

BRIDGING THE GAP: ANALYSING THE IMPACT OF FINANCIAL INCLUSION ON ECONOMIC EMPOWERMENT IN INDIA

Gaurav Mahajan*

Abstract

This study examines the relationship between financial inclusion initiatives and economic empowerment in India. Utilising data from the Reserve Bank of India (RBI) and the Pradhan Mantri Jan Dhan Yojana (PMJDY), the article analyses the impact of increased access to financial services on various economic indicators. The findings suggest a positive correlation between financial inclusion efforts and economic empowerment, particularly among previously underserved populations. The study highlights the importance of targeted financial literacy programs and the role of technology in expanding financial access. These insights contribute to the ongoing discourse on effective strategies for promoting inclusive economic growth in developing economies.

Keywords: *Financial Inclusion, Economic Empowerment, Digital Finance. Pradhan Mantri Jan Dhan Yojana (PMJDY), Financial Literacy*

1. Introduction

Financial inclusion has emerged as a crucial factor in promoting economic growth and reducing poverty in developing countries. In India, a country with a population of over 1.3 billion people, ensuring access to financial services for all citizens has been a significant challenge and a priority for policymakers. The Indian government has launched various initiatives to increase financial inclusion, with the Pradhan Mantri Jan Dhan Yojana (PMJDY) being one of the most prominent.

* Assistant Commissioner to Deputy Commissioner, Sirmour at Nahan, email – gauravm979@gmail.com

This research paper aims to analyse the impact of financial inclusion efforts on economic empowerment in India. By examining data from the Reserve Bank of India (RBI) and the PMJDY scheme, we seek to understand the relationship between increased access to financial services and various indicators of economic well-being. The study will focus on the period from 2014 to 2024, encompassing the launch and implementation of major financial inclusion initiatives.

The objectives of this study are:

- (1) To assess the progress of financial inclusion initiatives in India, particularly the PMJDY scheme.
- (2) To analyse the relationship between financial inclusion indicators and measures of economic empowerment.
- (3) To evaluate the effectiveness of financial literacy programs in promoting the use of formal financial services.
- (4) To identify the challenges and opportunities in furthering financial inclusion and its impact on economic empowerment.

This research is significant as it contributes to the growing body of literature on financial inclusion and its economic impacts. By focusing on India, one of the world's largest and most diverse economies, this study provides valuable insights into the effectiveness of large-scale financial inclusion initiatives. The findings of this research have implications for policymakers, financial institutions, and development organisations working towards inclusive economic growth in developing countries.

2. Literature Review

The concept of financial inclusion and its impact on economic development has been a subject of extensive research in recent years. This literature review aims to provide a comprehensive overview of the existing scholarship on financial inclusion, its relationship with economic empowerment, and the specific context of India.

2.1 Defining Financial Inclusion

Financial inclusion is broadly defined as the provision of affordable financial services to all individuals and businesses, regardless of their income level or social status (World Bank, 2018). These services typically include banking, credit, insurance, and investment products. The importance of financial inclusion lies in its potential to promote economic growth, reduce poverty, and foster social inclusion (Demirgüç-Kunt et al., 2017).

2.2 Financial Inclusion and Economic Empowerment

Numerous studies have explored the link between financial inclusion and economic empowerment. Sarma and Pais (2011) found a strong positive correlation between financial inclusion and human development across countries. Their research suggested that countries with higher levels of financial inclusion tend to have lower poverty rates and higher levels of economic development. In the context of developing economies, Chibba (2009) argued that financial inclusion is a key enabler of several developmental goals, including poverty reduction, employment generation, and social empowerment. The study emphasised the role of microfinance institutions in providing access to credit for low-income individuals and small businesses.

2.3 Financial Inclusion Initiatives in India

India has been at the forefront of financial inclusion efforts among developing countries. The Reserve Bank of India has played a crucial role in promoting financial inclusion through various policy measures and initiatives (RBI, 2017). The launch of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014 marked a significant milestone in India's financial inclusion journey. Sharma (2016) analysed the early impact of the PMJDY scheme and found that it had significantly increased the number of bank accounts among previously unbanked populations. However, the study also

highlighted challenges in ensuring active usage of these accounts and the need for complementary financial literacy programs.

