreview.blogspot.com](http://www.jamshedpurresearchreview.blogspot.com)
- **Registration:** RNI: JHAENG/2013/53159 and ISSN-2320-2750.
- **No of Issues published:** Year 10, Issues- 53 (Up to August 2022)

### Next Issue –September 2022

- **Call for Papers:** Research papers are invited for publication in 53<sup>rd</sup> issue of the journal. Last date for paper submission is 30 August 2022. The issue is scheduled to be published in the month of September 2022
- For more details log on-[www.jamshedpurresearchreview.com](http://www.jamshedpurresearchreview.com)
- Email- [editorjrr@gmail.com](mailto:editorjrr@gmail.com)
- Phone-09334077378



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

## ***Editorial***

Recently, there was a violent protest in many Indian states by the unemployed youth against the government decisions for the recruitment of soldiers on contract basis in the Indian Army. In this protest a lot of damage was done to the government property, especially the property of Indian Railways. Actually, the demand of the agitators was that the appointment of soldiers in the army should not be on short-term but full-time basis. Youth of the states like Bihar, Uttar Pradesh etc. work hard for years to get recruited in the army. There is a lot of attraction towards permanent government jobs in many states of India.

But in the last few decades, there has been a huge reduction in government jobs. In December 2021, it was told in the Parliament that as of March 1, 2020, 8.72 lakh posts were vacant in the central government departments. Most of the posts were related to Defence, Home, Postal, Railway and Revenue departments. Similarly, posts are vacant in various departments of most of the states of the country, but due to the financial crisis, the governments are giving priority to part-time recruitments instead of full-time recruitments.

Recently, Prime Minister Narendra Modi has directed for 10 lakh appointments in ministries and departments within one and a half years. Government job is the first choice of a large number of youth. In such a situation, the announcement of jobs by the central government is a big relief decision for the youth. But the challenges of employment in India cannot be met only by government jobs. According to the report of the Center for Monitoring Indian Economy, the unemployment rate in the country increased to 7.83 percent in April, 2022 and in May, 2022 this rate stood at 7.12 percent.

In the year 2020, 'Aatmnirbhar Bharat' and 'Make in India' campaign tried to bring the economy back on track, as well as reduce the challenge of employment by increasing income, demand, production and consumption. Nevertheless, unemployment in the country has been continuously on rise due to strict lockdown and other reasons. Due to the Russo-Ukraine war, the industry and trade of the whole world is heading towards recession. Neighboring country Sri Lanka has fallen victim to economic bankruptcy. There has been a situation of civil war in the country. The President of the country has fled the country due to fear of public outrage.

The message is clear; unemployment in India is going to take a terrible form. In the latest report of the Periodic Labor Force Survey (PLFS) based on the period January to March 2022, it has been said that it is necessary to improve the situation of employment generation. The nature of the protests that has arisen on the issue of appointment of Agniveers in India has made it clear - if the situation does not change, then the 'outrage of the unemployed' will create a terrible crisis for the country in coming future.

Private Sectors for creating new employment opportunities are self-employment, entrepreneurship and startups in the private sector. According to the Finance Ministry's bulletin of May, 2022, there has been a record increase of 12 million in Employees' Provident Fund (EPF) subscribers in the financial year 2021-22.

According to the report of NITI Aayog, at present there are about 77 lakh gig workforce (Gig workers are independent contractors, online platform workers, contract firm workers, on-call workers, and temporary worker). The number will be 2.35 crore by 2029-30. In the coming days, there are big concerns about social security in front of gig workers.

Digital employment was a compulsion during the Covid pandemic. But now it has become an opportunity. Most of the business activities have now gone online. The widespread acceptance of the trend of doing work from home has given a boost to outsourcing. Digital business has given a deep blow to traditional business and employment.

It is clear that due to automation, robotics and artificial intelligence, where jobs are decreasing in many sectors, jobs are increasing in the digital economy. Experts believe that by 2025, the demand for talent in advanced technologies such as artificial intelligence, robotics, machine learning, automation and data science may exceed the talent supply by 15 to 20 times. It is becoming necessary for the youth of India to learn new skills continuously for employment. But, most of the universities in the country are not ready for this challenge. Keeping in view the scenario of shortage of digital talent, every effort will have to be made to equip the new generation with good English, computer proficiency and communication skills along with AI, cloud computing, machine learning and other new digital skills. This will enable the new generation to capitalize on the new digital opportunities. NITI Aayog should set a new policy for social security for the lakhs of gig workers who are temporarily working in the service sector, for whom better social security is needed. Such efforts will reduce the challenges of employment for the new generation. While this will bring a smile on the face of the new generation and new demand will be created in the economy due to the increase in employment opportunities. Due to this the economy will be seen growing at a faster pace.

*Dr. M.K Choubey*

10 July 2022

## GUIDELINES FOR AUTHORS

### Author's Responsibility

The author's submitted article should be original research work. It can be based on primary (field-based) or secondary (literature-based) research. Ethical standards should be adhered to during primary research, which means that among other things, informed consent should be sought and gained from respondents. Data should not be fabricated or falsified (manipulated) neither should the analysis include any misrepresentation. Data and records should be properly managed, such that if requested, the author can provide clear and accurate records of the procedures followed. Duty of Care over respondents and others involved in the research (including animals) should be maintained. Thus, the author should not breach confidentiality or place any person in danger or psychological discomfort. Literature and data referred to in the article should be properly cited and referenced (using APA style), including by giving page number whenever required. Photos should be credited to their owner. After the review process, authors have the responsibility to revise the Research Paper/ Book Review based on the reviewers' comments. Authors should clarify point by point how and where the changes have been done in a covering letter to be submitted along with the revised Research Paper/ Book Review. The time period of the revisions will be handled on the level of revisions, either minor revisions (e.g. within 4 days) or major revisions (e.g. 14 days).

**Novel publication:** Only original research papers should be submitted to JRR. The author should not simultaneously submit his/her paper to another journal; neither should he/she submit an article that has already been published elsewhere. The article will be pre-checked by the Editorial Team before being sent for peer-review.

**Follow the guidelines for submission:** Please refer Guidelines to submission. If these guidelines are not adhered to, the author/s will be requested to re-submit their Research Paper/ Book Review after

modifying it according to the set guidelines. Furthermore, if several authors co-author the Research Paper/ Book Review, the main and corresponding author should be the scholar who has contributed most to the research work and the Research Paper/ Book Review production. All institutes, funding agencies and individuals who have played a role in the research process should be acknowledged in the Research Paper/ Book Review.

**Avoiding plagiarism:** JRR is taking a strict stance against any kind of plagiarism. The Editorial Team will check the Research Paper/ Book Review using plagiarism detection software before the peer review process begins. If any plagiarism is found, the Research Paper/ Book Review will be immediately returned to the author. After re-submission, and after the peer review process, the revised Research Paper/ Book Review will also be checked for plagiarism using the detection software.

**Avoiding self-plagiarism:** Authors are requested not to re-use their own published or unpublished data and text from any other Research Paper/ Book Review without proper citation.

### **Peer Review Process**

Jamshedpur Research Review (JRR) peer review process is based on at least two blind peer-reviews. After checking the initial submission (that it follows the guidelines), the Research Paper/ Book Review will be given a code number to give anonymity to the Research Paper/ Book Review's author until it gets accepted or rejected. It will then be checked for plagiarism using the software. Only if it contains none or minimum levels of plagiarism will it be forwarded to two reviewers, one internal and one external to JRR. On receipt of the peer reviewers' comments they will be cross-checked, and then forwarded to the author. The author should address the peer reviewers' concerns and re-submit the revised Research Paper/ Book Review with a covering letter. At this point, the revised Research Paper/ Book Review and covering letter will be returned to the peer reviewer, who will check that their concerns have been adequately addressed. The final decision regarding publication of the Research Paper/ Book Review will be made by the Editorial Team depending upon the assessment of all the reviewers.

### **Guidelines for the Authors and Paper Contributors**

**NOTE** Authors can email their paper to the editor at editorjrr@gmail.com any time in a year. minimum 1 months of time is taken for the review of the paper.

**Review Process:** All the papers will be published only after the detailed review by two reviewers.

Jamshedpur Research Review(JRR) welcomes research articles on issues of current interest in Socio-Economic **All Research Paper/ Book Review** should be structured along these lines: Abstract (up-to 200 words), Key words, Introduction, Review of Literature, Objectives, Research Methodology, Findings and Analysis, Discussion, Conclusion & Recommendations and References. Further, the Research Paper/ Book Review must be typed in letter quality (font size 12 in New Times Roman) in double-space on one side of A4 paper with margins of at least one inch on all sides. Authors should submit their Research Paper/ Book Review to the Editor (JRR) using the email id: editorjrr@gmail.com. Research Paper/ Book Review should not exceed 4000 words.

Research Paper/ Book Review of a paper should have **cover page** providing the title of the paper, the names (s), address (es), phone, fax numbers and e-mail address (es) of all authors and acknowledgements, if any.

Following the cover page, there should be an **abstract page**, which should contain the title of the paper, the subtitle 'abstract' and a summary of the paper in single space, not exceeding 150 words. **References** should be cited in the 'APA style' with a title REFERENCES. Examples of how the references are to be listed at the end is given below:

- **Book:**  
 Deb, D. (2009). *Beyond developmentality: Constructing inclusive freedom and sustainability*. New Delhi: Daanish Books.  
 Peet, R., & Hartwick, E. (2009). *Theories of development: Contentions, arguments, alternatives* (2nd ed.). London: The Guilford Press.
- **Edited Book:**  
 Munda, R. D., & Mullick, S. B. (Eds.). (2003). *Jharkhand movement. Indigenous peoples' struggle for autonomy in India*. Copenhagen: International Work Group for Indigenous Affairs.
- **Chapter in an Edited Book:**  
 Sreedevi, T. K., & Wani, S. P. (2009). Integrated farm management practices and upscaling the impact for increased productivity of rainfed systems. In S. P. Wani, J. Rockström, & T. Oweis (Eds.), *Rainfed agriculture: Unlocking the potential* (pp. 222-257). Wallingford: CAB International.
- **Article in a Journal:**  
 D'Souza, R. (2004). Rigidity and the affliction of capitalist property: Colonial land revenue and the recasting of nature. *Studies in History*, 20(2), 237-272. doi:10.1177/025764300402000204
- **Website – magazine, journal or newspaper article:**  
 Mohanty, B. K. (2016, January 8). Farmland-lease nod on table. *The Telegraph*. Retrieved from [http://www.telegraphindia.com/1160108/jsp/nation/story\\_62759.jsp#.VpN2duZ8tM4](http://www.telegraphindia.com/1160108/jsp/nation/story_62759.jsp#.VpN2duZ8tM4)
- **Technical and Research Report, e.g. Government Reports**  
 Yogi, R. K., Bhattacharya, A., Jaiswal, A. K., & Kumar, A. (2015). *Lac, plant resins and gums statistics 2014: At a glance* (Bulletin (Technical) No. 07/2015). Ranchi, Jharkhand: ICAR-Indian Institute of Natural Resins and Gums. Retrieved from <http://ilri.ernet.in/~iinrg/Lac%20Statistics.pdf>
- **Internet Web Page (html)**  
 What is rapid rural appraisal? *FAO Corporate Document Repository*. Retrieved from <http://www.fao.org/docrep/006/W2352E/W2352E03.htm>
- Each Figure/Table should be designed in a separate page. Figures and tables are to be separately numbered, titled, and attached at the end of the text serially. At the end of the blind review process, the editor informs the authors about the acceptance or rejection of the Research Paper/ Book Review .
- On acceptance, the author is expected to incorporate the modifications suggested by the reviewers, if any, and submit a CD and hard copy of the final revised Research Paper/ Book Review. Authors should ensure that the Research Paper/ Book Review submitted to Jamshedpur Research Review is not simultaneously submitted to any other journal or publisher. Similarly, it should not be submitted anywhere else during the pendency of the review process which will take about three months. Once a Research Paper/ Book Review is accepted by or published in Jamshedpur Research Review, it becomes the property of Jamshedpur Research Review, whose permission is necessary for any operations covered by the Copyright Act.

**Jamshedpur Research Review**

# INDEX

Title/author	Pages
<b>GREEN FINANCE –A WAY TOWARDS SUSTAINABLE GROWTH</b> Dr. Kavita Arora, Associate Professor, Shyam Lal College, University of Delhi, India	<b>11-17</b>
<b>THE WILL TO SURVIVE: A FEMINIST READING OF BAPSISIDHWA'S THE PAKISTANI BRIDE</b> Dr. Longchanaro Longkumer, Assistant Professor, Department of English, ICFAI University Nagaland	<b>18-19</b>
<b>UNSUNG FREEDOM FIGHTERS OF BIHAR</b> Ritu Singh, (Former Research Scholar, Bhagalpur University, Bihar) New Gurgaon, Haryana-122004	<b>20-24</b>
<b>FOUNDER OF MODERN JAMMU AND KASHMIR: MAHARAJA GULAB SINGH (Analysis of military, administrative, strategic and political capabilities)</b> Dr. Malkit Singh, Co-Professor/Director, Center for Kashmir Studies, Himachal Pradesh Central University, Dharamsala	<b>25-28</b>
<b>CAHOOTS: AN IMPACT STUDY OF MERGERS AND ACQUISITIONS IN INDIAN MANUFACTURING SECTOR</b> Dr. Divya Khatter, Assistant Professor, Dyal Singh College (M), University of Delhi, Delhi Ms. Priyanka Yadav, Assistant Professor, Dyal Singh College (M), University of Delhi	<b>29-40</b>
<b>GOODS AND SERVICES TAX: ITS IMPLICATION AND SUSTAINABILITY ON EASE OF DOING BUSINESS</b> Gurave Singh, Research scholar, Department of Commerce & Business Administration, University of Allahabad, Prayagraj, U.P. – 211002, India Dr. Gautam Kohli, Assistant Professor, Department of Commerce Prof. Rajendra Singh (Rajju Bhaiya) University, Prayagraj, U.P, India	<b>41-48</b>
<b>POWER CRISIS IN INDIA: CHALLENGES AND SOLUTIONS</b> Anju Bala Xaxa, Assistant Professor, Mahila College, Chaibasa, Jharkhand	<b>49-52</b>
<b>THE CHANGING NATURE OF SATYAGRAHA IN INDIA - A CONTEMPORARY STUDY</b> Nidhi Sinha, Research Scholar, Dept. of Political Science, Kolhan University, Jharkhand Dr. Rashmi Kumari, Assistant Professor, G.S College for Women, Jamshedpur, Jharkhand	<b>53-58</b>
<b>UNEMPLOYMENT AND GOVERNMENT EFFORTS IN INDIA</b> Poonam Kumari, Research scholar, Department of Economics, Kolhan University, Chaibasa, Jharkhand Dr. Ratna Mitra, Assistant professor, Department of Economics, Jamshedpur Women's University, Jamshedpur, Jharkhand	<b>59-63</b>
<b>ROLE OF RENEWABLE ENERGY FOR BUILDING ATMANIRBHAR BHARAT THROUGH STRATEGIC ECONOMIC SUSTAINABILITY</b> Abhijit Garai, Research Scholar, Usha Martin University, Ranchi, Jharkhand Dr. Dinesh Kumar Pandey, Asst Professor (Dept of Business Management & Commerce), Usha Martin University, Ranchi, Jharkhand	<b>64-67</b>

<b>INNOVATIONS IN EDUCATION FOR TEACHING AND LEARNING USING TECHNOLOGY</b> <b>Bencila Rose Sunny</b> , Assistant Professor, Kunhathumma Memorial College of Teacher Education, Valillapuzha. Malapuram, Kerala	<b>68-72</b>
<b>ANALYZING FINANCIAL HEALTH OF INDIAN IT SECTOR COMPANIES BY USING MODIFIED ALTMAN'S Z SCORE MODEL</b> <b>Dr. P. Chellasamy</b> , Professor, School of Commerce, Bharathiar University Coimbatore, Tamil Nadu, India <b>Prashant Debnath</b> , Research Scholar, School of Commerce, Bharathiar University, Coimbatore, Tamil Nadu, India	<b>73-78</b>
<b>ISSUES AND FACTS ON MICROFINANCE SECTOR IN INDIA</b> <b>CMA Shashi Kiran Devi</b> , Asst. Professor, Mrs. KMPM Vocational College, Jamshedpur <b>Dr. B.K.Gupta</b> , Retd. Professor, Department of Commerce, K.C. Bhagat College, Bero	<b>79-82</b>
<b>OPPORTUNITIES AND CHALLENGES OF INTERNET OF THINGS (IOT) IN HIGHER EDUCATION SYSTEM IN INDIA</b> <b>Dr. Ramavath Ravi</b> , Asst. Prof. of Commerce, Govt. Degree College, Chanchalguda, Hyderabad-Telangana <b>Smt. B. Shirisha</b> , Asst. Prof. of Commerce, Pingle Govt. College for Women (A), Telangana	<b>83-89</b>
<b>DEVELOPMENT OF RETAIL SECTOR IN INDIA: A SPECIAL REFERENCE TO E-COMMERCE BUSINESS</b> <b>Dr.Ch. Bhaskar</b> , Assistant Professor of Commerce, Pingle Government College for Women (A), Hanamkonda, Telangana	<b>90-92</b>
<b>THE RELATIONSHIP BETWEEN ENVIRONMENTAL DEGRADATION AND OUR ETHICAL VALUE: A STUDY WITH PARTICULAR REFERENCE TO INDIA</b> <b>Piyali Das</b> , Assistant Professor in Philosophy, Rishi Bankim Chandra Evening College, Naihati, North 24 Parganas, West Bengal	<b>93-97</b>
<b>A STUDY OF PRADHAN MANTRI JAN DHAN YOJANA AND ITS IMPACT: PRE AND POST COVID IN PALMA VILLAGE OF DEOGHAR DISTRICT IN JHARKHAND</b> <b>Sadhvi Singh</b> , (Research Scholar), Department of Business Administration, Central University of Jharkhand (CUJ), Ranchi, Jharkhand <b>Dr. Ashoke Kumar Sarkar</b> , (Associate Professor), Department of Business Administration, Central University of Jharkhand (CUJ), Ranchi, Jharkhand	<b>98-107</b>
<b>FEDERALISM IN INDIA: ORIGIN, DEVELOPMENT AND RECENT TRENDS</b> <b>Uma Yadav</b> , Research Scholar (Political Science), Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh <b>Dr. Santwana Pandey</b> , Assistant Professor, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh.	<b>108-113</b>
<b>MGNREGA IN THE TIMES OF COVID-19 IN JHARKHAND</b> <b>Anil Kumar Yadav</b> , Research Scholar, Ranchi University, Ranchi, Jharkhand	<b>114-120</b>
<b>THE CURRENT STATUS OF SILK INDUSTRY IN INDIA AT THE GLOBAL SENERIO</b> <b>Ajay Kumar Gupta</b> , Research Scholar, Vinoba Bhave University, Jharkhand <b>Dr. Nilmani Mukherjee</b> , Principal, Assistant Professor, Anannada College, Hazaribagh, Jharkhand	<b>121-126</b>

# GREEN FINANCE –A WAY TOWARDS SUSTAINABLE GROWTH

**Dr. Kavita Arora**

Associate Professor, Shyam Lal College

University of Delhi, India

kavitaarora.du@gmail.com

---

## Abstract

The 2030 agenda for sustainable development, adopted by all United Nations Member States in 2015, provides a roadmap for peace and prosperity for people and the planet for us as well as for our future generations. Climate change, an adverse effect of rapid industrialization is causing increases in global temperature, rise in sea levels and polluting air and water resources. Green finance is globally considered as a solution for climate change and thus should be a priority for public policy. To achieve sustainable development goals, there is urgent need to promote financing of green projects and investments that provide environmental benefits, through innovative financial instruments like green bonds, green insurance, green banks and carbon market instruments and new financial policies. Present study aims to review the initiatives taken by government and non-government organizations in India. The findings indicate that due to initiatives of many such agencies, sustainable growth models are now being considered by corporate sector and individuals also. However, there is a long way to go. Review of global experiences suggest that with better awareness of green financing options and integrated efforts of stakeholders we can move towards attaining long term sustainable economic growth. The findings are useful for government, regulators, and policy makers in devising an appropriate strategy to promote green practices and would serve the potential investors, academicians and researchers to evaluate viability of such initiatives.

**Key words:** Green finance, green investments, sustainable development, green portfolio and social responsibility

---

## Introduction

The 2030 agenda for sustainable development, adopted by all United Nations Member States in 2015, provides a roadmap for peace and prosperity for people and the planet, today and into the future. The preamble to the 2030 Agenda highlights consensus from the world leaders who have affirmed their determination to protect the environment and natural resources from further deterioration so that they remain available for future generations.<sup>1</sup> It has outlined 17 Sustainable Development Goals (SDGs), which need immediate attention and collective action from all the countries.

The Global Risks Report 2021 of the World Economic Forum (WEF) has identified

extreme weather conditions, global warming and deforestation as severe risk to the existence of life on earth.<sup>2</sup> Global economy is growing at a very fast rate approximately 3-4%, which is causing doubling of output every generation. But, in most of the countries across the world, this growth is taking place in favour of rich making rich the richer and poor the poorer. Moreover, this growth is the output of rapid industrialization and deforestation which is harmful to the environment. Use of fossil fuels to carry on industrial activities is causing even more damage to the environment. Generally, it is easy to get financing of conventional fossil fuel projects because financial institutions find green energy based projects more risky and less profitable. To achieve sustainable development goals, there is urgent need to promote green financing i.e.

green projects and investments that provide environmental benefits, through innovative financial instruments like green bonds, green insurance, green banks, carbon market instruments and new financial policies. (Sachs et.al. 2019)

Green finance refers to the mechanism of funding projects that use eco-friendly practices or projects that use technologies helpful in dealing with the global issue of climate change. Such projects use energy produced from renewable sources like biomass, geothermal resources, solar power, water, and wind energy. These projects release clean transportation that involves lower greenhouse gas emission and have energy efficient projects like green building. Further, these projects involve waste management practices that include recycling, efficient disposal and conversion to energy, etc. According to Securities and Exchange Board of India (SEBI), guidelines for issue of Green Bonds (SEBI 2017), “those projects which promote climate change adaptation, sustainable waste and water managements, and sustainable land use including sustainable forestry, agriculture, and biodiversity conservation”<sup>3</sup> will be considered sustainable under the disclosure requirements for Green Debt Securities. Thus, green finance projects essentially promote technology diffusion and use eco-efficient infrastructure. In present day scenario when the problem of global warming is a matter of concern, these projects create comparative advantage over projects employing conventional practices. Further, due to development of sustainable infrastructure these projects increase economic prospects and cause substantial value addition to the operations in organizations.

### **Objectives of the study**

Main objective of present study is to elaborate on the concept of Green Finance and climate change. Another objective is to review the initiatives taken by government and non-government agencies for promoting green finance in India. The study also highlights the urgent need of taking environment protection measures at all levels.

### **Research Methodology**

Present study is descriptive and conceptual in nature. The study uses secondary sources primarily the reports of various international and national bodies and forums including World Bank, Reserve Bank of India, SEBI, and World Economic Forum. The study also refers to journals, newspaper articles, and websites of different organizations for gathering facts and information on the topic.

### **Review of Literature**

Several researchers have contributed to the literature on various aspects of “Green finance”. A brief review of some of the studies is as follows:

**Schlelhelmich and Bohlen et al. (2010)** explained that attitude of customers is the most significant indicator of environmental concern in purchasing behaviour. The business houses which aim to expand the market for green product services should broaden the marketing campaigns. The study used marketing students, members of the United Kingdom general publishes the data sets for study. The study suggested that measures of environmental consciousness are closely linked to environmentally-responsible purchasing behaviour. However, the strength of the relationships varies according to sample type, the attitude and perception of the customers and the product category at issue. **Sekhar (2011)** focused on various green mutual funds and green investing companies in India. He reported that despite being among the most recent types of funds in the market, green funds have gained in popularity among many investors in recent past. Increasing oil consumption, global warming effects, increasing rates of natural disasters, and similar other factors warn us to take care of environment.

**Dubey et. al. (2013)** tested the theoretical framework for the customer satisfaction and concluded that market pressure, leadership, regulatory framework and quality management are critical drivers which enhance customer satisfaction. Thus, green procurement practices may improve customer satisfaction and hence the market share. Further, it recommended that effective purchasing management with

concern for the environment not only strengthens the supply chain but also helps to have more customers and improves customer services.

**Munoz et. al. (2014)** analyzed the financial performance and managerial abilities of a sample of US and European socially responsible (SR) mutual funds during January 1994 to January 2013. They compared the performance of green fund managers with performance of conventional and other forms of SR mutual fund managers. The study reported similar performance of green funds and other forms of SR mutual funds irrespective of market conditions.

**Soundarrajan and Vivek (2016)** proposed that green finance is the core part of low carbon growth which brings together financial industry, environmental improvement, and economic growth. They concluded that sustainable finance is the future and Indian banks should continue to promote new innovative green financial products emphasizing long term sustainable growth.

**Lee (2020)** elaborated on the role of green finance in achieving sustainable development goals with special reference to China. The study discussed sustainable finance initiatives along with environmental, social concerns in China. It also analyzed the emerging trends and practices to promote green finance in the country. The study recommended several policy measures for the private and public sector both such as greening the banking system and greening the bond market to promote market transparency and governance along with promotion of sustainable investments.

**Heinkel et. al.(2001)** studied the effect of ethical investing on corporate behavior. They found that in an equilibrium model, social investing can impact a firm's environmental and other ethical behavior.

**Kölbel et.al.(2020)** analyzed how sustainable investing contributes to societal goals, conducting a literature review on investor impact. The study distinguished three impact mechanisms: shareholder engagement, capital allocation, and indirect impacts. The results suggest that investors who seek impact should pursue shareholder engagement throughout

their portfolio. Further, they should allocate capital to sustainable companies whose growth is limited by external financing conditions, and screen out companies based on the absence of specific environmental, social, and governance practices that can be adopted at reasonable costs.

### **Policy Initiatives for promoting Green Finance in India**

Government of India has taken several initiatives to establish and secure funding for green industries and green growth. New financial products like green bonds, green mutual funds, green banking and portfolio decarbonisation<sup>4</sup> are being developed to support low carbon green growth. Initiatives are being taken to attract private investments to build and sustain green infrastructure. Various reforms have been introduced to strengthen corporate disclosure of green management practices and expand financial support for those businesses that apply them. Some of the key policy imperatives that have been taken in India are detailed below:

a. In 2007, the Reserve Bank of India issued notification on "Corporate Social Responsibility, Sustainable Development and Non-financial Reporting–Role of Banks"<sup>5</sup>. This notification highlighted the issue of global warming and climate change in the context of sustainable development. The notification further, acknowledged lack of adequate awareness on sustainable development and environmental issue in India. In this context, it stressed upon the need for sustainable development efforts by financial institutions in India and banks. It suggested that banks should make a suitable and appropriate plan of action towards helping the cause of sustainable development, with the approval of their Boards. Further, the banks/financial institutions should keep themselves aware of the developments regularly and update their strategies and plans according to such developments. The progress made there under could be placed in the public domain along with the annual accounts of banks.

b. **National Action Plan on Climate Change (NAPCC)**<sup>6</sup>: In 2008, Government of India formulated NAPCC to provide the broad policy framework for reducing the impact of climate change. India was amongst leading 10

countries in the world to have a combined policy for tackling climate change. The action plan outlined a number of steps to simultaneously advance India's development and climate change-related objectives. The National Action Plan on Climate Change (NAPCC) comprised several measures focused on eight national missions to safeguard natural resources and environment. These missions include National Solar Mission, National Mission on Sustainable Habitat, National Water Mission, and Green India Mission etc.

**c. Indian Network of Climate Change Assessment (INCCA):** On October 14, 2009, the Ministry for Environment and Forests launched the Indian Network for Climate Change Assessment (INCCA). INCCA is a network which consists of 120 research institutions to conduct research on climate change, its causes and its impact on different sectors of Indian economy. In May 2010, it released India's GHG Emissions Inventory for 2007. India was the first developing nation to publish such report. It also aimed to not only prepare such climate change assessments, but also developed decision support systems capacity building for managing the challenges of climate change related risks.

**d. Increased taxes on fossil fuels:** To reduce consumption of fossil fuels i.e. petrol, diesel, coal etc. Government of India has cut subsidies and increased taxes on fossil fuels since 2010-11<sup>7</sup>. This has significantly increased petrol and other fossil fuels and has thus given a price signal to reduce fuel consumption and hence reduce CO<sub>2</sub> emissions in air. Further, India is among the few countries in the world to have introduced a carbon tax and clean energy cess. 'National Clean Energy Fund' is also set up for funding research and innovative projects in clean energy technologies.

**e. Climate Change Finance Unit (CCFU);** CCFU was formed in 2011 under the purview of Ministry of Finance to serve as the nodal point on all climate change financing matters in the Finance Ministry<sup>8</sup>. It also represents Ministry of Finance, India in climate change related issues in various international and national forums. It provides guidance to Ministry of Environment Forest and Climate Change (MoEF) to deal with climate change negotiations and to analyze emerging issues

on the topic as well as the financial pledges of other countries. It also provides inputs to the designing, operationalization and working of Green Climate Fund as per the Cancun agreement.<sup>9</sup> Intergovernmental Expert Committee on Sustainable Development Financing (ICESDF), was also set up under the United Nations Conference on Sustainable Development.

**e. Annual Business Responsibility Report:** In 2012, SEBI made it compulsory for listed top 100 companies selected on the basis of share in market capitalization to report sustainability measures incorporated by them. This move caused mandatory concern for the environment, waste treatment and other eco-friendly business practices.

**f. SEBI Guidelines:** On 30th May 2017, SEBI issued broad guidelines for issue of green bonds in India. Guidelines specified the disclosures to be made by the companies at the time of such issue. These disclosure requirements made it compulsory for the companies to adhere to green practices. Further, the Ministry of Corporate Affairs also imposed mandatory reporting of the progress on Corporate Social Responsibilities (CSR) under the Companies Act, 2013.

**g. Green banking:** In May 2016, Indian Renewable Energy Development Agency (IREDA) which was formed in 1987 as a government-backed agency to promote investments in renewable/clean energy resources deliberated its intentions to become India's first Green bank. Green banks are public entities created to work with the private sector to increase investment in clean energy and bring clean energy financing into the mainstream. They are innovative and new tools that have been successful in the United Kingdom, Australia, Japan, Malaysia and several US states. These banks work with Motto: "ENERGY FOR EVER".

**h. S&P BSE GREENEX:** On February 22, 2012, leading Stock Exchange of India launched S&P BSE Greenex to measure the performance of the top 25 "green" companies. Constituent green companies included in the index are selected on the basis of performance in terms of greenhouse gas (GHG) emissions, market cap and liquidity. GREENEX is first

inclusive market based mechanism for the promotion of energy efficient practices amongst corporate entities in India. It is developed by BSE Ltd. jointly with g Trade Carbon Ex Ratings Services Private Limited (gTrade). BSE Greenex is the first step in creating a credible market-based response mechanism here, where both business houses and investors can rely on purely quantitative and objective performance-based signals to assess 'carbon performance'. The index is created to identify 'green investments' and companies with a strong social responsibility. The index can be used to develop green financial products including bonds, exchange-traded funds, mutual funds, and structured products. Further, the index will help investors in taking more informed investment decisions by investing in companies with strong long-term prospects as the concerns of climate change is growing among stakeholders.

### **Green Bonds and Green Mutual Funds**

According to Reserve Bank of India report titled "Green Finance in India: Progress and Challenges," until February 12, 2020, India had an outstanding debt of \$16.3 billion in green bonds. India entered the green bond market in 2015 with a total of US \$1.1 billion of green bonds issued from Yes Bank, Export-Import Bank of India, CLP Wind Farms and IDBI. Since then, many more Indian companies issued green bonds majority of them are listed on India INX, situated in Gandhinagar, Gujarat. Further, in 2018 SBI issued \$650 million green bonds and listed them on INX Gujarat, Luxembourg Stock Exchange and also Singapore Stock Exchange (SGX). Later, Yes Bank (2015), Rural Electrification Corporation (2017) and Adani Renewable Energy (2019), along with some other companies issued green bonds. Rapid increase in such green initiatives indicates that corporate sector has started realizing the importance and need of adopting sustainable practices in business processes.

Most of the green bonds are issued for a period of 5-10 years but some companies like Adani Renewable Energy issued them with tenure of more than 10 years, few other companies have made issues for tenure of less than 5 years also. These bonds are meant for individuals and institutional investors that have a mandate

and are willing to invest in sustainable projects and companies. Retail investors have not yet been permitted by the government to invest in these green bonds directly. They can invest in other sustainable investing options like green mutual funds etc.

Another category of ESG (Environmental, Social, and Governance) investment initiatives is green mutual funds which is gaining popularity in recent years. Green mutual funds are investment vehicles that promote socially and environmentally conscious policies and business practices. These funds invest in companies whose activities, projects and investments are beneficial for the environment e.g. companies engaged in innovative recycling, waste management, or those companies which run their businesses in eco-friendly manner. Some of the popular green mutual funds in India are Axis ESG Fund, ICICI Prudential ESG Fund, Mirae Asset ESG Sector Leaders, SBI Magnum Equity ESG Fund. Due to increased investor interest in environmental issues, sustainable funds in India attracted Rs 3,686 crore in the 2020-21.<sup>10</sup> Further, many new funds in this category are being launched in contemporary times.

### **Green Finance Initiatives by Corporate Sector**

A significant section of the Indian Industry has now started to focus on energy efficiency and reducing GHG emissions. The linkage between environment protection, profitability and long term business sustainability makes it essential for businesses to make more efficient use of resources and hence reduce their overall footprint through all their products, services and activities. Many Indian companies including Reliance Industries Ltd., ONGC, Wipro, Tata Steel, TCS, Usha Martin, Grasim Industries Ltd., Tamil Nadu Newsprint and Papers Ltd., are taking a lead towards greener India. Through their innovative solutions like water treatment plants, energy conservation practices, eco-friendly products, zero waste emission procedures and commitment of working towards the solution the corporate sector is accounting for sizeable profits associated with these opportunities.

## Conclusion

Due to growing emphasis by government agencies, a significant section of industries in India is now implementing low carbon emission models. The linkage between good environmental practices, profitability and long term business sustainability makes it essential for businesses to make more efficient use of resources and reduce carbon foot prints. However, due to high cost of debt capital the investment in green projects becomes very expensive. Several risks associated with green finance namely technology risk, currency risk, high interest rates are hindering the availability of financial resources. Reforms in financial sector are thus essential for this green transformation. Further, lack of awareness amongst the investors about the innovative financial instruments like green mutual funds and green bonds jeopardizes their success. Thus, there is an urgent need of formulating clear green investment strategy focusing on long term, economy wide view in India. Moreover, green finance instruments should be designed in such a manner that they should attract international and national investors both. The regulatory policy should be transparent and more conducive so that it can create trust and confidence amongst investors.

## References:

1. <https://sustainabledevelopment.un.org/post2015/transformingourworld/publication>
2. Rao, M.R.(2021), "Heed to heal - Climate Change is the Emerging Financial Risk", RBI Bulletin  
[https://rbi.org.in/scripts/BS\\_ViewBulletin.aspx?Id=20563](https://rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=20563)
3. [https://www.sebi.gov.in/sebi\\_data/meetingfiles/1453349548574-a.pdf](https://www.sebi.gov.in/sebi_data/meetingfiles/1453349548574-a.pdf)
4. Decarbonization of portfolios means that an investment fund or institution reviews its possible investment universe and screens every possible asset (e.g. stocks) according to its carbon footprint.
5. <https://www.rbi.org.in/scripts/NotificationUser.aspx?Mode=O&Id=3987>
6. <http://pmindia.nic.in/Pg01-52.pdf>
7. Notification "From Carbon Subsidy to Carbon Tax: India's Green Actions" by Press Information Bureau, Government of India, Ministry of Finance, released on 27 February, 2015

<https://pib.gov.in/newsite/PrintRelease.aspx?relid=116058>

8. <sup>1</sup><https://dea.gov.in/divisionbranch/climate-change-finance-unit>
9. The Cancun Agreement is a set of decisions by the international community to deal with the long-term global challenge of climate change and to take concrete collective action for the same in United Nations Climate Change Conference, Cancun, Mexico on December 11, 2010.
10. [https://economictimes.indiatimes.com/mf/mf-news/inflows-in-sustainable-funds-surge-76-to-rs-3686-cr-in-fy21/articleshow/82209562.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economictimes.indiatimes.com/mf/mf-news/inflows-in-sustainable-funds-surge-76-to-rs-3686-cr-in-fy21/articleshow/82209562.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

## Other References:

1. Dubey, R., Bag, S., Ali, S.S. and Venkatesh, V.G. (2013) 'Green purchasing is key to superior performance: an empirical study', International Journal of Procurement Management, Vol. 6, No. 2, 187–210.
2. Heinkel R., Kraus A., Zechner J.(2001), "The Effect of Green Investment on Corporate Behaviour", Journal of Financial and Quantitative Analysis, Vol.36, No.4, 431- 449.
3. Kölbel J.F., Heeb F., Paetzold F. and Busch T.(2020), "Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact", Organization & Environment, Vol. 33(4) 554–574.
4. LEE Jung Wan (2020), "Green Finance and Sustainable Development Goals: The Case of China", Journal of Asian Finance, Economics and Business, Vol 7, No 7, 577 – 586.
5. Munoz F., Vargas M. and Marco I. (2014), "Environmental Mutual Funds: Financial Performance and Managerial Abilities", Journal of Business Ethics, Vol. 124, 551-569.
6. Sachs, J. D., W. T. Woo, N. Yoshino, and F.Taghizadeh-Hesary (2019), "Why Is Green Finance Important?" Asian 5. 6. Development Bank Institute, Working Paper, 917. Available: <https://www.adb.org/publications/why-green-finance-important>

7. Schlegelmilch. B.B, Bohlen .G.M & Diamantopoulos .A, (2010), the link between green purchasing decisions and measures of environmental consciousness, European journal of marketing, pp. 33-55.
8. SekharG.V.S(2011), “Green Funds & Green investing : A New Route to Green India”, SSRN Electronic Journal , June ,<https://dx.doi.org/10.2139/ssrn.1872370>
9. Soundarrajan P., Vivek N. (2016): Green finance for sustainable green economic growth in India. Agric. Econ. – Czech, 62: 35-44.
10. [https://economictimes.indiatimes.com/mf/mf-news/inflows-in-sustainable-funds-surge-76-to-rs-3686-cr-in-fy21/articleshow/82209562.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economictimes.indiatimes.com/mf/mf-news/inflows-in-sustainable-funds-surge-76-to-rs-3686-cr-in-fy21/articleshow/82209562.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)
11. [https://www.sebi.gov.in/sebi\\_data/meetingfiles/1453349548574-a.pdf](https://www.sebi.gov.in/sebi_data/meetingfiles/1453349548574-a.pdf)
12. <https://www.rbi.org.in/scripts/NotificationUser.aspx?Mode=O&Id=3987>
13. “National action plan on climate change”,<http://pmindia.nic.in/Pg01-52.pdf>
14. <http://www.indiaenvironmentportal.org.in/files/fin-rpt-incca.pdf>
15. Notification on “From Carbon Subsidy to Carbon Tax: India’s Green Actions” by Press Information Bureau, Government of India, Ministry of Finance, released on 27 February, 2015  
<https://pib.gov.in/newsite/PrintRelease.aspx?relid=116058>
16. [https://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities\\_34988.html](https://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_34988.html)
17. RBI Bulletin January 2021  
[https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR\\_2101202185D9B6905ADD465CB7DD280B88266F77.PDF](https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR_2101202185D9B6905ADD465CB7DD280B88266F77.PDF)



# THE WILL TO SURVIVE: A FEMINIST READING OF BAPSI SIDHWA'S THE PAKISTANI BRIDE

**Dr. Longchanaro Longkumer**

Assistant Professor

Department of English

ICFAI University Nagaland

---

## Abstract

This paper is an attempt to understand the sacrifices meted out of women to save the honour of men through the character of Zaitoon, the main protagonist in Bapsi Sidhwa's 'The Pakistani Bride'. It also attempts for a discourse on the need for feminism to look into survival of women as an area which somehow seems to be neglected in the present wave of feminism.

**Key words:** Bapsi Sidhwa, Feminism, Survival

---

The word 'feminism' seems to make many people uncomfortable these days, there are many who believe that feminism is not needed anymore. But, can we really do away with feminism? That is a question we need to ponder upon.

Gender discrimination, a form of gender oppression is, attitudes, conditions or behaviour that promote stereotyping of social roles based on gender. Women have struggled for equality and against oppression for centuries, and although some battles have been partly won such as the right to vote and equal access to education, women still remain disproportionately affected by all forms of violence and inequality. In Saudi Arabia for instance, women were allowed to vote the first time and run for office only in 2015; many countries in the world that do not have laws against marital rape and still allow child bride, practices such as 'honour' killings and female genital mutilation still exist. Thus, one may not agree with all the aspects of feminism and its ideologies but doing away with it completely would be unwise and perhaps unfair.

Literature as we know, not only reflects but also questions the prevalent ideas, conditions and situations of the society. One of the most important mediums through which feminists have found their voices are in the writing of feminist writers. Writers such as Kate Millet, Simone de Beauvoir, Sandra Gilbert to

mention a few have questioned the oppressed position of women, and the need to bring about a change in the power equation. These writers attempt to study the limited role allotted to female that tends to arrest her at the level of biological experience.

Over time, we have also witnessed the emergence of many feminist novelists in the subcontinent. Bapsi Sidhwa is one such writer. Once in an interview Sidhwa was asked about male dominance and she remarked, "the will to subjugate lies so hard at the core of man's nature that neither education nor civilizing influence has far tempered it" (31).

In *The Pakistani Bride*, originally published in 1983, the main theme appears to be the oppression and exploitation of women in the society by men. In the first section of the novel, we are introduced to Qasim, a ten-year-old boy, who is to be given a gun by his father and is ordered to marry the daughter of a fellow tribal who failed to repay a debt. Later on, we see that Qasim has lost his wife and children to smallpox. He moves to Lahore and as the second section of the novel begins, he rescues a little girl and names her Zaitoon. Zaitoon becomes the focus of the narrative, her carefree life comes to an end when Qasim, keeping a promise, marries her off to the son of his cousin in the mountains. When he is about to leave her, she begs him to take her along with him, but Qasim says:

I've given my word.... on it, depends my honour. It is dearer to me than life. If you besmirch it, I will kill you with my bare hands...You make me break my word, girl, and cover my name with dun. Do you understand that? (120)

For him, his code of honour matters more than the relationship he shares with his adopted daughter. His promise to another man which would determine his position in the masculine world is dear to him an ideology he is not ready to compromise.

Another very important male character in the novel is Zaitoon's husband, Sakhi. He starts torturing his wife on the very next day after their marriage. Again, just two months after their marriage he brutally beats his wife, Zaitoon, for going upto the river against his command. For him, it is necessary to uphold the masculine code of honour of the tribal society in Kohistan, which rests upon sexual superiority and possessiveness, something which Sakhi must uphold if he is to be considered as respectable man in his society. Yunis Khan, his brother taunts him for not being manly enough in dominating his wife. He says, "how is your wife from the plains? You know, she requires a man to control her" (170)

One day, in his anger, Sakhi batters his ox and when his mother tries to rescue the animal, he beats her with a stick saying, "I'll teach you meddling woman. You think you can make a fool of me? (172). When Zaitoon tries to stop her, he beats her too, "You are my woman, I'll teach you to obey me" (173). The words he utters is an indication of the deeply rooted system of thought which believes that a man should be judged by how well he dominates over women. We can sense Sakhi's urge to have ownership over the body of Zaitoon on wedding night itself when he says to his bride, "It's my cunt!" (102), in fact, his sense of ownership is so deep that even a small gesture by Zaitoon to others is interpreted as sexual by him. When he saw his wife waving at the army truck across the river he flares up, "you dirty, black little bitch, waving at those pigs-you

wanted him to stop and fuck you, didn't you? (185)

After much struggle and subjugation, Zaitoon decides to run always from her abusive husband. Saki and his kinsmen chase her to hunt and kill her because there is no place in their society for women who tries to escape from her husband. Zaitoon escapes. But it is worth noting that after his return to the village, Sakhi lies to his tribesmen and tells them that he had buried his wife with his own hands, which is again a matter of honour for him.

Although for many, Zaitoon may appear to be too fragile and delicate physically yet given the society and the atmosphere in which she 'lived' Zaitoon, in her own individual way, fought and survived her battle. Her triumph is the triumph of spirit over body. It is true that feminism have come a long way in achieving its goals and as we experience new and bolder waves of feminism and feminist ideologies, we should not overlook at the courage of women like Zaitoon, fighting for survival, because survival requires the nerve to stand against all odds, and her act of running away from the bondages should not be misinterpreted as a cowardly act.

In his article, "Women, Identity and Dislocation in *The Bride*" Furrukh Khan rightly points out that: "*The Bride* not only offers the struggle and courage of woman but commentary view of the practices of the patriarchal society of Pakistan. Zaitoon's eventual freedom from her pursuers indicates Sidhwa's critical (if also affirmative) attitude towards women." (150)Bapsi Sidhwa, through her writing celebrates the determination, the will to fight exploitation and oppression.

### Work Cited

1. Sidhwa, Bapsi. *The Pakistani Bride*, New Delhi: Penguin, 1990.
2. Kanaganayakam, Chelva. "Interview with Bapsi Sidhwa." *The Toronto South-Asian Review*, 1992.
3. Khan, Furrukh. "Women, Identity and Dislocation in *The Bride*," *The Novels of Bapsi Sidhwa*, eds. R.K. Dhawan & Novy Kapadia, New Delhi: Prestige Books, 1996.

# UNSUNG FREEDOM FIGHTERS OF BIHAR

**Ritu Singh**

Former Research Scholar, Bhagalpur University, Bihar  
New Gurgaon, Haryana-122004

---

## Abstract

The fight against colonial rule in India constitutes a unique narrative, one which is not marred by violence. Rather a narrative that is full of variegated stories of valor, bravery, Satyagraha, dedication, and sacrifice across the length and breadth of the subcontinent. These stories compose the rich Indian cultural heritage and traditions. Thus, the unsung heroes need not necessarily define the lesser-known freedom fighters. They may, at times, be the leaders whose ideals delineate the Indian value system.

In this research paper an attempt has been made to search, identify and recall our unsung heroes of our freedom struggle. Many of whom might be renowned then yet unknown to the new generation. This research article is focused on unsung heroes of Bihar.

The aim of recreating and bringing forth stories of these unsung freedom fighters of Bihar which lay as faded memories of the past, shall serve as a medium of inspiration and encouragement for the coming generations, and also registering the contribution of villagers and common people of Bihar in freedom struggle. Their ethos and principles ought to be recalled and respected. The research article is mainly secondary data based. Old intervovles of freedom fighters and their family members have also been used in the process of meeting the objectives of the research paper.

**Keywords:** British Raj, unsungfreedom fighters of Bihar, Tarapur in Munger Madan Gopal Singh, Tara Devi, Phulena Babu, Ganga Ram Dhanuk, Bhola Paswan, and Jaglal Choudhary, Basawan Singh, Pir Ali, Ahmadullah, Umakant Prasad Sinha (Raman Ji), Ramanand Singh, Satish Chandra Jha, Jagatpati Kumar, Devipada Choudhry, Rajendra Singh, Ramgovind Singh

---

The land of Bihar is the birthplace of the oldest civilizations of the world. Chirand of saran district of Bihar is the first known site of the Neolithic period. Excavations here have revealed that this place was inhabited in the Neolithic period and the Copper Age. (Sinha, 1994). Glorious history of ancient India is incomplete without mentioning Bihar.

The role of Bihar is important even in modern India. Mahatma Gandhi's entry in the freedom struggle of India took place through Champaran, Bihar. Bihar has a long list of freedom fighters, from Babu Kuwar Singh to Rajendra Prasad. Apart from these great personalities, there were thousands of such unknown people who, taking inspiration from these great freedom fighters, collided with the powerful British power and were killed. I

n this research paper, the same unknown martyrs and freedom fighters of Bihar have

been searched and discussed. Recreating and bringing forth stories of these unsung freedom fighters of Bihar which lay as faded memories of the past, shall serve as a medium of inspiration and encouragement for the coming generations, and also the contribution of villagers and common people of Bihar in freedom struggle of Bihar. Their ethos and principles ought to be recalled and respected.

## Literature review

Many historians and authors of India worked on these anonymous freedom fighters of Bihar and tried to record their names in the pages of history. Kanak Singh (1991)<sup>1</sup> in his book 'History of freedom movement in Bihar: A case study of Patna City' described the unnamed freedom fighters of Patna. But his work was limited to Patna city only. Apart from him, K.K Dutt published the freedom movement of Bihar in three volumes through

his book 'History of freedom movement of Bihar'.<sup>2</sup> This book was published by Bihar Hindi Granth Academy in three volumes. In this book mainly the great freedom fighters have mentioned and their movements have been described in detail. Through the Bihar Hindi Granth Academy, Jialal Arya (1918),<sup>3</sup> in his book National Movement and Bihar' tried to bring the contribution of Bihar to the world through. This book was also published by Bihar Hindi Granth Academy. Apart from this, the famous historian of Bihar, Imtiaz Ahmed also worked to bring forth the contribution of Bihar's freedom struggle with his book 'Bihar Ek Parichay'.<sup>4</sup>

'Revolutionaries of Bihar in Andaman and Nicobar (2011)'<sup>5</sup> is a book of importance. This book was written by Kanhiya Prasad Sinha in 2011. Sinha's work is significant in that the author has worked on the rebellion of the Bihari freedom fighters in Andaman and Nicobar, where the revolutionaries were imprisoned. He describes the brave activities of Yogendra Shukla (1896 – 19 November 1960). Shukla was an Indian nationalist, freedom fighter from Bihar. He served in the Cellular Jail (Kalapani), and he was among the founders of Hindustan Socialist Republican Association (HSRA). Along with Basawon Singh (Sinha) he was among the founder members of Congress Socialist Party from Bihar.<sup>6</sup>

About 17 years back, the Kashi Prasad Jaiswal Research Institute, Bihar (KPJRI),<sup>7</sup> aided by the Government of Bihar, compiled a list of 6,000 unsung heroes of the freedom struggle from the districts of undivided Bihar.<sup>8</sup> According to KPJRI (Kashi Prasad Jaiswal Research Institute), a study conducted in the early 2000s revealed that 1,054 freedom fighters were from the erstwhile Darbhanga district. After this there were 870 freedom fighters in Shahabad district.<sup>9</sup> In fact, in various rural areas of Bihar, many villagers were imprisoned and martyred while fighting non-violent battles with the British. We have very little information about these anonymous martyrs of the freedom movement. For

example, in the year 2022, the Chief Minister of Bihar inaugurated a martyr memorial at Tarapur in Munger district. The memorial has real and imaginary statues of 34 martyrs. There are 13 known and 21 unknown martyrs. We do not know from which family those unsung 21 martyrs belonged.<sup>10</sup>

Madan Gopal Singh of Jamua village of Munger district had formed a squad of freedom fighters in his area. This squad along with others stormed the nearest police station to hoist the tricolor. The police responded by opening indiscriminate fire on the crowd. After about 75 rounds were fired, 34 bodies were found at the spot, even though there were claims of an even larger number of deaths. But only 13 of the dead could be identified: Vishwanath Singh (Chhatrahar), Mahipal Singh (Ramchua), Sheetal Chamar (Asarganj), Sukul Sonar (Tarapur), Santa Pasi (Tarapur), Jhonti Jha (Satkhariya), Singheshwar Rajhans (Bihma), Badri Mandal (Dhanpura), Basant Dhanuk (Laudhia), Rameshwar Mandal (Padbhada), Gaibi Singh (Maheshpur), Asharfi Mandal (Kastikri), and Chandi Mahto (Chorgaon). The remaining 21 remain unidentified.<sup>11</sup> Prime Minister Narendra Modi had referred to the Tarapur massacre in his Mann ki Baat radio address of January 2021.<sup>12</sup>

In front of the Secretariat of Bihar is a huge memorial of the young martyrs of the Quit India Movement of 1942. The truth is that leave the country, most of the people residing in Patna do not even know the names of these young sacrifices. These seven young men sacrificed their lives in the Quit India movement (August 1942), to hoist the national flag on the (now) Secretariat building in Patna, Bihar. In 1942 Dr. Srikrishna Sinha and Dr. Anugrah Narain were arrested while they were trying to unfurl the national flag in Patna, as a strong reaction, a group of seven young students decided to forcefully unfurl the national flag in Patna and were mercilessly shot dead by the British. Following are the martyrs, whose names are engraved on Martyr's Memorial.

**Table 1: Young Martyrs of Patna (August Kranti 1942)**Source: *Martyr's Memorial*". National Information Center. Patna

(https://web.archive.org/web/20080512081627/http://patna.bih.nic.in/html/martyrs.htm)

Name of the martyr	School	Class	Locality
Umakant Prasad Sinha (Raman Ji)	Ram Mohan Roy Seminary	Class 9	Narendrapur, Saran
Ramanand Singh	Ram Mohan Roy Seminary	Class 9	Sahadat Nagar, Fazalchak(at present Dhanarua), Patna
Satish Chandra Jha	Patna Collegiate School	Class 10	Kharhara, Banka
Jagatpati Kumar	Bihar National College	2nd year	Kharati, Aurangabad
Devipada Choudhry	Miller High English School	Class 9	Silhat, Jamalpur
Rajendra Singh	Patna High English School	Class 10	Banwari Chak, Nayagaon, Bihar Saran
Ramgovind Singh	Punpun High English School	Class 9	Dasharatha, Patna

### Phulena Babu and Tara Srivastava

The sacrifices of the martyr Phulena Babu and Tara Devi of Maharajganj in the Indian freedom struggle is unforgettable. At an early age, Tara Devi was married to freedom lover Phulena Babu. On 16 August 1942, a large number of revolutionary youth led by the great freedom fighter Phulena Babu and his wife Tara Devi were continuously marching forward to hoist the tricolor at the Maharajganj police station. At that time Rahmat Ali was the Inspector of Maharajganj police station. To stop the crowd coming towards the police station, Rahmat Ali and the soldiers posted in the police station pointed guns at the crowd. Seeing the police in action, the steps of the revolutionaries stopped. There was chaos. Inspector Rehmat Ali ordered Phulena Babu to return after targeting him. By the way, Phulena Babu was not one to be afraid of guns. As soon as Phulena Babu moved forward, the police started firing. Phulena Babu got 9 bullets. They fell there. After Phulena Babu was shot, the public became uncontrollable. The police were firing on the crowd and bricks and stones were being thrown from here. Then it was decided to burn down the police station. Tara Devi did not budge after Phulena Babu was shot and killed by the British police. Rather, She went ahead with her companions and hoisted the flag at the Maharajganj police station. Her struggle continued till India got independence in 1947.

### Dalit freedom fighter Ganga Ram Dhanuk

Dalit groups whose population is around 15 percent in this country. Along with Mahatma Gandhi, Nehru, Rajendra Prasad, Dalits were fighting shoulder to shoulder in different provinces of India. These included Ganga Ram Dhanuk, Bhola Paswan, and Jaglal Choudhary. Babu Jagjivan Ram, who emerged from Bihar, is considered to be the political disciple of Gangaram Dhanuk.<sup>13</sup>

These revolutionaries of the Dalit group fought with the British for the country, as well as many of them also led the fight for Dalit emancipation in the society. Babu Gangaram Dhanuk took out anti-British processions, raised slogans, and went to jail, fought fiercely against the tyranny of the British government. He was influenced by Gandhi's Harijan Utthan movement in 1923 and resolved to bring Dalit upliftment and awakening. These Dalit leaders of the 1942 movement could be found in villages and towns of Bihar, there is a need to research and bring them to the fore. They not only fought for the liberation of the country from the British but also fought for emancipation and upliftment of Dalits. (Badri Narayan, Director, G. B. Pant Institute of Social Sciences, 18 August 2017)

### Basawan Sinha

Basawan Sinha, also known as Basawan Singh<sup>14</sup>, was born in 23rd March, 1909 at Jamalpur, near Vaishali. He was an activist in

the Indian independence movement and a campaigner for the rights of the underprivileged, industrial laborers and agricultural workers. He spent around 18 years in prison in British India. He absconded after the Lahore conspiracy case. He was co-accused in the Bhusawal, Kakori, Tirhut and Deluaha conspiracy cases.

During the Second World War he was the first man in Bihar to be arrested on 26 January 1940 in Husainabad, Palamu and released after eighteen months. During the Quit India Movement, after the interception of Jayaprakash Narayan's Deoli letter addressed to him, he went underground in 1941 and went to Afghanistan to collect firearms and ammunition. He attended the Bombay AICC session (9 August 1942) and conducted the movement from the underground. He was held in Delhi and later freed, after which he continued his nationalist and trade union work. The Government of India issued a commemorative stamp in his name on 23 March 2000. There is an indoor stadium named Basawan Singh Indoor Stadium in the city of Hajipur in Bihar.

### **Peer Ali**

Peer Ali Khan was a composed freedom fighter who worked clandestinely. He is said to have been born in about 1812. His nature of work was secretive; hence there is no common ground as to his birthplace. According to the report of William Taylor, an official of the East India Company who held charge as the Commissioner of Patna Division from 1855 to 1857, "Peer Ali was a native of Lucknow, but had resided for many years at Patna; he was by trade, a Book-seller, and I strongly suspect that he may have originally established himself here, for the express purpose of carrying on the intrigues which issued in this abortive outbreak".<sup>15</sup>

Peer Ali was a bookseller, who played a leading role in the organization of the Great Revolt of 1857 in the Patna district in July 1857. He was captured by the British after the defeat of the rebel forces. Khan was given capital punishment for participating in the freedom struggle of 1857, along with other rebels. A road adjacent to the Patna Airport is named after him. Also, Shaheed Peer Ali Khan

Park, a children's park in front of the District Magistrate's residence near the Gandhi Maidan in Patna, was named after him by the State Government of Bihar.

Pir Ali Khan was hanged at this place in 1857. On July 7, 1857, in the presence of the then commissioner of Patna, William Tyler, 30 rebels, including Pir Ali Khan, were briefly tried and 14 of them were executed. Apart from Khan, Ghasita Khalifa, Ghulam Abbas, Nandu Lal alias Sepoy, Jumman, Maduwa, Kazil Khan, Ramzani, Pir Baksh, Pir Ali, Wahid Ali, Ghulam Ali, Mahmud Akbar and Asrar Ali Khan were hanged. Hardly anyone has heard these names. 13 others were sentenced to rigorous imprisonment in that trial. Their names were Habibullah, Fayaz Ali, Mirza Agha Mughal, Rajab Ali, Asghar Ali Baig, Din Mahmud, Shiv Dayal, Bhanju, Jagdhar Singh, Sadat Ali, Bandhu, Munnu and Bihari. Nathu Bran was ordered to be flogged and Pir Baksh Dafali and Sheikh Fakir were sentenced to life imprisonment. The second trial took place on July 13, 1857 when Ghasita Doman, Kallu Khan and Prophet Baksh were hanged and Ashraf Ali was sentenced to 14 years in prison. In the third trial on August 8, 1857, two more men, Ausaf Hussain and Chhedi Gwala, were hanged and Sheikh Nabi Baksh, Rahmat Ali and Dilawar were sentenced to life imprisonment, while Khwaja Amir Jan was imprisoned for 14 years<sup>16</sup>. Ahmadullah (1808–1881) was a man who belonged to the family of ulema (cleric) of Sadiqpur, Patna. He was arrested by Tyler on charges of plotting to wage war against the Empire and was taken to the Andaman Islands and his properties confiscated. Historian Qayamuddin Ahmed wrote that Ahmadullah and others who were convicted or declared rebels had all their properties confiscated and their residential houses demolished. The seized properties were sold at throwaway prices and a part of the total sale proceeds of Rs 1,21,948 was spent on the construction of the municipal market and expansion of the Patna College building.

### **Conclusion**

The land of Bihar is the testing ground of the world's first democracy. The ability to fight against government repression and slavery is innate in every Bihari, he was sentenced to

death in Bhagalpur, Bihar. Bihari is poor but does not do slavery for bread. When the power becomes intoxicated, the people of Bihar come out on the streets. The first hero of the mass movement against the British was Tilka Majhi. He came from the tribal community. Tilka Majhi was the first martyr of India's independence movement, but was not the last. The people of Bihar gave competition to the British in both non-violent and violent ways. Some accepted to walk with Gandhi and some people followed the path of Bhagat Singh. But, their goal was one - India's independence! In the freedom struggle Dalits, backward classes and upper castes and Muslims all stood together. During the August Kranti of 1942, five boys were students of ninth and tenth standard out of seven boys who died in Patna by police bullets. In this movement, the women from ordinary and poor families of Bihar showed amazing valor and sacrifice. Even after the death of Phulena Babu of Saran district at the time of protests, his wife Tara Devi continued to carry the tricolor. 34 people who were killed by police bullets in Tarapur were all from different castes and communities. Baswan Singh of Munger was walking on the path of Bhagat Singh. Basavan Singh and his associates spent a long time in Andaman Jail. All these were common people of Bihar, who sacrificed their lives just for the sake of freedom. Bihar was a state where Dalits, trials, women and teenagers had amazing participation in freedom movement. These were all ordinary people who got a special death. It is said that the number of freedom fighters in Bihar was more than 6000, but still we do not have the names of most of them available. These were our anonymous ancestors, who dreamed of independent India with open eyes and closed their eyes before turning those dreams into reality. We don't know, will we ever know about all these unsung heroes.

## References:

1. Singh Kanak(1991), 'History of freedom of Bihar: a case study of Patna City', Janki Prakasan ISBN 8185078599,
2. Dutt K.K(1992), History of freedom movement of Bihar, Bihar Hindi

- Granth Akadami, Isbn 978938321611, 9789383021628
3. Arya Jiya Lal(2018), Independence Movement and Bihar, Bihar Hindi Granth Akadami, Isbn- 9789385792465
4. Imtiaz Ahme(2018), Bihar ek parichay, Prayag Acadmic Publication, ASIN B07Y7CJWB5
5. Sinha Kanhiya Prasad(2011), Revolutionaries of Bihar in Andman Nikobar
6. Manmath Nath Gupta, *History of the Indian Revolutionary Movement*, (first published in 1939), Somaiya Publications, 1972
7. <https://kpjri.res.in/>
8. <https://theprint.in/india/exercise-to-enlist-names-of-freedom-fighters-from-bihar-set-to-get-underway/787455/>
9. <https://theprint.in/india/exercise-to-enlist-names-of-freedom-fighters-from-bihar-set-to-get-underway/787455/>
10. <https://timesofindia.indiatimes.com/city/patna/bihar-cm-inaugurates-statues-of-tarapur-martyrs-90-years-after-they-laid-their-life/articleshow/89599669.cms>
11. <https://indianexpress.com/article/explained/sacrifice-34-freedom-fighters-tarapur-bihar-shahid-diwas-7777147/>
12. <https://indianexpress.com/article/explained/sacrifice-34-freedom-fighters-tarapur-bihar-shahid-diwas-7777147/>
13. Narayan Badri, Do you know Ganaga Ram Dhanuk, <https://www.bbc.com/hindi/india-40961799>
14. <https://jagatprahari.com/news-bihar-basavan-babu-was-the-hero-of-the-freedom-movement/>
15. Fhmad, Faizan (15 August 2010). <https://timesofindia.indiatimes.com/city/patna/The-unsung-freedom-fighters/articleshow/6312588.cms>.
16. William Tayler (9 September 2007). The July 1857 Rebellion At Patna. Peoples Democracy. Archived from the original on 30 March 2015. Retrieved 3 February 2022.



# **FOUNDER OF MODERN JAMMU AND KASHMIR: MAHARAJA GULAB SINGH**

## **(Analysis of Military, Administrative, Strategic and Political Capabilities)**

**Dr. Malkit Singh**

Co-Professor/Director, Center for Kashmir Studies,  
Himachal Pradesh Central University, Dharamsala

---

### **Abstract**

Jammu and Kashmir, in the Nilamat Purana, that the gods had expressed their desire to reside here, describing it as more beautiful than heaven, and which today is continuously facing the brunt of terrorism and instability for decades. The role of Maharaja Gulab as the founder of the modern form of Jammu and Kashmir is of paramount importance. Maharaja Gulab Singh had saved Jammu and Kashmir from going into the hands of the British with his political wisdom and established it as an independent state. Many such misconceptions have been spread about the political decisions of Maharaja Gulab Singh, which have no basis. The present study is an attempt to present the true essence of Maharaja Gulab Singh's personality by analyzing the military, administrative, strategic and political capabilities of Maharaja Gulab Singh objectively relative to the then circumstances.

---

Jannayak Maharaja Gulab Singh was a courageous general of golden Indian history, an important era man, an unforgettable personality, a wonderful strategist, an efficient administrator and a king with true loyalty to the nation. Gulab Singh's life journey from general to become Jannayak Maharaja attains perfection by passing through various ups and downs. Recognizing the characteristics of Gulab Singh's personality, Maharaja Ranjit Singh constantly encouraged him and was given various responsibilities. Gulab Singh also always successfully discharged each responsibility with full devotion. As a result, Maharaja Ranjit Singh's faith in Gulab Singh increased. Maharaja Ranjit Singh himself crowned Gulab Singh on the banks of the river Chandrabhaga (Chenab) on June 17, 1822, and conferred the title of Raja and appointed him as the king of the Jammu and Kashmir region. A legend is also prevalent about this coronation of Raja Gulab Singh that Maharaja Ranjit Singh had done the coronation on his head from top to bottom i.e. in the opposite direction, whereas generally Tilak is always done from bottom to top. According to folklore, Maharaja Ranjit Singh had seen that great ruler in the personality of Raja Gulab Singh, who came down from the huge mountains of Jammu and Kashmir and continued to spread in India at that time. He

had the ability to stop the British Empire. After the death of Maharaja Ranjit Singh, Maharaja Gulab Singh proved his assessment to be true, when he not only saved the Lahore Durbar from going under British control, but also saved Jammu and Kashmir from becoming a part of the British Empire. The coronation done by Maharaja Ranjit Singh in the opposite direction of Raja Gulab Singh was an inspiration to end the British Empire by symbolically organizing the Indian public against the British.

The appointment of Gulab Singh on the throne of Jammu and Kashmir by Maharaja Ranjit Singh was not only a friendship of two nationalists, or merely a reward for Gulab Singh to expand Maharaja Ranjit Singh's empire, but also for its far-future, ambitious move targeting many political, diplomatic and military strategic objectives. From the analysis of historical information about Maharaja Ranjit Singh, it becomes clear that he was a popular epoch-maker as well as a great ruler with very far-sightedness, who understood the qualifications of his generals, council of ministers, state advisors and friends. Maharaja Ranjit Singh was a true patriot and a skilled politician. Maharaja Ranjit Singh had made a peace treaty with the British in the year 1809, according to which both the sides had a peace

agreement across the river Sutlej. Due to this treaty, not only the situation of conflict between the Sikh Empire and the British was averted, but the fame of Maharaja Ranjit Singh increased in this area. Maharaja Ranjit Singh always gave importance to the merit of a person above relationships, friendship or false admirers. He was well aware that a capable general and an efficient administrative person can play an important role in maintaining the integrity and integrity of his state. Due to these characteristics, Maharaja Ranjit Singh formed a united and powerful Punjab state by merging small princely states into his state and also included Jammu and Kashmir and other provinces of the Sapta Sindhu region in his state.

Maharaja Ranjit Singh took the services of many foreign people for the prosperity, development and expansion of his state, but never gave these foreign people an important place in his jury. Foreign doctors, military equipment and training experts, modern military instructors from countries like English, French, German etc. were present in his court, but it was Maharaja Ranjit Singh's policy of distrust on those foreigners that he ever gave importance to these foreigners.

Maharaja Ranjit Singh was a great ruler and he was well acquainted with the history of his ancestors and also the history of the surrounding royal families. Maharaja Ranjit Singh's grandfather Mahan Singh was related to Brijlal Dev, son of Maharaja Ranjit Dev. Maharaja Ranjit Dev was from the Jamwal royal family of Jammu and Raja Gulab Singh was his descendant. Maharaja Ranjit Dev ruled Jammu for about 6 decades from 1728 AD to 1780 AD. The military, political, diplomatic and administrative training of Raja Gulab Singh took place under the patronage of his grandfather General Zorawar Singh (he is called the Napoleon of India) and his elder brother Wazir Mota Singh (Vizier of the princely state of Jammu, Maharaja Ranjit Dev).

Many misconceptions have been spread about Raja Gulab Singh joining the army of Maharaja Ranjit Singh, mainly because of the jealousy and political motives of British historians and British officials towards Raja Gulab Singh. For this reason, he has described Raja Gulab Singh as a foot soldier to join the

army, which is a completely different fact from reality. While handing over the jagirs of Jammu to Raja Gulab

Singh by Maharaja Ranjit Singh, it has been described that Gulab Singh's ancestors Maharaja Ranjit Dev and Brijlal were the rulers of Jammu. Thus the fact becomes clear that Maharaja Ranjit Singh had no doubt about the historical background of Raja Gulab Singh. He had appointed Gulab Singh as the leader of a contingent in his army at a salary of Rs.275 Nanakshahi. Gulab Singh's brother Dhyan Singh was also appointed by Maharaja Ranjit Singh in his court in the Justice Department at a monthly salary of Rs 60 Nanakshahi. Gulab Singh joined the army of Maharaja Ranjit Singh in 1809 AD as the leader of a military force and as a result of his military prowess and strategic prowess, continuously winning in various campaigns, the expansion and stability of the Sikh Empire helped Maharaja Ranjit Singh. Due to which he became more important for Maharaja Ranjit Singh. Raja Gulab Singh, with his bold campaigns and strategic skills, expanded the empire of Maharaja Ranjit Singh (Lahore Kingdom) to the inaccessible areas of Lhasa, Pashmina, Ladakh, Tibet, Silk Route and Gilgit-Baltistan. Raja Gulab Singh always not only discharged his responsibilities with full devotion, but also proved his official and strategic capabilities in every situation.

Raja Gulab Singh not only expanded the Sikh Empire to the inaccessible areas, but with his bold leadership and strategic acumen, he also successfully suppressed the revolts against the Sikh Empire. Among the many revolts suppressed by Raja Gulab Singh, the Dido Rebellion and the Afghan Rebellion are prominent. In the year 1821, Gulab Singh captured Dido Jamwal, the leader of the Dido rebellion and killed him and suppressed the Dido rebellion. Raja Gulab Singh also played a leading role in suppressing the Afghan rebels in the Battle of Shaidu by Hari Singh Nalwa, the Commander-in-Chief of the Sikh army in the year 1827. After the death of the great hero of the Sikh army Hari Singh Nalwa in the year 1837, when Muslim rebels started revolting in most parts of Jammu and Kashmir, at that time Raja Gulab Singh was entrusted with the responsibility of suppressing these revolts. Raja Gulab Singh suppressed every rebellion

against the Sikh Empire in Poonch, Muri, Hazara, Dhund, Sati, Tanoli, Karral and Sudhan regions with great aggression and understanding. Raja Gulab Singh played a very important role in making the Sikh Empire more powerful, by organizing Jammu and Kashmir divided into 22 small princely states, proving the vision of Maharaja Ranjit Singh in his context. It was the true loyalty of Raja Gulab Singh to the Sikh Empire and Maharaja Ranjit Singh that he successfully discharged all the responsibilities assigned by the Sikh court with full devotion. After making Ladakh and Baltistan a part of the Sikh Empire from the year 1834 to 1840, sent an army to expand the empire of Maharaja Ranjit Singh to Tibet in the year 1842, and finally got authority over Tibet. These characteristics made him stand at the forefront of the line of confidants of Maharaja Ranjit Singh. The only evidence of Maharaja Ranjit Singh's growing faith in Gulab Singh was that from the year 1831 to 1839, Raja Gulab Singh was handed over to the North by Maharaja Ranjit Singh. Apart from the jagirs of Punjab, jagirs of many other cities of Punjab like Jhelum, Bhera, Rohtas were also handed over. Raja Gulab Singh always kept true allegiance to Maharaja Ranjit Singh and the Lahore court. Even at that time, after the death of Maharaja Ranjit Singh, there was a situation of power struggle in the Lahore court and in this power struggle between the successors of Maharaja Ranjit Singh, even the brothers and nephews of Raja Gulab Singh were killed. Even after that, Raja Gulab Singh worked with full devotion to bring stability in the Lahore court. To postpone the war between the British and the Lahore court, Raja Gulab Singh had mediated under his loyalty to the Lahore court. The written evidence of Raja Gulab Singh's allegiance to the Lahore court comes from two letters written by Sir Henry Lawrence to Raja Gulab Singh on 11 and 13 February 1846 and the reply to these letters given by Raja Gulab Singh. In these letters, Sir Henry Lawrence tempts Raja Gulab Singh to make him an independent king of Jammu and Kashmir as a separate independent state, reminding him of the murders of his brothers and nephews by the Lahore court and the misbehavior he himself had meted out to him. But Raja Gulab Singh, in response to these letters of his, describing it as an internal matter of the Lahore court and clarifying that Maharaja Dilip Singh was a child at the time

of that power struggle and that he had no role in this incident, said Sir Henry Lawrence. The offer was rejected. After this, under the ceasefire treaty between the Lahore court and the British, 75 lakh Nanakshahi including the entire area between the Sutlej and Beas rivers was found to be given to the British as damages. The Lahore court was ready to hand over the entire area between the Sutlej and Beas rivers to the British, but in addition, the then Vazir Lal Singh expressed his inability to pay Rs 75 lakh Nanakshahi in cash to the British. In place of these 75 lakh Nanakshahi rupees, Lal Singh had proposed to hand over the territories of Jammu and Kashmir to the British. This proposal of Wazir Lal Singh had paved the way for Raja Gulab Singh to get the territory of Jammu and Kashmir, which was given to him by Maharaja Ranjit Singh, in the form of Lahore Durbar and an independent state from the British. It is worth mentioning here that the proposal to hand over Jammu and Kashmir to the British in exchange for 75 lakh Nanakshahi rupees was given by the then incapable Wazir Lal Singh. On March 9, 1846, under the Lahore treaty between the British and the Lahore court, Maharaja Dilip Singh, accepting Raja Gulab Singh as the ruler of Jammu and Kashmir independently, also allowed him to make a separate treaty with the British in this regard.

On March 16, seven days after this Lahore treaty of March 9, 1846, as an independent Maharaja, Maharaja Gulab Singh signed the Amritsar Treaty with the British, in which 75 lakh Nanakshahi rupees were fixed under the treaty made by the Lahore court with the British. The amount, which the Lahore court had expressed its inability to pay, was accepted by Maharaja Gulab Singh to give to the British on his behalf. In the light of these facts it becomes completely clear that Maharaja Gulab Singh did not buy Jammu and Kashmir by bargaining with the British, but saved Jammu and Kashmir from going into the hands of the British by the Lahore Durbar in exchange for 75 lakh Nanakshahi Rupees and Under the treaty, he became the independent Maharaja of Jammu and Kashmir, which was given to him by Maharaja Ranjit Singh himself. A fact is also clear from this that the heritage which was handed over by Maharaja Ranjit Singh to Raja Gulab Singh, in this emergency, he had protected that heritage from the British and the incompetent and conspiratorial Lahore court. It is also worth

mentioning here that Maharaja Gulab Singh thought in the direction of independent occupation of Jammu and Kashmir only after the proposal of handing over the entire area of Jammu and Kashmir to the British in lieu of 75 lakh Nanakshahi rupees by the then Vazir Lal Singh of Lahore court. did. Maharaja Gulab Singh never let the thought of selfishly or conspiratorially occupying Jammu and Kashmir or betraying the Lahore court ever arise in his conscience. Even after the death of Maharaja Ranjit Singh, in the event of a power struggle among his successors and the killing of his brothers and nephews in this power struggle, Raja Gulab Singh, without being distracted, addressed the Lahore court from this state of instability.

After the death of Maharaja Ranjit Singh, the influence of such people started increasing in the Sikh court who had envy and ill-will towards Raja Gulab Singh and the Jammu family. For this reason, after the death of Maharaja Ranjit Singh, members of the Jammu family were murdered in the struggle for power among his successors. These events did not affect the loyalty of Raja Gulab Singh to the Lahore court and Maharaja Ranjit Singh, but this event gave the message to Raja Gulab Singh that such people have now become dominant in the Lahore court with whom his interests and Life is not safe. Therefore, showing strategic understanding, Raja Gulab Singh completed the ceasefire treaty of Lahore court with the British keeping in mind the interests of the Lahore court even under the circumstances and through the Amritsar treaty, Jammu and Kashmir became an independent state.

The personality of Maharaja Gulab Singh replaces him as a patriotic hero, a loyal administrator, a courageous general, a skilled strategist and ultimately a strong mass leader. He never escaped from the situation of conflict but faced the situation of conflict with more devotion and maturity and got success every time. Some so-called historians have been raising questionable questions on the personality of Maharaja Gulab Singh on the basis of narrow-minded assessment of many points of the Amritsar Treaty, which took place on March 16, 1846, but each point included in the Amritsar Treaty was discussed between the then Lahore Court and the British. After analyzing the situation of the middle conflict, the internal power struggle of Lahore court, and the role of

Raja Gulab Singh in these real difficult situations, the manifestation of the skilled politician and strategist side of the personality of Maharaja Gulab Singh comes to the fore. The ceasefire between the Lahore Durbar and the British in the then circumstances, preventing a huge geographical area like Jammu and Kashmir from falling into the hands of the British, to separate and secure itself from the conspiracy going on in the Lahore court. All these important facts reveal the real great personality and skilled strategist side of Maharaja Gulab Singh. Maharaja Gulab Singh did not give up his lifelong patriotism, honesty and conscientiousness. He had great loyalty to Maharaja Ranjit Singh and was always honest to the Lahore court. Even during the state of internal power struggle in the Lahore court, Raja Gulab Singh made sincere efforts to bring stability to the legacy of Maharaja Ranjit Singh. Even in the decadent situation of Lahore court against the British, Raja Gulab Singh, showing his strategic skill, not only pulled the Lahore court out of crisis, but also saved a vast and important area like Jammu and Kashmir from going into the hands of the British. Maharaja Gulab Singh did every work keeping the national interest first. On various occasions, such proposals came before him in which there were opportunities of great profit for him, but Maharaja Gulab Singh without delay rejected every such proposal which was anti-national. After analyzing the life of Maharaja Gulab Singh, it becomes clear that Maharaja Gulab Singh was a true patriot in the real sense, his every work was rooted in the context of national interest. DJ Cunningham, 2015, History of the Sikhs, Andesite Press, USA.

## References

1. C.G.Smith, 1996, History of the Rising Family of Lahore, Sang A Meal Publication, Lahore
2. Edwards and Merival, 2019, Life of Sir Henry Lawrence, Forgotten Publishers, London
3. Ale. Syed Mohammad, 1997, History of Punjab, Sang A Meal Publication, Lahore
4. Mj Hanningberger, 2013, Thirty Five Years in the East, Book on Demand, Germany



# CAHOOTS: AN IMPACT STUDY OF MERGERS AND ACQUISITIONS IN INDIAN MANUFACTURING SECTOR

**Dr. Divya Khatter**

Assistant Professor

Dyal Singh College (M), University of Delhi, Delhi

**Ms. Priyanka Yadav**

Assistant Professor

Dyal Singh College (M)

University of Delhi, Delhi.

---

## Abstract

At present, mergers and acquisitions are gaining momentum as a part of strategy for corporate restructuring. The major consensus that companies form before entering into merger and acquisitions is the achievement of synergy by stimulating growth, gaining competitive advantage, increasing market share, influencing share price etc. This leads us to believe that mergers should route the combined companies towards being better off after the merger compared to before merger. In case this does not happen, resorting to mergers becomes unjustified. The aim of this study is to investigate and identify the impact of mergers and acquisitions on the financial performance of the companies in the Indian manufacturing sector.

**Design/methodology/approach-** A sample of 47 companies merged in the financial year 2014-2015 is considered for conducting this study. These companies belong to various industries of the manufacturing sector in India. A comparison between the pre-merger and post- merger financial performance of the merged companies using Wilcoxon Signed Rank Test, a Non –Parametric test has been done based on the data collected from secondary sources like CMIE database, BSE and financial statements of the companies. For the purpose of this study, the data for pre-merger period is related to the financial years 2011-2014 (i.e. 3 years) and for post- merger period, data corresponds to the financial years 2015-2018 (i.e. 3 years) respectively.

**Findings-**This study reflects an improvement in the liquidity parameters post-merger for the companies in the manufacturing sector in India. However, there is no improvement statistically for the profitability parameters post-merger. While the post-merger solvency parameters indicates the statistically significant results with reduced post-merger debt-equity ratio.

**Originality/value-** Previous researches found mixed results- statistically significant positive, negative or no improvement at all post Mergers and acquisitions. The present study provides an insight into the pre and post-mergers and acquisitions for the companies in the manufacturing sector in India which will be helpful for the academicians, professionals and future researchers.

**Key words-** Synergy, Mergers and Acquisitions, Financial Performance, Post-Merger performance, Manufacturing

---

## Introduction

***“Synergy is better than my way or your way. It’s our way”. – Stephen Covey***

In the present scenario, mergers, acquisitions and other strategic alliances are on the top agenda of many Industrial groups. Due to dynamics of business pacing up, mergers and acquisitions is considered as an important tool for achieving synergies, and thus, resulting in growth of the corporates. These synergies can be achieved in various ways. First, mergers might be undertaken to achieve synergy to enhance the economic performance of the firms. This may be realized through increased profits, achieving economies of scale, spreading of risk, reduction of cost etc. If the mergers and acquisitions (M&As) results in reduction in cost of capital and helps in procuring more funds, then, we can say that it results in financial synergy. Also, if the production cost reduces, then, M&As results in operational synergy while if it is related to the price, collusive synergy is likely to be achieved. Second, managers may resort to mergers to get personal benefits, as it may lead to their increased remuneration when it is linked with growth or profitability of the firm. Finally, mergers may happen as a strategic move to gain global expansion or acquisition of new resources or improving competitive environment.

## Literature Review

Grant Thornton (2006) in its survey on Indian corporate managers across various industries, stated that M&A has emerged as a prominent form of business strategy for Indian corporate. At the same time, Review of literature exhibits that impact of mergers and acquisitions on profitability and operating performance of the Indian firms is largely mixed, with very few studies showing significant improvement in financial performance post-merger. The following studies revealed that the mergers and acquisitions have failed to contribute positively in the performance of firms in the post-merger phase.

In an impact study carried out using four parameters- performance improvement, economies of scale, operating synergy and financial synergy, Tambi (2005) concluded that mergers have failed to contribute

positively in the performance of the company under consideration. Mantravadi and Reddy (2008) aimed to study the impact of mergers on the operating performance of the acquiring corporates belonging to different industries. An examination of the pre-merger and post-merger financial ratios of the sample firms that merged between 1991 and 2003 revealed that there are minor variations in the operating performance after merger. Kumar (2009) in a study examined post-merger operating performance of acquiring companies using operating data and found that post-merger profitability, asset turnover and solvency of acquiring firm did not show improvement compared to pre-merger values. Saboo et al. (2009) carried out a study and examined the impact of mergers on the operating performance of acquiring firms through financial ratios during the pre and post-merger period. It was also identified that there was difference in the pre-merger and post-merger ratios of the firms that undertook domestic acquisitions and the one that undertook cross-border acquisitions. It was concluded that mergers acquiring domestic firms had a positive effect while there was a slightly negative impact on the firms acquiring cross-border firms. Sinha, Kaushik and Chaudhary (2010) examined the impact of mergers and acquisitions on the financial efficiency of the selected Financial Institutions of India. A ratio analysis approach was used to investigate the changes in efficiency during pre and post-merger period. Using Non-parametric test, the study revealed a significant change in earnings of the shareholders and insignificant change in the liquidity position of the firm. Mishra and Chandra (2010) made an attempt to examine the impact of Mergers and Acquisitions on financial performance of the Indian pharmaceutical companies and concluded that Mergers and Acquisitions do not have any significant impact on profitability of the firms in long run. Vanitha and Salvan (2011) in their study compared the financial performance using liquidity, leverage and profitability parameters of the firms in pre-merger and post-merger periods. It failed to completely accept that merged companies achieve better liquidity, solvency and profitability post-merger. Leepsa and Mishra (2012) attempted to find out the difference in financial performance during pre-merger and post-merger period with reference to selected

manufacturing firms and found no significant improvement in financial performance during post-merger period. Sharma (2013) examined the post-merger performance of the Indian metal Industry companies merged during 2009-10. It showed a marginal but insignificant improvement in liquidity and leverage parameters and a significant decline in Return on Net Worth and Return on Assets in post-merger period. Patel (2018) compared the before and after merger effect on the long-term profitability of the selected Indian banks that merged for a period from 2003-04 to 2013-14. Study concluded that Net Profit ratio, yield on advance and yield on investment had a negative impact of merger. Variables such as the Earnings per share, Profit per employee and Business per Employee showed a positive trend and growth after merger.

### **Statement of Problem**

Despite the benefits that Mergers and acquisitions are intended to bring, literature has largely reported the discouraging results of many mergers and acquisitions. In light of this, the present study is conducted to identify if the financial performance of merger firms improve post-merger. The study uses relevant accounting data to study the impact of Mergers and Acquisitions belonging to manufacturing sector.

### **Hypothesis**

Present study test the following hypothesis-

- H01: No significant difference among the means of liquidity parameters/ ratios of merger firms between pre-merger and post-merger period.
- H02: No significant difference among the means of leverage parameter/ ratio of merger firms between pre-merger and post-merger period.
- H03: No significant difference among the means of profitability parameters/ ratios of merger firms between pre-merger and post-merger period.

### **Research Methodology/Approach**

**Collection of Data-** The present study is mainly based on secondary data. For collecting the data Prowess database of CMIE, RBI website, SEBI, Companies Annual Reports etc were used. This study confined the data collection of the firms listed on Bombay Stock Exchange only.