2.4 Technology and Financial Inclusion

The role of technology in advancing financial inclusion has been a key area of research. Ozili (2018) examined the potential of digital finance to promote financial inclusion in developing countries. The study highlighted the importance of mobile banking, digital payment systems, and fintech innovations in reaching underserved populations. In the Indian context, Dwivedi et al. (2016) explored the adoption of mobile banking services and its impact on financial inclusion. Their research suggested that while mobile technology has the potential to significantly expand access to financial services, factors such as digital literacy and infrastructure development play crucial roles in its effectiveness.

2.5 Financial Literacy and Inclusion

The relationship between financial literacy and the success of financial inclusion initiatives has been extensively studied. Lusardi and Mitchell (2014) argued that financial literacy is a key determinant of financial behaviour and decision-making. Their research emphasised the need for targeted financial education programs to complement financial inclusion efforts. In India, Sethy (2016) examined the state of financial literacy and its impact on financial inclusion. The study found that while financial literacy levels varied significantly across different demographics, there was a positive correlation between financial literacy and the use of formal financial services.

2.6 Challenges and Opportunities

Despite significant progress, challenges remain in achieving comprehensive financial inclusion. Gupte et al. (2012) identified several barriers to financial inclusion in India, including lack of awareness, complex

documentation requirements, and geographical constraints. The study suggested that addressing these challenges requires a multi-stakeholder approach involving government agencies, financial institutions, and community organisations.

2.7 Research Gap

While existing literature provides valuable insights into various aspects of financial inclusion and its impact on economic empowerment, there is a need for more comprehensive studies that analyse long-term trends and outcomes, particularly in the context of large-scale initiatives like PMJDY in India. This research aims to address this gap by examining data over a ten-year period and analysing the multifaceted relationship between financial inclusion efforts and economic empowerment indicators in India.

3. Methodology

This section outlines the research methodology employed in this study to analyze the impact of financial inclusion on economic empowerment in India. The research design, data sources, data collection methods, and analytical techniques are described in detail.

3.1 Research Design

This study adopts a mixed-methods approach, combining quantitative analysis of secondary data with qualitative insights from existing literature and policy documents. The research design is longitudinal, covering the period from 2014 to 2024, which allows for the examination of trends and changes over time, particularly following the implementation of major financial inclusion initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY).

3.2 Data Sources

The study primarily relies on secondary data from authoritative sources, including: (i) Reserve Bank of India (RBI) reports and databases (ii)

Pradhan Mantri Jan Dhan Yojana (PMJDY) official statistics (iii) World Bank financial inclusion data (Global Findex Database) (iv) National Sample Survey Office (NSSO) data on household financial inclusion, and (v) Ministry of Finance reports on financial inclusion initiatives.

3.3 Data Collection

Data collection involved systematically gathering relevant statistics and information from the identified secondary sources. Specific data points collected include: (i) Number of bank accounts opened under PMJDY (rural and urban) (ii) Deposits in PMJDY accounts (iii) Number of RuPay debit cards issued (iv) Percentage of adult population with a bank account (v) Usage of digital payment systems (vi) Access to credit and insurance products (vii) Financial literacy program participation rates, and (viii) Economic indicators such as GDP per capita, poverty rates, and income inequality measures

3.4 Variables and Measures

The study focuses on two main categories of variables: (i) Financial Inclusion Indicators like Bank account ownership, Usage of formal financial services, Access to credit, Digital financial service adoption, and Financial literacy levels, and (ii) Economic Empowerment Indicators like Income levels, Poverty rates, Employment rates, Small business growth, and Women's economic participation.

3.5 Data Analysis

The data analysis process involves several steps:

- (i) Descriptive Statistics: Summarising key trends in financial inclusion and economic empowerment indicators over the study period.
- (ii) Correlation Analysis: Examining the relationships between financial inclusion measures and economic empowerment indicators.

- (iii) Geospatial/Regional Analysis: Mapping financial inclusion progress across different states and regions in India to identify geographical patterns and disparities.
- (iv) Comparative Analysis: Comparing the progress of financial inclusion and its economic impact in India with other developing countries, where data is available.

3.6 Ethical Considerations

Although this study primarily uses publicly available secondary data, ethical considerations are still important. The research adheres to principles of data integrity and accurate representation of findings. Any limitations or potential biases in the data sources are clearly acknowledged in the study.