**Sample Selection-** For the study, all the firms belonging to different industries under manufacturing sector that got merged during 2014-15 i.e. 1<sup>st</sup> April, 2014 to 31<sup>st</sup> March 2015 were selected. During this period, total 77 companies belonging to different industries of Manufacturing sector got merged. All these firms are listed on BSE. Complete data for 47 companies was available and hence, 47 is the sample under consideration for the present study.

**Study Period-** This study aims to examine the financial performance of merged firms 3 years before merger i.e. 1<sup>st</sup> April, 2011 to 31<sup>st</sup> March 2014 and 3 years after merger i.e. 1<sup>st</sup> April, 2015 to 31<sup>st</sup> March, 2018. Period of merger i.e. 1<sup>st</sup> April 2014 to 31<sup>st</sup> March 2015 was not considered for evaluating the financial performance, as it was the period during which merger took place.

**Statistical Tools used**—Paired sample T-test is a parametric test which requires that the dependent variable should approximately follow normal distribution and also should not contain any outliers. The present sample data for study could not satisfy these two important assumptions. Hence, this study uses Wilcoxon Signed Rank Test which is a Non-parametric test equivalent to paired sample t-test. SPSS software is used to run the test.

**Parameters used for Study**—The present study examines the impact of merger on the financial performance of the merged firms using various financial ratios belonging to the following parameters-

Parameters	Ratios	Ratios analyzed in previous studies
Profitability	Return on Net Worth	Leepsa and Mishra(2012) Sharma (2013) Sinha,Kaushik and Chaudhary (2010) Mantravadi and Reddy(2008) Saboo, Sidharth and Gopi, Sunil(2009) Reddy, Nangia and Agrawal(2013)
	Return on Assets	Sharma(2013) Reddy, Nangia and Agrawal(2013)
Liquidity	Current Ratio	Leepsa and Mishra(2012) Sharma(2013) Sinha,Kaushik and Chaudhary (2010) Saboo, Sidharth and Gopi, Sunil(2009) Reddy, Nangia and Agrawal(2013)
	Quick Ratio	Leepsa and Mishra(2012) Sharma(2013) Reddy, Nangia and Agrawal(2013)
	Net Working Capital	Leepsa and Mishra(2012)
Leverage	Total debt equity ratio	Kumar (2009) Leepsa and Mishra(2012) Sharma(2013) Mantravadi and Reddy(2008) Saboo, Sidharth and Gopi, Sunil(2009) Reddy, Nangia and Agrawal(2013)

### Analysis and Empirical Results

For conducting Wilcoxon Signed Rank test, Pre-merger and Post- merger financial ratios data is calculated for all the 47 companies. For calculating this, a simple average of 3years data for each ratio before merger, is calculated and similarly, post –merger financial ratios data is calculated by taking simple average of 3years data for each ratio after merger.

H01: No significant difference among the means of liquidity parameters/ ratios of merger firms between pre-merger and post –merger period.

**I. Liquidity Parameters-** Liquidity is the ability to convert assets into cash quickly and conveniently. Liquidity parameters measure the efficiency of company's current assets to meet company's obligations as and when it becomes due. The companies in manufacturing sector requires

significant working capital investment in inventory, trade debtors etc. Also the length of the operating cycle period for manufacturing companies is long compared to companies from some other sector. This also demands commitment of funds to meet working capital needs.

Present study uses current assets, quick assets and net working capital ratios to examine if there is any significant improvement in the liquidity position post-merger.

**a. Current ratio-**This ratio is calculated by dividing current assets with current liabilities. Anita and Salvan (2011) states that a higher current ratio shows that the manufacturing company is able to pay its debt maturing within a year. The tables below presents the results of the Wilcoxon Signed Rank test for Current Asset Ratio.

**Table Ia: Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Before Merger	47	<b>1.333262</b>	.6170330	.3433	2.8700
After Merger	47	<b>1.546596</b>	.6997807	.2767	3.4033

**Table IIa: Wilcoxon Signed Ranks Test**

Ranks		N	Mean Rank	Sum of Ranks
After merger – Before Merger	Negative Ranks	14 <sup>a</sup>	19.04	266.50
	Positive Ranks	33 <sup>b</sup>	26.11	861.50
	Ties	0 <sup>c</sup>		
	Total	47		

**Table IIIa: Test Statistics<sup>a</sup>**

	after merger – before merger
Z	-3.148 <sup>b</sup>
Asymp. Sig. (2-tailed)	.002

Looking at Table Ia, we find that the mean of Average current ratios has improved after merger compared to before merger. Moving to Table IIa, it shows a total of 14 companies with negative ranks (with mean Rank 19.00) and total 33 companies with positive ranks (with Mean Rank 26.11). The p-value in Table IIIa is .002, so there is a significant difference in the rank mean pre and post-merger. We can

say that there is a statistically significant improvement in current asset ratio post – merger.

b. **Quick ratio-** It is calculated by dividing quick assets with current liabilities. This ratio is considered a prudent measure in comparison to current ratio, as it includes only those assets that can be liquidated in less than 90 days. The tables below show the results of the Non-parametric test.

**Table Ib: Descriptive Statistics**

Table IIIe: Test Statistics <sup>a</sup>					
			AF ROA - PRE ROA		
Z			-.836 <sup>b</sup>		
Asymp. Sig. (2-tailed)			.403		
a. Wilcoxon Signed Ranks Test					
b. Based on positive ranks.					
	N	Mean	Std. Deviation	Minimum	Maximum
Before Merger	47	.750000	.4536950	.1467	1.9467
After Merger	47	.873191	.5183106	.2000	2.4967

**Table IIb: Wilcoxon Signed Ranks Test**

Ranks				
		N	Mean Rank	Sum of Ranks
After Merger – Before Merger	<b>Negative Ranks</b>	<b>13<sup>a</sup></b>	20.31	264.00
	<b>Positive Ranks</b>	<b>34<sup>b</sup></b>	25.41	864.00
	Ties	0 <sup>c</sup>		
	Total	47		

a. Mamerger<bmerger. b. Mamerger>bmerger c. camerger = bmerger

**Table IIIb: Test Statistics<sup>a</sup>**

	After Merger – Before Merger
Z	-3.175 <sup>b</sup>
Asymp. Sig. (2-tailed)	<b>.001</b>
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Table Ib shows that there is an improvement in the mean of the average quick ratio after merger compared to before merger value. From Table IIb also, we find that for total 34 companies, the rank is positive (with mean rank 25.41). Finally looking at table IIIb, p – value= .001 which is less than .05 and hence, there is a significant difference in the mean rank for the quick ratio for pre- and post-merger. Therefore, we can say that the quick ratio has significantly improved post- merger.

c. **Net working capital-** It is measured as difference between current assets and

current liabilities of a firm. It measures firm's liquidity and its ability to meet short-term obligations and fund operations of the business. According to Vanita and Salvan (2011) there is always a time gap between the receipt of cash and repayment of loan and working capital is for this intervening period in order to sustain the activities. Shortage of working capital may bring the manufacturing company in a position where it won't be able to sustain its operating activities. From the tables below we can analyse the results of the Wilcoxon Rank test for 47 companies.

**Table I c : Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
Before Merger	47	528.392908	13574.7128479	-79331.5667	21100.7333
After Merger	47	3584.734752	36627.9765252	-230166.7000	47511.4000

## Wilcoxon Signed Ranks Test

Table IIc : Ranks

	N	Mean Rank	Sum of Ranks
<b>Negative Ranks</b>	<b>13<sup>a</sup></b>	23.46	305.00
<b>Positive Ranks</b>	<b>34<sup>b</sup></b>	24.21	823.00
<b>Ties</b>	<b>0<sup>c</sup></b>		
<b>Total</b>	<b>47</b>		

a. after merger < b. before merger after merger > c. before merger after merger = before merger

Table IIIc : Test Statistics<sup>a</sup>

Z	After merger - Before merger
	-2.741 <sup>b</sup>
Asymp. Sig. (2-tailed)	.006

a. Wilcoxon Signed Ranks Test b. Based on negative ranks.

Table Ic shows that there is an overall improvement in the mean average of net working capital ratio after merger compared to before merger. Looking at the Table IIc above, we find that for total 34 companies, the rank is positive (with mean rank as 24.21) and for 13 companies the net working capital post-merger has declined (with mean rank 23.46). Table IIIc reveals that the p- value is .006 which is less than .05. Hence, there is a significant difference in the mean rank for Net working capital pre and post-merger. We can again say that there is a statistically significant improvement in net working capital post-merger.

H02: No significant difference among the means of leverage parameter/ ratio of merger firms between pre-merger and post –merger period.

**II. Leverage parameters-** measure the relative level of debt load in a company's capital structure and how to service this debt.

a. **Debt to equity ratio:** It is used to study the financial leverage of the firm. It is calculated as a ratio of company's total liabilities to shareholder's equity. Capital intensive industries like many heavy manufacturing firms depend more on debt compared to service-based firms. But an increasing Debt to Equity ratio indicates that the company is being financed more by borrowed funds compared to owned funds and it is not an attractive scenario. Debt to Equity ratio is used here to study if there is any improvement in leverage performance of the manufacturing companies' post-mergers. The following are the results of the Wilcoxon rank test.

Table Id: Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before Merger	47	1.096241	1.5348895	.0000	8.5933
After Merger	47	.663333	.6442698	.0000	2.7200

## Wilcoxon Signed Ranks Test

Table IId : Ranks

	N	Mean Rank	Sum of Ranks
Negative Ranks	32 <sup>a</sup>	24.45	782.50
Positive Ranks	14 <sup>b</sup>	21.32	298.50
Ties	1 <sup>c</sup>		
Total	47		

a. AFTER MERGER &lt; before merger

b. AFTER MERGER &gt; before merger

c. AFTER MERGER = before merger

Table IIId: Test Statistics<sup>a</sup>

Z	AFTER MERGER - before merger
	-2.644 <sup>b</sup>
Asymp. Sig. (2-tailed)	.008

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

From Table Id, it has been found that there is a decrease in the mean average of debt to equity ratio after merger compared to before merger. Table IId shows that from total 47 companies, for 32 companies (showing negative rank), the Debt to Equity ratio has reduced post-merger compared to pre-merger (with mean rank 24.45) and only 14 companies have positive rank with mean rank at 21.32. Finally looking at table IIId, we find that p-value is .008 which is less than .05. From this, we can infer that this difference in the debt to equity ratio when compared before and after merger is statistically significant. A decrease in Debt- Equity Ratio indicates that company's dependence on borrowed funds to finance its assets has reduced and hence, the overall financial risk of merger firms has reduced. **H03:** No significant difference among the means of profitability parameters/ratios of merger firms between pre-merger and

post-merger period belonging to manufacturing sector.

**III. Probability Parameters:** Profitability parameters are used for depicting the efficiency with which company generates profits. These include measures that assess a company's ability to generate revenue. It shows how well a company utilizes their resources/assets to generate profits and improving value of shareholders. Present study examines the same using following ratios

- Return on Assets-** It measures the amount of profit earned by a company utilizing its overall resources (total assets). It is calculated by dividing Net Income with the Average Total Assets. From the following tables we can analyze the results of the Wilcoxon rank test for the 47 companies.

Table I e: Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Pre ROA	47	.060284	.0704352	-.0768	.4062
After ROA	47	.050355	.0598790	-.0738	.2002

### Wilcoxon Signed Ranks Test

**Table IIe :Ranks**

		N	Mean Rank	Sum of Ranks
After ROA - Pre ROA	Negative Ranks	26 <sup>a</sup>	24.73	643.00
	Positive Ranks	21 <sup>b</sup>	23.10	485.00
	Ties	0 <sup>c</sup>		
	Total	47		

a. AF ROA < PRE ROA

b. AF ROA > PRE ROA

c. AF ROA = PRE ROA

Table Ie shows that there is a decrease in the mean average of return on assets from 0.060284 before merger to 0.050355 after merger. The table IIe above shows that from total 42 companies, 26 companies have negative rank (with mean rank at 24.73) and rest 21 companies have positive ranks (with

mean rank as 23.10). For these 26 companies the Return on Assets post-merger has declined. In case of Manufacturing companies, this ratio is suitable for measuring the profitability of the company post-merger as assets are the main revenue generator.

**Table IIIe: Test Statistics<sup>a</sup>**

	AF ROA - PRE ROA
Z	-.836 <sup>b</sup>
Asymp. Sig. (2-tailed)	.403
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Looking at table IIIe, it can be seen that the calculated p-value is .403 which is greater than .05. This suggests that there is no statistically significant to improvement in the Return on Assets ratio of the merger firms belonging to manufacturing sector post-merger.

- b. **Return on net Worth-** It reveals the amount of profit a company generates

with the investment made by the equity shareholders. It is calculated by dividing net profit with shareholder's fund. An improving Return to Net Worth shows how well company's management is using the shareholder's capital. The following tables show the result of Wilcoxon Rank test for the Return on Net Worth ratio of 47 companies.

**Table If : Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
PRERONW	47	.108542	.1639380	-.4153	.7605
AF RONW	47	.092785	.1095361	-.2641	.2828

**Table IIf: Ranks**

		N	Mean Rank	Sum of Ranks
AF RONW – PRERONW	Negative Ranks	30 <sup>a</sup>	21.90	657.00
	Positive Ranks	17 <sup>b</sup>	27.71	471.00
	Ties	0 <sup>c</sup>		
	Total	47		

a. AF RONW &lt; PRERONW

b. AF RONW &gt; PRERONW

c. AF RONW = PRERONW

**Wilcoxon Signed Ranks Test****Table III f : Test Statistics<sup>a</sup>**

	AF RONW – PRERONW
Z	-.984 <sup>b</sup>
Asymp. Sig. (2-tailed)	.325

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Table If shows that there is a decrease in the mean average of return on net worth from 0.108542 before merger to 0.092785 after merger. Table IIf depicts that from total of 47 companies, the Return on Net Worth ratio for 30 companies has declined post-merger (with mean rank as 21.90 ) and for 17 companies

the rank is positive (with mean rank as 27.71). In the final table IIIf, the calculated p-value is .325 which is greater than .05. Hence, this lead us to state that there is no statically significant improvement in the Return on Net Worth ratio post-merger.

**Findings of the study**

Parameters	Ratios	Empirical results	Consistent with the following studies
<b>Profitability</b>	a. Return on Net Worth	Shows no improvement	<ul style="list-style-type: none"> <li>Sharma (2013)</li> <li>Mantravadi and Reddy (2008)</li> </ul>
	b. Return on Assets	Shows no improvement	<ul style="list-style-type: none"> <li>Sharma(2013)</li> </ul>
<b>Liquidity</b>	a. Current Ratio	Improvement	<ul style="list-style-type: none"> <li>Leepsa and Mishra (2012)</li> <li>Sharma (2013)</li> </ul>
	b. Quick ratio	Improvement	<ul style="list-style-type: none"> <li>Leepsa and Mishra (2012)</li> <li>Sharma (2013)</li> </ul>
	c. Net working capital	Improvement	<ul style="list-style-type: none"> <li>Leepsa and Mishra (2012)</li> <li>Sharma (2013)</li> </ul>
<b>Solvency Ratio / Leverage ratio</b>	Total Debt to Equity Ratio	Reducing post-merger	<ul style="list-style-type: none"> <li>Leepsa and Mishra (2012)</li> <li>Sharma (2013)</li> <li>Mantravadi and Reddy (2008)</li> </ul>

## Conclusion

The study was carried out with an objective to identify whether the post-merger liquidity, profitability and leverage parameters have improved for the companies belonging to manufacturing sector. For studying the same, the Wilcoxon Signed Rank test has been used which is a non-parametric test. The study was carried with three hypothesis, the first of which is related to testing the liquidity parameters. For liquidity parameters, current ratio, quick ratio and net working capital ratio have been used. The results show an improvement in the liquidity parameters for the companies belonging to manufacturing sector post-merger. From this we can conclude that companies are able to maintain adequate liquidity post-merger for meeting short-term obligations and this boosts the profitability in the long-run. The second hypothesis was framed to test the profitability parameters. This parameter has been studied using Return on Assets and Return on Net worth ratio. The results for profitability parameters shows no statistical improvement post-merger for the companies belonging to the manufacturing sector. From this, we can conclude that, the companies have failed to use their assets and capital efficiently post-merger to squeeze out sufficient profits. This could be a sign of trouble and may also erode the corporate value which will adversely affect the shareholders' value. In long-run this will also impact the credit-worthiness of the company and companies might find difficulty in raising funds from the market. The last hypothesis under study was to test the solvency parameters. This parameter has been studied using Debt to Equity ratio. The results show that the ratio has reduced post-merger and this is statistically significant. From this, we may infer that post-merger, the companies have become financially stable. Post-merger the companies have tackled the issues of reduced ownership value, increased default risk, trouble obtaining additional financing etc. But an important consideration to make is that a company with very low-debt to equity ratio may not always be in an impressive position because in such a case the company is not taking the benefits of the increased profits that financial leverage will bring.

## Limitations of this study

This study cannot be generalized in the context of pre and post mergers and acquisitions as it covers only the manufacturing sector in India. The sample size for this study is 47. So, it is recommended to study this concept with large sample size in future. This study is confined to manufacturing sector in India. However, an inter-sector study can be good scope for future researchers. Also, a depth study of inter-country acquisitions is recommended.

## Bibliography

1. Cording, M., Christmann, P., & Bourgeois Iii, L. J. (2002). A focus on resources in M&A success: a literature review and research agenda to resolve two paradoxes. *Academy of Management*, 12(8), 1-40.
2. Kumar, V. (2009). Post-merger corporate performance: an Indian perspective. *Management Research News*, 32(2), 145-157.
3. Leepsa, N. M., & Mishra, C. S. (2012). Post merger financial performance: a study with reference to select manufacturing companies in India. *International Research Journal of Finance and Economics*, 83(83), 6-17.
4. Mantravadi, D. P., & Reddy, A. V. (2008). Post-merger performance of acquiring firms from different industries in India. *International Research Journal of Finance and Economics*, 22.
5. Mishra, P., & Chandra, T. (2010). Mergers, Acquisitions and Firms Performance: Experience of Indian Pharmaceutical Industry. *Eurasian Journal of Business and Economics*, 3(5), 111-126.
6. Patel, R. (2018). Pre & Post-Merger Financial Performance: An Indian Perspective. *Journal of Central Banking Theory and Practice*, 7(3), 181-200.
7. Rani, N., Yadav, S. S., & Jain, P. K. (2015). Financial performance analysis of mergers and acquisitions: evidence from India. *International*

- Journal of Commerce and Management*, 25(4), 402-423.
8. Saboo, S., & Gopi, S. (2009). Comparison of Post-Merger performance of Acquiring Firms (India) involved in Domestic and Cross-border acquisitions.
  9. Sharma, S. (2013). Measuring post merger performance—a study of metal industry. *International Journal of Applied Research and Studies*, 2(8), 1-9.
  11. Sinha, N., Kaushik, K. P., & Chaudhary, T. (2010). Measuring post merger and acquisition performance: An investigation of select financial sector organizations in India. *International journal of Economics and Finance*, 2(4), 190-200.
  12. Srinivasa Reddy, K., & Nangia, V. K. (2013). Corporate mergers and financial performance: a new assessment of Indian cases. *Nankai Business Review International*, 4(2), 107-129.
  13. Tambi, M. K. (2005). Impact of Mergers and Amalgamation on the performance of Indian companies. *Econ WPA Finance*, p. 506007.
  14. Vanitha, S., & Selvam, M. (2007). Financial performance of Indian

manufacturing companies during pre and post merger. *International Research Journal of Finance and Economics*, 12, 7-35.



# GOODS AND SERVICES TAX: ITS IMPLICATION AND SUSTAINABILITY ON EASE OF DOING BUSINESS

## **Gurave Singh**

Research Scholar

Department of Commerce & Business Administration

University of Allahabad, Prayagraj, U.P. – 211002, India.

E-mail Id: [gurave2013@gmail.com](mailto:gurave2013@gmail.com)

Mobile: 9454948797

## **Dr. Gautam Kohli**

Assistant Professor

Department of Commerce, Prof. Rajendra Singh (Rajju Bhaiya) University

Prayagraj, U.P. – 211010, India.

E-mail Id: [dr.gautamkohli@prsuniv.ac.in](mailto:dr.gautamkohli@prsuniv.ac.in)

Mobile: 9454948797

---

## **Abstract**

This paper examines the role of Goods and Services Tax in Ease of Doing Business (EODB) on the retailer in the Prayagraj district. To accomplish the objectives of the study, the primary data was collected from 100 respondents of retail operating units in Prayagraj district by using the “Cluster Random Sampling Technique”. The statistical tools use for analyzing the data like Mean, Standard deviation, Reliability analysis, one-way ANOVA (F-test), Chi-square test, and Correlation were applied. The result of the study discloses the role of GST in ease of doing business in the retail sector has a significant effect on the economic growth of a country's GDP. Specifically, the study attempts to contribute towards sustainable GST and fulfils the research gap to some extent by analyzing the effect of GST stakeholder perspectives. The present study can provide inputs to policymakers and the stakeholder to make a sustainable Tax system environment in the country. To bring out issues and challenges of ease of doing business experienced by the GST stakeholder i.e., Manufacture, Wholesaler, Retailer and Consumer in Prayagraj district.

**Keywords:** - GST, EODB, Retail, Cluster Random Sampling Technique, Sustainable Tax system.

---

World Bank releases the Ease of Doing Business (EODB) report annually. India is placed in 63rd position out of 190 countries. An improvement of 14 places from its 77-position. India's ranking improved by consecutive years.(World Bank's Doing Business report2020). Ease of doing business (EODB) ranking is calculated on 10 parameters 'Starting a business, 'Construction permits', 'Getting electricity', 'Getting credit', 'Paying taxes', 'Trade across borders', 'enforcing contracts, and 'Resolving

Insolvency.'It plays a vital role in providing the regulatory framework faced by the private sector in the Indian economy. Is GST about mean ease of doing business? Three years after its inception, compliance with GST procedures remains a headache for exporters, job workers, and all MSMEs (Lokeshwarri SK, 2020). The idea of the GST 'One Nation, One Tax' concept has made it easier for entrepreneurs to launch businesses, start-ups, and other ventures. It subsumes eight central taxes and nine state-level taxes. Furthermore, GST simplifies return processes, addressing issues for MSME/SME, Retail, Start-up,

Entrepreneur, and other stakeholders. These are necessary actions that need to be performed to obtain the benefits imagined at the time of GST's inception.

Sustainability of GST deal with the synchronization of government income to drives economy's growth and achieves the status of a developed country. Sustainability relates to equity. Equity in term of fairness practices among various GST stakeholders. Sustainability Tax considerable potential to promote the fairness, responsibility and transparency. These are the pillars for sustainability of GST. Goods and Services Tax (GST) combine the current central and state tax with the nation into singular tax removing the twin taxation system and bringing the country under a singular taxation system.(Gurave Singh, 2021)The objective of GST in Ease of Doing Business is to create a unified common market, which aids the GST stakeholders in understanding "One Nation, One Tax, One Market." It will encourage foreign investment and "Make in India" initiatives. Streamline Taxation is a system that allows the central and state governments to synchronize the laws, procedures, and taxation policies.

GST helps in mitigated ill effects of cascading or double taxation further it brings about certainty about common procedures for registration of taxpayers, refund of input tax credit (ITC), the uniform of tax return, common tax base, a common system of classification of goods and services in the facilitators taxation system. GST being a destination-based consumption tax will favour consuming states so it will improve the overall investment climate in the country which will naturally benefit the development of the Indian economy.

In this approach, the study aimed to examine the effectiveness of GST and the ease of doing business in India, and give suggestions to improve the performance of sustainable growth of the Goods and Services Tax in India.

## **1.2 Review of Literature**

**Ashutosh D. Gaur et al.(2017):** the researcher has reported on various emerging trends and issues and challenges in the Ease of Doing Business. The researchers have analyzed India's rank in the Ease of Doing business index of the World Bank and highlighted the various reforms initiated by the Government of India to improve the business environment in India.(Gaur & Padiya, 2017)

**Ashutosh D. Gaur Jasmin Padiya (2017):** study is focused on the Ease of doing business and identifying the factors. India is undergoing various reform processes which will improve the overall business environment which is a vital pillar of Make in India which will boost the manufacturing sector in India. the researcher has reported on various emerging trends and issues and challenges in the Ease of Doing Business. The researchers have analyzed India's rank in the Ease of Doing business index of the World Bank and highlighted the various reforms initiated by the

**Namita Mishra's (2018):** study is designed to know the impact of GST on the Indian Economy with the Help of Its effect on different sectors. The Study is Exploratory and Secondary Data has been used for the study. GST implementation applied at a time for all states lack of policy barrier will remove. GST will promote FDI investment, hence increasing the country's foreign exchequer and subsequently increasing employment possibilities. It will promote new start-ups in India for its business-friendly tax structure. (Mishra, n.d.)

**Bureau (2018):** to gain a better understanding of the impact of GST on various industries, businesses, and exporters in India, they have conducted an in-depth survey. A standardized questionnaire was used to conduct the interview. As per the survey responses, it was revealed that the majority of the respondents didn't receive any assistance to comply with the GST norms. (Impact of GST on Business, Industry, and Exporters: A Survey Report, 2018)

**Mukesh K. Sharma, Suniti Saini (2019)** has examined that businessman is aware of GST implementation and opined that it's a fair tax system but it requires more clarity,

simplification in procedure because they have to depend on CA's during the online submission. The paper had tried to attempt the actual impact of GST will for sure increase the pace of the economic growth of the country but it requires more clarity as suggested in the study. (Sharma et al., 2019)

**Shetty Deepa Thangam Geeta et al. (2019):** the study reflects that few of the preparedness in respect of GST by MSME entrepreneurs need for improvising the GST network and other such related trends are turning out to be the bottleneck factors towards realizing the actual outcome of GST implementation. In line with the impact survey conducted with small and micro enterprises, it is evident that the people rate the impact of GST as a balance and there is potential scope for improvement in the process. (Geeta et al., 2019)

**Navneet Gera and Shriram Purankar (2019):** The research show that ease of doing business as well as starting a company in Russia is best among BRICS nations, while South Africa and Brazil are lagging in a business-friendly environment. China and India are ranked second and third in terms of ease of doing business, respectively. This research will assist the MNCs to decide on the markets based on business-friendliness. To be a business target nation, India, Brazil and South Africa need to decrease the number of processes and the number of days to set up a company. (Gera & Purankar, 2019)

**Ph.D. Research Bureau (2020):** GST has been India's most game-changing indirect tax reform, as it has eliminated the tax's cascading effect on the cost of goods and services. and services and helped India become one of the world's fastest-growing economies. (*Impact of GST on Economy and Businesses Ph.D. Chamber of Commerce and Industry*, 2020)

**Ebrahim Kunju Sulaiman (2020)-** The present paper elucidates the drawbacks of the existing indirect taxation structure and introduces the concept of GST and its role to consolidate the Indian market to become a globally competitive one. The taxation policies and systems implemented in the country need to be more efficient, competitive, equitable, transparent, and inclusive. (Kunju Sulaiman, n.d.)

### 1.3 The objective of the study

1. To study the role of GST in ease of doing business from retailers' perspective of sustainability.
2. To investigate the effect of GST on ease of business in the retail sector.
3. To explore and address the concerns of retailers regarding the ease of doing business.
4. To make important suggestions to improve the GST administration regarding ease of doing business on retailers.

### 1.4 Research Methodology

**Research design:-**For the study, a comprehensive literature examination has been carried out to develop the framework of the research. The primary data was collected through the structured questionnaire selected from small-scale retailers and large-scale retailers on GST and ease of doing business perspective in the Prayagraj district. Secondary data was collected from research journals, websites, and reports of the Department for Promotion of Industry and Internal Trade (DPIIT), District Industries Centre (DIC) Prayagraj, Government and Internet, etc. The data were collected and further analyzed.

**Sample Size and Technique:-**To give representation to small-scale retailers and large-scale retailers sector the sample size respondent is 100 from Prayagraj District Uttar Pradesh. The respondent was selected based upon the "Cluster Random Sampling technique".

**Questionnaire: -** The survey was outlined for the study. The primary data was collected from different parts of the Prayagraj District (Allahabad West, Allahabad North, Allahabad South, Phaphamau). The questionnaire consists the questions addressing the GST regarding Ease of Doing Business (EoDB) retailers' perspectives. The questionnaire is classified for the understanding of the Goods and Services Tax of selected retailers. Thus, it is framed under different heads, Demographic parameters, Consumer perspectives, Retailer perspectives, GST administrative perspectives related to GST, and ease of doing business of retailers.

**Statistical Techniques:** - The statistical technique utilized for examining the information differs from descriptive to multivariate. The statistical tool is used for analyses the frequency distribution analysis, Descriptive statistics like Mean, Reliability analysis, Correlation, one-way ANOVA (F-test), and Chi-square test.

### Research GAP

The issue of implementation of GST has been affected all the sectors in India. To bring forth new insights on the role of the GST in the Ease of doing business in the retail sector to fill the research gap. The present research has been taken to bridge this gap and to discover the view of stakeholders of the retail sector concerning the sustainability of GST.

### Need of the Study

Effective implementation of GST on retail sector plays a vital role for economic growth country and a major contributor to government source of revenue. The retail sector generates healthy growth and employment opportunity. If doing business get simplifying from indirect tax perspectives more large-scale retailer will

set up their business it will generate more employment and contribute to government sources of revenue. Ease of doing business in indirect tax perspective GST will result in the redresses of simplifying tax compliance, reducing the restriction, interstate of goods, mitigating the tax burden, facilitating the timely realization of tax refunds. These are some factors that affect India's ranking ease of doing business will improve the country's global ranking in 'Paying Taxes' in the World Bank's Doing Business Report. For research purposes, Prayagraj district was selected for analysis of the issues and challenges faced by the retail sector regarding ease of doing business. So, the research finds the possibility of conducting research work on the Role of GST and the Ease of doing business.

### Salient Feature of Study Area

Prayagraj district comprises of eight Tehsils namely Prayagraj, Bara, Handia, Karchhana, Karaon, Meja, Phulpur & Soraon. Prayagraj district has got location advantages to connect with other industrial towns. The district is bounded by a marketing centre for the neighboring district of eastern Uttar Pradesh & northern Madhya Pradesh.

**Table 1: Detail of clusters of Retailers in Prayagraj District**

Small Scale Retailer	Large Scale Retailer
<ul style="list-style-type: none"> <li>• Street stalls</li> <li>• General stores</li> <li>• Specialty stores</li> <li>• Seconds-hand goods shops</li> <li>• Peddlers and Hawkers</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental stores</li> <li>• Multiple shops</li> <li>• Mail-order house</li> <li>• Consumer co-operative stores</li> <li>• Supermarket</li> </ul>

*Source: Author Finding*

### 1.5 Data Analysis

To meet the objectives of the study the questionnaire was framed as understanding the behaviour of the respondent. This question is based on a five-point Likert Scale denoted as

“Strong Disagree”, “Disagree”, “Neutral”, “Agree”, “Strong Agree”.

**Table 2: Reliability Analysis of GST on Retailers**

Reliability Statistics		
Cronbach's Alpha ( $\alpha$ )	Internal consistency (y)	N of Items
0.825	Excellent	15

Source: Author Computed data

Cronbach's Alpha( $\alpha$ ) coefficient value of 0.825 indicates Excellent reliability among the fifteen scale items. As the value of Cronbach's alpha was satisfactory, further the data is analyzed for the study. It clearly shows that

the respondents understood the question related to GST and answered correctly. In some cases, the respondent was not able to understand the related GST structure and mechanism of GST.

**H01: There is no significant relationship between GST awareness and the Ease of doing business on retailers.**

**Table 3: -General Understanding of GST among Retailers**

	VARIABLES	N	Mean	Std. Deviation	Variance
1	GST affected your business operation.	100	3.38	1.099	1.208
2.	Sales performance.	100	3.07	1.085	1.177
3.	Filing of taxes	100	3.21	.998	.996
4.	Online compliances procedures	100	3.32	.994	.987
5.	GST has reduced paperwork for return.	100	3.29	1.085	1.178
6.	Sufficient information and support for smooth implementation of GST.	100	3.22	1.067	1.139
	<b>Mean of the sample means</b>		<b>3.24</b>		
				<b>F Value</b>	<b>P-Value (Significant)</b>
	<b>ANOVA</b>			4.984	.00
				$\chi^2$	<b>P-Value (Significant)</b>
	<b>Chi-Square (<math>\chi^2</math>)</b>			48.994	.00

Source: - Computed data

**Interpretation:** -The above table 3 shows the measure of central tendency, the highest mean reported 3.38 to low of 3.07. Furthermore, it has been interesting to witness the retailers report that the applicability of GST affected more retailers. The result on the difference between the opinion of retailer ANOVA the F-ratio of 4.984 is more than the critical value of 3.34 and significance level is much less than  $\alpha=0.05$ .

This means that the null hypothesis is rejected. Chi-square test conducted to identify the relationship among two variables. The  $\chi^2$  value 48.994 is large and the p-value is much less than significance level  $\alpha=0.05$ . The result indicates that there is a significant difference in opinion among the retailer regarding the GST and ease of doing business.

**Table 4: -Results of correlation analysis**

Correlations			
		Awareness of GST	Ease of doing business
	Pearson Correlation	1	.045
	Sig. (2-tailed)		.00
	N	100	100
	Pearson Correlation	.045	1
	Sig. (2-tailed)	.00	
	N	100	100

Source: - Computed data

The above table 4 shows the correlation between the awareness of GST and ease of doing business of retailers. The value of the correlation coefficient is 0.045 which shows that there is moderate relationship between

ease of doing business and awareness of GST among its stakeholders.

**H02:** There is no significant relationship effect of GST and simplifying the business ecosystem of the retail sector.

**Table 5: -Analysis of responses collected from retailers**

	VARIABLES	N	Mean	Std. Deviation	Variance
1	GST is the simple, transparent, and easy tax structure	100	3.41	1.092	1.212
2	GST facilitated ease of doing business in the market.	100	3.11	1.087	1.175
3	Does GST help in easier inter-state movement of goods in the market?	100	3.18	.997	.995
4	GSTN Portal helpline/helpdesk is helpful	100	3.35	.993	.986
5	GST facilitated in a reduction in tax burden	100	3.27	1.083	1.177
6	Does GST provide easier compliance	100	3.19	1.065	1.138
7	Enhancing the export of goods and services has now become easier	100	3.28	1.015	1.030
8	GST creates burden	100	3.14	.994	.988
9	The GST has facilitated a reduction in overall Tax.	100	3.19	1.152	1.327
	<b>Mean of the sample means</b>		<b>3.23</b>		
				<b>F Value</b>	<b>P-Value (Significant)</b>
	<b>ANOVA</b>			6.350	.00
				$\chi^2$	<b>P-Value (Significant)</b>
	<b>Chi-Square (<math>\chi^2</math>)</b>			32.761	.00

Source: - Computed data

**Interpretation:** - The above table 5 shows the measure of central tendency, the highest mean reported 3.41 to low of 3.11. Furthermore, it

has been interesting to witness the retailers report that of GST affected on time consuming process filing return need trained manpower in

GST procedures. The result on the difference between the opinion of retailer ANOVA the F-ratio of 6.350 is more than the critical value of 3.34 and significance level is much less than  $\alpha=0.05$ . This means that the null hypothesis is rejected. Chi-square test conducted to identify the relationship among two variables. The  $\chi^2$  value 32.761 is large and the p-value is much less than significance level  $\alpha=0.05$ .

### **Findings**

- Goods and Services Tax system environment was facing filing of multiple returns is a time-consuming exercise, high cost incurred by the retailer for hiring chartered accountants and tax experts to expedite the error-free filing of return.
- Problems related to the GSTN and IT infrastructure that concerns raised by retailers about filing returns.
- Filing three returns in a month, registration rules, complex refund rules - there are multiple compliance issues that are worrying the retailer and its stakeholder.
- The lack of an input tax credit (ITC) on civil construction costs raises prices for retailers who open new locations and renovate old ones on a regular basis.

### **Suggestions**

- A simple user-friendly GST return filing process GST Software and App should launch that does not entail high time and financial cost to register businesses would ensure compliance.
- The simplification in GST returns filing procedure measures should be taken towards simplification of GSTR filing and an easy IT interface. Addressed to facilitate user-friendly and timely compliance that will boost revenue collections.
- For ease of functioning under GST that retailers with an annual aggregate turnover of ₹ 10 lakh are required to register and they be allotted a twelve-digit number, and identification number. It would suggest that the first ten places could be the PAN and the last two be the state code. That would

facilitate the easy way of reporting in the GSTR.

- The government should launch helpline systems on social media to instantly address the problems and queries faced by businesses.

### **1.6 Conclusion**

The study has attempted to know the relationship between GST tax structure, mechanism and effect of ease of doing business behaviour of the retailer. In India federal GST system adopted, it has filled with its own problem, issues to its various stakeholder of GST including manufacture, wholesaler, retailer and small business owner one yet experiences with its functionality and input tax credit (ITC) system. However, respondents are aware regarding the GST structure. So, this study also revealed that although most of respondent avoid paying tax but there is no clear correlation between ease of doing business and awareness of GST among the retailer and its stakeholder. Furthermore, GST structure did not make any significant effect on the ease of doing business of the retailers in general. It is observed that the retailers were faces the burden of compliance cost, GSTN issue, time consuming process of filing the tax return and well-trained person required to higher compliance of the return and formalities. In order to achieve tax collection efficiency government should make flexible GST mechanism system and sustainable. Under GST there would be only one tax to deal with so there would be less paperwork. This would lead to 'Ease of doing business' therefore it will increase efficiency will further improve the overall ranking in World Bank Ease Report. This will help attract foreign company to make investment in India and will boost Indian economy, further it will contribute to GDP, increase the source of revenue of the country and achieve the dream of five trillion-dollar economy.

## References

1. Akash Agrawal, S. V. (2017). Awareness, Concerns and Compliance of GST. *The Indian Journal of Commerce*, 70(4), 61-69.
2. Gaur, A. D., & Padiya, J. (2017). Ease of Doing Business in India: Challenges & Road Ahead.
3. Geeta, S. D. T., Mathiraj, S. P., & Bharathi, M. T. (2019). Impact of GST on MSMEs. *International Journal of Recent Technology and Engineering*, 8(6), 688–694.
4. Gera, N., & Purankar, S. (2019). Ease of doing business in BRICS—A Comparative study. *FOCUS: Journal of International Business*, 6(2), 99.
5. Gurave Singh, R. K. (2021). Sustainability of GST on Micro, Small & Medium Enterprise. *Advances in Business Management & Technology*, 1(1), 304-312.
6. Impact of GST on Business, Industry, and Exporters: A Survey Report. (2018).
7. Impact of GST on Economy and Businesses Ph.D. Research Bureau Ph.D. Chamber of Commerce and Industry. (2020).
8. Justin Raj, S. (2018). Impact of GST on the Regulation of Small Business. 20, 81–83.
9. Kunju Sulaiman, E. (n.d.). Role Of GST For Ease of Doing Business in India.
10. Mishra, N. (n.d.). Impact of GST on Indian Economy. [www.pragatipublication.com](http://www.pragatipublication.com)
11. Nayyar, A., & Singh, I. (2018). A comprehensive analysis of goods and services tax (GST) in India. *Indian Journal of Finance*, 12(2), 57–71.
12. Sharma, M. K., Suniti, \*S. (2019). Awareness And Impact of GST(Akash Agrawal, 2017)(Akash Agrawal, 2017) Among Small Business Owners: A Study (Survey, 2019-20)of Mandsaur City in M.P. *Indian Journal of Accounting*.51(1).
13. Survey, E. (2019-20). *Targeting Ease of Doing Business*. New Delhi: Ministry of Finance, Government of India.
14. Lokeshwarri SK, L. N. (2020, November 04). *Business Line*. Retrieved from The Hindu Business line: <https://www.thehindubusinessline.com/specials/india-file/is-gst-about-ease-of-doing-business/article62191909.ece>
15. World Bank. “Doing Business.” The World Bank Group. (Various Editions). <https://www.doingbusiness.org/en/doingbusiness>



# POWER CRISIS IN INDIA: CHALLENGES AND SOLUTIONS

**Anju Bala Xaxa**

Assistant Professor

Mahila College, Chaibasa, Jharkhand

---

## Abstract

In the summer of 2022, the whole of India is getting scorching heat. Amid the worst power shortage in the last six years due to a massive increase in power demand due to heat waves and lack of adequate coal supply to thermal plants, several states in the country are now facing power shortage for several hours. According to Reuters, electricity supply fell by 1.88 billion units, or 1.6%, during the first 27 days of April 2022. The total power shortage in the country has reached 623 million units.<sup>1</sup>

During the Corona period, India's economy had reached a very critical stage, but now gradually the signs of improvement in the economy are visible. But, the power crisis prevailing across the country has created a new problem. The power crisis has reached a very serious condition in many parts of India. Due to power crisis in metros and big cities, where industries are coming to a standstill, on the other hand due to power cuts, people are fated to get sleepless nights and their mental and physical health is getting affected very badly. Big buildings and multiplexes have been built in every small and big city of India. 24 hours electricity has become an essential requirement for the people living in these buildings. Without electric bulbs, air conditioners and fans, people in these places are finding it difficult to breathe. The condition of the villages has become even worse. Farmers were already worried about the rising prices of diesel and petrol. But, the power cut has taken a serious toll on agriculture.

Every part of India is facing scorching heat these days. In many parts of India, the temperature is in the range of 45degree Celsius. In such a situation, it has become necessary to discuss the 'energy crisis' in India and its 'solution'.

In this research paper, the reasons for the energy crisis in India and the options for solution have been discussed in detail.

---

## Introduction:

In the summer of 2022, the whole of India is getting scorching heat. Amid the worst power shortage in the last six years due to a massive increase in power demand due to heat waves and lack of adequate coal supply to thermal plants, several states in the country are now facing power shortage for several hours. According to Reuters, electricity supply fell by 1.88 billion units, or 1.6%, during the first 27 days of April 2022. The total power shortage in the country has reached 623 million units.<sup>2</sup>

According to the Local Circle survey, two out of three households in the country have been admitted to having power outages. While 1 in 3 households is facing power cuts for 2 hours or more every day.<sup>3</sup> The railway ministry had canceled hundreds of journeys to ensure

priority routes and faster turnaround for coal wagons. While Coal India Limited (CIL) has increased coal production by 27.2 percent during April. Many states of India- Delhi Haryana, Jharkhand, Bihar, and Uttar Pradesh, Andhra Pradesh, Rajasthan and Kerala are facing severe power shortage. According to DISCOM officials, with the mercury rising in Delhi, the power demand crossed the 6,000 MW mark in April.

India has 319 billion tonnes of coal reserves. India produced 73.08 million tonnes of coal in the year 2019-20, while in the year 2020-21 this production was 71.60 million tonnes. India has a dependence on coal to generate power. Solar energy is very expensive and the alternative to nuclear energy is full of complications. At present, coal is used the most as fuel in India.