3.7 Limitations

The study acknowledges few limitations: (i) Reliance on secondary data, which may have inherent biases or collection inconsistencies (ii) Challenges in establishing direct causality between financial inclusion efforts and economic empowerment due to the presence of multiple influencing factors, and (iii) Potential underrepresentation of informal financial activities not captured in official statistics.

4. Results

This section presents the findings of our analysis on the impact of financial inclusion initiatives on economic empowerment in India from 2014 to 2024. The results are organised into several key areas, reflecting the multifaceted nature of financial inclusion and its effects on economic indicators.

4.1 Progress of Financial Inclusion Initiatives (Table 1)

4.1.1 PMJDY Account Statistics: The Pradhan Mantri Jan Dhan Yojana (PMJDY) has shown significant progress in expanding banking access across India as follows: (i) Total PMJDY Accounts: As of September 2024,

the total number of PMJDY accounts reached 504.7 million, up from 179.5 million in September 2015 (ii) Rural-Urban Distribution: Rural accounts were 311.7 million (61.8%), and Urban accounts were 193.0 million (38.2%), and (iii) Gender Distribution: Women account holders were 278.6 million (55.2%).

Table 1: Progress of PMJDY Accounts (2015-2024)

Indicator	September 2015	September 2024
Total PMJDY Accounts (millions)	179.5	504.7
Rural Accounts (millions)	-	311.7
Urban Accounts (millions)	-	193.0
Women Account Holders (millions)	-	278.6
Total Deposits (₹ crore)	22,901	1,90,447
Average Balance per Account (₹)	1,276	3,773
Zero Balance Accounts (%)	45.74	12.8
RuPay Cards Issued (millions)	-	355.2

Note: PMJDY = Pradhan Mantri Jan Dhan Yojana; = data not available.

Source: GOI (2024a)

4.1.2 Deposits and Account Usage: (i) Total Deposits in PMJDY accounts increased from ₹22,901 crore in September 2015 to ₹190,447 crore in September 2024 (ii) Average Balance per Account was ₹3,773 as of September 2024, compared to ₹1,276 in September 2015, and (iii) Zero Balance Accounts decreased from 45.74% in September 2015 to 12.8% in September 2024.

4.1.3 RuPay Debit Card Issuance: Total RuPay cards issued were 355.2 million as of September 2024, and Percentage of PMJDY accounts with RuPay cards were 70.4%.

Table 2: Financial Inclusion Indicators (2014-2024)

Indicator	2014	2024
Adult population with bank account (%)	53	89

Gender gap in account ownership (pp)	20	5
UPI transactions (billion)	0.02*	91
Formal credit access (% of adult population)	8	24
Financial literacy score (%)	24	42

Note. pp = percentage points; UPI = Unified Payments Interface. *UPI data is from FY 2017, as it was launched in 2016.

Source: RBI (2024); NPCI (2024).

4.2 Financial Inclusion Indicators (Table 2)

4.2.1 Bank Account Ownership: Adult population with a bank account increased from 53% in 2014 to 89% in 2024, and Gender gap in account ownership reduced from 20 percentage points in 2014 to 5 percentage points in 2024.

4.2.2 Digital Financial Services Adoption: Mobile banking transactions grew at a CAGR of 55% from 2014 to 2024, and UPI transactions reached 91 billion transactions in FY 2024, up from 0.02 billion in FY 2017.

4.2.3 Access to Credit: Formal credit access (% of adult population) increased from 8% in 2014 to 24% in 2024, and MSME loans grew at a CAGR of 12.6% from 2014 to 2024.

4.2.4 Financial Literacy: Financial literacy score improved from 24% in 2014 to 42% in 2024 (based on RBI's Financial Literacy Index).

4.3 Economic Empowerment Indicators (Table 3)

4.3.1 Income Levels: GDP per capita (constant 2015 US\$) increased from \$1,610 in 2014 to \$2,890 in 2024, and Gini coefficient decreased from 0.352 in 2014 to 0.328 in 2024, indicating a reduction in income inequality.

Table 3: Economic Empowerment Indicators (2014-2024)

Indicator	2014	2024
GDP per capita (constant 2015 US\$)	1,610	2,890

Gini coefficient	0.352	0.328
Population below national poverty line (%)	21.9	13.7
Labour force participation rate (%)	52.4	55.8
Formal sector employment (% of total)	10.2	15.7
Female labour force participation rate (%)	23.3	29.9
Women-owned MSMEs (% of total MSMEs)	13.7	21.5

Note. GDP = Gross Domestic Product; MSME = Micro, Small, and Medium Enterprises.

Source: World Bank (2024); GOI (2024d); GOI (2024b).

4.3.2 Poverty Rates: Population below the national poverty line decreased from 21.9% in 2014 to 13.7% in 2024.

4.3.3 Employment Rates: Labor force participation rate increased from 52.4% in 2014 to 55.8% in 2024, and Formal sector employment grew from 10.2% of total employment in 2014 to 15.7% in 2024.

4.3.4 Women's Economic Participation: Female labour force participation rate increased from 23.3% in 2014 to 28.9% in 2024, and Women-owned MSMEs grew from 13.7% of total MSMEs in 2014 to 21.5% in 2024.

4.4 Correlation Analysis (Table 4)

Correlation analysis revealed significant relationships between financial inclusion indicators and economic empowerment measures: (i) Bank account ownership showed a strong positive correlation with GDP per capita ($r = 0.85$, $p < 0.001$) (ii) Digital financial services adoption was positively correlated with formal sector employment ($r = 0.79$, $p < 0.001$) (iii) Access to credit demonstrated a moderate negative correlation with poverty rates ($r = -0.62$, $p < 0.01$), and (iv) Financial literacy scores were positively correlated with women's economic participation ($r = 0.71$, $p < 0.001$).

Table 4: Correlations between Financial Inclusion Indicators and Economic Empowerment Measures

Financial Inclusion Indicator	Economic Empowerment Measure	r
Bank account ownership	GDP per capita	0.85*
Digital financial services adoption	Formal sector employment	0.79*
Access to credit	Poverty rates	-0.62**
Financial literacy scores	Women's economic participation	0.71*

Note. *p-value<0.001, **p-value<0.01; r = Pearson correlation coefficient; GDP = Gross Domestic Product. N = 28 states and union territories.

Source: RBI (2024); GOI (2024c).

4.5 Regional Analysis

Geospatial analysis revealed significant regional variations in financial inclusion progress: (i) Southern and western states generally showed higher levels of financial inclusion and economic empowerment compared to northern and eastern states (ii) Rural areas in all regions demonstrated more substantial improvements in financial inclusion indicators compared to urban areas over the study period, and (iii) States with higher initial levels of financial literacy showed more rapid adoption of digital financial services.

4.6 Comparative Analysis

Comparing India's progress with other developing countries: (i) India's improvement in bank account ownership (36 percentage point increase) outpaced the average for lower middle-income countries (25 percentage point increase) from 2014 to 2024 (ii) India's digital financial services adoption rate grew faster than the average for BRICS nations over the study period, and (iii) The reduction in the gender gap in account ownership in India was more pronounced compared to the average for South Asian countries.

These results provide a comprehensive overview of the progress and impact of financial inclusion initiatives in India from 2014 to 2024. The findings suggest a positive relationship between financial inclusion efforts and various measures of economic empowerment, while also highlighting regional disparities and areas for further improvement.

5. Discussion

The results of this study provide substantial evidence of the positive impact of financial inclusion initiatives on economic empowerment in India over the past decade. This section discusses the key findings, their implications, and contextualises them within the broader literature on financial inclusion and economic development.

5.1 Progress of Financial Inclusion Initiatives

The remarkable growth in PMJDY accounts, from 179.5 million in 2015 to 504.7 million in 2024, represents a significant achievement in expanding basic banking access. This aligns with the findings of Sharma (2016), who noted the early success of PMJDY in reaching unbanked populations. However, the reduction in zero-balance accounts from 45.74% to 12.8% over the same period is particularly noteworthy, as it suggests not just account ownership, but active usage - a key indicator of meaningful financial inclusion (Ozili, 2018). The gender distribution of account ownership, with women holding 55.2% of PMJDY accounts, is encouraging and indicates progress in addressing gender disparities in financial access. This trend supports the arguments of Demirgüç-Kunt et al. (2017) regarding the potential of financial inclusion to foster social inclusion and gender equality.

5.2 Digital Financial Services and Economic Empowerment

The exponential growth in mobile banking and UPI transactions demonstrates the pivotal role of technology in advancing financial inclusion,

as highlighted by Dwivedi et al. (2016). The strong positive correlation between digital financial services adoption and formal sector employment ($r = 0.79$, $p < 0.001$) suggests that digital finance is not just improving access to financial services, but also potentially creating new economic opportunities and formalising informal economic activities.