**Demand and Consumption of Coal in India:**

The demand for coal in India at present is 1 billion tonnes. Coal demand is set to peak by 63% by the year 2030. The draft Economic Survey 2021-22 projects coal demand in the range of 1.3-1.5 billion tonnes by 2030. The demand for the non-renewable energy source is yet to peak in India. It means, share of coal in the energy basket is going to remain

significant in years ahead. The rate at which India's coal reserves are depleting, and India's import dependence on coal will increase further. Indonesia, Australia and South Africa are the major exporting countries. Following table gives detailed information about Year wise Import of Coal and Coke to India during 2011-12 to 2020-21

Year	<b>Table 1 : Year wise import of coal and coke to India during last ten years (quantity in million tonnes &amp; value in million rs.)</b>									
	Coking Coal		Non-Coking Coal		Total Coal		Coke & Others Coal Products		Lignite	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2011-12	31.80101	424692.34	71.05162	363683.49	102.85263	788375.83	2.36469	47584.54		
2012-13	35.55697	378398.09	110.22847	490056.94	145.78545	868455.02	3.08065	56918.82	0.00065	10.22
2013-14	36.87214	348318.65	129.98489	574973.16	166.85702	923291.81	4.17053	67994.89	0.00127	23.73
2014-15	43.71529	337655.59	174.06751	707410.50	217.78280	1045066.09	3.29388	43806.15		17.03
2015-16	44.56117	282519.09	159.38809	577818.53	203.94926	860337.62	3.07163	32683.54	0.00105	14.83
2016-17	41.64379	412300.61	149.30926	590013.33	190.95305	1002313.94	4.34648	54019.35	0.01912	433.29
2017-18	47.00325	595226.36	161.24542	789543.41	208.24867	1384769.77	4.58478	91524.74	0.01041	116.50
2018-19	51.83768	720497.64	183.51033	988707.26	235.34801	1709204.90	4.93094	20644.8	0.01937	403.43
2019-20	51.83275	612668.32	196.70383	914652.23	248.53658	1527320.55	2.87455	60256.67	0.05425	1074.46
2020-21	51.28828	454354.82	163.70662	706017.21	214.99491	1160372.03	2.45729	44688.59	0.01886	409.24

Source: DGCI&S, Kolkata Some figures may not match with DGCI&S publication due to subsequent corrections

As long as India's dependence on conventional fuels remains, India's economy and people of India will continue to face energy crisis. In India, Coal India Limited supplied 622 million tonnes of coal in the year 2021-22. Now it is

evident that the gap between production and supply is so large that it cannot be filled without the use of alternative sources like hydrogen solar energy, hydrogen fuel, and atomic energy.

**Table 2: Coal Production and Off take April-Mar- 2021-2022 (In Mt)**

Company	Production*				Off take/Dispatch*			
	Target	Ach. (Prov)	Actual During Cores period of previous year	Growth (%)	Target	Ach. (Prov.)	Actual During Cores period of previous year	Growth (%)
CIL	670	622.65	596.222	4.43	740	662.14	573.628	15.43
SCCL	68	65.02	50.58	28.55	68	65.536	48.513	35.09
Captive*	99	84.823	63.149	34.32	99	85.688	62.624	36.83
Others*	11	4.831	6.133	-21.23	11	4.942	6.119	-19.24
<b>Total</b>	<b>848</b>	<b>777.32</b>	<b>716.083</b>	<b>8.55</b>	<b>918</b>	<b>818.30</b>	<b>690.884</b>	<b>18.44</b>

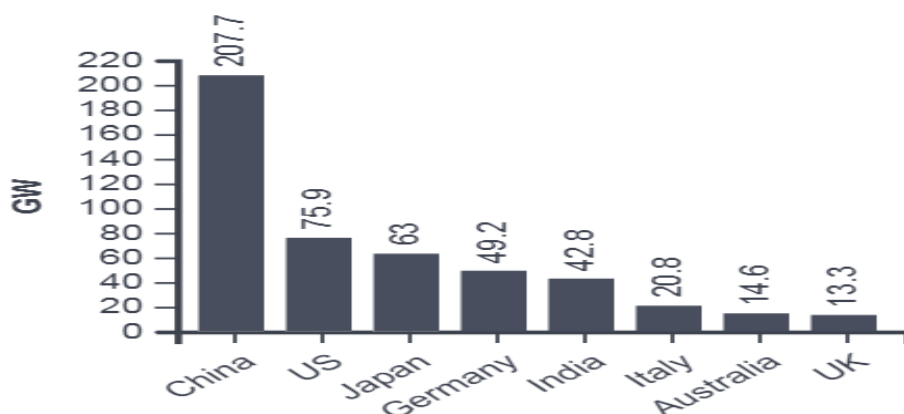
Source: CCO report Production and dispatch target in respect of coal companies and others for Annual Plan 2021-22 and Annual Action Plan 2021-22

Note: Production and Offtake of CIL is including Gare Palma IV/1 and IV 2&3 and production of captive is excluding these blocks.

From the above discussion, it is certain that the power shortage in India may persist in the coming times if alternatives to coal energy are not explored. Hydrogen fuel, nuclear power and solar energy can play a major role in solving the power crisis in India. But, at present the expansion and development of these alternative sources of energy is very unsatisfactory. Their technology is still very

underdeveloped. Apart from this, all these sources are beyond the reach of common man. The country's solar installed capacity was 53.997 GW as of 31 March 2022.<sup>4</sup> But India is still behind China and other developed countries like US and Japan, considering their total power demand and percentage of solar power. Following table shows the world's top solar power generating countries.

**Figure 1: Top 8 countries by cumulative solar power installed capacity in 2019<sup>5</sup>**



Source: "Snapshot of Global PV Markets 2020" (PDF). International Energy Agency: IEA Photovoltaic Power Systems Programme. Retrieved 26 April 2022.

Above figure clearly shows that China is the global leader in cumulative solar power installation capacity with 207.7GW and India is lagged behind with 42.8GW in cumulative solar power installation capacity. At present the emphasis is on solar power generation. The present capacity of solar energy is more than the target, but the actual production is less, as the sun does not emerge half the time at night and there is no way to store the electricity generated during the day for use at night. For this, the capacity of battery storage will have to be increased a lot, which is very expensive right now. On this basis, it can be said that India still has a long way to go in the field of solar power generation. For this, both 'research' and 'money' will be required for the development of new technology on a large scale<sup>6</sup> Another solution is hydrogen-based fuel batteries, which can store the energy produced by the sun. This is a huge technological prospect, on which companies like Reliance are investing heavily. Hydrogen is a clean fuel that, when consumed in a fuel cell, produces only water. Hydrogen can be produced from a variety of domestic resources, such as natural gas, nuclear power, biomass, and renewable

power like solar and wind. These qualities make it an attractive fuel option for transportation and electricity generation applications. It can be used in cars, in houses, for portable power, and in many more applications.

As of November 2020, India has **22 nuclear reactors in operation in 7 nuclear power plants, with a total installed capacity of 7,380 MW**. Nuclear power produced a total of 43 TWh in 2020-21, contributing 3.11% of total power generation in India (1,382 TWh). Nuclear power is the fifth-largest source of electricity in India after coal, gas, hydroelectricity and wind power. India's domestic uranium reserves are small and the country is dependent on uranium imports to fuel its nuclear power industry. Since early 1990s, Russia has been a major supplier of nuclear fuel to India. Due to dwindling domestic uranium reserves, electricity generation from nuclear power in India declined by 12.83% from 2006 to 2008.<sup>7</sup>

Combined all sources, India's energy capacity is 400 GW, of which 51 percent of the

production comes from coal alone. Coal plants can run for 24 hours, but solar or wind power plants cannot. India generated about 1500 billion units of electricity during 2021-22. In October 2021, there was a shortfall of 1.2 billion units. The energy shortfall exceeded two billion units in the last week of April, 2022. This has been caused by unprecedented heat in most parts of the country, when the temperature reached over 43 degrees. The demand has exceeded 200 GW on a daily basis. This demand will continue for the next two-three months, as the heat is likely to persist till the end of July (at least in North and West India).

If there is no relief from the heat, then more such measures will be needed. If the total shortfall exceeds 2.5 billion units, then the power supply will have to be cut. The possibility of power outages in some parts of the country for several hours is undeniable. Naturally this will not happen in metros and big cities and small towns and villages will have to suffer the crisis. Coal crisis also means that Aluminum, Steel, Textile, Paper, Iron and some fertilizer producers will not get coal, due to which their production may be affected. With coal transportation, trains, reduction plans, etc., this process of getting out of the crisis is very complicated. This situation has also become serious due to the Ukraine war. Due to the absence or boycott of gas from Russia, the consumption of coal in Europe and America will be high. Impact of Ukraine war is now quite visible in India. Prices of most of the commodities have increased. Prices of raw materials have gone up to 40% high since January 2022. Australian coal usually costs a hundred dollars a ton, but the Ukraine war has pushed prices up to \$440 and there are supply constraints. The prices of natural gas and other fuels used to heat homes in Europe have also gone up. In such a situation, coal based energy is getting cheaper even at the increased prices. In the year 2021, the global demand for coal increased by nine per cent to nearly eight billion tonnes. This is the highest demand ever. Despite fears of a slowdown this year, demand is expected to increase by another two per cent.

Coal has become expensive in India too. So, we have two challenges before us - power cuts and price hikes. The rate in electricity

exchanges is Rs 12 per unit, which is usually three to four rupees. A worrying consequence of the over-reliance on coal for energy relates to the goal of reducing global warming and carbon emissions to zero. While we wait for alternatives like solar power and hydrogen to become cheap and available in abundance, the world may have to increase production of nuclear power.

### **Suggestions**

Countries like France and Japan are mainly dependent on nuclear energy. In the current situation, there is a need to re-review the ban on the expansion of nuclear power. India should also keep the option of nuclear expansion open. Right now the condition is that due to oil and other things inflation of commodities is in worrying condition and on top of that now there is shortage of coal and electricity has also become expensive. It seems that this time the summer will be a bit hot.

### **References:**

1. <https://www.businesstoday.in/latest/story/power-crisis-in-india-these-states-facing-electricity-problems-full-list-332105-2022-05-02>
2. <https://www.businesstoday.in/latest/story/power-crisis-in-india-these-states-facing-electricity-problems-full-list-332105-2022-05-02>
3. <https://www.businesstoday.in/latest/story/power-crisis-in-india-these-states-facing-electricity-problems-full-list-332105-2022-05-02>
4. Physical Progress (Achievements)". Ministry of New & Renewable Energy. Retrieved 18 April 2022.
5. "Snapshot of Global PV Markets 2020" (PDF). International Energy Agency: IEA Photovoltaic Power Systems Programme. Retrieved 26 April 2022.
6. Ranade Ajit, Desh mein gambhir hota urja sankat, prabhat Khabar, 5.5.2022
7. "Ministry of Power". Powermin.gov.in. Archived from the original on 18 March 2011. Retrieved 22 April



# THE CHANGING NATURE OF SATYAGRAHA IN INDIA - A CONTEMPORARY STUDY

**Nidhi Sinha**

Research Scholar  
Department of Political Science  
Kolhan University  
Jharkhand

**Dr. Rashmi Kumari**

Assistant Professor  
G.S College for Women, Jamshedpur  
Jharkhand

---

## Abstract

The concept of Satyagraha is a special contribution of Gandhi to modern thought. The method of action used by Gandhijee in the political field to give shape to the principle of non-violence is Satyagraha. Gandhijee believed that the roots of a powerful empire could be shaken by Satyagraha and he had proved it too. It can be said that it is not a fundamental concept in itself. Because in the Upanishads it is said that the world rests on truth and the message of non-violence was given by Buddha and Mahavir Swami. But Gandhi's main contribution lies in the fact that on the basis of an old concept, he invented a method of fighting against evil and injustice on a large scale.

In this research paper, an attempt has been made to know where India, which is celebrating the Amrit Mahosav of 75 years its independence, stands today with the ideology of Satyagraha. And, to what extent the rules of Satyagraha are being followed in the people's movements in the present times.. And, also if the code of conduct of Satyagraha is not being followed, then what are the reasons for it? The causes and consequences of the growing violent mass movements in India have also been discussed in this paper.

This paper is based on secondary data. Required information has been collected through newspapers, research journals, interviews available on internet and detailed library work.

**Key words-** Satyagrah, Mahatama Gandhi, CAA movement, movement against farm laws, Agnipath scheme.

In the last decade of the nineteenth century, Gandhijee started a movement to break the law to protect the rights of Indians in South Africa. This movement was completely non-violent. Through this movement the world was first introduced to the strategy of 'Unarmed Retaliation' or 'Passive Resistance'. Mahatma Gandhi was the originator of this non-violent strategy. Those who fought this fight against discrimination and discrimination of black and white, initially the strategy of "armed resistance" was used to avoid strong opposition. Women in England used this "passive resistance" to get the franchise, route was adopted. In this way, in retaliation, it was considered appropriate to harass the opponent in every other way except to attack him with a weapon, to harm him by deceit, or to humiliate him by making a pact with his enemy, etc.

But, in Mahatma Gandhi's 'Unarmed Retaliation', there was no place for treachery, deceit and mischief. Satyagraha seeks to conquer through conversion: in the end, there is neither defeat nor victory but rather a new harmony.

## The origin of the word Satyagraha and its theoretical side-

Satyagraha draws from the ancient Indian ideal of *ahimsa* ("noninjury"), which is pursued with particular rigour by Jains, many of whom live in Gujarat, where Gandhi grew up. In developing *ahimsa* into a modern concept with broad political consequences, as satyagraha, Gandhi also drew from the writings of Leo Tolstoy and Henry David Thoreau, from the Bible, and from

the *Bhagavadgita*, on which he wrote a commentary.

Mahatma Gandhi was impressed by Thoreau's arguments. In 1907, about one year into his first *satyagraha* campaign in South Africa, he wrote a translated synopsis of Thoreau's argument for *Indian Opinion*, credited Thoreau's essay with being "the chief cause of the abolition of slavery in America", and wrote that "Both his example and writings are at present exactly applicable to the Indians in the Transvaal."<sup>1</sup> He later concluded:

Thoreau was a great writer, philosopher, poet, and withal a most practical man, that is, he taught nothing he was not prepared to practice in himself. He was one of the greatest and most moral men America has produced. At the time of the abolition of slavery movement, he wrote his famous essay *On the Duty of Civil Disobedience*. He went to gaol for the sake of his principles and suffering humanity. His essay has, therefore, been sanctified by suffering. Moreover, it is written for all time. Its incisive logic is unanswerable.

**"For Passive Resisters" (1907).  
(Placeholder1)2**

Gandhijee was looking for a suitable word for his war policy based on truth. The methodology of his movement in South Africa was completely different. He held a competition to get the right word in which late Maganlal Gandhi suggested a word "Sadagraha" in which Gandhijee accepted the word "H" with slight modification. The term "Satyagraha" was similar to the process of civil disobedience described by the American philosopher Thoreau.

The basic meaning of "Satyagraha" is insistence on truth (Satya and Urge) to hold on to the truth and with it, to accept non-violence - a complete protest against injustice. The basic characteristic of Satyagraha is: We should choose to die fearlessly while following the truth and even at the time of dying, we should not have enmity or anger towards the one against whom we are doing Satyagraha.'

In "Satyagraha" there is no place for violence towards opponent. A satyagrahi is a non-violence advocate. Patience and sympathy should free the opponent from his mistake, because what appears to one to be true may appear wrong to the other. Patience refers to suffering. Hence the meaning of this principle is, "Protection of truth not by causing pain or suffering to the opponent, but by suffering himself."

Mahatma Gandhi had said that in Satyagraha one of the terms "love" is invisible. The middle term is omitted in the treaty of Satyagraha. Satyagraha means insistence by love for truth. (Truth + Love + Urge = Satyagraha)

Gandhijee briefly explained Satyagraha in front of Lord Inter as follows - "It is a movement which is completely based on truth and is being carried out in lieu of measures of violence." Non-violence is the most important element of the philosophy of Satyagraha, because non-violence is the only way to reach and stick to truth. Active love has a positive instinct.'

Satyagraha is about suffering oneself. Following the truth is a matter of the choice of death. "Fasting" is the most powerful weapon in the arsenal of the priest of truth and non-violence. For one who does not take shelter of violence in any form, fasting is mandatory. To suffer till death and hence fasting till death is the ultimate weapon of the Satyagrahi. ' But if fasting takes the form of self-pity in order to compel others, then it is discarded: in that role, what Acharya Vinoba calls gentle, gentler, gentlest satyagraha, fasting is the last in that role.

"Satyagraha" is not only a method of protest, it is also a specific way of life, at the core of which are the eleven vows of non-violence, truth, aparigraha, asteya, fearlessness, brahcharya, sarvadharma equanimity etc. Whose personal life is not pure due to these vows, he is a true Satyagrahi. That is why Vinoba calls these vows "Satyagraha Nishtha". There is as much difference between "Satyagraha" and "Unarmed Retaliation" as between the North and the South Pole. Unarmed retaliation is conceived as a weapon of the weak and does not prohibit the use of

<sup>1</sup> Gandhi, M. K. "Duty of Disobeying Laws", *Indian Opinion*, 7 September and 14 September 1907.

<sup>2</sup> Gandhi, M. K. "For Passive Resisters", *Indian Opinion*, 26 October 1907.

violence for the achievement of one's purpose, whereas Satyagraha is conceived as a weapon of the supreme valor and involves the use of violence in any form. There is no place for the use of violence. Thus satyagraha is not a passive state. It is a state of intense activity. Satyagraha is non-violent resistance, but it is not passive.

The question of retribution against the unjust and injustice is eternal. In the development of his civilization, man has mainly based on four methods for retribution-

In Mahatma Gandhi's own words

"A Satyagrahi obeys the laws of society intelligently and of his own free will, because he considers it to be his sacred duty to do so. It is only when a person has thus obeyed the laws of society scrupulously that he is in a position to judge as to which particular rules are good and just and which unjust and iniquitous. Only then does the right accrue to him of the civil disobedience of certain laws in well defined circumstances."

— **Mohandas Karamchand Gandhi, The Story of My Experiments with Truth: An Autobiography**

**Gandhijee used Satyagraha in three forms in the political movements of India.**

1. **Non-cooperation Movement-** According to Mahatma Gandhi, "Non-cooperation is an extension of victimized love. Although non-cooperation is the main weapon in the arsenal of Satyagraha, yet it should not be forgotten that truth and justice are a means of achieving the cooperation of the opponent. Non-cooperation movement was started in India in 1920-21 under the leadership of Gandhijee. The program of this non-cooperation was as follows- renunciation of titles and resignation from unpaid, not participating in government events and programs, not sending children to government recognized and aided schools and colleges, boycott of British courts, candidates for election to councils Withdraw your name by, boycott of foreign goods etc. Gandhijee believed that if all the people of the country start non-cooperation with the British rule, then a limited number of Britishers cannot rule the country and thus Swaraj will be achieved in a non-violent manner.
2. **Civil Disobedience-** Gandhijee's second movement was the disobedience of civil disobedience in 1930-31. When the British government did not accept the grant of complete swaraj to India as per the Congress proposal, Gandhijee launched a civil disobedience movement to disobey the unjust laws of the British government. Civil disobedience is the last weapon of Satyagraha. Gandhijee called civil disobedience a complete, effective and bloodless substitute for armed revolution.
3. **Individual Satyagraha-** After India was dragged into World War II by the British in 1940-41, he started the movement of Individual Satyagraha against the British Government, in which Vinoba Bhave was made the first Satyagrahi. Technique of Satyagraha- According to Gandhijee the following are the main techniques (means) of Satyagraha-
  - a) **Non-cooperation-** Gandhijee believed that oppression or exploitation is possible only with the cooperation of the public. If people do not participate in this, then there will be trouble for the government. There can be three forms of this, to stop the work, to boycott, to picket.
  - b) **Civil Disobedience** – Gandhijee described civil disobedience as the most effective weapon whose purpose is to break 'immoral rules'. This is the final state of non-cooperation. Civil disobedience assumes that people have the habit of following the law voluntarily without fear. That is why it should be used only as the last weapon.
  - c) **Fasting** – This is the most difficult weapon of Satyagraha. Ganji called fasting a 'panacea'. This should not be done under any circumstances to put pressure on anyone. Gandhijee observes fasting not only for self-purification but also for the purification of others and to solve political problems. In fasting, suffering is done by not giving trouble to the opponent. This self-pity awakens the opposition to justice and truth in the heart.
  - d) **Hijrat-** It means voluntary country taken out. This is the meaning of Satyagraha. Leaving the place of

repression as a protest against repression and moving to another place. Gandhijee advised that technique to those people who feel very sad and cannot live in one place with self-respect and who cannot defend themselves violently.

### **Changing nature of Satyagraha in present India**

Today, in India 'Gandhi' and 'Satyagraha' have been patented by some political parties. The politicization of the word 'Gandhi' and 'Satyagrah' is very unfortunate. Gandhi and his ideas are universal and should not be allowed to be the benediction of any political party.

The most unfortunate thing is that under the guise of Satyagraha, the workers of political parties adopt all kinds of immoral tactics. It is not a mere coincidence that most of the movements that started in the name of Satyagraha end in a violent manner.

### **Nature of some of the recent public protests in India-**

Naxal movement is the most violent movement in Post independence. According to a report published in Indian Express in 2014 (on the basis of home ministry's report) over 12,000 people, including security force personnel, have been killed by Naxals in nine Left Wing Extremism-hit states in the past 20 years. Of the total 12,183 people killed, 9,471 were civilians and 2,712 central and state security force personnel, the Home Ministry said in reply to an RTI query. The killings were reported in Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Uttar Pradesh and West Bengal.

About 468 people were killed by Naxals in 1993, 376 in 1994, 396 in 1995, 541 in 1996, 583 in 1997, 489 in 1998, 595 in 1999, 548 in 2000, 564 in 2001, 481 in 2002 and 515 in 2003 in these nine states. As many as 565 people lost their lives due to Naxal violence in 2004, 659 in 2005, 678 in 2006, 691 in 2007, 717 in 2008, 908 in 2009 and a huge 1,005 during 2010, (Agency, 2014)

### **Important anti government protest in India. The Citizenship Amendment Act (Bill) protests 2019-**

The Citizenship Amendment Act (Bill) protests, also known as the CAA Protest, CAB Protest or CAA and NRC protests, occurred after the Citizenship Amendment Act (CAA) was enacted by the Government of India on 12 December 2019. The move sparked widespread national and overseas ongoing protests against the act and its associated proposals of the National Register of Citizens (NRC) (Rajlakshmi, 2020). This movement turned violent in many places in the country. Apart from Jamia Millia Islamia University and Aligarh Muslim University, this movement will be violent in Delhi. There was heavy stone pelting on the police and arson by the agitators at some places. A large number of policemen and agitators were injured in this.

**Farmer protest 2020-21-** The 2020–2021 Indian farmers' protest was a protest against three farm acts that were passed by the Parliament of India in September 2020. The acts, often called the Farm Bills, have been described as "anti-farmer laws" by many farmer unions. In Punjab more than 1500 telecom towers were damaged by the protesters in Punjab. (Times, 2020). On January 26 2021, Farmer tractor rally in Delhi sparks chaos and violence after several protesters change their route. Police resort to teargas shelling and lathi charge. At Red Fort, some protesters climb poles and walls and hoist the Nishan Sahib (Sikh flag). One protester dies in the chaos. The leaders of Samyukt Kisan Morcha (SKM), an umbrella body of the protesting farm unions, distances itself from the violence and claims "anti-social elements" infiltrated the rally. According to Delhi Police officials, around 160 people have been arrested in connection with the violence that unfolded last year, of which 20 were held for the violence at the Red Fort.

In addition, 54 cases were registered, of which, 16 are with the Crime Branch. In May last year, the Delhi Police had filed a 3,224-page first charge sheet against actor-activist Deep Sindhu and 15 others. (Cities, 2022)

On 16 June 2022, violent protests erupted in several states in India where the army aspirants angry with the new scheme called for

its rollback and damaged public property. By 17 June, 12 trains were set on fire, and the movements of 300 trains were affected. 214 trains were cancelled, 11 trains were diverted and 90 were terminated short of their destination.

**Agnipath-** Agnipath is a new scheme introduced by the Government of India on 14 June 2022, for recruitment of soldiers below the rank of commissioned officers into the three services of the armed forces.[ The introduction of the scheme has been criticised for lack of consultation and public debate. On 16 June 2022, violent protests erupted in several states in India where the army aspirants angry with the new scheme called for its rollback and damaged public property. By 17 June, 12 trains were set on fire, and the movement of 300 trains were affected. 214 trains were cancelled, 11 trains were diverted and 90 were terminated short of their destination. (Tripathi, 2022)

Apart from the above violent protests, hundreds of small and big mass protests take place every year in different areas of the country. In these protests, violent confrontation between the police and the agitators take place. The property of the general public and government property is damaged on a large scale. There are many reasons for the violent protests in India.

### **Reasons**

1. People are losing faith in non-violence and satyagraha-
2. People are unaware of the, objectives, methods and competencies required for a Satyagrahi
3. The participation of the common people in the mass movements is decreasing. Most of the agitational leaders are professional politicians, and the crowd gathered by them are called by greed.
4. Most of the politicians have no sense of insistence for truth. Hence they are not qualified leaders for Satyagraha.
5. **Political reasons-** Most of the mass protests are led by political parties. Sometimes political parties support movements indirectly. They make such movements violent to defame the

government or to attract the attention of the media and world public opinion.

6. **Misconceptions about satyagrah:** A lot of misconceptions have been created in the public about the effect and method of Gandhi's Satyagraha. A very large section considers it an ineffective method. Clearly, the youth wants to get their point across on the strength of power and violence.
7. **Indifferent governments-** The states and central governments also do not take non-violent mass movements seriously. They get active when mass movements turn violent.
8. **Political motives to tarnish government image** Many times, the ruling party involves the miscreants in the public movements to defame the people's movements. After this, the ruling party ends the mass movements by using force.
9. **Opportunist leaders-** Often the leadership of mass movements sooner or later takes over the opportunistic political forces and bargains by pressurizing the government through violent movements.
10. **Fanatical communal leaders -** Sometimes the leadership of the crowd is in the hands of religious and political leaders of fanatic ideology. They bake their bread by instigating people on the basis of religion, caste, regionalism etc.
11. **Lack of qualified leaders-** Many times the control of the leaders leading the mass movements is lost from the crowd. And the mob uncontrollably indulges in vandalism and violence on a large scale.

### **Criticism of Satyagraha**

A large section in modern India is also critical of the principles of Satyagraha.

1. The use of Satyagraha is not possible in all circumstances. Sometimes the opponent is very immoral, corrupt, dictatorial and ruthless. In such a situation, it is very difficult to fulfill the demands through Satyagraha.
2. It is not possible to use Satyagraha in the international arena or in resistance to attack.

3. It is extremely difficult to bring about social and economic change by non-violent means.
4. The possibility of misuse of the name of Satyagraha remains constant.
5. The practical side of Satyagraha is very weak. Even during Gandhi's movements, the crowd often turned violent.
6. It is very difficult to control the collective Satyagraha as compared to the individual Satyagraha, because every agitator will be restrained and with strict discipline, this is not possible.

**Conclusion**-The literal meaning of Satyagraha is to insist on truth. In other words, "Satyagraha is to oppose the evil based on falsehood through non-violence." It is completely different from physical force or physical power of weapons. This is the power of the soul. Satyagraha is conducted on the basis of spiritual power. The basic principle of the entire philosophy of Satyagraha is that, 'Truth alone wins.' The main characteristics of Satyagraha are that (i) it should be non-violent, (ii) Satyagraha is the ability to suffer itself without hurting the opponent. , (iii) It confronts the brute force of the opponent on the basis of its self-power and moral strength. (iv) In the method of Satyagraha the opponent is not hated but by his general disobedience. (v) A Satyagrahi always hates evil and not the one who does evil. (vi) Satyagraha is the weapon of the strong and the brave, not the coward and the weak. (vii) The moral science of Satyagraha can be used by all persons and under all circumstances. There are also some firm rules of Satyagraha. (i) Satyagrahis

should be arrested. (ii) They should follow the orders of their generals wholeheartedly, not keeping anything hidden in their mind. (iii) A satyagrahi should not have violence in his mind, word and deed towards the enemy. (iv) A Satyagrahi should not be angry with anyone, but he should bear the anger of the opponent. (v) A Satyagrahi should not insult the opposition

## References

1. Gandhi, M. K. "Duty of Disobeying Laws", *Indian Opinion*, 7 September and 14 September 1907.
2. Gandhi, M. K. "For Passive Resisters", *Indian Opinion*, 26 October 1907.
3. Uma Majmudar (2005). Gandhi's pilgrimage of faith: from darkness to light. SUNY Press. p. 138. ISBN 9780791464052.
4. M.K. Gandhi, *Satyagraha in South Africa*, Navajivan, Ahmedabad, 1111, pp. 109–10.
5. Mohandas K. Gandhi, letter to P. Kodanda Rao, 10 September 1935; in *Collected Works of Mahatma Gandhi*, electronic edition, vol. 67, p. 400
6. Gandhi, Mahatma. Non-violent Resistance (Satyagraha). Mineola, N.Y.: Dover, 2001. Print
7. Cristina Ciucu, "Being Truthful to Reality. Grounds of Nonviolence in Ascetic and Mystical Traditions" in Sudhir Chandra (dir.), *Violence and Non-violence across Time. History, Religion and Culture*, Routledge / Taylor & Francis, Londres & New York, 2018, pp. 247-314.



# UNEMPLOYMENT AND GOVERNMENT EFFORTS IN INDIA

**Poonam Kumari**

Research scholar

Department of Economics, Kolhan University, Chaibasa, Jharkhand

**Dr. Ratna Mitra**

Assistant professor, Department of Economics

Jamshedpur Women's University

Jamshedpur, Jharkhand

## Abstract

In this article the details of the efforts made by the government to remove unemployment have been presented. It is pointed out here that unemployment is a burning problem of an economy, the primary; secondary narrative is visible in the tertiary sectors of the economy. The government is making meaningful efforts to remove unemployment. Required data has been collected through secondary data sources.

**Key words-** Economy, unemployment, five year plan, NITI Aayog, skill development, employment guarantee law, self-employment, rural and small scale industries, decentralisation.

Unemployment or unemployment is the condition of a person capable and available to do any work in which he is neither employed with any company or institution nor in any business of his own. The percentage of unemployed people in a country, state or other region in the total labor population is called the unemployment rate of that place. If those people who are unemployable - that is, unemployable - because of child, old, sick or any other condition, do not work, then they are not counted as unemployed nor are they included in the unemployment rate. Unemployment is very high in India. The roots of unemployment in India are very deep. It is being considered as an important problem of India. As of December 2021, 53 million

people were unemployed in India. According to *Center for Monitoring Indian Economy* (CMIE). There are 35 million such people who want to work hard, but they do not get a job. 8 million of these are women. There are 17 million unemployed people in the country who want work but are not actively looking for work. In the Corona period (2019), the United Nations had measured the unemployment rate in the world at 55%. According to him there was 48% unemployment in India then. If India wants to reach the global employment standards, it will have to employ 187.5 million people. The following table presents the unemployment rate during 2021-22.

**Table 1: Statistical Profiles - Unemployment in India (2021-2022)**  
(Unemployment in India , 2022)

Month	India	Urban	Rural
May-22	7.12	8.21	6.62
Apr-22	7.83	9.22	7.18
Mar-22	7.57	8.28	7.24
Feb-22	8.11	7.57	8.37
Jan-22	6.56	8.14	5.83
Dec-21	7.91	9.3	7.28
Nov-21	6.97	8.2	6.41

Oct-21	7.74	7.37	7.91
Sep-21	6.86	8.64	6.04
Aug-21	8.32	9.78	7.64
Jul-21	6.96	8.32	6.34
Jun-21	9.17	10.08	8.75

**Source CMIE**

**Literature review-** Mohanty Shukla in her research paper has done a special discussion about unemployment in India, and has concluded that unemployment is increasing due to lack of skills. The problem of unemployment can be solved by increasing skill development and vocational training among the people. (Mahanty, 2019) Skill development is necessary to remove the existing unemployment in India. For skill development, it is necessary to empower the State Skill Development Mission, National Skill Development Corporation, Sector Skill Council, ITI and National Skill Development Agency etc., so that skill development can take place and can play an important role in employment generation. (Chinoy, 2018). Upadhyay Devashish, in his paper titled, “Efforts to make youth self dependent says that the problem of unemployment is serious in India, for which emphasis is being laid on decentralization of industries. According to Upadhyay (Upadhyay, March 2018 ), the government is making efforts to generate employment in the local, small and medium industries as well as in the agriculture sector. After studying this article, it became clear that there is only one measure of assessment of the achievement of the Government of India, that is, the status of employment.

43 percent of the people were employed in 2004-05, which increased to 39.5 percent in 2010-11. Women get less employment. There is a problem of unemployment in India, due to lack of skills, lack of money, rigidity in labor market rules etc. (Krishna, 2018) Women participation in human resource treasure of India is very unsatisfactory. The government is also arranging loans for self-employment so that unemployment can be reduced. Government of India has given special emphasis on employment generation in its budget. (Shishir, March 2019) Youth play an important role in the development of India, whether it is social, technical or economic and

other fields, in which youth power can be properly utilized by removing unemployment and empowering youth by providing employment. (Jatindra, March 2019)

Economy is a system of production, distribution and consumption. It is the dynamic part of economics in a particular country or region, that is, it tells the real situation of any country or region. Economy is made up of two words, economics and system. The first mention of economy is found in the book 'Arthashastra' written by Kautilya. Its early history is believed to be from the Sumerian dynasty. Under which barter system was used in this system. Economy is the economics of a particular area. At present, area is taken to mean a country. For example Indian economy, Russian economy, French economy etc.

It is being seen since ancient times that there are various challenges for any economy, for example, ensuring the availability of goods and services for the population, provision of basic facilities, arrangement of employment etc. Out of these, the biggest challenge of the economy is – employment efforts to remove unemployment. It is the endeavor of every economy that income can be maximized through economic activities. There are mainly three sectors of the economy.

- i. Primary Sector,
- ii. Secondary Sector And
- iii. Tertiary Sector.

Agriculture, animal husbandry, fisheries etc. come under the primary sector. Industries, textiles, etc. come under the second sector. Banking, insurance, education, medicine, tourism etc. come under the third sector.

India is a developing country. Here the nature of unemployment is different. According to Lord Keynes, unemployment arises in the absence of efficient demand. Due to the

economic recession of 1929 AD in India, unemployment arose due to which various types of problems also arise. Different types of unemployment are found in India like cyclical unemployment, seasonal unemployment, industrial unemployment, hidden unemployment, educated unemployment. Of these, especially the hidden unemployment is more and more visible.

In the Sixth Five Year Plan, special concern was expressed on unemployment and it was accepted that the situation in the employment sector is very unsatisfactory. In this five year plan, it was accepted that there is a need for a strong employment policy to remove unemployment, as well as special emphasis was given to increase the number of gainfully employed persons to reduce underemployment. In 1973, keeping in mind the Bhagwati report, some special programs were launched to provide employment opportunities, the details of which are as follows:

**Village Development Program-** Under this program, efforts were made to increase the productivity of land and labour. Agencies were created for the development of small farmers, through which loans were made available to them so that they could increase agricultural production by using modern technology. Apart from this, help can be obtained in distribution, marketing and collection.

Under the Integrated Dry Land Development Program, various programs of land conservation and land development have been included. Efforts were made to provide self-employment opportunities to unemployed diploma and degree holders in the scheme related to Agricultural Service Center. Two important programs were adopted in the Sixth Five Year Plan – Integrated Rural Development Program and National Village Employment Program. Through the Integrated Rural Development Program, basically an attempt was made to promote self-employment among poor families.

The food program under the National Village Employment Program was reorganized and renamed as the Village National Employment Program and was launched in October 1980. The objective of the National Rural Employment Program was to build community

assets to strengthen the rural infrastructure, including drinking water, some community irrigation wells, village ponds, small irrigation projects, rural roads, schools, kindergarten buildings, panchayat houses, etc.

Under the Integrated Rural Development Program, an attempt was made to reduce rural poverty, which was possible only through the prevention of unemployment, through this an attempt was made to develop skills in the villagers, as well as the creation of productive assets in the village, through which If the villagers are motivated for self-employment, as well as they adopt self-employment, then there should not be any obstacle in their progress.

Under the Jawahar Rozgar Yojana, the former Prime Minister Late Rajiv Gandhi announced this scheme on 28 April 1989. In this scheme, the National Village Employment Program and the Rural Landless Employment Guarantee Program were put under one big umbrella. Through this scheme, efforts were made to create gainful employment for rural men and women, along with increasing rural infrastructural facilities as well as creating community and social assets. In addition, efforts were made to enhance the quality of life of the villagers.

Jawahar Gram Samridhi Yojana, which was launched in April 1999, under this, 75% of the expenditure of various schemes was borne by the Central Government for the prosperity of the village and a provision of 21% share was provided by the State Government.

Swarna Jayanti Gram Swarozgar Yojana played an important role in employment generation. Under this, efforts were made to promote micro enterprises. To remove unemployment, Swarna Jayanti Shahari Rozgar Yojana proved to be beneficial, under which efforts were made to create better employment opportunities for the urban unemployed. In the Ninth Five Year Plan, efforts were made to improve the irrigation system along with investment in agriculture to remove unemployment. In this plan, emphasis was laid on the decentralization of industries, so that industries can expand equally in all areas and people can get employment. Apart from this, it was said to give high priority to

rural and small scale industries. In the tenth five year plan, special emphasis was laid on two things for employment generation -1. Such employment which is based on development. That employment which is program based and generate employment in a better way. In the Eleventh Five Year Plan, 3.67 crore persons were unemployed. As a result, a target of creating 5.8 crore additional jobs has been set in this scheme. In 2005, the Employment Guarantee Act was implemented, under which at least 100 days of employment should be provided to an adult person from the urban poor and lower middle class family. The minimum wage fixed for 100 days of guaranteed employment under this scheme should not be less than ₹ 60 per day. This scheme was linked to the families living below the poverty line as well as the rural unemployed. This scheme was initially started in 200 districts, but gradually it was extended to the whole of India. NREGA means National Rural Employment Guarantee Act, currently its name is Mahatma Gandhi National Employment Guarantee Act ie MGNREGA. Most of the population in India resides in rural areas. Due to the lack of employment in rural areas, people migrate to the cities, to prevent which the central government decided that employment should be arranged for the villagers in the rural areas itself. The NREGA scheme was passed on 2 October 2005. It was first started in India on 2 February 2006 in a village named Anantapur in Bandavali district of Andhra Pradesh. On December 31, 2009, the name of this scheme was changed to MGNREGA i.e. Mahatma Gandhi National Employment Guarantee Scheme. Under this the following works are done-

1. Water conservation
2. Tree planting
3. Flood control
4. Land development
5. Different types of housing
6. Minor irrigation
7. Gardening
8. Rural connectivity road construction

Villagers are getting employment due to MGNREGA. Chief Executive Officer of NITI Aayog Mr. Amitabh Kant says that "India is currently the fastest growing economy with great demographic potential. This huge population can be productive by proper

skilling. If changed in the workforce, this could pave the way for faster GDP growth.

The National Institute for Transforming India, also known as NITI Aayog, was formed on 1 January 2015 through a resolution of the Union Cabinet. It is the premier 'think tank' of the Government of India. Which provides directional and policy facts. NITI Aayog, while designing strategic and long-term policies and programs for the Government of India, also provides relevant technical advice to the Center and the States.

NITI Aayog tries to identify and solve various problems for employment generation. The Skill Development and Employment Unit deals with matters relating to skill development, employment generation, labor reforms and social security etc. It works closely with the Ministry of Skill Development and Entrepreneurship and Ministry of Labor and Employment for coordination, formulation, processing, evaluation, analysis and monitoring of various schemes, programs and projects. The emphasis is on making India the skilling center of the world and improving labor market conditions for both employers and employees. It maintains synergy with international bodies and experts, so that necessary issues can be identified and problem can be solved.

For employment generation, care is taken by the concerned department of NITI Aayog, that the skill development mission should be strengthened and skill development should be quantitative as well as qualitative. This commission gives special emphasis to the private sector on setting up training centers and appointing skilled trainers.

The Central Government is running the Pradhan Mantri Kaushal Vikas Yojana to enable the youth to be technologically trained and employable. Presently 306 Pradhan Mantri Kaushal Vikas Kendras have been opened, the government is trying to create employment in large establishments, small and medium industries and agriculture sector with locally available opportunities to meet the need of employment to the growing population. The government has made a provision of Rs 3794 crore for loan assistance and subsidy to the small and medium sector.

National Career Service is an initiative to bring about a qualitative change in the quality and delivery of employment services in the country, under this a national portal [www.ncs.gov.in](http://www.ncs.gov.in) has been developed which will provide employment to unemployed people.. The nature and conditions of work are changing due to new employment opportunities. Under this, the skill related requirements are changing and the traditional way of work and the means of income are also changing. India has the largest startup ecosystem in the world.

It is thus clear that the government is striving to create employment opportunities. Along with employment generation, the government is also emphasizing on skill development, so that more and more people can get employment and make India a developed country.

## References

1. Chinoy, D. (2018). skill development, employment and human resource development. *Yojna* , 64-66.
2. Jatindra, S. (March 2019). Sustainable and Inclusive Development of Youth. *Yojna* , 32-37.
3. Krishna, A. G. (2018). Employment Scenario in India. *Yojana* , 62-65.
4. Mahanty, S. (2019). Unemployment and Vocational Training in India- Problem and Challenge. *Jamshedpur Research Review* , 7-11.
5. Shishir, S. (March 2019). Interim Budget : An overview. *Yojna* , 7-10.
6. Upadhyay, D. (March 2018 ). Upadhyay Devashish, " Efforts to make youth self dependent", Scheme, ISSN no - 0971-8397, March 2018, p.69-75. *Yojna* , 69-75.



# ROLE OF RENEWABLE ENERGY FOR BUILDING ATMANIRBHAR BHARAT THROUGH STRATEGIC ECONOMIC SUSTAINABILITY

**Abhijit Garai**

Research Scholar, Usha Martin University  
Ranchi, Jharkhand, email :abhijitgarai@yahoo.co.in  
Mobile : 9431955595/ 7004828172

**Dr. Dinesh Kumar Pandey**

Asst Professor (Dept of Business Management & Commerce)  
Usha Martin University, Ranchi, Jharkhand

---

**Abstract:** On 12th May 2020, the Hon'ble Prime Minister of India Narendra Damodardas Modi has announced a stimulus economic package of Rs. 20 lakh crores economic package known as 'AtmaNirbhar Bharat Abhiyaan' for vision of a self-reliant India in the backdrop of covid 19crisis. It is like Khadi industry that has achieved a global recognition due to its increasing demand in the national market. Making of solar panel and storage battery etc under the AtmaNirbhar Bharat initiative will create job opportunity in Indian market and using the same for producing solar energy is self-reliant for producing renewable energy. After the success of Performance Linked Incentives (PLI) in electronics manufacturing, the government has decided to give similar incentives to high efficiency solar modules. India's renewable power capacity is the fourth largest in the world and is growing at the fastest speed among all major countries. The study is focused on how Renewable Energy will help "Make in India" success through strategic economic sustainability. The study is based on secondary data collected from different sources like various journals, magazines, newspaper, books and websites.

**Keywords:** AtmaNirbhar Bharat, Renewable Energy, Ministry of New & Renewable Energy, Performance Linked Incentives, Gigawatt.

---

**Introduction:** For economic development worldwide energy is recognized as an engine. Global energy resources can be classified into three main groups, namely fossil energy (coal, gas, oil etc.), renewable energy (wind, solar, geothermal, air power, biomass, hydrogen, ocean, etc.), nuclear energy. Renewable energy means energy obtained from non-fossil and renewable sources, namely solar, wind, hydropower, geothermal, ocean, biomass and biogas etc.

India's renewable power capacity is the fourth largest in the world and is growing at the fastest speed among all major countries. The renewable energy capacity in India as on 31.03.2022 is currently 156.6Giga Watts, which is about 39.2% of its total capacity. India is setting ambitious world largest target

of installing 500 GW of renewable energy by 2030.

Our Hon'ble Prime Minister had announced the mission of AtmaNirbhar Bharat on May,2020with a stimulus economic package of Rs 20,000 crore with a view of "Make in India" initiative to make India AtmaNirbhar. He explained the objective of the package standing by the business of Indian people and encouraging the people for purchasing and promoting local goods and services from the local markets for balancing economic depletion due to Covid 19. Self-reliant means, securing self-sufficiency through rapid expansion of local manufacturing capacity through Indian domestic industry-based energy production, less dependency on imported hardware and technical services. Five pillars of AtmaNirbhar Bharat are –

Economy, Infrastructure, System, Vibrant Demography and Demand.

For \$ 5 trillion economy our industrial sector has to grow in double digits on a sustained basis. Growth of industry require more energy demand for more production. Our PM has announced PLI schemes for 13 sectors including manufacturing of High Efficiency Solar PV Modules to create manufacturing global champions for an AtmaNirbhar Bharat. For this, the government has committed nearly 1.97 lakh crores, over 5 years starting FY 2021-22. This initiative will help our industry to bring scale and size in all sectors, create and nurture global leader and provide jobs to our youth. The government has committed a fund of Rs. 4500 crores for 'High Efficiency Solar PV Modules' under the Ministry of New & Renewable Energy (MNRE). It will help bring scale and size in Solar PV manufacturing,

create and nurture global champions and provide jobs to youth. The PLI schemes will incentivize new Gigawatt (GW) scale solar PV manufacturing facilities in India. The scheme has rewarded efficiency of solar modules as well as local value addition.

The Union budget 2021-22 has allocated a capital fund of Rs. 1,000 cr. to Solar Energy Corporation of India and Rs. 1,500 cr. to the Indian Renewable Energy Development Agency. This measure will give a boost to funding for renewable energy projects in India and increase liquidity in the sector.

The Union budget 2022-23 has allocated another Rs 19,500 crores under government's PLI scheme to boost local manufacturing of high-efficiency modules, referencing fully integrating manufacturing units into solar photovoltaic (PV) modules.

**Table 1: Installed Generation Capacity from all sources as on 31st March, 2022**

Source	Installed Capacity (MW)	Share
Coal& Lignite	2,10,700	52.74%
Large Hydro	46,722	11.70%
Other Renewable	1,09,885	27.50%
Gas	24,900	6.23%
Diesel	510	0.13%
Nuclear	6,780	1.70%
<b>TOTAL</b>	<b>3,99,497</b>	<b>100.00%</b>

Source: Ministry of Power, Govt of India.

**Table 2: Installed Renewable Energy capacity (excluding large hydropower) as of 31<sup>st</sup> Mar, 2022**

Source	Installed Capacity (MW)	2022 Target (MW)
Wind Power	40,357	60,000
Solar Power	53,997	100,000
Biomass Power	10,205	10,000
Waste-to-Power	477	
Small Hydropower	4,849	5,000
<b>TOTAL</b>	<b>1,09,885</b>	<b>175,000</b>

Source: Ministry of New & Renewable Energy, Govt of India.

**Benefits of AtmaNirbhar Bharat:** AtmaNirbhar Bharat has opened plenty of opportunities for renewable energy especially for Solar Energy. There are many government reforms which have been done in order to achieve AtmaNirbhar Bharat such as Collateral free loans for businesses up to three lakh crore rupees, special liquidity schemes for

NBFCs, Reduction in TDS and TCS rates, ease of doing business for corporates etc. Union Govt has taken so many steps to improve energy related hardware. Govt has introduced new income tax section 115 BAB for lower tax rate of 15% for newly built manufacturing companies.

Govt is considering to provide land bank for industrial cluster under this scheme. Li Ion batteries are required for Electric Vehicle and Energy storage system for grids and large Industries which require a stable power supply. Presently we are importing Li Ion batteries from China and Korea. Indian companies like Adani, Tata have already expressed their interest for setting up swadeshi manufacturing of Li Ion batteries. After we manufacture them in India the cost of generation will reduce. Also export will increase. We can expect that successful manufacturing units will invest more in R&D.

The AtmaNirbhar Bharat scheme will create a direct employment of more than 30,000 persons and indirect employment of 120,000 persons in ancillary industries.

Capital fund of Rs. 1,000 cr. to SECI has given a boost for tendering of 15,000 MW and involved investment cost of Rs. 60,000 cr. on yearly basis. It will create direct employment of 45,000 persons yearly. It will also reduce carbon emission by 28.5 million tons of CO<sub>2</sub> per year.

National Institute of Solar Energy under the flagship of MNRE is working in certification and skill development program, R&D and testing for solar energy generation.

The analysis shows that a 1 % increase of renewable energy consumption will increase GDP by 0.105% and GDP per capita by 0.100%, while a 1 % increase of the share of renewable energy to the energy mix of the countries will increase GDP by 0.089% and GDP per capita by 0.090%.

**Demerits of AtmaNirbhar Bharat:** Due to the impact of COVID 19, the world economy has been slowing down and it becomes all the more difficult to install and scale up the supply chain of hardware and services sector of the energy sector.

Indian solar PV manufacturing units are assembled, the solar modules are imported from China and Germany. Indian competency in solar technology is very low with only 246 patents as compared with leading solar manufacturing country China with 39784 patents. Huge capital incentives are required

for incremental changes in technology. India must set up its own R&D for low cost latest technology savvy solar panel manufacturing.

Specialised skill like manufacturing and design engineers for manufacturing latest technology solar panel and assembly line skill workers are very much scarce in India. NISE, IIT, ITI, National Skill Development Council should develop such skill to success Make in India project. Setting up of solar manufacturing units require huge investment. Interest cost is main barrier to set up any manufacturing unit in India. Average interest rate from any financial loan in India is 11% as compared 5% in developed countries.

Regulatory body should regulate properly with standard terms and condition to control the monopoly of market.

## Conclusion

Inspite of all the barriers AtmaNirbhar Bharat Abhiyaan has opened a huge opportunity for India's RE ambition. Govt has implemented so many reforms on RE policies and allocated huge funds in Union Budget 2021-22 and 2022-23. Following measures have been taken by Govt for flourishing renewable energy

- 45 solar parks having capacity of 37 GW have been approved.
- The world's largest hybrid solar wind project is under installation in Gujarat.
- One solar city for every state have been approved by Govt.
- New opportunities for investment are wind solar hybrid, offshore wind energy, floating PV projects.
- Solar tariff has been reduced to Rs. 1.99/ kwh from Rs. 6.47/ kwh. Similarly, wind tariff has been reduced to Rs. 3.00/ kwh from Rs. 5.92/ kwh in last six years.
- In Uniform Renewable Purchase Obligations scheme all distribution licensees have to purchase minimum quantity of their total requirements from Renewable Energy Sources.
- Govt has set target to reduce total carbon emission by 1 billion tonnes by 2030.

It should not be only the role of the Government to achieve AtmaNirbhar Bharat in

actuality that should be the responsibility and duty of every Citizen. In all aspects India should be self-reliant.

## References:

1. Debnath, R., Mittal, V., & Jindal, A. (2022). A review of challenges from increasing renewable generation in the Indian Power Sector: Way forward for Electricity (Amendment) Bill 2020. *Energy & Environment*, 33(1), 3-40.
2. Indrajayanthan, V., & Mohanty, N. K. (2022). Assessment of clean energy transition potential in major power-producing states of India using multi-criteria decision analysis. *Sustainability*, 14(3), 1166.
3. Kumar, M., & Mittal, V. (2020). HARA BHARA ATMANIRBHAR BHARAT. *European Journal of Molecular & Clinical Medicine*, 7(11), 2020.
4. Majid, M. A. (2020). Renewable energy for sustainable development in India: current status, future prospects, challenges, employment, and investment opportunities. *Energy, Sustainability and Society*, 10(1), 1-36.
5. Rathi, M. (2021). Atmanirbhar Bharat Abhiyaan: Paving a way of making India Self-reliant. *Research Inspiration: An International Multidisciplinary e-Journal*, 7(I), 04-06.
6. Singh, K., & Vashishtha, S. (2021). Liquidity infusion under Atmanirbhar Bharat scheme: A strategy to revive Indian power discoms. *Economic Thought journal*, (5), 79-89.
7. *ibid.*
8. <https://aatmanirbharbharat.mygov.in/>
9. <https://businessworld.in/article/Energy-Sector-and-Atmanirbhar-Bharat-Challenges-and-Prospect/15-12-2020-354032/>
10. <https://drishtiias.com/printpdf/the-big-picture-india-s-renewable-energy-plan>
11. <https://economictimes.indiatimes.com/markets/expert-view/india-has-to-be-atmanirbhar-in-renewable-energy-start-chip-manufacturing-nirmala-sitharaman/articleshow/85273605.cms?from=mdrsitharaman/articleshow/85273605.cms?from=mdr>
12. [https://mnre.gov.in/img/documents/uploads/file\\_f-1612941710983.pdf](https://mnre.gov.in/img/documents/uploads/file_f-1612941710983.pdf), Highlights-Budget 2021 - 22, Provisions for Renewable Energy (RE) Sector.
13. <https://energy.economictimes.indiatimes.com/news/renewable/budget-2022-emphasis-on-energy-transition-and-clean-energy/89377609>
14. <https://india.gov.in> > spotlight > union-budget-2021-2022, Union **Budget** 2021-2022| National Portal of India
15. <https://india.gov.in> > spotlight > union-budget-fy-2022-2023, Union **Budget** FY 2022-2023| National Portal of India
16. <https://investindia.gov.in/atmanirbhar-bharat-abhiyaan>



# INNOVATIONS IN EDUCATION FOR TEACHING AND LEARNING USING TECHNOLOGY

**Bencila Rose Sunny**

Assistant Professor

Kunhathumma Memorial College of Teacher Education

Valillapuzha, Malapuram

Kerala

---

## Abstract

Education is regarded as the process of interaction and interpersonal communication. Technology has become an essential tool for that. It has changed our life in many ways including the teaching-learning pattern. With the appropriate use of Information Communication Technology (ICT) in twenty first century, there is innovation in education system. Technology plays an important role in teaching and learning process. Technology enhances one's learning by eliminating the time, geographical barriers, and space constraints thereby enhancing life-long learning. In specific Information and Communication Technologies (ICT) have brought about momentous changes in the higher education sector. An innovative teacher continuously prepares new ways and approaches to teaching and learning to maximize the output. Education experiences a major change in terms of access, equity and quality. ICT based education causes changes in education system in the beginning of teaching and learning process. Approaches of technology and innovative teaching techniques in education are necessary. In this regard, the paper says that the innovations of education by integrating ICT in various aspects of education in the present scenario.

**Key Words:** Education Technology, Teaching

---

## Introduction

Technological innovations are having a significant impact on teaching and learning in educational system at all levels. Innovative teaching techniques like online courses, teaching aids, educational software, social networking tools and other emerging technologies are disrupting the traditional classroom environment. The term technology means that all kinds of media and information and communication technology (ICT) in education for teaching and learning purpose. In 21<sup>st</sup> century education in the country is experiencing a major transformation in terms of access, equity and quality. ICT is a diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. This broad definition of ICT includes technologies as radio, television, video, DVD, telephone, satellite system, computer and network hardware and

software; as well as the equipment and services associated with these technologies, such as video conferencing and electronic mail (UNESCO 2002). Educational technology is a field involved in the facilitation of human learning through systematic identification, development, organization and utilization of a full range of learning resources and through the management of these processes.<sup>1</sup> It is necessary to acquire the ability to use technology as a tool to research, manage whole educational system covering planning, implementation, evaluation phase, and communicate information and the possession of the fundamental understanding of the ethical or legal issues and use of information.<sup>2</sup>

## Innovations in education using technology

Education is a very powerful tool for social change and transformation. Innovative teaching practice is the only way to improve the quality of our education. Technology can

be a powerful tool for effective teaching learning process. The use of innovative methods in educational institutions help affirm and advance relationship between educators and students, reinvent our approaches to learning and collaboration, shrink long standing equity, accessibility gaps, develop creativity, and adapt learning experiences to meet the needs of all learners and also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country. The qualities required of the innovative lecture include modesty, open mindedness, courage, judgment, impartiality, empathy, enthusiasm and imagination. By the use of innovative teaching methodologies, student learns by doing themselves. Task of teacher is to facilitate learning and to encourage, motivate and mentor students to attain knowledge and to encourage interest in their subject with the use of innovative methods. There is a shift from a teacher as a knowledge transmitter to a learning facilitator, coach, knowledge navigator and collaborator.

### **INNOVATIVE TEACHING LEARNING TECHNIQUES USING TECHNOLOGY**

Innovative use of technology in education has improved student's academic performance to a greater level. Though traditional classroom teaching may still be prevalent – many schools, students, and teachers are coming forward in embracing technologies in education like digital whiteboards, flipped classrooms and Chrome books replacing textbooks. These innovative ways of teaching and learning constitute a shift from a teacher-centered pedagogy to one that is learner-centered. While technology increasingly plays a major role in disrupting inheritance education models, it will equally place heightened emphasis on human beings' capacity to create and innovate in the face of fast change and complication. Innovative methods in education with the help of print media, audio media, audio-visual media, telecommunication and multimedia communication etc. are the diverse stages of the use of technology in educational transaction in educational institutes.

- a. **Multimedia Learning:** Text-only slideshow presentations are behind the times due to its boring content

delivery. It's obvious that slideshow presentations are already a part of educational curriculum, but if we add a variety of multimedia elements to the presentations it could capture the attention of students for a long time. The opportunities associated with the development of computer-based technology provides the multimedia software available on CD-ROM plays a powerful role with applications in labs and lectures, tutorials and project work and especially useful in science subjects. Few examples of multimedia elements are: Colorful Images, Gifs, Short video clips, Graphs, Animations, Sound Tracks.

- b. **Podcasts in classroom:** Podcast is a digital audio file made available on the Internet for downloading to a computer or mobile device, typically available as a series, new installments of which can be received by subscribers automatically. Podcasts are serial recordings which are posted online regularly. Producing podcast is a technology based equivalent of oral lectures which is flexible and reusable. Having podcasts for all academic lessons can aid with the teaching process in the long run. There are a lot of podcasts available online on various topics of interest. Ranging from motivational podcasts to interviews to online courses. Few examples of podcasts that you can include in classroom: Basic research on an academic topic, Lectures from other educators, Podcasts blogs.
- c. **Web-based Instruction:** It is a form of innovative approach for delivering instruction to a remote audience in which the web is included as a tool. Presently, several web sites have been developed to provide learners with access to instructional resources from a distance.
- d. **MOOC Courses:** MOOC is the most popular way used to offer online courses globally. MOOC are the massive course designed to support unlimited participation and are offered through a platform. MOOCs

provide interactive courses with user forums to support community interactions among students, professors, and teaching assistants(TAs), as well as immediate feedback to quick quizzes and assignment. Currently, NPTEL, mooKIT, IITBX, and SWAYAM are the platforms used in India which offer different courses.

**e. Teleconferencing:**

Teleconferencing is a form of interactive communication that involves people in different locations using a set of transmission mediums. It is a new mixed model approach which combines satellite teleconferencing with hands-on activity session. It uses live teleconference speakers, video clips, interactive call-in sessions and local sessions.

**f. Blogging:** A blog is a discussion or informational website published on the World Wide Web consisting of discrete, often informal diary-style text entries (posts). Blogging assist the teacher to keep an ongoing personal record of their actions, decisions and issues they have to deal with. The blog can act as a kind of mirror and crystallize our ideas.

**g. Screen cast:** Screen cast is an effective teaching tool on the internet. Screen casts can be used for describing a step-by-step process, explaining a particular concept, or presenting a PowerPoint. It is easy-to-use, affordable tools that bring lessons to life through video. Record, edit and share video to connect with students, parents and faculty. ... Share video links, add content to an online course, or create a channel on Screencast-O-Matic.

**h. Smart pens:** Smart pens are used to capture transmitted information, replay it and sent it. It is like wireless transfer of your ideas anywhere, anytime and ready to share with students and vice versa. During lecture, smart pens help students, when teacher talk fast, student can record and understand all the left out things. Smart pens can record video,

audio and diagrams which students can listen and understand during lecture.

**i. Wikipedia:** Wikipedia provides opportunity to the students to write articles and transforms students into teachers. It provides an ongoing project of developing knowledge for future generation of students. Host course in Wikiversity: Wikimedia -a non-profit foundation, Wikibooks - Offers free text books, Wikispecies - Provides dictionary of species, Wikiversity -Provides space for hosting courses or other content

**j. Moodle:** It is Open source system which helps to design your session. Moodle is Virtual Learning Environment which provides staff and students with access to electronic teaching and learning materials such as lecture notes and links to useful websites and activities such as discussion forums, group assignments, reflective journals and quizzes.

**k. Social Media:** Social media is not only for grown-ups. We can avail the benefit of using social media in education too. Twitter becomes go-to. Come up with a class-exclusive hashtag and encourage students to tweet their inquiries, academic doubts, homework, presentations etc. A social media where individuals are in communities that share ideas and interests. Some popular communities are Face book, MySpace, YouTube, blogs, Twitter and delicious. Face book and other social media delivers the promise of new, socially engaged educational experiences for students in undergraduate, self-directed, and other educational sectors. Twitter becomes go-to. Come up with a class-exclusive hashtag and encourage students to tweet their inquiries, academic doubts, homework, presentations etc

**l. Google Calendar:** Google Calendar helps to create and share a class calendar to keep students informed about the class, duration, and important dates. Emailing calendar's hyperlink to students will do wonder.

This will help to stay organized, in turn, make students come prepared for each class

- m. Virtual Manipulatives:** Visualizing mathematical concepts are difficult. Though manipulatives like base ten blocks, coins, blocks, tan grams, spinners, rulers, geoboards may exist, virtual manipulatives are a relatively new technology modeled after the existing ones. Reinforcing mathematical concepts with virtual manipulatives allow students to develop more connected understanding of concepts. Incorporating the use of virtual manipulatives in classrooms are not only easy but appeals to hands-on learners as well.
- n. Videos for Teaching:** Watching videos helps in remembering key concepts longer than reading. Use Hippo Video to help you record digital whiteboard explainers, classroom activities, peer presentations as videos and share them with your class via G-drive, Google Classroom or YouTube right away. Adding videos to your classroom resonates with visual learners, allowing them to learn at their own pace. It could establish a deeper connection with students and comprehend clarity through videos.
- o. Subject-quiz:** It is an innovative teaching method which can be applicable to all the disciplines of teaching.
- p. Video Feedback, and Surveys:** Record personalized feedback on student's work as a video or allow students to give peer feedback through videos. This could help students speak an opinion instead of keeping it writing focused. Students can create forms, quiz, and polls related to academic activities with a tool like Google Forms. Students can create them through classroom electronic devices. This could be one of the easiest ways to introduce technology in your classroom.

### **Measures required for innovations in higher education using technology:**

- Before starting technology based teaching and learning activity, a research need to be conducted on the availability and quality of the physical and human resources.
- There is a need of networking through Local Area Network (LAN), Wide Area Network (WAN), Information and Library Network (INFLIBNET) which would lead to increased academic activities and research.
- Preparation of policy and master plan is a pre-requisite to successful mobilization of funds for implementation of technology based education.
- Recurrent cost of software licenses like applications for the main information systems, specialized applications, database platforms, and desk top applications need to be considered.
- Quality of content development for technology based educational material need to be checked. For this training should be conducted for educational content development specialist such as instructional designers, scriptwriters, audio and video production specialist, programmers & web developers.

### **Conclusion**

Innovations in education are possible by integration of technology. In future, the thrust will be on the use of technology to build up the system in the mode of distance and open learning. Teacher has to adapt innovations in teaching by the use of technology for continuous professional development. It is time to recruit more competent and super star teachers. The teaching learning process needs technologically sound teachers. Only tactful, resourceful, trained and equipped person can effectively cope with changing situations. Institutional and sector-wide education policy and planning should identify the specific role of technology in enhancing research capabilities and provide for adequate infrastructure backed by capacity building.. Technology supported education can promote

the attainment of the knowledge and skills that will empower students for lifelong learning.. As the government increases its investments in technology for education, continuous efforts must make sure that investments in technology positively impact all aspects of education. Technology enabled education will definitely lead to the innovations in higher education in teaching and learning process.

## References

1. Association for educational Communication and Technology. (1972). The field of educational technology: a statement of definition, 17(8),36
2. Asha Kanwar, 'ICT in Higher Education: Who Stands to Gain?,- Commonwealth of Learning.
3. Chinmoy Goswami(2014) "Role of Technology in Indian Education", DOI: 10.7763/IPEDR. , V79.2.
4. C. M. Khairnar(2015). "Advance Pedagogy: Innovative Methods of Teaching and Learning", International Journal of Information and Education Technology, Vol. 5,No.11.
5. F F Tusubira and N Mulira , " Integration of ICT in Higher education Institutions: Challenges and best practice recommendations based on the experience of Makerere University and other organizations," Directorate for ICT Support Makerere University
6. MIAO Fengchun, "Constructive Approach to ICT in Education", APEID UNESCO Bankok.
7. Ron Oliver, "The role of ICT in higher education for the 21st century: ICT as a change agent for education", Edith Cowan University, Perth, Western Australia.
8. Ulka Toro (2014). "Role of ICT for Teaching and Learning in Higher Education", International Journal of Research in Computer Science and Information Technology (IJRCSIT, Volume II, ISSN: 2319-5010, Issue II, Pg No. 140-142.
9. Wright, C.(2000) "Issues in Education and Technology – Policy Guidelines and Strategies." Commonwealth Secretariat, London.

## Internet Websites:

1. <http://www.google.com/>
2. <http://www.nkn.in/>
3. <http://www.sakshat.ac.in/>
4. <http://www.ugc.ac.in/>
5. <http://infomine.ucr.edu/>
6. <http://citeseer.com/>
7. <https://www.hippovideo.com/>
8. <https://en.wikipedia.org>
9. <http://academia.edu.in>



# ANALYZING FINANCIAL HEALTH OF INDIAN IT SECTOR COMPANIES BY USING MODIFIED ALTMAN'S Z SCORE MODEL

**Dr. P. Chellasamy**

Professor, School of Commerce, Bharathiar University  
Coimbatore, Tamil Nadu, India

**Prashant Debnath**

Research Scholar,  
School of Commerce, Bharathiar University, Coimbatore,  
Tamil Nadu, India, Email: prashantdev79@gmail.com

---

## Abstract

Information technology helps in the development and expansion of the business, as well as in generating of higher yields with minimal efforts. With the latest development in information technology, the time it takes to generate revenue is now reduced. IT supports the business world to operate its day-to-day activities more efficiently and effectively, which ultimately results in better productivity. The companies in the IT sector of India are a source of generating thousands of job opportunities and attract millions of investments from other countries every year. Indian IT industry significantly contributing in the total exports of the country; Therefore, it can be assumed that Indian IT industry has been plays a vital role in shaping our Indian economy. In this paper, the researcher attempts to study the financial health of select Indian IT sector companies by using modified Altman's z score model. Altman Z score model helps to determine the company's financial condition and its financial distress level using different financial ratios as variables. The study analysis the financial statements of 10 listed Indian IT sector companies on the basis of their market capitalization for the period of 2019 to 2022. The study reveals that almost all the companies are falling under safe and healthy zone except Qess Corp Ltd., which is falling under grey zone. The research study would be focusing on financial distress level of select Indian IT sector companies and help the management in taking necessary decision to avoid the risk associated with the company's bankruptcy.

**Keywords:** Information Technology, Financial health, Financial Distress, Altman Z score, Bankruptcy.

**Jel Classification:** G33, C53, O33

---

## Introduction

Profit is the goal of every business. The entire firm's or business organization's stakeholders want to know how well the company or organization is performing. Financial statement analysis is critical for understanding a company's present financial situation and position. The Z-Score analysis is a component of financial statement analysis that can be used to forecast a company's financial distress. The

inability of a company to fulfill its liabilities is referred to as financial distress or corporate bankruptcy. The Z-Score methodology is used to determine whether or not a business is insolvent. The ability to forecast a company's financial stress is critical for managers, investors, bankers, and even for the company's stakeholders. The sooner the corporation is aware of its situation, the better decisions it can make to turn things around. Companies must also assess their financial health on a regular basis to avoid sudden company failure. The IT industry is important to our economy's

exponential growth and the creation of millions of employments. India is in the center of global attention and is regarded a knowledge powerhouse in the twenty-first century. Growth in the IT sector will push us to catch up to China in every sector, allowing us to capture a larger share of the global market. As a result, assessing the financial health of Indian IT companies is critical in order to comprehend the financial issues they face.

## **Review of literature**

**Dr. P. Chellasamy and S. Kannamudaiyar (2021)** the study analysis the financial distress using Altman Z score - a study of selected footwear companies in India. According to the findings, the footwear industry's overall financial health is in good shape. From the five companies chosen, four are in the healthy zone (Bata India, Relaxo, Mirza International, and Khadim's). Only Liberty Footwear's Z score is less than 1.80, indicating that the company is in distress.

**Mohammed, S. (2016)** the research was carried out to evaluate the financial health of Raysut Cement Company SAOG and its Oman-based subsidiaries. The study, which was based on secondary data, found that the Raysut Cement Company SAOG and its subsidiaries are financially solid, with a Z score greater than the standard (2.99) except for a few years of the study.

**Cındık Z. & Armutlulu I. H. (2021)** In their study, they revise the Altman Z-Score model, and the empirical results demonstrate that the original Altman Z score has 76.25 percent predictive value in classifying enterprises as distressed or non-distressed. The random forest model and Altman variables have performed better than other three models by a factor of 95 percent.

**Sanesh C. (2016)** In their analytical study of Altman Z score on NIFTY 50 Companies, the majority of the top 50 companies, 26 in total, are in the safe zone, 9 in the grey zone, and 5 in the distress zone. Technology, FMCG, and health care, in that order, are the least likely to report a low z score. Electric generation, distribution, metals, and the oil and gas sector are among the worst-performing sectors.

## **Objective of the study**

1. To analyze the financial distress of select Indian IT sector companies.

## **Methodology**

The study has been undertaken on the select 10 Indian IT sector companies on the basis of their market capitalization for the period of 3 years i.e., 2019-2020. Data has been collected from secondary sources such as annual reports of the companies, BSE website and other scholarly articles. MS excel has been used to analyze the gathered data. Z'' score model is used to determine the financial distress of the selected companies.

## **Results and discussions**

Edward I. Altman created the Z Score Model in 1968 to assess a company's financial health over time. He created a model for predicting the likelihood of a firm going bankrupt by combining a number of financial ratios into an index to compute Z score, which is an effective predictor of corporate performance in predicting bankruptcy. Altman's Z score Model was Revised Specifically for Non-Manufacturing Companies and Named as Z'' Model. The data for the investigation was first evaluated using four accounting ratios, with the help of their respective Averages, these different ratios are aggregated into a single measure termed Z" Score.

### **Altman's Z''-Score:**

$$Z'' = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_4$$

#### **Notes:**

Z'' SCORE: Financial Distress index

RATIO X1: Working capital to total assets.

RATIO X2: Retained earnings to total assets.

RATIO X3: Earnings before interest and taxes to total assets.

RATIO X4: Book value of equity to book value of debt.<sup>1</sup>

**Altman Guidelines:**

- A. If  $Z'' > 2.60$ ; It's categorized a company in a healthy and safe zone.  
 B. If  $Z''$  is between 1.1 and 2.60; It's categorized a company in the grey zone.  
 C. If  $Z'' < 1.1$ ; It's categorized a company in the distress zone.

**Table 1: Ratio(X1): Working Capital to Total Assets**

COMPANY	2019-20	2020-21	2021-22	AVG	AVG (%)
TCS ltd.	0.523	0.498	0.466	0.496	49.6
WIPRO ltd.	0.431	0.373	0.354	0.386	38.6
INFOSYS ltd.	0.363	0.34	0.285	0.329	32.9
HCL ltd.	0.177	0.298	0.329	0.268	26.8
TECH MAHINDRA ltd.	0.328	0.377	0.239	0.315	31.5
L&T ltd.	0.453	0.513	0.477	0.481	48.1
MINDTREE ltd.	0.375	0.469	0.475	0.44	44
MPHASIS ltd.	0.257	0.319	0.261	0.279	27.9
REDINGTON IND ltd.	0.292	0.272	0.324	0.296	29.6
QUESS CORP ltd.	0.13	0.114	0.2	0.148	14.8

**(Source: own computation)**

Table 1 shows the average ratio of working capital to total assets of the Indian IT sector companies from 2019-2021. The result reveals that TCS ltd. (0.496) with approximately 50% has the highest liquid assets to total assets followed by L&T ltd. (48.1%), Mind Tree ltd. (44%), Wipro ltd. (38.6%), Infosys ltd. (32.9%) and Tech Mahindra Ltd. (31.5%), This indicates most of the companies have maintained good liquidity to meet up its short-term obligation except Quess Corp Ind Ltd.

Table 2 shows the average ratio of Retained Earnings to Total Assets of the Indian IT sector companies from 2019-2021. The result reveals TCS ltd. (0.582) with approximately 58% has the highest retained earnings to total assets followed by L&T ltd. (37.8%), Mind Tree ltd. (31.2%) and Infosys ltd. (30.3%), this indicates a good portion of net profit has been retained by the companies. Almost all the companies are less reliant on debt and equity financing except Redington and Quess Corp India ltd. and they have long term objective of expansion and diversification.

**Table 2: Ratio(X2): Retained Earnings to Total Assets****(Source: own computation)**

Company	2019-20	2020-21	2021-22	AVG	AVG (%)
TCS ltd.	0.652	0.609	0.486	0.582	58.2
WIPRO ltd.	0.105	0.193	0.261	0.186	18.6
INFOSYS ltd.	0.223	0.273	0.431	0.309	30.9
HCL ltd.	0.196	0.253	0.367	0.272	27.2
TECH MAHINDRA ltd.	0.165	0.218	0.298	0.227	22.7
L&T ltd.	0.279	0.361	0.495	0.378	37.8
MINDTREE ltd.	0.173	0.315	0.448	0.312	31.2
MPHASIS ltd.	0.2	0.247	0.348	0.265	26.5
REDINGTON IND ltd.	0.072	0.072	0.124	0.089	8.9
QUESS CORP ltd.	0.113	0.023	0.038	0.058	5.8

**Table 3: Ratio(X3) - Earnings before Interest and Tax to Total Assets:**

COMPANY	2019-20	2020-21	2021-22	AVG	AVG %
TCS Ltd.	0.353	0.326	0.355	0.345	34.5
WIPRO	0.139	0.161	0.189	0.163	16.3
INFOSYS Ltd.	0.239	0.247	0.257	0.248	24.8
HCL Ltd.	0.175	0.19	0.194	0.186	18.6
TECH MAHINDRA Ltd.	0.141	0.154	0.17	0.155	15.5
L&T Ltd.	0.236	0.249	0.254	0.246	24.6
MINDTREE Ltd.	0.171	0.243	0.277	0.23	23
MPHASIS Ltd.	0.182	0.18	0.185	0.182	18.2
REDINGTON IND Ltd.	0.067	0.062	0.088	0.072	7.2
QUESS CORP Ltd.	0.082	-0.038	0.065	0.036	3.6

**(Source: own computation)**

Table 3 shows the Average Ratio of EBIT to Total Assets of the Indian IT sector companies from 2019-2021. The result reveals TCS Ltd. (34.5%) has the highest EBIT to total assets followed by Infosys Ltd. (24.8%) and L&T Ltd. (24.6%). Higher EBIT indicates the

efficiency of the companies in controlling expenditures and earning higher profit. Ratio(X3) shows all the companies utilizing their assets appropriately in generating good earnings except Redington and Qess Corp Ind Ltd.

**Table 4: Ratio(X4): Book Value of Equity to Book Value of Debt:**

COMPANY	2019-20	2020-21	2021-22	AVG	AVG (%)
TCS Ltd.	0.696	0.661	0.63	0.662	66.2
WIPRO Ltd.	0.68	0.681	0.664	0.675	67.5
INFOSYS Ltd.	0.706	0.704	0.639	0.683	68.3
HCL Ltd.	0.618	0.695	0.695	0.669	66.9
TECH MAHINDRA Ltd.	0.584	0.627	0.599	0.603	60.3
L&T Ltd.	0.612	0.682	0.707	0.667	66.7
MINDTREE Ltd.	0.612	0.679	0.671	0.654	65.4
MPHASIS Ltd.	0.666	0.694	0.646	0.669	66.9
REDINGTON IND Ltd.	0.314	0.294	0.339	0.316	31.6
QUESS CORP Ltd.	0.544	0.428	0.496	0.489	48.9

**(Source: own computation)**

Table 4 shows the Average Ratio of Book Value of Equity to Book Value of Debt of the Indian IT sector companies from 2019-2021. The result reveals Infosys Ltd. (68.3%) has the highest book value of equity to book value of debt followed by Wipro Ltd. (67.5%), HCL

Ltd. (66.9%), Mphasis Ltd. (66.9%) and L&T Ltd. (66.7%). This indicates almost all the companies maintaining good level of equity to their debt, falling between 50% to 100%, shows good long-term solvency of the companies.

## Altman Z''-Score Model Assessment

Table 5: The result of the Altman's Z''- score model of select10 Indian IT sector companies:

COMPANY	2019-20	2020-21	2021-22	AVG
TCS Ltd.	8.659	8.137	7.688	8.161
WIPRO Ltd.	4.818	4.873	5.14	4.944
INFOSYS Ltd.	5.456	5.519	5.673	5.549
HCL Ltd.	3.625	4.786	5.388	4.6
TECH MAHINDRA Ltd.	4.25	4.877	4.311	4.479
L&T	6.11	6.932	7.192	6.745
MINDTREE	4.816	6.449	7.142	6.136
MPHASIS Ltd.	4.26	4.836	4.768	4.621
REDINGTON IND Ltd.	2.93	2.744	3.477	3.05
QUESS CORP Ltd.	2.343	1.017	2.393	1.918

(Source: Own computation)

Table 5 shows the financial health of Indian IT sector companies from 2019-2021 by employing Z'' Score model. The result reveals that almost all the companies Z'' Score are

above 2.60, indicates healthy and safe zone except Quess Corp Ltd. with Z'' Score of 1.918 falling between 1.1 to 2.6, shows the company is in the grey area.

Table 6: Financial health of the companies:

COMPANY	Z'' SCORE	FINANCIAL HEALTH
TCS Ltd.	8.161	SAFE ZONE
WIPRO Ltd.	4.944	SAFE ZONE
INFOSYS Ltd.	5.549	SAFE ZONE
HCL Ltd.	4.6	SAFE ZONE
TECH MAHINDRA Ltd.	4.479	SAFE ZONE
L&T Ltd.	6.745	SAFE ZONE
MINDTREE Ltd.	6.136	SAFE ZONE
MPHASIS Ltd.	4.621	SAFE ZONE
REDINGTON IND Ltd.	3.05	SAFE ZONE
QUESS CORP Ltd.	1.918	GREY ZONE

(Source: own computation)

## Conclusion and recommendations

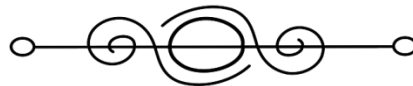
Z'' Score model is one of the effective tools in detecting the financial health of the companies. Investors may use Z Score model to analyze the financial distress of the company before they go for investment. In this study, the researcher has applied the modified Z'' Score formula to find out the bankruptcy of the companies. Modified Z'' Score formula helps in determining the financial distress of non-manufacturing companies more appropriately and accurately than other Z Score model. The study concludes that almost all the companies are falling under safe and healthy zone except Quess Corp Ltd., which is falling under grey zone. The Z'' Score for

Quess Corp Ltd. has been continuously fluctuating since 2019 and a sharp decline can be seen from 2019 to 2020 financial year. Most of the financial variables, which is being considered as the financial health indicators are not in the favour of Quess Corp Ind Ltd. except book value of equity to book value of debt ratio, Although the company is in a precarious position, there is still a chance for it to recover by taking some preventative measures, such as increasing its short-term liquidity, lowering its operating costs, which may improve the company's operating income, and by producing enough net profit so the company can plan to recoup maximum earnings for further future investment, making the company not depend on external

borrowings. The study's limitations include its time frame, which ranges from 2019 to 2022. To improve generalisation, the study period and the companies selected throughout that time frame may be expanded.

## References

1. <https://doi.org/10.4337/9780857936080.00027>
2. Arini, P. H., & Naruli, A. (2020). Analysis of the Method of Altman Z-Score to Predict the Potential of Bankruptcy in Advertising, Printing and Media Companies Listed on the IDX.
3. Altman, E. I. (2013). Predicting financial distress of companies: revisiting the Z-score and ZETA® models. In Handbook of research methods and applications in empirical finance. Edward Elgar Publishing.
4. Altman, E. I., Iwanicz-Drozowska, M., Laitinen, E. K., & Suvas, A. (2017). Financial distress prediction in an international context: A review and empirical analysis of Altman's Z-score model. Journal of International Financial Management & Accounting, 28(2), 131-171.
5. P., Chellasamy & S, Kannamudaiyar. (2021). Prediction Of Financial Distress Using Altman Z Score -A Study of Selected Footwear Companies in India. 9. 2320-2882.
6. Cındık, Z., & Armutlulu, I. H. (2021). A revision of Altman Z-Score model and a comparative analysis of Turkish companies' financial distress prediction. National Accounting Review, 3(2), 237-255.
7. Mohammed, S. (2016). Bankruptcy prediction by using the Altman Z-score model in Oman: A case study of Raysut cement company SAOG and its subsidiaries. Australasian Accounting, Business and Finance Journal, 10(4), 70-80.
8. Sanesh, C. (2016). The analytical study of Altman Z score on NIFTY 50 Companies. IRA-International Journal of Management & Social Sciences (ISSN 2455-2267), 3(3), 724-735.
9. <https://www.bseindia.com/>
10. <https://www.tcs.com/>
11. <https://www.infosys.com/>
12. <https://www.wipro.com/>
13. <https://www.mindtree.com/>
14. <https://hcl.com/>
15. <https://www.techmahindra.com/>
16. <https://www.larsentoubro.com/>



# ISSUES AND FACTS ON MICROFINANCE SECTOR IN INDIA

**CMA Shashi Kiran Devi**

Asst. Professor

Mrs. KMPM Vocational College, Jamshedpur

**Dr. B.K.Gupta**

Retd. Professor

Department of Commerce, K.C.Bhagat College, Bero

---

## **Abstract:**

Microfinance has already shown that enabling the poor to empower themselves economically can be a good business. The Indian microfinance sector witnessed tremendous growth over the last five years, during which institutions were subject to little regulation. Some microfinance institutions were subject to prudential requirements; however no regulation addressed lending practices, pricing, or operations. The combination of minimal regulation and rapid sector growth led to an environment where customers were increasingly dissatisfied with microfinance services, culminating in the Andhra Pradesh crisis in the fall of 2010.

---

## **Introduction**

Microfinance refers to small-scale financial services – primarily credit and savings – provided to people who farm or fish or herd; who operate small enterprises or micro enterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages or commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at local levels of the developing countries, both rural and urban (Robinson, 2001). Microfinance services can, overall, help low-income people reduce risk, improve management, raise productivity, obtain higher returns on investments, increase their incomes and improve the quality of their lives and of those dependent on them. Due to low repayment rates, microfinance institutions, with exposure to Andhra Pradesh, suffered significant losses. Banks stopped lending to microfinance institutions all over India; for fear that a similar situation would occur elsewhere, resulting in a liquidity crunch for microfinance institutions, which are largely dependent on bank lending as a funding source. With the sector at a standstill, microfinance institutions, microfinance clients, banks, investors, and

local governments were calling for new regulation to address the prominent issues of the sector. The Reserve Bank of India (RBI) responded by appointing an RBI sub-committee known as the Malegam Committee. This committee aimed to address the primary customer complaints that led to the crisis, including coercive collection practices, usurious interest rates, and selling practices that resulted in over-indebtedness. The Malegam Committee released their recommended regulations in January 2011. According to the latest research done by the World Bank, India is home to almost one third of the world's poor (surviving on an equivalent of one dollar a day). Though many central government and state government poverty alleviation programs are currently active in India, microfinance plays a major contributor to financial inclusion. In the past few decades it has helped out remarkably in eradicating poverty. About half of the Indian population still doesn't have a savings bank account and they are deprived of all banking services. Poor also need financial services to fulfill their needs like consumption, building of assets and protection against risk. Microfinance institutions serve as a

supplement to banks and in some sense a better one too. These institutions not only offer micro credit but they also provide other financial services like savings, insurance, remittance and non-financial services like individual counseling, training and support to start own business and the most importantly in a convenient way. The borrower receives all these services at her/his door step and in most cases with a repayment schedule of borrower's

convenience. But all this comes at a cost and the interest rates charged by these institutions are higher than commercial banks and vary widely from 10 to 30 percent. Some claim that the interest rates charged by some of these institutions are very high while others feel that considering the cost of capital and the cost incurred in giving the service, the high interest rates are justified.

**Table 1: Important facts about Micro finance in India**

1. Size of MFI industry in India: Approximately Rs 30,000 crore
2. Size of AP market: Over Rs 10,000 crore
3. MFIs portfolio in AP: Around Rs 6,000 crore.
4. Outstanding loans in AP by MFIs: About Rs 6,000 crore.
5. Banks exposure to MFIs in AP: Rs 5,000 crore
6. Banks exposure to MFI industry: Rs 18,000 crore
7. Number of MFI borrowers in AP: About 8 million
8. New MFI borrowers in AP (Oct 2010-present): None
9. Default rate before Act: About 2%
10. Default rate post Act: 85- 90%.
11. No. of job-cuts in AP if MFIs shut shop: 25,000 (rural youth, not highly qualified)
12. * Write-offs (from Oct-present):Rs 2,500-3,000 crore

#### **Major and relatively recent developments in the microfinance sector-**

**External Commercial Borrowings-** The RBI has permitted specified Micro Finance Institutions (MFIs) to avail external commercial borrowings (ECB) upto USD 10 million per financial year under the automatic route for lending to self-help groups or for micro-credit or for bonafide micro finance activity including capacity building. The limit to avail ECB for Non-Government Organisations (NGOs) engaged in micro finance activities has also been increased up to USD 10 million per financial year. All other ECB parameters such as minimum average maturity, all-in-cost ceilings, etc. would need to be complied with. **Social Venture Capital Funds-** Not only are the new private sector banks and the foreign banks competing with each other to fund microfinance institutions (MFIs), but now MFIs may have access to equity social venture capital funds, which had been surveying and accessing the Indian market till recently, and have now started investing.

**Partnership Model-** The partnership model of financing MFIs, based on an analysis of traditional financing models and ICICI Bank's experience in India. The bank, therefore, pioneered a partnership model that attempted to separate MFI risk from portfolio risk, provide a mechanism for banks to incentivize partner MFIs and deal with the inability of MFIs to provide risk capital in large amounts.

#### **The model has the following key characteristics:**

- Loan contracts directly between bank and borrower; b) Alignment of incentives with a first-loss guarantee structure, c) Transfer of implicit capital from the bank to the MFI through an overdraft facility.
- The partnership model may prove critical in unleashing wholesale funds of Indian banks. It combines debt and mezzanine finance, enabling the MFI to increase outreach rapidly, while unlocking large amounts of wholesale funds available in the commercial banking sector in India.
- Banking Correspondent Model and Banking Facilitator

### **Bank Partnership Model-**

**MFI as Agent-** In this model, the MFI acts as an agent and it take Care of all relationships with borrower from first contact to final repayment.

**MFI as holder of Loans-** Here MFI holds the individual loans on its books for a while, before securitizing them and selling them to bank.

**Banking Facilitators-** Banking facilitators / correspondents are intermediaries who carry out banking functions in villages or areas where it is not possible to open a branch. In January, 2006, RBI permitted banks to use services of NGOs, MFIs and other civil society organizations to act as intermediaries in providing financial and banking services to poor.

**Micro Finance Institutions (Development and Regulations) Bill 2011-** The Malegam Committee released their recommended regulations in January 2011. These recommendations were 'broadly accepted' by RBI in May 2011, though specific regulation was only released regarding which institutions qualify for priority sector lending at this time. Additionally, an updated version of the Micro Finance Institutions (Development and Regulations) Bill 2011 is in Parliament, which aims to provide a regulatory structure for microfinance institutions operating as societies, trusts, and cooperatives.

### **Microfinance Programmes in India**

The microfinance programmes in India can be divided into three categories; SHG-Bank Linkage Programme, MFI-Bank Linkage Programme, and various microfinance programmes provided by MFIs. SHG-Bank Linkage Programme

**The SHG** – bank linkage programme started as an action research project in 1989. This model involves banks directly financing SHGs. In 1992, the findings from the project led to the setting up of a pilot project. The pilot project was designed as a partnership model between three agencies, viz. SHGs, banks, and NGOs. SHGs were to facilitate collective decision-making by the poor and

provide doorstep banking. Banks as wholesalers of credit were to provide the resources. NGOs were to act as agencies to organize the poor, build their capacities, and facilitate the process of empowering them.

**Promotional Support by NABARD to SHG-Bank Linkage Programme-**NABARD offers support to the promotion of the SHG-bank linkage programme through a number of measures. Microfinance Development and Equity Fund (MFDEF): The Microfinance Development Fund (MFDF) was formed in 2000-1, with an initial contribution of Rs.100 crore to be funded by RBI and NABARD (Rs.40 crore each). The balance of Rs.20 crore was to be contributed by commercial banks. In the union budget for 2005-6, the government decided to redesignate the existing MFDF as the microfinance development and equity fund (MFDEF) and raised its corpus from Rs.100 crore to Rs.200 crore while maintaining the same ratio of contribution from the original promoters. MFDEF is managed and administered by NABARD. The objective is to facilitate and support the orderly growth of the microfinance sector. Training: NABARD organizes/ sponsors training programmes and exposure visits for the benefit of officials of banks, NGOs, SHGs, and government agencies to enhance their effectiveness in the field of microfinance. Training supplements and materials are supplied to banks and other agencies. Microenterprise Development Programme for Skill Development: The programme was launched in March 2006 to enhance the capacities of members of matured SHGs to take up micro enterprises through appropriate skill upgradation/development in the existing or new livelihood activities, both in farm and non-farm sectors, by way of enriching knowledge of participants on enterprise management, business dynamics, and rural markets. It is tailor-made and focuses on skill building. Grant Support to Partner Agencies for Promotion and Nurturing of SHGs: NABARD has been instrumental in the formation and nurturing of quality SHGs by means of promotional grant support to NGOs, RRBs, DCCBs, farmers' clubs, and individual rural volunteers, and by facilitating capacity building of various partners.

### **Pilot Project on SHG-Post Office Linkage Programme:**

The pilot project for the SHG-Post Office Linkage programme was initially launched in five districts of Tamil Nadu, viz. Sivaganga, Pudukottai, Tiruvannamalai, Thanjavur, and Tiruvarur, with the objective of examining the feasibility of utilizing the vast network of post offices in rural areas in disbursement of credit to rural poor, through SHGs, on agency basis.

### **Conclusion**

The microfinance sector in India has developed significantly to reach its current stature. There also exists a gap as far as a

stable policy framework for the sector is concerned. Numerous vacillations have seen the private sector alternate between microfinance purveyor to exploiter and even victims of politically supported willful default. The passing of the microfinance bill with changes recommended by the Malegam committee is imperative at this stage of growth for the sector. A major gap also exists in terms of funds available to the sector. Only with an improved availability of funds will the sector be able to adopt better technologies to improve its efficiency and outreach.

### **References**

1. Amarnani, A. and Amarnani, N. (2008), "Venture Capital Funds for Microfinance in India," *Nirma University Journal of Business and Management Studies*, 2 (3-4), 33 – 49.
2. CRISIL (2009), India Top 50 Microfinance Institutions. [www.crisil.com/pdf/ratings/CRISIL\\_ratings\\_india-top-50-mfis.pdf](http://www.crisil.com/pdf/ratings/CRISIL_ratings_india-top-50-mfis.pdf); accessed on November 30, 2010.
3. Fisher, T. and Sriram, M.S. (2002), *Beyond Micro-credit: Putting Development back into Microfinance*. New Delhi: Vistaar Publications.
4. Lok Capital (2010), "Microfinance Industry in India," [http://www.lokcapital.com/images/Microfinance White Paper.pdf](http://www.lokcapital.com/images/Microfinance%20White%20Paper.pdf); accessed on August 12, 2010.
5. Microcredit Summit Campaign, The (2010), "State of the Microcredit Summit Campaign Report 2009," [http://www.microcreditsummit.org/uploads/socrs/SOCR2009\\_English.pdf](http://www.microcreditsummit.org/uploads/socrs/SOCR2009_English.pdf);
6. NABARD (2004), "Evaluation Study of SHG-Bank Linkage Programme in KBK Region in Orissa," Evaluation Study Series.



# OPPORTUNITIES AND CHALLENGES OF INTERNET OF THINGS (IOT) IN HIGHER EDUCATION SYSTEM IN INDIA

**Dr. Ramavath Ravi**

Assistant Prof. of Commerce

Govt. Degree College

Chanchalguda, Hyderabad-Telangana

**Smt.B.Shirisha**

Assistant Prof. of Commerce

Pingle Govt .College for Women (A)-Telangana

---

## Abstract

In the coming years, technology will impact the learning experience in many ways. Internet of Things (IoT) continues to confirm its important position in the context of information and communication technologies and the development of society. With the support of IoT, institutions can enhance learning outcomes by providing more affluent learning experiences, improved operational efficiency, and by gaining real-time, actionable insight into student performance. The purpose of this study is to find out the potential of IoT in higher education and how to maximize its benefits and reducing the risks involved with it. IoT stands to change dramatically the way educational institutions work, and enhance student learning in many disciplines and at any level. It has huge potential for higher education or any other educational institutions; if well prepared to ensure widespread and successful implementation by leadership, staff, and students. IoT needs development where educational institutions can lead. Academics, researchers, and students are in a unique place to lead the discovery and development of IoT systems, devices, applications, and services.

**Key words:** Internet of things, Higher Education, Technology, E-Learning, Communication

---

## Introduction

Today, the objects around us are becoming smarter due to the innovations in technology and various industries are getting disrupted. But, when compared with sectors like home automation, industrial automation, etc, education sector has not been in the forefront of adopting latest technologies. The Internet of Things (IoT), the new technological paradigm is conquering the entire world by connecting various objects around us. But, as said earlier, education sector is falling back in leveraging IoT. But, today, this started changing slowly as various educational institutions are now realizing the significance of introducing technology, especially IoT, into their daily teaching methods. Very soon, many schools and colleges will have IoT embedded into their

day-to-day activities and there are a few reasons for this.

## History of internet of things (IoT)

In the mid-1990s, Kevin Ashton, the father of the term “Internet of Things,” was a brand manager at Procter & Gamble (P&G) London. When he visited P&G’s cosmetic retail stores, he found out that one type of lipstick always appeared to be out of stock. This was a paradox, because, although P&G’s inventory system showed that a lot of the lipstick was in the retail stores’ warehouses, no one could find it. About the same time, Ashton met a manufacturer of a tiny radio-featured chip, an early implementation of the radio frequency identification (“RFID”) chip. Ashton had the idea of attaching the tiny chips to products,

thereby allowing sales staff to identify both the presence and precise location of an item in inventory by using a wireless RFID reader. P&G sponsored Ashton in establishing a research center, the Auto-ID Center, to explore how the RFID technology might enhance inventory management<sup>3</sup>.

### **What is IoT?**

The Internet of Things is basically a network of several devices which are attached with miscellaneous software, electronics, and network connectivity of distinct orientations, aimed at exchanging and compiling of any kind of information.

IoT is applied in many industries including finance, travel, teaching, telecommunication, and so on. When it comes to implementing IoT in the education sector, the major reason is the IoT enhances the education itself and provides advanced value to the structures and environment. A smart school (a school that uses IoT), with the facilities operating smoothly promotes a higher level of personalized learning. The smart devices used in a campus utilize Wi-Fi network for receiving instructions and sending data. A computational IoT nervous system for colleges and schools helps to keep track of major resources, create smarter lesson plans, design secure campuses, enhance information access, and much more. With its set of advanced tools, IoT can be regarded as a new method of classroom management.

### **Characteristics of IoT**

**Intelligence:** Together algorithms and compute (i.e. software & hardware) provide the “intelligent spark” that makes a product experience smart. Consider Misfit Shine, a fitness tracker, compared to Nest’s intelligent

thermostat. The Shine experience distributes compute tasks between a Smartphone and the cloud. The Nest thermostat has more compute horse power for the AI that makes them smart.

**Connectivity:** - Connectivity in the IoT is more than slapping on a Wi-Fi module and calling it a day. Connectivity enables network accessibility and compatibility. Accessibility is getting on a network while compatibility provides the common ability to consume and produce data. If this sounds familiar, that’s because it is Metcalfe’s Law and it rings true for IoT.

**Sensing:-** We tend to take for granted our senses and ability to understand the physical world and people around us. Sensing technologies provide us with the means to create experiences that reflect a true awareness of the physical world and the people in it. This is simply the analog input from the physical world, but it can provide rich understanding of our complex world.

**Expressing:-** Expressing enables interactivity with people and the physical world. Whether it is a smart home or a farm with smart agriculture technology, expressing provides us with a means to create products that interact intelligently with the real world. This means more than just rendering beautiful UIs to a screen. Expressing allows us to output into the real world and directly interact with people and the environment.

**Energy:** - Without energy we can’t bring our creations to life. The problem is we can’t create billions of things that all run on batteries. Energy harvesting, power efficiency and charging infrastructure is necessary part a power intelligent ecosystem that we must design. Today, it is woefully inadequate and lacks the focus of many product teams.

**Safety:** As we gain efficiencies, novel experiences, and other benefits from the IoT, we must not forget about safety. As both the creators and recipients of the IoT, we must design for safety. This includes the safety of our personal data and the safety of our physical well-being. Securing the endpoints, the networks, and the data moving across all of it means creating a security paradigm that will scale.

---

Maney, K. (2015) „Meet Kevin Ashton, Father of the Internet of Things“, available at ISSN 2289-1358© 2017 JISRI All rights reserved [http://www.newsweek.com/2015/03/06/meet - Kevin-ashton-father-internet-things-](http://www.newsweek.com/2015/03/06/meet-Kevin-ashton-father-internet-things-)

## Review of literatures

1. **C. A. V. Rodríguez, M. M. Lavallo, and R. P. Elías (2015)** IoT is in the early stages and a few applications are currently developed based on it. But it is expected that in future, there will be implemented a large number of the applications for smart systems and ecologies. **P. Pande and A. R. Padwalkar (2014)** Typically, IoT creates a high capacity ecosystem that provides an open infrastructure for both virtual and physical objects. This potential allows making possible to develop numerous applications based on it.
2. **M. Csikszentmihalyi, (2014)** in reality, IoT's diversity promotes creativity as a subset of intelligence actions by the capability to observe the world in the new and diverse ways to make connections between physical and virtual objects in such a way it can change the existing domain and transform an existing into a new one.
3. **M. Selinger, A. Sepulveda, and J. Buchan (2013)** Communication Technology has been converted to an essential component in the new education models. It allows passing from a knowledge-transfer model to a collaborative, active, self-directed, and engaging model that helps to increase knowledge and skills of the students (digital students) as well as developing their skills in the "learning digital Society".
4. **R. Parashar, A. Khan, and Neha, (2016)** the basic idea of (IoT) is a new model based on the presence of a variety of objects like Radio Frequency Identification (RFID) tags, sensors and actuators that are able to interact with each other.

**Statement of the problem:** The study finds out the Indian education system is facing so many problems to teach difficult science subject and to reach effectively to the students by using the old method of lecture teaching in science education.

## Objectives of the study:

1. To study the overview of Internet of things (IoT) with regarding higher education system in India.
2. To know the functional aspects of internet of things (IoT) in higher education system activities
3. To evaluate the opportunities and challenges of internet of things (IoT) towards higher education in India.

## Research methodology

The present study has use of secondary data. Secondary data has been collected from the following sources- websites, publications, online surveys, reports and social Medias.

## IoT in Education system-

In the ever-changing world of technology, teachers can connect and communicate with students in a variety of different ways. Now-a-days, it is possible for teachers to keep a good record of student performance and attendance using a variety of quality software. Homework can be intelligently tracked and this removes the communication gaps between educators and their students. The use of technology creates new rules for students as they become the responsible people that they need to be in society. This gives them greater autonomy and freedom of speech in a safe and engaging learning environment.

One of the best uses of IoT is that it can provide education where it is needed at whatever time it is needed. Advanced technology enables teachers to monitor the exact progress of any of the students in the classroom, for the first time making it possible for their students to gain knowledge wherever they are. Students connect with their teachers in different ways, receiving messages from them with detailed learning instructions and reports. Students can even send messages to their teachers whenever they like —the physical classroom is a thing of the past. This powerful technology provides reliable learning environments for new students allowing them to work on class projects wherever they may be.

**Devices of Internet of things (IoT)-** The devices will bridge the gap between physical and digital world to improve the quality and productivity of life, society and industries. This new wave of connectivity is going

beyond laptops and smart phones; it's going towards connected cars, smart homes, connected wearables, smart cities, connected healthcare and education system.

**Table 1.1**  
**Number of devices connected to IoT**

Year	Number of connected devices
1990	0.3 million
1999	90.0 million
2010	5.0 billion
2013	9.0 billion
2020	20.6 billion
2025	1.0 trillion

Source: GSMA Report and Gartner Report

It is observed that the number of internet of things (IoT) devices connection was 0.3 million in 1990. It is drastically increased from 0.3 million to 9.0 billion during the period from 1990 to 2013 (i.e., 23 years). According to Gartner report, by 2020 connected devices across all technologies will reach to 20.6 billion and similarly in year 2025 will be reach 1.0 trillion numbers of devices will be connecting.

**IoT-based Smart Environment:** - Smart environments is that smart devices and smart environments will be available everywhere, for everyone to perform routine tasks. Smart environments can be smart homes, smart offices, smart classrooms and other smart places. The primary purpose of IoT-based smart environments is to provide ease in everyday routine tasks. For example, when

we drive cars, we want to know about the road conditions, best route, traffic jams or want to change the radio stations, etc. By using sensors, actuators and smart devices, one can get all this information only with his /her voice.

**IoT-based Smart Campus:** - In general, almost all university campuses are connected to the Internet, and on each campus, there are multiple objects like windows, doors, projectors, printers, classrooms, labs, parking, and building, etc. Using sensors, RFID, NFC, QR tags and such other IoT technologies, these objects can be converted to Smart objects. A Smart Campus can be a collection of multiple

smart things in a single system. An intelligent campus may include following:

1. IoT Application in Education
2. Smart IoT-based Classroom
3. Smart IoT-based LAB Room
4. IoT Sensors for Notes Sharing
5. IoT Sensors for Mobiles Devices

**IoT Applications in Education:** - Now let's have a deeper look into the applications of internet of things in the education sector.

1. **Interactive Learning:** - Today, learning is not limited only to the combination of images and texts but much more than that. Many text books are joined to web-based sites that incorporate additional videos, materials, animations, assessments, and other materials to aid the learning process. This provides a broader perspective to the students in gaining knowledge on new things with a better understanding and interaction with their friends and teachers. The real-world problems are discussed in classroom by the educational professionals and students are made to find the answers for these problems.
2. **Security:** - As there will be many students present in a class of any educational institution, monitoring the whereabouts and activities of each and every students is not an easy task. Moreover, the students in an educational institution are more exposed to risks and require smart security when compared with the population at any other places of work. IoT can add an

immense value in terms of enhancing the security of schools, colleges, and any other learning centers. With the help of technologies like 3D positioning, students can be monitored 24/7 and their presence can be reported at any given point of time. The option of distress buttons can also be provided by these technologies for raising an alarm if in case the need arises. For monitoring the student behavior, intelligent camera vision can be used in the campus. Recently, computer vision technologies have improved a lot and can monitor any signature movements. This activity can automatically stop any unexpected incidents from taking place.

3. **Educational Apps:-** The educational apps leveraging IoT can be regarded as powerful creative tools and are transforming the way in which teaching and learning is done. They also enable the teachers and students to create 3D graphics textbooks which feature videos and provide the capability to take notes. These kinds of apps can be considered as game changers as they provide a large number of educational games. These games provide numerous features that offer interesting possibilities in teaching and learning. This makes education more appealing than ever before.
4. **Increasing Efficiency:** - In many schools and colleges, a lot of time is spent on activities that do not add any value to the core aim of their very existence. For instance, attendance of the students needs to be taken several times a day. Additionally, this data has to be sent to the central office for different purposes. The IoT can put an end to this inefficient system. With the help of IoT end-devices, this data can be collected and sent to the central office server automatically eliminating the need for any human intervention. Due to this revolutionary shift towards the IoT, the tedious task of teachers and students can be minimized. This allows them to concentrate more on teaching and learning which the core function of any centre of learning is.

**IoT-based Smart Classroom:** - Smart classrooms concept means an intellectual environment equipped with advanced learning

aids based on latest technology or smart things. These smart things can be cameras, microphones and many other sensors, which can be used to measure student satisfaction regarding learning or many other related things. The smart object provides ease and comfort for class management. Use of IoT in a classroom may help to provide a better learning and teaching environment.

- a) **Smart Classroom Management:** The term “classroom management” means a way or approach a teacher uses to control/manage his/her classroom. Smart devices have made it possible for a teacher to decide when he should speak louder when students are losing interest, or their concentration level is decreasing. The use of IoT devices for teaching and learning purposes is a hot trend among institutions across the world which provides a new and innovative approach to education and classroom management. Such tools are already being utilized. Some of the commonly used IoT devices in the classroom are:

- Interactive White boards
- Tablets and Mobile devices
- 3-D Printers
- E-Books
- Student ID Cards
- Temperature Sensors
- Security Cameras and Video
- Room Temperature Sensors
- Electric Lighting and Maintenance
- Smart HVAC systems
- Attendance Tracking Systems
- Wireless door locks

- b) **Smart classroom:** - It's allows teachers to know what students want to learn and the way they want to learn which is beneficial both for faculty and students. Moreover, smart classrooms help students to understand the real purpose of using technology which also makes the learning process easier. The advancement in the field of technology in education has facilitated educators to design classrooms which are productive, useful, and collaborative and managed through IoT. Literature review shows

that most of the recent studies propose different models for smart classrooms. Many advanced and innovative concepts are being proposed or introduced in education like introducing IoT technology with crowd sourcing in e-education can be useful for improving learning and teaching processes.

- c) **Smart Classroom Attendance System:** - Taking attendance of a class is a time-consuming task. Use of IoT can save time and effort both. A study proposed an efficient smart classroom roll caller system (SCRCS) using IoT architecture to collect or record student attendance after every period accurately and timely. RFID tags are attached to the Students' ID cards. The SCRCS can be installed in every classroom and read the students' identity card collectively. It shows not only the total attendance on LED display at the beginning of any class but also shows the all identity card on multiple slots of SCRCS. The record of a student's attendance is also kept at the academic office. Another study proposed a web based attendance system using NFC technology in Android smart phones. The student taps the metric card towards the NFC Android Smartphone, and the attendance will be saved on the server automatically. Teachers and students both can check the presence from their smart phones.
- d) **Real-Time Feedback on Lecture Quality:** Students' understanding directly relates to the lecture quality. Students' feedback plays an essential role to improve lecture quality. A study proposes a creative environment that can monitor and observe students' reactions to a lecture using sensing and monitoring technology. This IoT-based smart classroom provides real-time feedback on lecture quality which will help to improve the lecture quality.

**IoT-based Smart Lab-** It is said that the "The college building (or campus) is the lab." This thinking is part of a movement that began in the EU, called Living Labs. Research was conducted to combine several concepts together including IoT, the idea of living lab, I-campus, smart box design and Pervasive interactive-Programming (PiP). The primary

purpose of the study was to teach the necessary programming skills to novices using IoT and PiP together. Total 18 participants including staff and students participated in the evaluation of PiP. The results of the assessment showed that PiP helped and supported members of different backgrounds and age groups to understand and practice the programming skills effectively.

**IoT Sensors for Notes Sharing-**Now-a-days, thanks to IoT and other new technologies, a student needn't carry every single book they own to their classroom. Through the use of e-Books, one can carry hundreds — if not thousands of books — with them on their devices. Homework can also be completed on the same devices, meaning that there is less chance of losing expensive books and, more importantly, losing your homework. Long gone are the days where your dog would eat your homework — these days, its no longer a possibility.

**IoT Sensors for Mobiles Devices-**Do you remember the wonders of the flat screen and the amazement when the first iPad came out? This technology is very creative, allowing students and teachers to present videos, high-quality images, interactive whiteboard style resources, and many other learning materials. One can even take notes with these wonderful tools in interactive and organized ways — no more lost notes! The scope for learning is enormous with these devices, especially when IoT is coupled with education-based games that make learning fun and engaging. When you throw motion sensors into the mix, oh boy, do the children have fun!

## **Conclusion**

The use of technology and especially IoT in the field of education has opened the doors for new and innovative ideas to bring ease and betterment in the lives of both students and teachers. Research is being conducted in designing IoT-based teaching platforms including smart classrooms, smart labs and entire smart campuses. Studies have also been doing to investigate the usefulness of IoT-based smart learning applications and still much more is left to study regarding IoT in education. Though there are various advantages of IoT in education but may have

to compromise privacy and security. In the future new techniques may be introduced that can resolve all these issues.

#### **References:**

- 1) Maney, K. (2015) „Meet Kevin Ashton, Father of the Internet of Things“, available at ISSN 2289-1358 © 2017 JISRI All rights reserved  
<http://www.newsweek.com/2015/03/06/meet-Kevin-ashton-father-internet-things>.
- 2) C. A. V. Rodríguez, M. M. Lavallo, and R. P. Elías, “Modeling student engagement by means of nonverbal behavior and Decision trees,” IEEE International Conference on Mechatronics, Electronics and Automotive Engineering (ICMEAE), Nov. 2015, pp. 24-27.
- 3) P. Pande and A. R. Padwalkar, “Internet of things — A future of internet: A survey,” International Journal of Advance Research in Computer Science and Management Studies, vol. 2, issue 2, February 2014.
- 4) M. Csikszentmihalyi, Creativity: Flow and the Psychology of Discovery and Invention Harpercollins, ISBN: 9780061844034, April, 2014.
- 5) M. Selinger, A. Sepulveda, and J. Buchan, “Education and the internet of everything: How ubiquitous connectedness can help transform pedagogy,” Cisco Consulting Service and Cisco EMEAR Education Team, October 2013.
- 6) R. Parashar, A. Khan, and Neha, “A survey: The internet of things,” International Journal of Technical Research and Applications, vol. 4, issue 3, pp. 251-257, May-June 2016.



# DEVELOPMENT OF RETAIL SECTOR IN INDIA: A SPECIAL REFERENCE TO E-COMMERCE BUSINESS

**Dr.Ch. Bhaskar**

Assistant Professor of Commerce  
Pingle Government College for Women (A)  
Hanamkonda- Telangana

---

## Abstract

E-Commerce or E-Business is the largest application of computers and information technology in keeping and managing business and financial records. It helps in transaction of any amount of money from any part of the world to other. The faster growth will be led by entry of newer players with deep pockets in organized segment, growing e-commerce, changing buying patterns and a level playing field created post GST implementation. The present paper focuses on study the growth of e-commerce sales in India and analyze the e-commerce sales in top ten countries in global. In study period e-commerce sales were drastically increased from 12.9 billion dollars to 38.09 USD in billion and year on year growth above 20 percent. In the global ranking India stand 9<sup>th</sup> position in terms of sales in USD in billion. India has become one of the top 10 fastest growing global e-commerce markets.

**Key words:** Global, E-Commerce, Growth, Business, players and Income etc

---

## Introduction

India's retail sector is one of the largest and fastest growing retail industries anywhere in the world. It is backed by a combination of rising income levels, growing propensity to spend, rising proportion of nuclear families, demographic dividend and growing aspirations, among other factors. The retail industry has grown at 8.72% CAGR over CY2010 –CY2019 and is expected to grow faster; at 13% CAGR over CY2019 – CY2021E, as per CARE Ratings. The faster growth will be led by entry of newer players with deep pockets in organized segment, growing e-commerce, changing buying patterns and a level playing field created post GST implementation. E -Commerce or E-Business is the largest application of computers and information technology in keeping and managing business and financial records. It helps in transaction of any amount of money from any part of the world to other. We can purchase anything online with the help of debit and credit cards. Application of e commerce are billing to customers, tracing payments received and payments to be made

and tracing supplies needed and items produced, stored, shipped, and sold, etc..

Indian e-commerce is projected to increase from 4% of the total food and grocery, apparel and consumer electronics retail trade in 2020 to 8% by 2025. The Indian online grocery market is estimated to reach US\$ 26.93 billion in 2027 from US\$ 3.95 billion in FY21, expanding at a CAGR of 33%. The E-commerce business in India has seen exponential growth over the last decade. This growth is due to many contributory factors, including rapid adoption of technology by Indian consumers, large increases in the number of internet users, new enabling technologies, innovative business models and alternative payment options offered by E-commerce companies. Moreover, the high growth in E-commerce continues unabated, with the sector expecting to witness a steep increase in revenues in the coming years.

## Method and materials

The primary objective of the present paper is development of retail sector: with special reference to e-commerce business in India. For

achieve the primary objective of the paper, further divided into sub-objectives: To study the growth of e-commerce sales in India and analyze the e-commerce sales in top ten countries in global. The paper study relied on secondary data and for analysis of data. The secondary data were collected from books, news paper, reports, articles published in journals, websites.

## RESULTS ANALYSIS

E-commerce sector in India is growing rapidly. The internet users' base in India is 460 millions and it is expanding day by day. The accelerating growth of Ecommerce in India is due to internet penetration and easily available smart phones furthermore the favourable demographics and government effort of digitalization is also pushing the growth of E-commerce sector in India.

**Table 1.1: E-Commerce Sales in India (In Billion Dollars)**

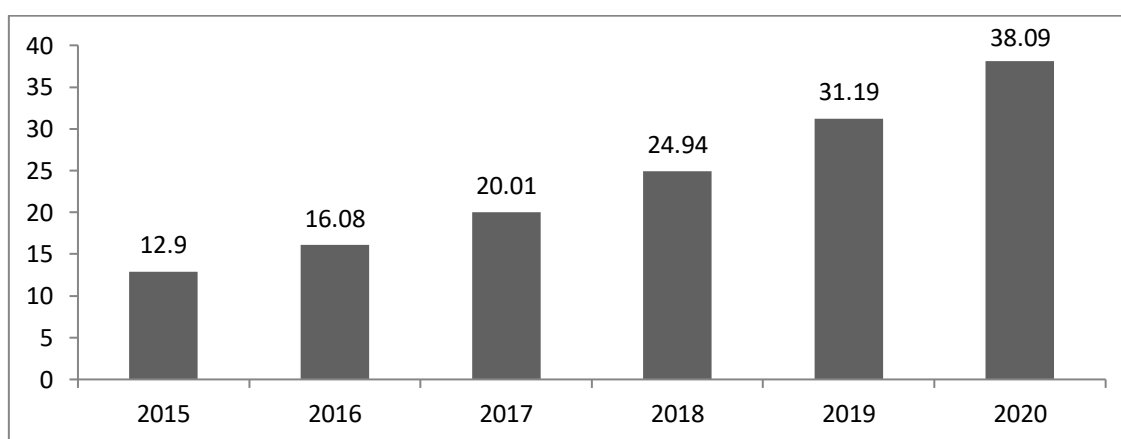
Year	Sales	Growth (YoY)
2015	12.9	0
2016	16.08	24.6
2017	20.01	24.4
2018	24.94	25.01
2019	31.19	25.06
2020	38.09	22.12

Source: Indian Brand Equity Foundation, 2021

From the above table 1.1 shows that the E-Commerce Sales in India during the period from 2015 to 2020. It is observed that the e-commerce sales were drastically increased from 12.9 billion dollars to 38.09 billion

dollars from 2015 to 2020. It is evident from above table that the year on year growth rate 25.06 percent in 2019. It is found that the e-commerce sales growth averagely above 20 percent.

**Figure 1.1: E-Commerce Sales in India (In Billion Dollars)**



Source: Indian Brand Equity Foundation, 2021

**Table 1.1: Top ten countries Ranked by Retail E-Commerce sales in 2019**

Rank	Name of the Country	Sales
1	China	1934.78
2	United States	586.92
3	United Kingdom	141.93
4	Japan	115.40
5	South Korea	103.48
6	Germany	81.85
7	France	69.43
8	Canada	49.80
9	India	38.09
10	Russia	26.92

**Source: E-Marketer, May, 2019**

Online retail sales and e-commerce have grown in the world dramatically over the past decade, and a significant fact noticed in e-businesses is that the tendency seems not to be declining anytime in near future. According to eMarketer, May 2019, global e-commerce sales, trends and statistics report reveals key data of the ten top e-commerce markets. China occupies a predominant position in terms of sales and no other country is nearer to it. However, United States, United Kingdom, Japan and South Korea have more than 100 USD billion sales; stood in the order China is the most successful e-business market in the world with 1934.78USD billion in revenue in 2019. India has become one of the top 10 fastest-growing global e-commerce markets and represents the largest economies in the world and emerges as vast infrastructure hub to support payment and delivery systems, which shift spending online at an accelerated rate.

### Conclusion

E-commerce sectors have been facing multiple challenges in their business operations like taxation issues, incidents of fraud, and issues with cyber security, intense competition and preference for payment in cash (COD) by customers, inadequate infrastructure and low digital literacy. In study period e-commerce sales were drastically increased from 12.9 billion dollars to 38.09 USD in billion and year on year growth above 20 percent. In the

global ranking India stand 9<sup>th</sup> position in terms of sales in USD in billion. India has become one of the top 10 fastest growing global e-commerce markets.

### References

1. IBEF,2021
2. E-Marketer, May, 2019
3. Related online sources



# THE RELATIONSHIP BETWEEN ENVIRONMENTAL DEGRADATION AND OUR ETHICAL VALUE: A STUDY WITH PARTICULAR REFERENCE TO INDIA

**Piyali Das**

Assistant Professor in Philosophy

Rishi Bankim Chandra Evening College, Naihati, North 24 Parganas,

West Bengal, PIN – 743165

Mob No:9477414862

Email : [anupiya033@gmail.com](mailto:anupiya033@gmail.com)

---

## Abstract

Environment is the consequence of the interactions of our surrounding elements where man is the first and foremost responsible element. The ethics of environment is the 'right to survival' of non-human living organism. However, the right to survival of all birds, animals, insects etc is accelerated by the human being. Separately man's right is recognized as human right. Any type of human activities may hamper the living of other organisms and which is strictly discussed as unethical. Present day's scenario emphasizes the environmental ethics. But there is no way to escape from the vicious snare of environmental degradation, which means the deterioration of quality and quantity of all environmental aspects such as: gradual increase of pollution of all parts of the environment, scarcity of underground water, potable water, pollution in social milieu. In the present article an endeavor has been made by the author to assess the impact of environmental degradation and its consequential effects in the form of deterioration of our ethical value. The article ends with some valid conclusions.

**Key Words:** Environmental degradation, Environmental ethics, Ecosystem, Social milieu, In-situ conservation, Ex-situ conservation

---

Environment is the consequence of the interactions of our surrounding elements where man is the first and foremost responsible element. The ethics of environment is the 'right to survival' of non-human living organism. However, the right to survival of all birds, animals, insects etc is accelerated by the human being. Separately man's right is recognized as human right. Any type of human activities may hamper the living of other organisms and which is strictly discussed as unethical. Present day's scenario emphasizes the environmental ethics. But there is no way to escape from the vicious snare of environmental degradation, which means the deterioration of quality and quantity of all environmental aspects such as: gradual increase of pollution of all parts of the environment, scarcity of underground water, potable water, pollution in social milieu. Decrease of exhaustible resources,

scarcity of land for huge number of population, extinction of flora & fauna species, high rate of siltation due to obstruction in stream flow and ultimately all these occurrences give rise to the degradation of whole environment. As the earth and its environment is only our habitat up till now we have to judge our activities which bring environmental degradation because environment is not only for the man but also for the other organisms. We obey the ethics of environment i.e. the right to sustainability of other organisms along with our human rights. For this reason, in-situ conservations and ex-situ conservations of birds and animals, strict vigil of deforestation and acceleration of pollution preventing act, judicious functioning of green bench etc are in the scene. But in conclusion we commensurate the intensity of anthropogenic activities for huge mass and inevitably the ethical side lacks in

their turn. However we have to maintain the eco balance for the welfare of all organisms and ourselves where sacrifices of human becomes vague and humanity becomes rigid term.

Environmental degradation is a situational consequence when the natural environment is compromised in some way, reducing biological diversity and the general health of the environment. This consequence or process can be entirely natural in origin, or it can be accelerated or caused by human activities. Many international organizations recognize environmental degradation as one of the major threats facing the planet, since humans have only been given one Earth to work with, and if the environment becomes irreparably compromised, it could mean the end of human existence.

From the fear of their own extinction late awareness of human beings have been boosted the 'right of non human' inhabitants in the globe as existence of all are interdependent. So environmental ethics come as top priority. There are a number of ways in which environmental degradation can work. In a classic case, resources simply become depleted. Air, water, and soil are all resources which are vulnerable to depletion through overuse, as are natural resources like minerals and oil deposits. Habitat pressures which force animals into a small area can also contribute to resource depletion, as the animals consume a high volume of material in a small area. Pollution is another cause of environmental degradation. When the environment becomes polluted, it means that toxic substances have rendered it unhealthy. Pollution can come from a variety of sources, including vehicle emissions, agricultural runoff, accidental chemical release from factories, and poorly-managed harvesting of natural resources. Unsustainable development and erosion are all forms of environmental damage. If the damage is extensive, the environment may not be able to reach a state of balance on its own, and the problem could become compounded. Environmental degradation describes the erosion of the natural environment through the depletion of resources, the destruction of ecosystems and

the extinction of plant and animal species. It is caused by direct or indirect human activity, and has increased significantly since the Industrial Revolution. Environmental degradation is caused in a variety of ways, predominantly by human actions, however natural events can also result in the deterioration of an environment. Earthquakes, volcanoes etc affect the environment in negative ways. Although these events can cause environmental degradation as natural occurrence, and therefore many ecosystems have adapted to their effects naturally. So nature itself takes the responsibility to maintain environmental ethics. The scale of these disturbances is also minuscule when compared to the amount of damage the environment has sustained as a result of human actions. The inevitable extraction of natural resources and the production of waste and other pollutants have severely degraded many of the planet's ecosystems. Mining, deforestation, fossil fuel burning and related pollution are just some of the human activities that have lead to the environmental degradation. Therefore men's' needs, not the greed actually, bound to forget the ethics towards non-human lives.

Western nations are the largest consumers of goods and services in the world and they are also the largest contributors of environmental degradation. Developed countries are also in the best position to minimize the causes of environmental deterioration and set examples for developing nations to emulate. By acknowledging the causes and effects of environmental degradation, humankind can make areal effort to 'reducing' this serious environmental problem.

Agriculture for huge population in most areas needs irrigation, which depletes fresh water supplies both by the physical use of the water and the degradation causes to the water. Irrigation increases salt and nutrient content in areas that wouldn't normally be impacted, and damages streams and rivers from damming and removal of water.

While international environmental concerns are often expressed in broad terms such as desertification or climatic change, the

environmental problems of concern to vulnerable groups in marginal areas are generally quite localized in nature, revolving around immediate issues, such as the degradation of a particular rangeland or soil erosion on farmland or the progressive shortening of fallow. These affect the poor because they are directly related to household food security. Degradation of the resource base generally translates into decreases in production or income and thus in the availability of food. Declining soil fertility leads to lower crop yields while rangeland depletion reduces off take, and any deterioration in water quality adversely affects the fish catch. Degradation of common property resources pulls labour away from directly productive activities towards gathering - simply collecting non-wood and minor forest products - and probably diminishes opportunities for deriving income from this source, and in this situation man forgets the linkages of the environmental ethics. Linkages with food security can also be less direct. Shortages of biomass may result in a transition to lower-nutrition foods that require less fuel for cooking. In addition, recurrent drought or natural calamities also directly result in progressive loss of food security prospects.

In their quest for food security, the rural poor have sometimes little choice but to overuse the limited resources available to them. The resulting environmental degradation imposes further constraints on their livelihood in what has been called a "downward spiral" or "vicious circle". The poor may be both agents and victims of environmental degradation, especially in marginal areas, where the resource base is ill-suited to agriculture. But it cannot be assumed that the poor have an intrinsic propensity to degrade environmental resources. On the contrary, many poor traditional communities demonstrate an admirable environmental ethic and have developed complex resource management regimes. There is little evidence that the rural poor, when offered an appropriate environment - including secure tenure and access to markets - pursue resource-

degrading strategies. Thus, while poverty may be an underlying cause of environmental degradation, it is more accurately seen as a proximate cause influenced by a complex of policy and institutional factors. The very same processes that lead to and perpetuate poverty constraint the poor in their decision-making with regard to natural resource management. Affluence and poverty affect the environment in different ways: poverty eradication would not erase environmental degradation but change the nature of environmental problems facing society.

UNCED's Agenda 21, the global action programme for sustainable development, is perhaps the first expression of international commitment to addressing the poverty-environment nexus. Agenda 21 devoted two chapters to the special needs of fragile ecosystems, namely on "Combating Desertification and Drought" and "Sustainable Mountain Development". In the follow-up to LJNCEID, promising initiatives have emerged for these thematic areas. For dry lands, the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (CCD) provides framework for concrete action at the local level. For mountainous areas, efforts are currently underway to develop the basis for an action plan for sustainable mountain development, known as the "Mountain Agenda".

The Desertification Convention offers new and exciting opportunities for collective action, as well as a fertile field for testing and nurturing innovative partnerships in development co operational and or local level action. It is the first International Treaty to squarely address poverty and environmental degradation in rural areas.

Now with all these ideas about environmental degradation it is necessary to correlate these two issues degradation & ethics. Does the Earth exist for the benefit of humanity only? Do humans have any ethical obligations with respect to the natural world? Have we the right to take

all the Earth's resources for our own use? Do we have a responsibility to be good stewards over the Earth? Do other species have an intrinsic right to exist? Do trees have legal standing? What do various religions have to say about humanity's relationship to the rest of the living world? These and similar questions are addressed in the study of environmental ethics.

**Environmental ethics** is the part of environmental philosophy which considers extending the traditional boundaries of ethics from solely including humans to including the nonhuman world. It exerts influence on a large range of disciplines including law. Environmental sociology, theology, economics, ecology and geography.

There are many ethical decisions that human beings make with respect to the environment.

For example:

- Should we continue clearing forest for the sake of human consumption?
- Should we continue to propagate?
- Should we continue to make gasoline powered vehicles?
- What environmental obligations do we need to keep for future generations?
- Is it right for humans to knowingly cause the extinction of species for the convenience of humanity?

The academic field of environmental ethics grew up in response to the work of scientists such as Rachel Carson and events such as the first Earth Day in 1970, when environmentalists started urging philosophers to consider the philosophical aspects of environmental problems. Two papers published in Science had a crucial impact: Lynn White's "The Historical Roots of our Ecologic Crisis" (March 1967) and Garrett Hardin's "The Tragedy of the Commons" (December 1968). Also influential was Garrett Hardin's later essay called "Exploring New Ethics for Survival", as well as an essay by Aldo Leopold in his *Sand County Almanac*,

called "The Land Ethic," in which Leopold explicitly claimed that the roots of the ecological crisis were philosophical (1949). Gaia Hypothesis formulated by J. Lovelock (1988) the entire planet earth is a single ecosystem which regulates itself by feedback mechanisms. It is argued that human activities are overriding this regulatory mechanism.

Following physical and cultural activities are directly related with environmental degradation and dis regarding of environmental ethics. But before this discussion it is necessary to understand and the actual meaning of environmental degradation. It is diminution of environmental factors impermanent nature. So, natural calamities like Earth quake, Volcanoes, Siltation and their permanent impact on land form, drying up of rivers etc. are considered as environmental degradation. In this situation the question of compliance or non-compliance of environmental ethics does not arise.

Initiation of human society and related human interference on nature needful preparation of agricultural field and its gradual expansion etc. must be considered as environmental degradation. So the question of violation of ethics for non-human living organisms does not arise. In recent time thinkers are becoming more and more anxious about the degree/level/limit of such ever increasing human activities.

Land acquisition for other economic activities and so the resultant violation of ethics of both for both human and non-human kingdom is a big question. L.D. Stamp Grahm and others propounded the concept of scientific use of land. We should always in mind that their concepts are purely based on optimum population as yardstick. Therefore, it is not feasible to maintain such type of rigidity regarding land use planning in case of over populated country. But the small occurrences with substantial impact like eutrophication, diminution of biological oxygen demand (BOD) etc. are contributing towards environmental degradation and creating disequilibrium in the ecosystem. In this case men

have the scope to cater to ethical values by preventing occurrences like eutrophication.

The homeostatic mechanisms i.e. the automatic adjustment to a new eco-situation is normal adaptation. But it is argued that the failure of these homeostatic mechanisms is the recent phenomena occurred due to environmental degradation. So the high rate of developmental activities, environmental degradation and failure of homeostatic mechanisms are occurring paripassu. The key factors of environmental degradation are very high rate of growth of population and related demand, random and huge exploitation of natural exhaustible resources, forest trees, fossil fuels, and its use, unscientific river management, extension of needful agricultural field and related deforestation, large construction etc. All these activities somehow negatively affection-human space and human space too; so violates the ethics. In the realm of social equality the prime question what would be 'right way' of developmental work which would not be cause for the environmental degradation and violation of environmental ethics. The answer is not known. In this juncture different steps have been taken to obey the environmental ethics and to check the degradation such as forestation programme, in-situ and ex-situ conservation, wild life protection, forest protection and so on. But is it possible to maintain the 'rights' of both non-human and human by all these measures taken where ever growing population, poverty, food and employment security, needful industrialization, urbanization, required land acquisition etc. are the scene in the

realm of hard reality. So in this crucial moment of liberalization we have to make a keen observation and study towards homeostatic mechanisms and its ongoing still positive capability and excellences of the globe. Only long history of culture has continuously been taught as 'the code of conduct' of ethics and their importance in the ecosystem; and it is still going on rather boosted tremendously. But what is necessary but why it is necessary to boost up the learning of ethical values when we are becoming more and more civilized. The answer is related with the hard reality of the globe.

What were the features of the long past and in what situation 'Vedic teaching' compelled to express the importance of environmental ethics in those days? Possibly Aswamedha Yoggya, Mrigaya (cruel hunting) Khandava Ban Dahan etc were the causes. Breaking of ethics is a perpetual inevitable habit. So the teaching regarding the environment aethics will always remain as contemporary issue in the days to come.

#### References -

1. [http://en.wikipedia.org/wiki/Environmental\\_ethics](http://en.wikipedia.org/wiki/Environmental_ethics)
2. [http://en.wikipedia.org/wiki/Environmental\\_degradation](http://en.wikipedia.org/wiki/Environmental_degradation)
3. <http://plato.stanford.edu/entries/ethics-environmental>
4. [http://www.corporate-ethics.org/pdf/environment\\_ethics](http://www.corporate-ethics.org/pdf/environment_ethics)
5. [http://www.researchgate.net/environmental\\_ethics](http://www.researchgate.net/environmental_ethics)



# **A STUDY OF PRADHAN MANTRI JAN DHAN YOJANA AND ITS IMPACT: PRE AND POST COVID IN PALMA VILLAGE OF DEOGHAR DISTRICT IN JHARKHAND**

**Sadhvi Singh**

(Research Scholar)

Department of Business Administration

Central University of Jharkhand (CUJ)

Ranchi, Jharkhand

Email ID: [sadhvi.singh12dec@gmail.com](mailto:sadhvi.singh12dec@gmail.com)

**Dr. Ashoke Kumar Sarkar**

(Associate Professor)

Department of Business Administration

Central University of Jharkhand (CUJ)

Ranchi, Jharkhand

Email ID: [ashok.sarkar@cuja.ac.in](mailto:ashok.sarkar@cuja.ac.in)

---

## **Abstract**

This paper tries to evaluate the level of FI in rural areas of Jharkhand and study the impact of PMJDY and financial inclusion services provided by the banks, its impact pre Covid -19 and post Covid-19 and awareness about these among the residents of Palma village, which is in Deoghar district of Jharkhand. Methods - The research design adopted in this study is exploratory and descriptive in nature. The primary data were collected by interviewing rural households Results - From the above analysis it is found that chi square value is 8.64 which is more than .5 so there exists a relation between independent variable PMJDY and dependent variables PMJDY (gender, age, income, and education) respectively.

**Limitations** - This study focuses on the socio-economic condition of rural areas of Jharkhand but sample is only taken from the small Palma village of Deoghar district of Jharkhand so it may not give exact picture of the socio-economic condition of rural areas of Jharkhand

**Contribution** - This study is based on Palma village of Jharkhand in order to represent the socio-economic condition of rural Jharkhand.

**Keywords:** - Banking services , COVID-19, Financial inclusion, Unbanked population

**Introduction:** Jharkhand was formed from the state of Bihar on 15 November 2000 and became India's 28th state. It is located in eastern India, bordered by the states of West Bengal (East), Uttar Pradesh (North West), Bihar (North) ,Odisha (South), and Chhattisgarh (West).According to 2011 census of India, the state has a population 3.29 crores approx distributed in 24 districts and 260 blocks

(Government of Jharkhand, 2013). According to Jharkhand Government report –“Jharkhand is known for its plethora of tribal groups (total 32 distinct groups) which constitute 26.3 percent of the total population”. In the state of Jharkhand where the majority of people are residing in villages, it is necessary to include the rural population in the mainstream of financial development. This can only be achieved by acquainting them with the basic financial services and schemes and encouraging them to avail the same.

The central and the state governments have taken vital steps in the direction of financial inclusion so that the underprivileged and the weaker sections of the rural population can come forward and find themselves in league with the financial development which will ultimately lead to the overall development of the society. Implementation of PMJDY on 28 August 2014 account in the public sector banks, issuing of Kisan Credit Cards, provision of Mudra loan, etc. are vital steps towards the financial inclusion in the state. Many Self-help Groups (SHGs) have also come forward to provide basic financial services to the rural population leading to their overall development. According to the RBI report, 80% of the Indian population are integrated with banking services, however out of this only 23% of the population is associated with the PMJDY scheme, as only these accounts were receiving direct benefit transfers. Does it mean that only 20% of Indians are excluded from financial services? The further study it has to be found that the majority of the population are well known about PMJDY and every individual has opened many accounts with various banks. PMJDY : It is a zero balance or no frill account scheme launched on 15 August 2014 by our honourable PM Shri Narendra Modi and implemented on 28 August 2014. It gained so much importance over time as it connects the poor and backward class of society directly to the Indian banking system. This account helps most people in receiving various subsidies provided by the government directly in their accounts. (PMJDY): “Financial Inclusion program (Pradhan Mantri Jan- Dhan Yojana,) was the Prime Minister’s first financial inclusion drive aimed at improving the lives of millions of India’s poor by bringing them into the main financial stream and freeing them from the clutches of usurious money lenders” (Reserve Bank of India, 2016) . In the Corona era, the opened Jan-Dhan accounts proved to be lifesaving. During the lock down period, 365.29 crores came to the account of the people of Jharkhand (Media report, 2020)

### **Demographic Profile of Jharkhand:**

According to the 2011 Census, 75.95% of the population of Jharkhand live in rural

areas (Census, 2011). Palma is a village in Sarath Block of Deoghar District of Jharkhand. It is 209 KM away from the state capital Ranchi. According to the 2011 Census, Palma Village has a total population of 1590 residents residing in 283 houses. The female literacy of that village is 15.2%. (Census, 2011).

### **Financial Inclusion (Definitions):**

The cooperative movement that began in India in 1904 is credited with providing rise to the new concept of financial inclusion. It gained popularity in 1969, when 14 of the country's major commercial banks were nationalized, and the lead bank system was established shortly after. Branches were opened in large numbers around the nation, and even in previously underserved areas.

- It is basically defined as the process of providing financial services to the economically backward sections of the society.
- (Sarma & Pais, 2008), “Process that ensures the ease of access, availability, and usage of the formal financial system for all members of an economy”.
- According to the World Bank Report, “Financial Inclusion is an absence of price and non-price barriers in the use of financial services”.

### **Research Gap**

The research objective has been developed from the research problem statement after an in-depth study of the domain area and literature review. To understand the socio-economic status of Palma village of Deoghar district of Jharkhand.

### **Objectives**

To evaluate the level of financial inclusion in rural areas of Jharkhand and study the level of impact on PMJDY and financial inclusion services provided by the banks and its awareness among the residents of Palma village of Deoghar district in Jharkhand.

## **Literature Review**

A review of previous research works in the field of financial inclusion would aid in identifying research gaps, methodology used, and previous study findings. According to (Williams et al., 2017) financial inclusion's importance in poverty reduction and economic progress in developing economy (Jose, 2014) Poverty reduction initiatives are made through financial inclusive growth by deliberately generating productive economic possibilities for the underprivileged and vulnerable segments of society. According to (Greeshmadas M, 2018) the awareness level of weaker section of society. The study found that the majority of Indians living in the villages with limited social and economic infrastructure is excluded from India's growth story. (Singh, 2017) banks continue to exclude rural households from basic financial services such as a savings account or limited credit facilities. The proportion of rural inhabitants who do not have access to bank accounts is about 40%, and it increases to more than three-fifths in India's eastern and north-eastern regions. (Chandan Kumar and Srijit Mishra, 2011) studied that there is a wide disparity between rural and urban areas and also observed that financial services concentrated only among a smaller segment of the population. (Barbar, 2011) the socio-economic status of financially included and excluded is important to understand with perspectives like caste, age, assets, income, and the household which acts as a barrier for the expansion of financial inclusion. (Hannig & Jansen, 2010) showed that the financial cost of financial inclusion are balanced by significant dynamic advantages that improve financial stability over time via a deeper and more diverse financial system (Kavidayal & Kandpal, 2016) suggested the financial literacy centers should be set up in rural areas to educate the rural people about financial products and services. Financial literacy among households can play a major role in the success of the financial inclusion drive. The study was conducted through the collection of primary data. Analyzing the data, it was identified that the rural people are unaware of the financial instruments and banking services. It helps the poor to have access to credit, savings products, and services, allowing them to combat poverty

and lessen income disparity in the Indian economy. (J. Pillai, 2016) and (Greeshmadas M H, 2018) studied the responsiveness and practice of the Jan Dhan Yojana Scheme executed in the first phase (15th August 2014 to 14th August 2015) among the farmers. (Rangarajan, 2017) "Financial Inclusion among Tribal in Nilgiris District"- focused on the selected sample's knowledge zero balance accounts and the financial services provided by banks, including the institutions' efforts to promote FI. (Vaishali Waikar and Dr. Yamini Karmarkar, 2018) financial inclusion services provided by the banks and its awareness of the selected sample of the Indore district. Their study focuses on the effect of gender and occupation on the awareness level of people. (Kumar et al., 2020) studied impact assessment of Pradhan Mantri Jan-Dhan Yojana in augmenting financial inclusion in India - A district-level analysis.

## **Hypothesis Framed:-**

- **Null Hypothesis- H0:** There is no a significant difference in the demographics and knowledge of PMJDY schemes in rural areas.
- **Alternative Hypothesis- H1:** There is significant difference in the demographics and knowledge of PMJDY schemes in rural areas.
- H01a: There is a significant relationship between ages and PMJDY.
- H01b: There is a significant relationship between gender and PMJDY.
- H01c: There is a significant relationship between education and PMJDY.
- H01d: There is a significant relationship between employment status and PMJDY.
- H01e: There is a significant relationship between Income and PMJDY.

## **Research Methodology:**

The research design adopted in this study is exploratory and descriptive in nature. The primary data were collected by interviewing rural households. For this study on the PMJDY and FI in rural areas of Jharkhand in Palma village (Deoghar District) sample size was 150. The study was intended to evaluate the awareness of PMJDY, FI, and other financial

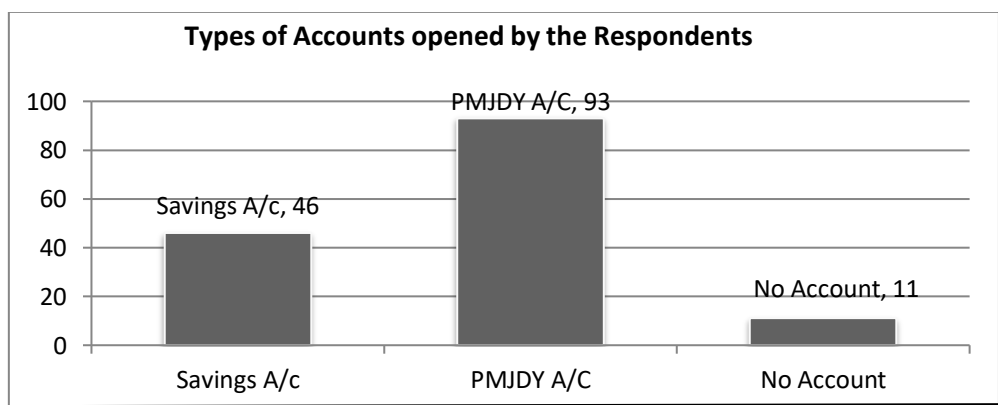
inclusion services provided by the banks among the residents of Palma village in Deoghar district and also to find out the level of awareness of these schemes and services among them. A total of 150 respondents have been surveyed. These 150 respondents have been subdivided into 4 age groups. The research focused on both males and females. The respondents have been further classified into those having Government job, Private Job, self-employed, Unemployed and Student, depending upon their employment status. The data analysis was done by using the chi-square test.

**Demographic Profile of Palma village of Deoghar district of Jharkhand:** **Gender:** Out of whole sample of respondents, 44% were females and 54% males. **Age:** Agriculture is actively practised by people of all ages. Of the whole sample of respondents, 52.70% belongs to 18 to 30 years age group, 31.3% belongs to 31 to 45 ,10% belongs to 45 to 60 and 6% belongs to 60 above. This demonstrates that agricultural occupations

continue to be prevalent among the younger generation population. **Income:** From the analysis it is found that 87.3% of the rural people earned an average income of Rs. 1800 to Rs. 2000 per month. Very few (8%) reported monthly income above 10,000. **Education:** 56% of the rural people have attended only primary level school. Only few that are 30% and 9.3% were observed to be having gone for high school and Intermediate level respectively.

**Banking and Saving Habits:** The study attempted to comprehend rural people's understanding of banking behaviour. It was shown that 92.7% of them are familiar with banking (for them banking knowledge means only dealings like cash withdrawal and cash deposits in their savings account).. Majority of them had savings account in State Bank of India, which shows a trust in Public Sector banks. 93 % these accounts holders have active account.

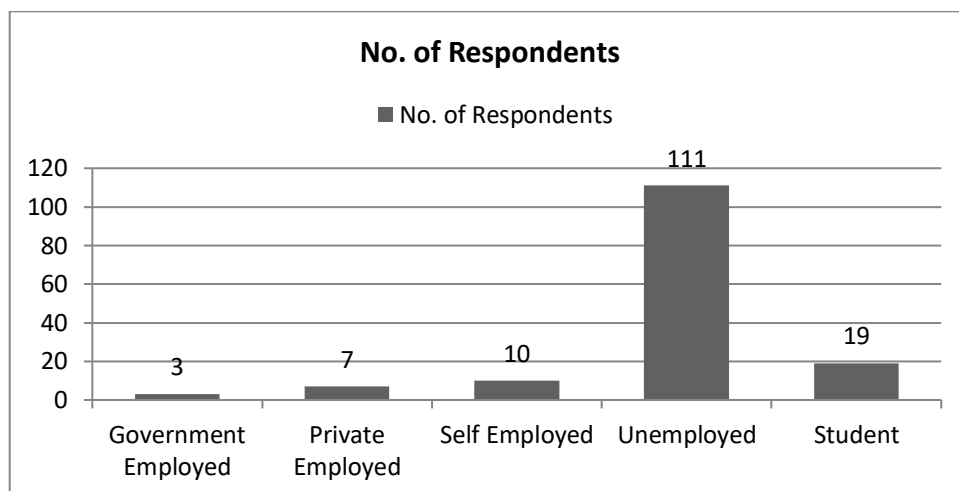
**Figure:1 Types of Accounts opened by the Respondents of Palma village, Deoghar, Jharkhand**



In the survey it is found that majority of the population have “Pradhan Mantri Jan Dhan Yojana” i.e. 62%, whereas 31% of the respondent have “Saving account” while 7% of them have no account at all.

**Employment Status:-** From the analysis it is found that out of total respondents 74% are unemployed, 12% are students, 7% are self employed, 5% have private jobs and 2% have government jobs.

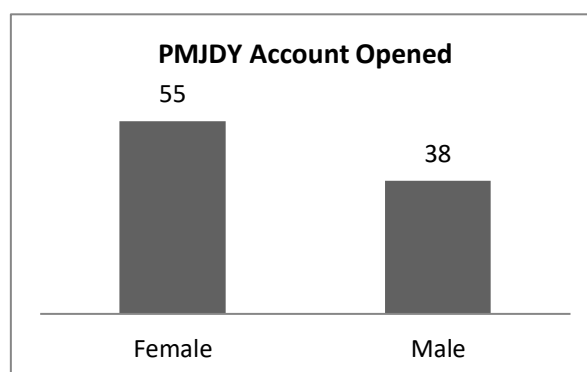
**Figure: 2 Profession wise composition of the respondent along with percentage.**  
(Highest value-74% unemployed, Lowest value-2% Government employed)



**Pre COVID-19 PMJDY:-** The primary objective of this study is to better understand the responsiveness and implementation of the Pradhan Mantri Jan Dhan Yojana Scheme in its fourth phase (15th August, 2014 to 14th August, 2018) among rural people. The phase presents a contrary observation, which is a grim foreboding.. Though 64 % of the rural people do have bank accounts, the

responsiveness and benefits of PMJDY schemes are not properly implied. As per the inference, only 29 % of the respondents do active transactions in PMJDY account. This is also due to suggestions given by banking officials for availing the insurance benefits, etc.

**Figure: 3 Representing Pradhan Mantri Jan Dhan Yojana Account opened by the Respondents of Palma village(Highest value- 55 ( Female),Lowest value – 38(Male).**



**Chi-Square Test:-** Chi-Square test indicates that, the higher value that is 8.64 is clearly supporting the hypothesis. It is proved that null hypothesis is not accepted.

Alternative hypothesis is not rejected. So that we can assume that the variables are not dependent of each other and the categorical variables have a statistical relationship.

H01a: There is a significant relationship between age and PMJDY

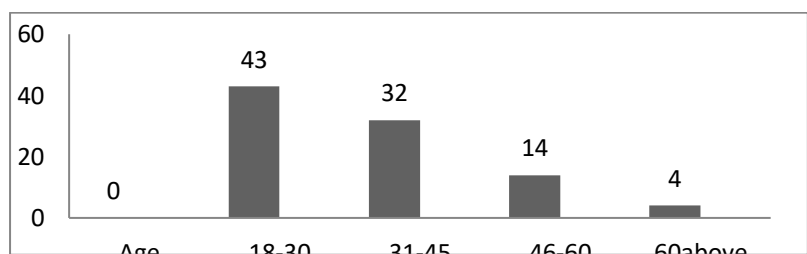
**Table1- Test Statistics**

	Age	PMJDY
Chi-Square	83.493 <sup>a</sup>	8.640 <sup>b</sup>
df	3	1
Asymp. Sig.	.000	.003

There is a positive relationship between age and PMJDY account. The value of the chi-square statistic is 8.64. The p-value is .003. These p-values indicate that these

variables are not independent of each other and the categorical variables have a statistically significant relationship.

**Figure 4 Age wise Breakup of PMJDY Account**



PMJDY Account Opened= 93 out of 150 total sample

H01b: There is a significant relationship between gender and PMJDY

**Table 2: Test Statistics**

	PMJDY	Gender
Chi-Square	8.640 <sup>a</sup>	2.160 <sup>a</sup>
df	1	1
Asymp. Sig.	.003	.142

There is a positive relationship between gender and PMJDY account. The value of the chi-square statistic is 8.64. The p-value is .003. These p-values indicate that these variables are not independent of each other and there is a

statistically significant relationship between the categorical variables.

H01c: There is a significant relationship between education and PMJDY.

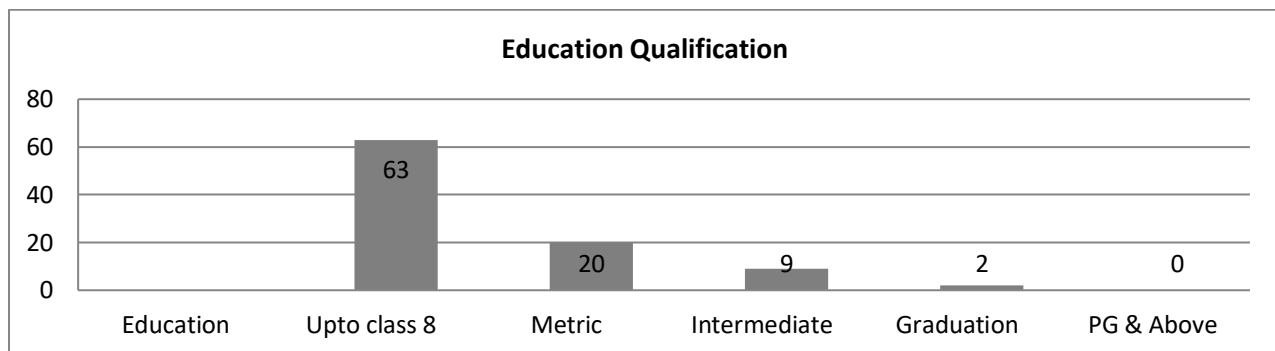
**Table 3: Test Statistics**

	PMJDY Account	Education
Chi-Square	8.640 <sup>a</sup>	160.200 <sup>b</sup>
df	1	4
Asymp. Sig.	.003	.000

There is a positive relationship between education and PMJDY account. The value of the chi-square statistic is 8.64. The p-value is .003. These p-values indicate that these variables

are not independent of each other and there is a statically significant relationship between the categorical variables.

**Figure:-9 Representing the education up to 8 class which is 63 of total respondents are more aware about PMJDY as compared to other group's respondents**



**.PMJDY Account Opened= 93 out of 150 total sample**

H01d: There is a significant relationship between employment status and PMJDY.

**Table 4: Test Statistics**

	PMJDY	Employment status
Chi-Square	8.640 <sup>a</sup>	278.000 <sup>b</sup>
df	1	4
Asymp. Sig.	.003	.000

There is a positive relationship between employment status and PMJDY account. The value of the chi-square statistic is 8.64. The p-value is .003. These p-values indicate that these variables are not independent of each other and there is a statically significant relationship between the categorical variables.

**Figure:-10 Unemployed which is 84 of total respondents are more aware about PMJDY as compared to other group's respondents.**



**PMJDY Account Opened= 93 out of 150 total sample**

H01e: There is a significant relationship between Income and PMJDY

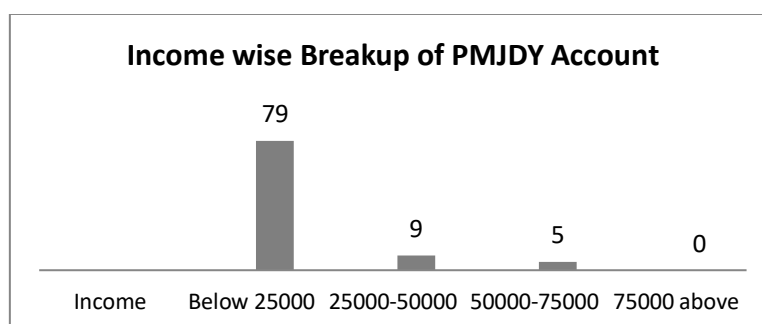
**Table 5: Test Statistics**

	PMJDY	Income
Chi-Square	8.640 <sup>a</sup>	312.240 <sup>b</sup>
df	1	3
Asymp. Sig.	.003	.000

There is a positive relationship between income and PMJDY account. The value of the chi-square statistic is 8.64. The p-value is .003. These p-values indicate that these

variables are not independent of each other and there is a statically significant relationship between the categorical variables.

**Figure 10 Income wise Breakup of PMJDY Account**

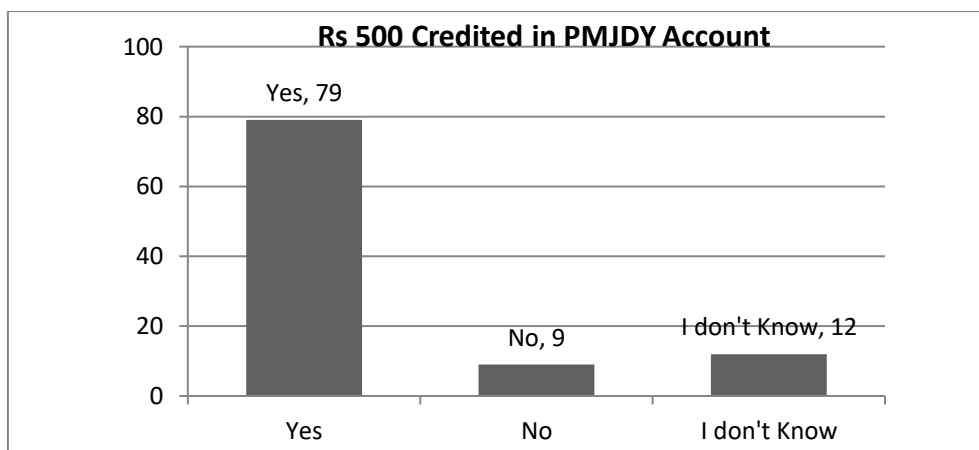


**PMJDY Account Opened= 93 out of 150 total sample**

### Post COVID-19 Pradhan Mantri Jan Dhan Yojana

According to State Government report, Female Jan Dhan account holders were given Rs500 every month from April 2020 to June 2020 so that they would not face any difficulty in purchasing essential items and fulfilling other requirements. The benefits of this scheme were extended to all Jan Dhan women account holders in the district of Deoghar. According to Department of Financial Services-PMJDY

account opening Report (27.01.2021) Total Beneficiaries-15,313,422, Deoghar Household Report-241 In the Corona era, the opened Jan-Dhan accounts proved to be lifesaving. During lockdown period 134 respondents out of 150 opened Jan Dhan account. 89 % of the respondents do active transactions in PMJDY account was Rs 500 credited in your Jan Dhan Account



### Findings & Results:-

1. From the above analysis it is found that chi square value is 8.64 which is more than .5 so there exists a relationship between independent variable PMJDY and dependent variables (gender, age, income, employment status and education) respectively.
2. Respondents belonging between the age group 18-30 years which is 52.7% of total respondent taken for the study are more aware about PMJDY as compared to other age group's respondent.
3. Female respondents about 59% are more aware of PMJDY as compared to males which is about 41%.
4. 87% of the total respondent earns below Rs 25000 per annum of which 51.33% are more aware of PMJDY as compared to others income groups.

### Conclusion:

From the study it can be concluded that there is a high level of awareness among the respondents of Palma village of Deoghar district in Jharkhand regarding financial inclusion services and PMJDY as only 7% of the total respondents had no account at all. Further it is being found that the awareness about these schemes and services are affected by the education, income, age, gender and employment status of the respondents. After deeply analysing the demographical profile of the respondents it's being found out that increase in age and education level has negative impact on the awareness of PMJDY

among respondents. While doing this analysis conditions of respondent is being depicted. During lockdown period 89 % of the respondents opened PMJDY account and positive impact on the awareness of PMJDY.

### Limitation of the study:

This study focuses on the socio-economic condition of rural areas of Jharkhand but sample is only taken from the small Palma village of Deoghar district of Jharkhand so it may not give exact picture of socio-economic condition of rural areas of Jharkhand.

Secondly only PMJDY is used to measure the extent of financial inclusion in the area. So other schemes of government should have been studied in order to give true picture of financial inclusion in the rural areas of Jharkhand.

**Suggestion:** As this study is based on Palma village of Jharkhand in order to represent the socio-economic condition of rural Jharkhand the future studies may be conducted by taking in to more number of villages of Jharkhand and more government schemes in order to give clear picture of present condition of rural Jharkhand.

### References:-

1. Chandan Kumar and Srijit Mishra. (2011). Banking Outreach and Household level Access : Analyzing Financial Inclusion in India. *13th Annual Conference on Money and Finance, February 2011*, 1–33.
2. Greeshmadas M, D. B. V. P. (2018). An Evaluation of Awareness On Financial Inclusion among the Agricultural and

- Industrial Workers in Malappuram district. *International Journal of Management and Social Science Reserch Review*, 1(48), 30–38.
3. Hannig, A., & Jansen, S. (2010). Financial Inclusion and Financial Stability: Current Policy Issues. *Asian Development Bank Institute*, 259. <http://www.adbi.org/working-paper/2010/12/21/4272.financial.inclusion.stability.policy.issues/>
  4. J.Pillai, T. (2016). Financial Inclusion and Pradhan Mantri Jan Dhan Yojana: An Empirical Study Conducted in the villages of Mulshi Taluka in Pune District. *Indian Journal of Science and Technology*, 9(45). <https://doi.org/10.17485/ijst/2015/v8i1/106755>
  5. Jose, M. (2014). FINANCIAL INCLUSION AND FINANCIAL LITERACY : A STUDY WITH REFERENCE TO KANNUR DT , KERALA. *International Journal of Humanities, Arts, Medicine and Sciences*, 2(10), 27–32.
  6. Khuntia, R. (2014). Pradhan Mantri Jan Dhan Yojana (PMJDY): A new drive towards financial inclusion in India. *ZENITH International Journal of Business Economics & Management Research*, 4(11), 10-20.
  7. Kumar, M. D., & Venkatesha, H. R. (2014). Financial Inclusion Using Pradhan Mantri Jan-Dhan Yojana–A Conceptual Study. *Asia Pacific Journal of Research Vol: I Issue XX*.
  8. Kavidayal, P. C., & Kandpal, V. (2016). A Study on Extent of Financial Inclusion among Rural Households in Bageshwar District of. *Nternational Journal on Arts, Humanities, Social Sciences & Business Studies Shodh-Sandhan* 2016, 01(02), 1–11.
  9. Kumar, S., Asif, M., Yadav, V., Kumar Singh, S., Velan, N., & Asif Aftab, M. (2020). *Impact Assessment of Pradhan Mantri Jan-Dhan Yojana in Augmenting Financial Inclusion in India-A District-Level Analysis*. 17(9), 5449–5475.
  10. Rangarajan, B. (2017). FINANCIAL INCLUSION AMONG TRIBALS IN NILGIRIS DISTRICT. *A Journal of Radix International Educational and Research Consortium*, 3(November).
  11. Sarma, M., & Pais, J. (2008). Financial Inclusion and Development: A Cross Country Analysis. In *Annual Conference of the Human Development and Capability Association, New Delhi*, 10–13, 1–30. <https://doi.org/10.1002/jid>
  12. Sharma, N., & Goyal, R. (2017). Pradhan Mantri Jan Dhan Yojana (PMJDY)-A Conceptual Study. *International Journal of Research-GRANTHAALAYAH*, 5(4), 143-152.
  13. Singh, A. (2017). *Financial Inclusion & Implementation of Jan Dhan Yojna – Information Technology as Enabler*. 5(07), 5913–5918. <https://doi.org/10.18535/ijstrm/v5i7.16>
  14. Waikar, V., & Karmarkar, Y. (2018). Financial Inclusion-A Study of Awareness Level of People in Indore District. *Asian Journal of Management*, 9(1), 1-7.
  15. Williams, H. T., Adegoke, A. J., & Dare, A. (2017). Role of Financial Inclusion in Economic Growth and Poverty Reduction in a Developing Economy. *Internal Journal of Research in Economics and Social Sciences (IJRESS)*, 22(1), 19–56.



# FEDERALISM IN INDIA: ORIGIN, DEVELOPMENT AND RECENT TRENDS

**Uma Yadav**

Research Scholar (Political Science)

Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh

E-mail: [yadavuma632@gmail.com](mailto:yadavuma632@gmail.com)

Mobile No: 8109720701

6266710901

**Dr. SantwanaPandey**

Assistant Professor

Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh

Postal Address: GuruGhasidasVishwavidyalaya Koni, 495009, Bilaspur Chhattisgarh

---

## Abstract

Indian federal system is unique in nature and its working to accommodate such heterogeneous society in a unified way yet there are so many transformations occurred since Independence which led to the centralised tendencies to cooperative nature between the two levels of government. Over the time the federal features of India have evolved into a principle of co-operation and a visible shift is seen towards states as they become equal stakeholders in the federal system.

**Keywords:** Indian federal system: emergence, growth and development, centralization of power, cooperative federalism

---

## Introduction

In the federal system powers of government are divided between the center and its units in such a way that each government is independent in its sphere. The term "Federalism" is derived from the Latin word "foedus" meaning covenant. It connotes the theory or advocacy of federal political orders, where final authority is divided between sub-units (states) and a center. Federations here mean to involve divisions of authority, typically entrenched in the constitution which neither a sub-unit nor the territorial center can alter unilaterally. An attempt has been made in this research paper to trace the origin of federalism and the nature of federal structure of India after Independence, to evaluate the contemporary tendencies of Indian federalism. The constitution of the U.S.A. drafted in 1767 is the oldest federal constitution. The motive forces which promoted federalism amongst the several colonies were defence and the felt need to keep down economic barriers among them. The U.S. Constitution follows a simple method

for dividing power between the Centre and the states. There is only one list enumerating the powers of the Central Government and the rest of the powers are left to the states.<sup>1</sup> U.S.A. adopted a federal system comprising 50 states and a federal (central) government. The constitution provided for the division of power between federal and state governments.

In Australia federal structure was adopted as a process by which the six separate self-governing colonies of New South Wales, Queensland, South Australia, Tasmania, Victoria, and Western Australia formed one nation. The states kept the system of government that they had developed. The federal government (central) was responsible for matters concerning the whole nation. When the constitution of Australia came into force, in January 1901, the colonies collectively became states of the Commonwealth of Australia.<sup>2</sup>

In the case of Canada (1867) the federal system has been adopted as the main

organizing principle. Canada is divided into two constitutionally autonomous levels of government the federal or central and the provincial government.

Indian constitution-makers also adopted a federal structure for governance. Constitution came into force on 26 January 1950. But the Indian constitution-makers differed from U.S.A.'s federal system. The constituent assembly adopted most of the federal provisions from the Government of India act 1935. The constitution-makers adopted the federal system on the model of the federal system of Canada.

The federal system was first accepted in India under the Government of India act 1935, in which "all India federation" was proposed to be included in the same governmental system as British India. India was divided into British India and the Indian Princely States. British India was under direct administration of the British crown and the Indian states were under the rule of hereditary rulers. The system prevalent in British India, before the passing of the Government of India act 1935, was the unitary system of government, through an attempt at devolution of powers was made under the government of India act 1935.

The significance of the Act of 1935 lies in the fact that the provinces were endowed with a legal personality under a national scheme, and that the character of the national scheme was ultimately a federal system.

But the federal construction that India follows today is poles apart from what the British proposed in the Government of India act 1935. The biggest hint of federalism in India lies in the history of its foundation in 1947 when after the Partition of Pakistan from the Indian subcontinent all the provinces, presidencies, and princely states were united under an instrument of accession that signifies that all these previously sovereign or reliant states came together to be called one nation-state. The Government of India Act, 1935, was the first legal document that envisaged the system of federal states under the 'Crown' uniting both British India and the Indian states. But the proposal was never implemented. The Cripps Mission and the Cabinet Mission Plan

had proposed looser forms of federalism envisaging greater autonomy for the units. The Cabinet Mission Plan had envisaged a weak Centre, where the powers of the Government would be confined to three subjects, namely, foreign affairs, defense, and communication. The Union Powers Committee formed by the Constituent Assembly under the Chairmanship of Pandit Jawaharlal Nehru, in its xvi first report ended up recommending a weak Centre since it had to function under the limitations of the Cabinet Mission Plan, though Pandit Nehru himself had always advocated for a great deal of unitary control in federal India. It has been observed that the proposals of the Cripps Mission, the ones included in the Cabinet Mission Plan and those of the first report of the Union Powers Committee had been made mainly to accommodate the Muslim League and the princely states and to prevent the partition of the country. With the passing of the Indian Independence Act of 1947 and the actual partition of the country, the complexion of the Constituent Assembly changed, and the earlier compulsions that called for a federal India gave a high degree of autonomy to the states no longer existed. There emerged, particularly in the wake of the events preceding the partition, then, a unanimous demand in the Constituent Assembly for a strong center<sup>3</sup>. The Government of India Act of 1935 provided for a powerful center. At the same time, this Act introduced provincial autonomy which implied two things. Firstly, the Provinces were to derive their powers from the same source, i.e. The Government of India Act of 1935, from which the Centre too derived its authority. Secondly, provincial autonomy implied responsible government in the provinces. The matters within the sphere of provincial government would be administered by an executive responsible to the legislature and ultimately to the people. The Act of 1935 came into force on April 1, 1937. The part of the Act which contemplated the inclusion of the princely States never came into operation as the States did not opt to join the federation. The Rulers considered the proposed federal scheme inadequate for protecting their special rights and interests. The Act remained in operation; so far as its provincial part was concerned, till 1947 when substantial changes

were introduced following the transfer of power.

B.R. Ambedkar in the constituent assembly said “All federal systems including the American are placed in a tight mold of federalism. No matter what the circumstances, it cannot change its form and shape. India’s constitution can be both unitary as well as according to the requirements of time and circumstances in normal times it is framed as federal and in times of war it is designed to make it a unitary system”. Thus in the Indian constitution, there is no mention of the term “federation” Article 1(1) of the Indian constitution states “India that is Bharat shall be the union of states” The word union indicates that the Indian federation is not a result of an agreement by the units that is states and units have no freedom to secede from the union. Indian constitution-makers adopted a federal structure for the governance of India, after the independence of the country and the constitution came into effect on 26 January 1950 but the Indian constitution-makers differed from U.S.A’s presidential federal system and combined Indian federalism with a parliamentary form of government.

Mr. Livingston observed that federalism is more a “functional” than an “institutional” concept. Granville Austin described Indian federalism as a “cooperative federalism” according to him constitution of India has created a strong central government, has not made the state governments weak and has not reduced them to the level of administrative agencies for the execution of policies of the central government. He described the Indian federation as “a new kind of federation to meet India’s peculiar needs”.

The pattern of the center-state relations is not static it is dynamic and constantly finds a new balance in response to the centripetal and centrifugal forces operating in the country, that is the reason the subject of inter-governmental relations in a federation is of much significance. Centripetal implies tend toward a more centralised form of federalism and centrifugal decentralised form of federalism and thus these patterns constantly need to be analysed.

## **Indian federalism after independence**

Founding Fathers had opted for a ‘Union of States’ with a strong Centre to make sure that the country did not have to suffer any challenge to its integrity.

India adopted federalism in very critical conditions at the time of independence to face the problems of plurality and regional diversities in society. It was used as an instrument to accommodate regional autonomy with the national goals of development, unity, and integrity.<sup>3</sup>

After Independence, the central question was what type of political structure India will adopt to assimilate its heterogeneous society it was the fundamental question during the freedom movement and post-independence nation-building. But after the partition, the main purpose of the constitution-makers was to create a strong central government that will unify this heterogeneous society into a nation. Article 1 of the Indian constitution states India as a “union of states”.

After independence, during the tenure first phase of Indian federalism (1950-1967), the issue of center-state relations was relatively dormant as the Indian National Congress dominated both levels of government. The first and foremost question that emerged after the partition was the integration of princely states, after partition, the need for creating strong states was felt by the national leaders to integrate the diversity of the nation. The chief political party at the center favored a centralized federal structure. The appointment of the 1953 state reorganization commission and the demand to create states on a linguistic basis was the central question during this phase. In 1956, parliament passed the State Reorganization Act and thus led to the creation of states on a linguistic basis. The then Prime minister favored a strong center to assimilate and meet the need of the diverse nation. Many decisions led to the creation of a strong center. The creation of the planning commission in 1950, marked the centralized planning approach which gave less say to the states this shifted the nature of federalism towards the Centre. Almost all the states were ruled by the same political party i.e. Indian National

Congress which was the ruling party at the Centre for that reason Centre-state relations did not pose any serious issue if there was an issue, they got solved through the extra-constitutional channel of party forum. The formation of non-congress government in many states led to the assertion of demands of states more strongly. The formation of the non-Congress Governments in many States during 1967 was a turning point in the history of Federalism in India. The General Elections in 1967 were followed by the formation of non-Congress Governments in several States, which included Bihar, Haryana, Kerala, Madhya Pradesh, Orissa, Tamil Nadu (Madras), Uttar Pradesh, and West Bengal. Simultaneously, it was also the beginning of a period when coalition politics started at the State level. The coalition governments were formed in many States, which included Bihar, Haryana, Kerala, Madhya Pradesh, Orissa, Uttar Pradesh, and West Bengal<sup>4</sup>.

In the 1967 legislative elections many opposition parties came to power in these states and the next phase started with 1967-1971 as it marked the beginning of the formation of a non-congress government in 8 states. It also changed the center-state dynamics as these states asserted their demands more strongly the formation of Rajmanner committee formed in 1969 it was a three-member committee to study the state autonomy and Center-state relations by the then newly elected government DMK in Tamil Nadu government recommending greater autonomy for the States basically in legislative and fiscal matters. Although its recommendations were sidelined by the central government it helped raise center-state relations more firmly. In 1969 the split of the Congress party into congress(o) and congress(r) and after the general election of 1971 victory of Indira Gandhi, congress (r) marked the beginning of a more centralized form of federalism, the rise of regional political forces in states like Punjab, Tamilnadu led to more centralized decisions to tackle them and dissolution of the state government which are ruled by non-congress government, imposition of Article 356 witnessed confrontational Centre-state

relations and gave rise to conflictual nature of Indian federalism.

The imposition of emergency and after the general election of 1977, the first Non-Congress government was formed by Janta dal at Centre a lot of decisions was made securing the needs of states it creates harmonious environment for Center-state relations.” The practice of dismissing Governors with the changed guard at the center began in 1977 when the Janta party came to power routing the congress and took a decision to replace the governors appointed by the previous government.

The disintegration of the Janta party at the Centre in 1979 and after the 1980 loksabha election Indira Gandhi came back to power led to the centralisd form of federalism and after the demise of Indira Gandhi Rajiv Gandhi won the elections He also maintained the centralized tendencies in the political system.

1989-2014 marked the era of Bargaining Federalism. The liberalization, privatization, and globalization (LPG) Policy marked the new dynamics in Centre-state relations. This led the states to play major roles in center state relations. It gave states more autonomous powers than ever before. It broadens the role of states in the political and economic sphere. The emergence of a multiparty system and the emergence of the regional political party more firmly and have more say in policy formulation in the Centre.

After the 2014 election BJP government came to power and took various important decisions which are significant for center-state relations these decisions led to new dynamics in Indian federalism. The promise made by Prime Minister Narendra Modi led B.J.P government of co-operative federalism resulted in the dismantling of the planning commission and establishment of NITI Aayog (National Institution for Transforming India) it is considered to be a major step in creating cooperative federalism, in it the states have more say in policy formulation process thus became the reason for replacing planning commission was its centralized tendencies in the policy formulation process and adoption of top to bottom approach. The formation of NITI

Aayog marked the beginning of cooperative federalism. Also, the BJP government accepted the recommendations of the fourteenth finance commission report for the devolution of taxes to states which is 42 percent to the states during 2015-16 to 2019-20, against 32 percent suggested by the previous government thus led to the greater share overtakes to states which led to the more cooperative form of fiscal federalism. After the 2019 Lok Sabha elections BJP-led NDA government return to power with a sound majority the decision taken to remove the special status of Jammu and Kashmir, and the scrapping of Article 360 created an impact on the nature of federalism.

### NEED FOR COOPERATIVE FEDERALISM

Diversity is strength of India and to accommodate this diversity cooperation is needed between centre and state government the understanding of the centrality importance and needs of states where most decisions and schemes of the government are implemented by the center, establishment of Niti Aayog and emphasis the spirit of cooperative federalism and call it Team India the collective of center and state. Federalism is a way to contain a diverse and heterogeneous society in a unified way. In a diverse country like India cooperative federalism is way ahead of where both center and state play a vital role in safeguarding unity in diversity, strengthening political stability in states, and in maintaining institutional balance in policymaking and policy implementation.

### Conclusion

Indian federalism is not regarded as a true federation; it has many non-federal, unitary as well as federal features. The central government has control over the state governments and the state governments are to work under the authority of the central government although they have a certain degree of autonomy in their respective spheres. Both centre and state governments attend the task of preserving through constructive cooperative federalism. A.H.Birch have defined the term “cooperative federalism” which implies administrative cooperation between the centre and the states

hence the progress of the country as diverse as India rests upon the active cooperation between the state as well as union.

### References

1. Jain, M.P., Indian Federalism: A Background Paper
2. Mc. Grath. F. The framers of the Australian Constitution 1891-1897 : Their Intentions, Pluto Press, Australia 2003, p.19
3. Commission on centre-state relations report volume 1, evolution of centre state relations in India(punchhi commission),2010
4. S. Nain,2003,Changing Dynamics Of Indian Federation In the Post Coalition Era, The Indian Journal Of Political Science, July 2018,pp. 585-592
5. Commission on centre-state relations report volume 1, evolution of centre state relations in India (punchhi commission),2010
6. Austin, G. (2020). *The Indian Constitution Cornerstone of a Nation*. Oxford University Press.
7. D.D.Basu. (2013). *Introduction To The Constitution of India*. LexisNexis.
8. Hassan, z. (2004). *Parties and Party Politics In India*. Oxford University Press.
9. M.P.Singh, & Saxena, R. (2013). *Federalising India In The Age Of Globalisation*. India Primus Books.
10. Prasad, D. (1985). *Centre-State Relations In India*. Deep and Deep Publications .
11. Tillin, L. (2012). *Remapping India: New States and Their Political Origins*. Oxford University Press.
12. Tillin, L. (2019). *Indian Federalism*. Oxford University Press.
13. Aiyar, Y., & Tillin, L. (2020, may 19). One Nation,"B.J.P, and the future of Indian Federalism. *Indian Review*, 19(2), 117-135.
14. Jacob, A. (1968, october). Centre-State Governmental Relations In The Indian Federal System. *Journal of the Indian Law Institute*, 10(4), 583-636.
15. Jain, M. (1964, October-December). Federalism in India. *Journal of the Indian Law Institute*, 6(4), 355-379.
16. K.Chauhan, R. (2012, April-June). Federalism,Governance and the Demand for Smaller states in India. *The Indian Journal of Political Science*, 73(2), 251-260.

17. Kumar, S. (2002, September). Creation of New States Rationale and Implications. *Economic And Political Weekly*, 37(36), 3705-3709.
18. Livingston, W. S. (1952, March). A Note on the Nature of Federalism. *Political Science Quarterly*, 67(1), 81-95.
19. Nain, S. S. (2018, July-September ). Changing Dynamics Of Indian Federation In The Post Coalition Era. *The Indian Journal Of Political Science*, 79(3), 585-592.
20. P.Singh, M., & Verney, D. (2003). Challenges to India's Centralised Parliamentary Federalism. *Oxford Journals*, 33(4), 1-20.
21. Rath, S. (1978, October-December). Federalism : A Conceptual Analysis. *The Indian Journal Of Political Science*, 39(4), 573-586.
22. S.M.ALIFF. (2015). New trends& Models in Federalism. *IOSR Journal Of Humanities And Social Science*, 20(11), 71-79.
23. Saxena, R. (2012, January 14). Is India a Case of Asymmetrical Federalism? *Economic and Political Weekly*, 47(2), 70-71.
24. sharma, C. K., & wilfried, S. (2018). Modi-fying Indian Federalism?Center–State Relations under Modi’s Tenure as Prime Minister. *Indian Politics & Policy*.
25. Shukla, V. B., & Bishnoi, M. (2020, April-June). The Shaping of Indian Federal System from 1947 to 2014 : An Analysis. *Shodh Sarita*, 7(26), 265-268.
26. Srikrishna, J. B. (2015, september 23). Coperative Federalism. *Vidhi centre for legal policy*.
27. Tillin, L. (2011, march). Questioning Borders: Social Movements, Political Parties and the creation of New States in India. *Pacific Affairs*, 84, 67-87.
28. Tillin, L. (2011, May). Statehood and the Politics of Intent. *Economic And Political Weekly*, 46(20), 34-38.
29. Tillin, L. (2018). Federalism and Democracy in Today’s India. *Economic and Political Weekly*, 53(33).



# MGNREGA IN THE TIMES OF COVID-19 IN JHARKHAND

**Anil Kumar Yadav**

Research Scholar Ranchi University, Ranchi

Address:- SIRD South campus, Kajubagan, Ranchi 834005

Email:- anilyadav347@gmail.com

Mobile no:- 7992435986, 8092727612

---

## **Abstract**

The ongoing COVID-19 pandemic has shown something that most of us have never seen in our lifetimes. Large numbers of people became helpless and even can't have two meals a day. The current pandemic has led to loss of livelihood of substantial sections of the India population. With the economy, particularly production activities in the big urban centers have come to halt, a process of reverse migration to villages was seen. Public and policy attention was returned to MGNREGA. NREGA can be a source of relief to substantial sections of the workforce whose livelihood options are seriously affected due to the pandemic. Another thought comes like expanding the scale of work under MGNREGA which will enhance purchasing power of the rural poor and a multifold effect will allow the economy to revive. Public employment programmes are a well-known instrument of social protection and a tool for poverty reduction. Public works schemes aim to create direct employment and provide income support to reduce vulnerability of the population living in poverty, with a secondary objective of improving local infrastructural development. MGNREGA, the rural employment guarantee programme has a mixed track record in terms of providing adequate employment to those who need it the most, the quality of asset creation and fairness of wages offered.

---

## **Introduction**

The Ministry of Rural Development, Government of India, runs a number of schemes and programmes with the principal objective of enabling rural people to improve the quality of their lives. The recent literature on various aspects of MGNREGA functioning is expanding very fast as the programme encompasses the whole of the rural India and spends a huge budget compared to any other social welfare programme.

Due to COVID-19 pandemic, India has faced a severe challenge of unemployment and reverse migration. Migrant workers are way back to their native places in the hope of sustaining themselves better than they would be able to manage in hostile living conditions in host locations with limited work opportunities. Most migrant workers are daily-wage earners, and absence of work for extended periods makes it difficult to afford high cost of living in urban areas. Added to this is the uncertainty around the timelines for normalization of the current situation. Finance minister Nirmala

Sitharaman has acknowledged the crucial role that the employment guarantee scheme can play in reviving the rural economy. This was reflected in the recent announcement of the minister in which an additional Rs 40,000 crore have been allocated for the scheme. In Union Budget presented in February 2020, Rs 61,500 crore were allocated for the scheme, which was much lower than the revised estimate of Rs 71,001.81 crore in 2019-20. In all, Rs 1,01,500 crore have been allocated for the MGNREGA in the current financial year. MGNREGA is the largest work guarantee programme in the world with the primary objective of guaranteeing 100 days of wage employment per year to rural households. The programme emphasizes on strengthening the process of decentralization by giving a significant role to Panchayati Raj Institutions (PRIs) in planning and implementing these works. This paper critically evaluates the suitability of MGNREGA in its current form as a panacea for alleviating stress in rural India. The key question we discuss here is whether MGNREGA can provide meaningful

work in the post-COVID-19 world, how more employment could be generated with the same

effective spending and reliance on projects under MGNREGA be reduced going forward.

**Table: 1 - MGNREGA (INDIA) Total No. of Job Cards/Blocks/GPs as on FY: 2020-21**

1.Total No. of Districts	715
2.Total No. of Blocks	7,147
3.Total No. of GPs	2,69,527
4.Total No. of Job Cards issued[In Cr]	15.38
5.Total No. of Workers[In Cr]	29.81
6.Total No. of Active Job Cards[In Cr]	9.64
7.Total No. of Active Workers[In Cr]	14.92
8. SC worker against active workers[%]	19.88
9.ST worker against active workers[%]	16.33

Source: www.nrega.nic.in

**Table: 2 - MGNREGA (Jharkhand) Total No. of Job Cards/Blocks/GPs as on FY: 2020-21**

1.Total No. of Districts	24
2.Total No. of Blocks	263
3.Total No. of GPs	4,391
4.Total No. of Job Cards issued (In Cr)	69.35
5.Total No. of Workers (In Cr)	113.24
6.Total No. of Active Job Cards (In Cr)	35.71
7.Total No. of Active Workers (In Cr)	46.23
8.(i)SC worker against active workers (%)	10.34
9.(ii)ST worker against active workers (%)	27.04

Source: www.nrega.nic.in

A total of 3,18,532 households have completed 100 days of work under Mahatma Gandhi National Rural Employment Guarantee Act (Mahatma Gandhi NREGA) in the months of April- June, 2020. There is an increase in the

number of households who have completed 100 days of work under Mahatma Gandhi NREGA between 2020 and 2021. In this regard the details are given below:

Duration	April- June, 2020	April- June, 2021	% increase
Households	318532	391112	22.78%

Total FY19-20 spending by the Centre was Rs. 71,000 crores, while the original budget for FY21 was Rs. 61,500 crores. In the wake of Covid-19-related reverse migration, the Centre enhanced the amount by Rs. 40,000 crores. In the financial year 2019–2020, approximately 13 crore workers availed of work under the scheme. The Government of India has allocated Rs. 73,000 crore at Budget Estimate During previous financial year 2020-21, 11.19 crore persons were provided employment and

stage for current financial year 2021-22 for Mahatma Gandhi National Rural Employment Guarantee Scheme (Mahatma Gandhi NREGS) which is an increase of Rs. 11,500 crore as compared to Budget Estimate for the financial year 2020-21. In the current FY 2021-22 (as on 23.07.2021), a total of 6.51 crore persons have been provided employment under Mahatma Gandhi NREGS. more than 389.23 crore person-days were generated. In current financial year 2021-22

(as on 23.07.2021), 6.51 crore persons have been provided employment and more than 130.9 crore person-days have been generated under Mahatma Gandhi NREGS. During the financial year 2020-21, an amount Rs. 1, 11, 170.86 crore has been released and an amount of Rs. 41,187.06 crore has been released in current financial year 2021-22 (as on 20.07.2021) for the implementation of programme.

**Methodology:** The study is based on secondary data derived from the website of

MGNREGA as well as research studies from different sources - Journals, News-papers etc.

**Data Analysis:** As per information shared by the Ministry of Labour & Employment during Nation-wide lockdown amidst Covid-19 pandemic in 2020, more than 1.14 crore inter-State migrant workers returned to their home most of the migrant workers have returned to their workplaces and engaged themselves in gainful employment.

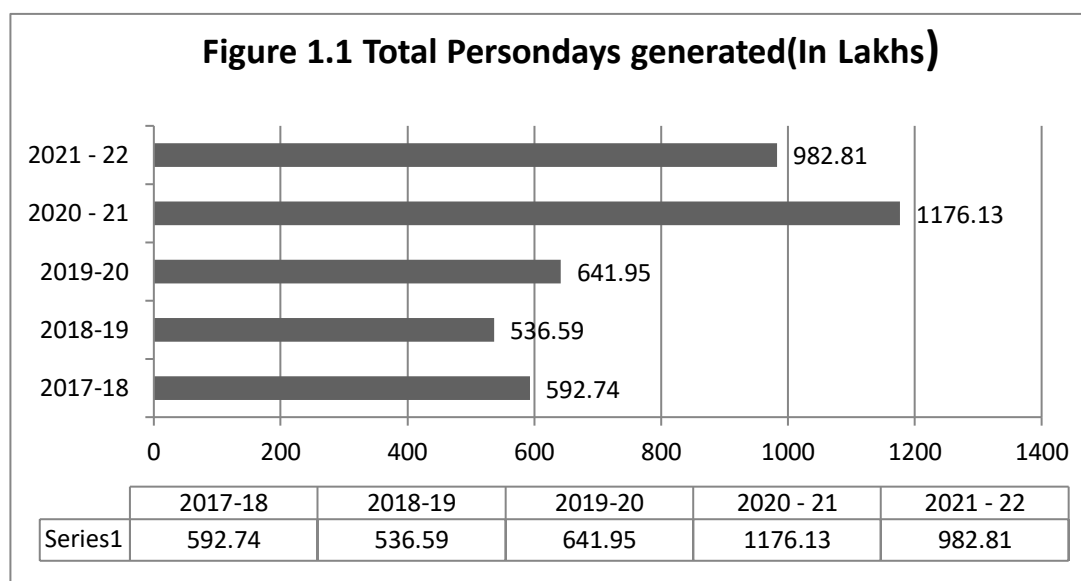
**Table 1**

Particulars	2017-18	2018-19	2019-20	2020 - 21	2021 - 22
Approved Labour Budget[In Lakhs]	700	700	700	1150	1024.97
Person days Generated [In Lakhs]	592.74	536.59	641.95	1176.13	982.81
Women Person days out of Total (%)	37.33	39.22	41.31	42.53	45.54
Average days of employment provided per Household	41.03	42.17	46.36	46.35	42.12
Average Wage rate per day per person(Rs.)	167.98	167.99	170.98	193.98	224.91
Total No of HHs completed 100 Days of Wage Employment	57,524	25,985	30,988	1,14,391	61154
Total Households Worked[In Lakhs]	14.45	12.73	13.85	25.38	23.33
Total No. of Works Taken up [In Lakhs]	9.34	9.01	8.96	15.01	15.87
Number of Completed Works[In Lakhs]	2,85,129	4,06,402	3,52,986	4,90,910	4,31,598
Total Exp[In Lakhs]	1,52,851.07	1,52,137.07	1,69,995.24	3,15,033.43	279635.1

Source: [www.nrega.nic.in](http://www.nrega.nic.in)

The persondays generated out of total is presented in the Fig-1.1 Data shows total persondays generated (In Lakhs) stood at 592.74 in 2017-18, 536.59 in 2018-19, 641.95 in 2019-20, 1176.13 in 2020-21 and 355.6 in 2021-22(as on date). The person day wage (in nominal terms) showed an increasing trend over the years. Due to the pandemic migrant workers returned to their native places in the hope of sustaining

themselves and job through NREGA which can be seen in the FY 2020-21 with highest persondays generated. According to operational guidelines of MGNREGA, 2013 (Ministry of Rural Development, 2013) it has also been suggested that at least 50% of the worksite supervisors at all worksites should be women.

**Figure 1.1 Total Persondays generated (In Lakhs)**

Women Participation in terms of persondays generated out of total is presented in Fig-1.2 Data shows women participation stood at 37.33% in 2017-18, 39.22% in 2018-19, 41.31% in 2019-20, 42.53% in 2020-21 and

43.88 in 2021-22 which is the highest in five years. There is an increase of around 6% in person days for women in comparison to FY 2017-18 to FY 2021-22. Data show participation of women under the Mahatma Gandhi National Rural Employment Guarantee scheme has risen to a five year high.

**Figure 1.2: Women Person days out of Total (%)**

the Number of households completed 100 days of wage Employment doubles in comparison from FY 2017-18 to FY 2021-22. A majority

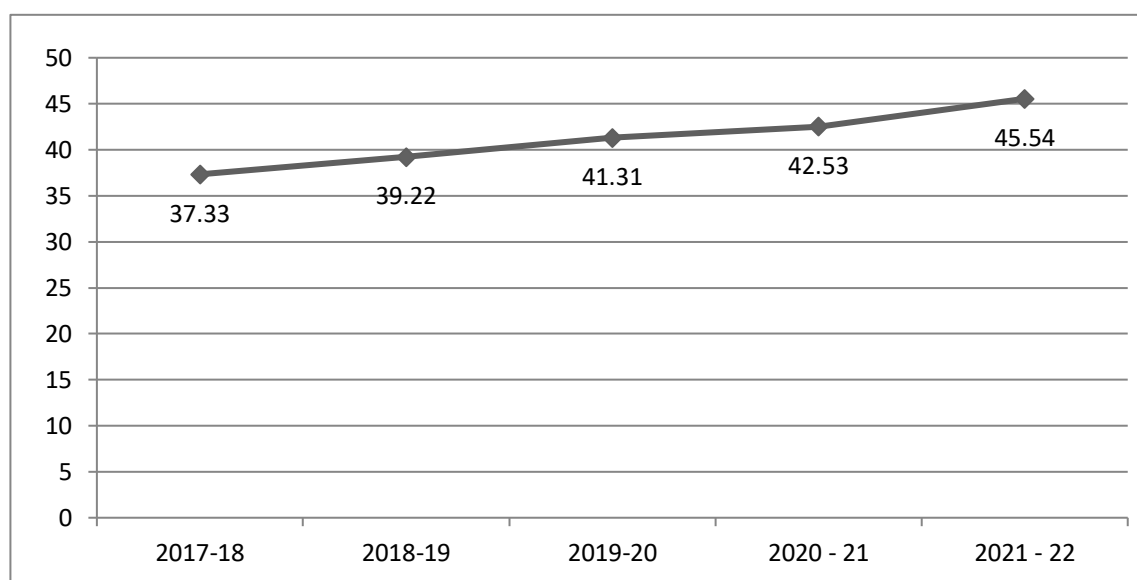


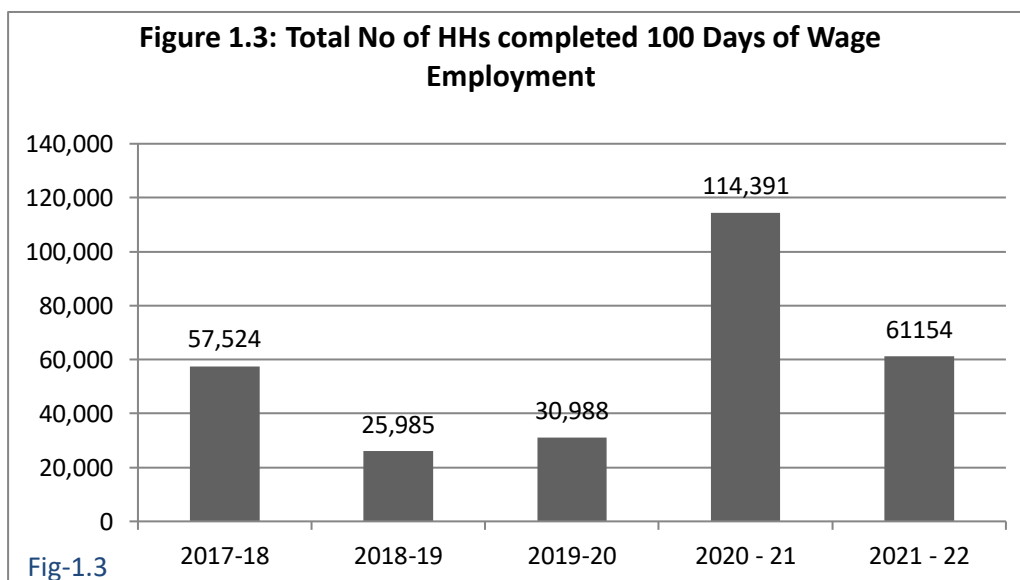
Fig 1.3 shows the total number of households that completed 100 days of wage Employment under NREGA in Jharkhand. Data shows that

of the members who migrated to work under MGNREGA came back to the village either in the previous year of the reference period or a

year before. The majority of the households who returned back to work in MGNREGA pointed out that they were now better off

compared to earlier working as a migrant labourer.

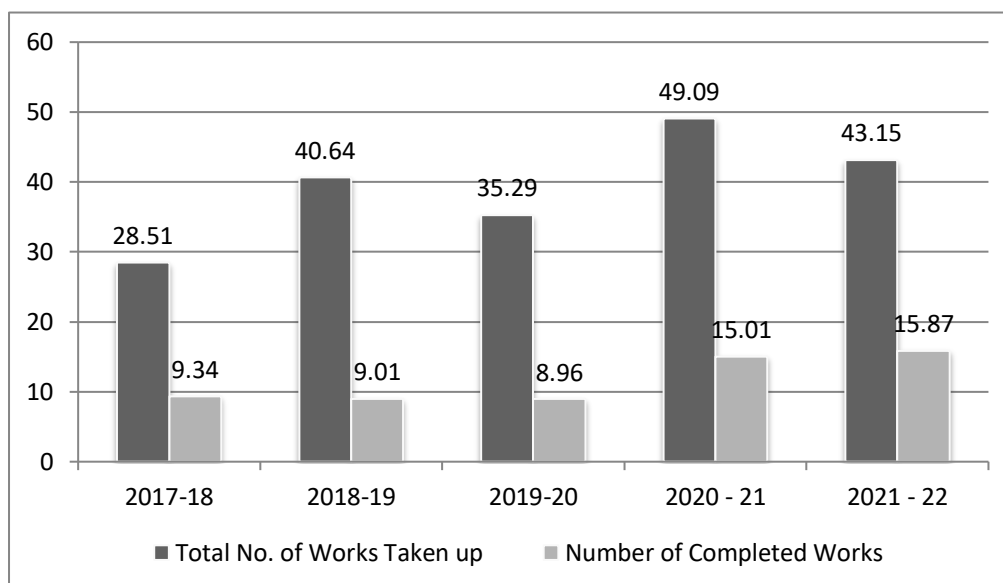
**Figure 1.3: Total No of HHs completed 100days of wage employment**

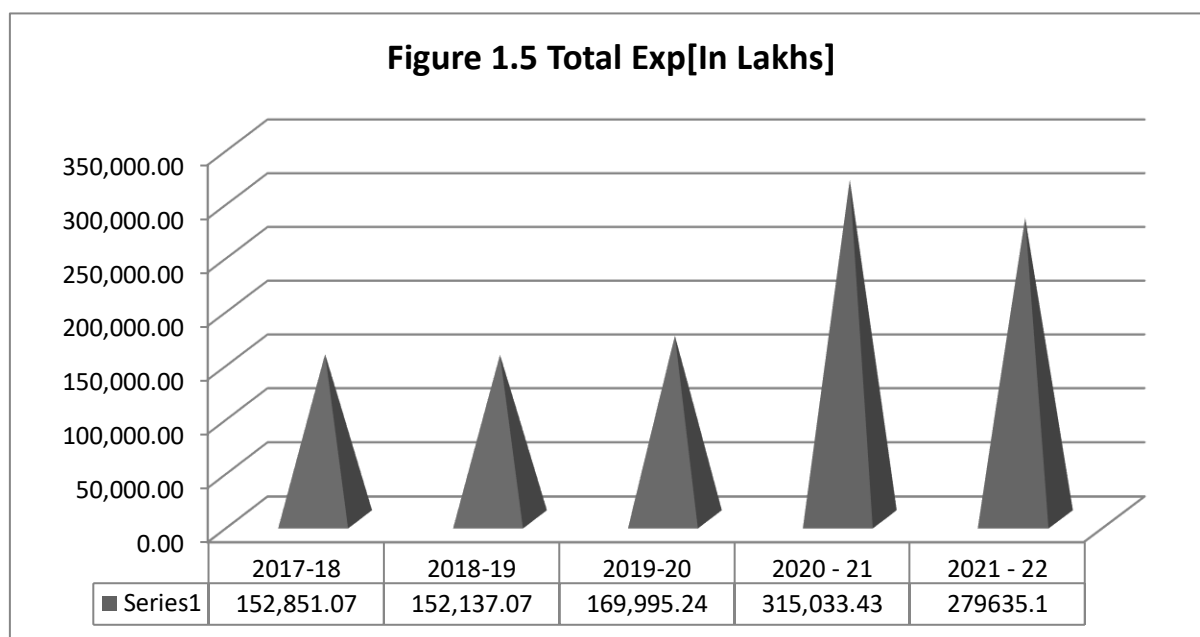


While MGNREGA provides direct employment and the works executed are expected to increase the development potential by creating assets. A look into the activities taken under MGNREGA shows that most of

the works is undergoing or incomplete. FY 2020-21 and FY 2021-22 shows the maximum completion works under the scheme. Number of works completed is below 50% in almost all the year starting FY 2017-18 to 2021-22.

**Figure 1.4: No of works taken up/ No of completed works**



**Figure 1.5: Total Exp (In Lakhs)**

The total expenditure incurred by Jharkhand government on the scheme was highest in FY 2020-21 with Rs.3, 15,033.43lakh. The total annual expenditure was increased from Rs. 1,52,851.07 lakh in 2017-18 to Rs Rs.3, 15,033.43 lakh in 2020-21 which is almost double in 5 Years. The e-transfer of fund payment system is implemented in all over the India. In this e-transfer system, the payment is getting credited in to the Bank/Post office account of the beneficiary directly. The Act mandates expenditure of 60% for creation of assets directly related to agriculture and allied activities through development of land, water and trees.

### Conclusion

The role of MGNREGA as a lifeline for the working poor in rural India has been proved once again with the experience of the COVID-19 induced nationwide lockdown. The scheme turned out to be the main livelihood source for millions of migrants and other workers in rural India providing much needed daily wages and livelihood. An employment scheme which has helped in curbing distress out-migration in states like Jharkhand by making hundred days of work a legal entitlement at the source can significantly add to asset creation and infrastructure development in rural areas if

used innovatively and strategically. This also helps creating sustainable livelihood in these areas. Given the current economic recession and slowdown in most sectors of the economy, wages earned by the workers working under the scheme helped in reviving the manufacturing and service sectors as the demand and spending on consumption items increased. Thus provides all the reasons to not only continue but also further strengthen the scheme in the times to come.

This paper has attempted to quantify the scale of reverse migration Jharkhand is witnessing in the current times and the action needed to make MGNREGA spending more effective. The scale of reverse migration and the lack of opportunities in rural India despite enhancements in fund allocation to MGNREGA point to a grim situation. Projects under MGNREGA had limited completion rate in the past, and the scheme overall has been inadequate in providing the assured minimum days of work to those who need it the most. In the new normal, healthcare, sanitization and hygiene will have a priority focus. A project management discipline, connecting labour to work opportunities and vice versa and the need for micro-self-employment is the need of the hour.

## References

1. MGNREGA. (2019, September 04). MGNREGA Dashboard. Retrieved from [http://mnregaweb4.nic.in/netnrega/all\\_lv1\\_details\\_dashboard\\_new.aspx](http://mnregaweb4.nic.in/netnrega/all_lv1_details_dashboard_new.aspx)
2. Frettsome, D., & Gross, T. (2011, December 30). The National Rural Employment Guarantee Act: A tool to change gendered power relations in India? Kassel, Germany.
3. <https://economictimes.indiatimes.com/news/politics-and-nation/work-generation-under-mgnrega->
4. <https://rural.nic.in/press-release/funds-mgnregs-solve-unemployment-due-pandemic>
5. <https://economictimes.indiatimes.com/news/economy/agriculture/mgnrega>
6. MGNREGA operational guidelines-frequently asked questions (2013). Ministry of Rural Development, Government of India.
7. [www.nrega.nic.in](http://www.nrega.nic.in)
8. [https://nrega.nic.in/Nregahome/MGNREGA\\_new/Nrega\\_home.aspx](https://nrega.nic.in/Nregahome/MGNREGA_new/Nrega_home.aspx)



# THE CURRENT STATUS OF SILK INDUSTRY IN INDIA AT THE GLOBAL SENERIO

**Ajay Kumar Gupta**

NET, Research Scholar

Vinoba Bhawe University, Hazaribagh, Jharkhand

**Dr. Nilmani Mukherjee**

Principal, Assistant Professor, Anannada College, Hazaribagh

Jharkhand

---

## Abstract

Geographically, Asia is the main producer of silk in the world and produces over 95 per cent of the total global output. In the whole raw silk production in the world, India stands second position with producing 37% (per cent) of world's raw silk production, after the China, which produces around 58% (per cent) of the world's silk production in the year 2020. India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. In the Indian textile sector has allowed 100 per cent FDI under the automatic route. India has hold unique position in production of all four type of silk. Karnataka is huge producer of mulberry silk but in aspect of Jharkhand, they are largest producer state of tasar silk (non-mulberry) in India. Silk industry is playing vital role in Indian economy particularly strengthening the rural economy, providing employment and increasing export earnings.

**Key Words:-** Silk Industry, FDI, tribal people, Sericulture, pre-cocoon, post-cocoon, Tasar silk, Yarn, Silkworm, strength, rural economy, living standard.

---

## Introduction

Main continent producer of silk in the world is Asia. There are at present more than 22 countries of silk production of the world, 14 countries, has situated in Asian region. Sericulture is a unique activity of agriculture sectors that combination of both botanical aspect of tree cultivation and zoological aspects of silkworm rearing. Indian textile industry has two broad segments, one is organised and another is unorganised sector. Brand of Indian silk is wide in global aspects in comprises both mulberry and vanya silk with tasar, muga, and ericomponents. Silk Industry comprises an important role and integral part of the handloom industry which provides employment to the maximum numbers of persons in India, next only to agriculture sector. It plays vital role in the development of Indian economy in so far as it has a marvelous job potential for the poor tribal and unemployed on the in hand the great possibility of the utilization and mobilization of human resource on the other hand. China

and India together contribute 97% of the total silk production in the Global production. Uzbekistan contributes approx. 1%, whereas participation of other countries like Thailand, Brazil, North korea, Vietnam, Iran Brazil etc is about 2 %.Silk has acquired small percentage of global textile fibre market- less than 0.24%. Natural fibre is one of the important raw materials of textile industry. Silk, cotton and wool is major natural fibres producer in the world. Silk is natural fibre and it holds unique position among all presented fibre types. Silk is more precious and beautiful textile fibre. Silk is referred as the 'Queen of Textile'. Currently, China is top producer of silk then after India is the second largest producer of silk in the world. China with production of 53359 MT of raw silk and India with production of 33770MT (2020) of raw silk is first and second largest producer of silk in the world respectively. Silk is classified into two categories, one is mulberry and another is non-mulberry silk. Non-mulberry silks are primarily known as Venya or wild silks. It is

comprising tasar, oaktasar, eri, and muga as commercial silk. In India, sericulture is practised by over 1.2 million families, with 9.2 million people engaged in various activities of silk production activity in rural and urban areas. The sizeable number belongs from weaker sections of society, especially woman with a participation rate of around 55%. Indian silk is providing wide canvas of economic activity and huge stakeholder in production activity due to unique domain of agriculture climate combination of both botanical aspects of tree cultivation and zoological aspects of silkworm rearing. Raw silk production increased from annual level of 18320MT in 2008-09 to 33,770MT in 2020-21. According the national silk policy 2020 (NSP2020), the outlook based on the growth in production of raw silk in the long term plan (2029-30) is 60000 MT.

**Review of literature-**There are several research studies on sericulture and silk industry mainly in the areas of silkworm rearing, economics aspects of sericulture and silk industry, growth potential of sericulture etc. The research studies also cover the technical and biological aspects of sericulture which include the technique of silk yields, seed examination, incidence of diseases, yields variation of cocoon farming and so on. The CBS issue monthly journal '**Indian Silk**' that provide information of silk industry consists of articles on sericulture research, planning, development program as well as monthly review of production statistics & silk exports. Review of Literature helps the researcher in knowing the previous work done in their field of research and thereby helps them in identifying a proper analytical and methodological issue relevant to the study. It enables the researcher to carry out his/her research work in a proper direction and enables to draw conclusions. Extensive works are also found on the economic and commercial aspects of sericulture. In this chapter, an attempt is made to review the available literature on this subject. **Solanki S.S (1998)** wrote that the "Rural Industries of India "tried to make an attempt to understand are the rural artisans have shown signs of responding to the modern technology or not. He has seen that no worthwhile efforts have been made to involve the artisan in the evaluation process and make him a component

of the newer linkages that have emerged in place of the age- old linkages that pervaded in the rural development. He also noticed that no linkages are established between the taker of the technology and its developer. A study on '**Silk Exports and Development**' provides a wide range of information on silk exports, textile properties of silk and the active role of Central Silk Board in rendering technical assistance, research and extension for mulberry and non-mulberry sericulture. The book is fully devoted to provide information regarding procedures and guidelines to exporters of silk. **Gopal Naik and Babu K.R.**, estimated the demand and supply of high quality raw silk in India for the year 1993 and projected the demand and supply for the year 1995. The study points out to the need for high quality silk and the factors influencing quality of raw silk, the need up upgrade techniques and machineries used in reeling. It also made a quantitative estimate of imported high quality silk which is illegally sold in the domestic market. The study suggested various policy alternatives to bridge the gap between demand and supply for high quality raw silk in India.

**Kavane and Sathe (2008)** indicated that the rearing success of *A. mylitta* on *T. Catappa* under the laboratory conditions (24°C, 65-70% R.H. & 14 hr. photo period) was 45% and also recorded the good sign of adaptation of silk worms for indoor rearing by not forming peduncle. **Reddy et al. (2010)** reported that the silkworm rearing and grainage performance of the cocoons generated on *L. Parviflora* food plant has shown lesser feasibility in general than *T. Tomentosa* plant. But, the traits like cocoon weight, shell weight, silk ratio and egg fertility are positive in *L. parviflora* fed cocoons over the *T. tomentos* fed. **Jadhav et al. (2014)** studied the performance of tasar silkworm *A. mylitta* on different food plants from Kolhapur district of Maharashtra. They reported that *A. mylitta* produced best quality and quantity cocoons when their larvae were fed with leaves of *T. tomentosa* in autumn season as compared to other host plants. The performance of rearing of *A. mylitta* was better on the leaves of *T. Arjuna* than *T. Cattapa* and *Ziziphus jujuba* L. The life cycle of *A. mylitta* was lengthy in autumn and best compared to rest of the seasons.

## Objectives of the study

- To study about technology system which use by reeler for reeling of tasar silk yarn.
- To study the current condition of storage facility of raw silk in Jharkhand.
- To analyse the growth of silk industry in India in general and Giridih Jharkhand in particular.

## Hypothesis

- H<sub>01</sub>: Storage facility of raw material silk is not easily available to farmers.
- H<sub>11</sub>: Storage facility of raw material silk is easily available to farmers.
- H<sub>02</sub>: The economic condition of the farmers and workers lower than per capita income of Jharkhand.
- H<sub>12</sub>: The economic condition of the farmers and workers is at par.
- H<sub>03</sub>: The level of raw silk production in not optimal.
- H<sub>13</sub>: The level of raw silk production is optimal.

**Methodology-** Our study is based on both primary and secondary data. The primary data is collected from rears and workers through covering structured schedules. The structure schedule is covering in three part as follows: The first part of structure is covered to the study of household socio-economic conditions such as family size, education

level, living standard housing pattern etc. The second part of the schedule is covered to business operation such as rearing of cocoons, the economics of silk reeling, capital investment, production aspects, labour cost and capacity utilization etc. Secondary data constitutes the reports of central and state government which has been either published or not. It also constitutes journal, conference paper articles and websites. The secondary data collected from the following sources:

- International Sericulture Commission, United Nation
- Sericulture Information Linkage and Knowledge System, Ranchi, Jharkhand
- Central Silk Board, Bangalore
- Central Tasar Silk and Training Institute, Ranchi
- JHARCRAFT, Ranchi
- Pilot Project Centre (PPC)
- Premier Journal of CBS 'Indian Silk'

We used some statistical tools and techniques in our study for analysing the collected data, such as descriptive-cum-tabular analysis, central tendency

The Table 1 shows the production of global raw silk in India during the years 2015 to 2020. The year to year production of silk varieties shows a growth trend. In the given period, total production of raw silk in the world is continuously declining but in India its production is increase.

**Table1: Global Raw Silk Production (Unit: MT)**

Sl.	Country/Year	2015	2016	2017	2018	2019	2020
1.	China	170000	158400	142000	120000	68600	53359
2.	India	28523	30348	31906	35468	35820	33770
3.	Uzbekistan	1200	1256	1200	1800	2037	2037
4.	Other	2350	2508	2423	2587	2654	2599
	<b>Total</b>	<b>202073</b>	<b>192512</b>	<b>177529</b>	<b>159855</b>	<b>109111</b>	<b>91765</b>

**Source:** International Sericulture Commission, Web Site

In the above chart and table, it show that raw silk production in India is grow every year except Covid -19 period. From this Industry also contribute in growth of Indian economy.

Table 2 shows the projected production of raw silk as per based on previous data. This data is just like only estimation no any compulsion.

**Table 2: Projected Raw Silk Production in India (2030)**

Year	Mulberry (MT)		Vanya (MT)				Grand (MT)
	Bivoltine	Total mulberry	Tasar	Eri	Muga	Total Vanya	
2016-17	5266	21273	3268	5637	170	9075	30348
2017-18	5874	22066	2988	6681	192	9840	31906
2018-19	6987	25345	2981	6910	233	10124	35468
2019-20	8500	27365	3515	7370	280	11165	38530
2020-21	10000	28900	4150	8000	300	12450	41350
2021-22	12000	31500	4460	8700	340	13500	45000
2022-23	12850	32850	4650	9000	350	14000	46850
2023-24	13800	34300	4840	9300	360	14500	48800
2024-25	14800	35800	5015	9615	370	15000	50800
2025-26	15800	37350	5200	9970	380	15550	52900
2026-27	17000	38800	5400	10400	400	16200	55000
2027-28	18000	39950	5600	10725	425	16750	56700
2028-29	19000	41100	5800	11050	450	17300	58400
2029-30	20000	42200	6000	11330	470	17800	60000

Source: The National Silk Policy 2020

Table 3 shows raw silk production of India from 2013-14 to 2019-20. India is 2<sup>nd</sup> largest producer of raw silk in the world. India

regularly increase the raw silk production except COVID-19 period.

**Table 3: Raw silk Production in India**

Unit: MT

Years	Mulberry	Tasar	Eri	Muga	Total
2013-14	19476	2619	4237	148	26480
2014-15	21390	2434	4726	158	28708
2015-16	20478	2819	5060	166	28523
2016-17	21273	3268	5637	170	30348
2017-18	22066	2988	6661	192	31906
2018-19	25344	2981	6910	233	35468
2019-20	25239	3136	7204	241	35820
2020-21	23896	2689	6946	239	33770

Source: Central Silk Board, Bengaluru

Table 4 shows the major state of raw silk production in India from 2017 to 2019. Karnataka is top producer state in the India in

mulberry production but in tasar production Jharkhand is top producer state. In the given table date show in MT and per cent.

**Table 4: State wise raw silk production in India****Unit: MT**

Sl.	State	2017-18	Per cent (%)	2018-19	Per cent (%)	Increase
1	Karnataka	9322	34%	11143	37%	1821
2	Andhra Pradesh	6778	24%	7481	25%	703
3	Assam	4861	18%	5026	16%	165
4	Jharkhand	2220	8%	2375	8%	155
5	West Bengal	2577	9%	2394	8%	(183)
6	Tamil Nadu	1984	7%	2072	6%	88

From the above table, raw silk production in India is increasing continually. In the Karnataka total production increased by 1821MT from the previous year, same as Andhra Pradesh total production increase by 703 from previous year. Table 5 shows the

tasar silk production participation of Jharkhand from 2015-16 to 2019-20. Total production of tasar silk is increasing from previous year except Covid-19 period. Thus this table compare the participation of Jharkhand with India in tasar silk production.

**Table 5: Tasar silk production participation of Jharkhand State in India**

Sl.	Years	Production in India (MT)	Production in Jharkhand (MT)	% of participation
1	2015-16	2819.00	2281.00	81.91%
2	2016-17	3268.00	2630.00	80.40%
3	2017-18	2988.00	2217.11	74.20%
4	2018-19	2981.00	2372.00	79.57%
5	2019-20	3136.00	2694.10	85.90%

## Conclusion

Among the developing countries, India enjoys a very favorable position of doubling the present status of silk production owing to the low cost of labour. Sericulture is ideally suited in rural area for improving rural condition of the country. Recent research has shown that sericulture can be developed as a highly rewarding agro-industry. The textile industry employs about 51 million people directly and 68 million people indirectly. India's overall textile exports during FY 2015-16 stood at US\$ 40 billion. The Indian government has come up with a number of export promotion policies for the textiles sector. It has also allowed 100 per cent FDI in the Indian textiles sector under the automatic route. Today the India silk industry is already a major player in the global scenario and the growth prospect for the Industry seems to be buoyant. Favorable climatic conditions and participation of large number of women in sericulture industry will

lead to the development of silk industry to a greater height.

## Reference:

1. Anitha, Dr. R. (2011, December) Indian Silk Industry in the Global Scenario, International Journal of Multidisciplinary Management Studies, Vol. 1 Issue 3, ISSN 22498834
2. Banerjee, Soumik and Sundarpahari, (2016) Tasar Value Chain Analysis, Jharkhand, MahilaKishanSashaktikaranPariyojana (MKSP), Central Silk Board, & Professional Assistance for Development Action (PRADAN), Jharkhand.
3. Annual Report 2018-2019, Central Silk Board (CBS), Benglore.
4. Jamuar R.S. (1992) "Small scale and cottage industries in India- problems, government policy and Measures for

- Development” New Delhi: Deep& Deep Publications.
6. Home Page, (2019, February) from <http://hazaribag.nic.in>
  7. Reddy, P.M. Muniswamy and M.V. Sarveshkumar, (2014) Value added products of Tasas Silkworm cocoon by utilization, International Journal of Science and Research (IJSR), Volume-3, Issue-9 September.
  8. Home Page, (2018, January) from <http://www.indiantradeportal.in>
  9. Home Page, (2019, November) from [www.ibef.org](http://www.ibef.org)
  5. JasleenDhamija and JyotindraJain. (1989)“Handmade Fabrics of India”.
  10. Home page, (2020, November) from [www.silks.cbs.gov.in](http://www.silks.cbs.gov.in)
  11. Ahmed, MohamadKhaiser, (1997, November) Economics of silk reeting with reference to production and marketing in Karnataka.
  12. World leaders in Silk Production, (2022), from [www.worldatlas.com](http://www.worldatlas.com).
  13. The National Silk Policy-2020, (March, 2020), Central Silk Board, Ministry of Textiles, Government of India, Bengluru.

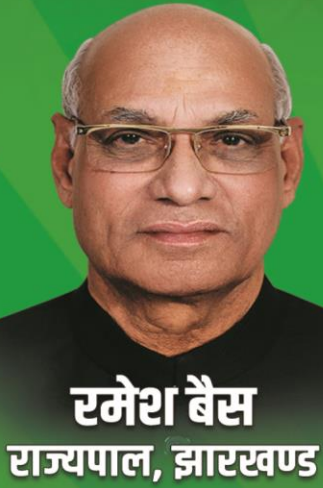


---

A Publication of Gyanjyoti Educational and Research Foundation  
Jamshedpur, Jharkhand-831005

Email-editorjrr@gmail.com, Website-www.jamshedpurresearchreview.com

Copyright Reserved



रमेश बैस  
राज्यपाल, झारखण्ड

अंग्रेजी हुकूमत के  
विरुद्ध विद्रोह का प्रतीक



हेमन्त सोरेन  
मुख्यमंत्री, झारखण्ड

# हुल दिवस

पर सिंदो-कान्हू, चांद-भैरव और फूलो-झानों  
सहित सभी वीर शहीदों को शत-शत नमन



आइए हम मिलकर  
वीर शहीदों के सपनों  
का समृद्ध और सशक्त  
झारखण्ड बनाएं

दिनांक : 30 जून, 2022  
समय : 12 बजे दिन  
स्थान : भोगनाडीह (बरहेट)  
साहेबगंज

Rs.150