5.3 Financial Literacy and its Impact

The improvement in financial literacy scores from 24% in 2014 to 42% in 2024 is significant, though it also indicates room for further progress. The positive correlation between financial literacy and women's economic participation ($r = 0.71$, $p < 0.001$) underscores the importance of financial education in promoting inclusive growth. This finding aligns with Lusardi and Mitchell's (2014) emphasis on financial literacy as a key determinant of financial behaviour and decision-making.

5.4 Economic Indicators and Financial Inclusion

The decrease in poverty rates from 21.9% in 2014 to 13.7% in 2024, coupled with the increase in GDP per capita, suggests a broad-based economic improvement. The moderate negative correlation between access to credit and poverty rates ($r = -0.62$, $p < 0.01$) supports the argument that financial inclusion can be a tool for poverty reduction (Chibba, 2009). However, the persistence of income inequality, as indicated by the modest decrease in the Gini coefficient, highlights the complex relationship between financial inclusion and economic equality.

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5.5 Regional Disparities

The geospatial analysis revealing higher levels of financial inclusion in southern and western states compared to northern and eastern states points to the need for targeted interventions in lagging regions. This finding echoes the concerns raised by Gupte et al. (2012) regarding geographical constraints in achieving comprehensive financial inclusion in India.

5.6 Comparative Performance

India's outperformance of other lower middle-income countries in improving bank account ownership and digital financial services adoption demonstrates the effectiveness of its large-scale initiatives. However, the varying rates of progress across different indicators suggest that a multi-faceted approach to financial inclusion, as advocated by Sarma and Pais (2011), remains crucial.

5.7 Challenges and Opportunities

Despite the significant progress, several challenges remain: (i) Last-mile connectivity: Reaching the most marginalised populations, particularly in rural and remote areas, continues to be a challenge (ii) Usage gap: While account ownership has increased dramatically, ensuring active and meaningful usage of financial services requires ongoing effort (iii) Digital divide: The rapid growth in digital financial services, while beneficial overall, risks leaving behind segments of the population without access to or familiarity with digital technologies, and (iv) Financial literacy: Despite

improvements, there is still a significant need for widespread, effective financial education programs.

Opportunities for further advancing financial inclusion and its impact on economic empowerment include: (i) Leveraging technology: Continued innovation in fintech and mobile banking can help overcome geographical and infrastructure barriers (ii) Tailored financial products: Developing financial products and services that meet the specific needs of underserved populations, including women, rural residents, and informal sector workers (iii) Public-private partnerships: Enhancing collaboration between government initiatives, financial institutions, and community organisations to create more comprehensive and effective financial inclusion strategies, and (iv) Data-driven policymaking: Utilising the wealth of data generated by digital financial services to inform more targeted and effective policies.

6. Conclusion

This study provides compelling evidence of the positive impact of financial inclusion initiatives on economic empowerment in India from 2014 to 2024. The significant expansion of basic banking access, coupled with the growth in digital financial services and improvements in financial literacy, has contributed to measurable economic benefits, including poverty reduction and increased formal sector employment.

Key findings include: (i) Substantial growth in bank account ownership, particularly through the PMJDY scheme, with a notable reduction in gender disparities (ii) Rapid adoption of digital financial services, strongly correlated with improvements in formal sector employment (iii) Positive correlations between financial inclusion indicators and various measures of economic empowerment, including GDP per capita growth and poverty reduction (iv) Improvements in financial literacy, associated with increased women's economic participation, and (v) Persistent regional disparities in financial inclusion progress, highlighting the need for targeted interventions.

While these results are encouraging, they also reveal ongoing challenges, particularly in ensuring active usage of financial services, bridging the digital divide, and further improving financial literacy. The study underscores the importance of a multi-faceted approach to financial inclusion that combines technological innovation, tailored financial products, and comprehensive financial education programs. Future research could focus on more granular analyses of the impact of specific financial inclusion initiatives, the long-term effects of digital financial services on economic mobility, and strategies for addressing regional disparities in financial inclusion and economic empowerment.

In conclusion, India's experience over the past decade demonstrates the potential of well-designed and implemented financial inclusion initiatives to contribute significantly to economic empowerment and inclusive growth. As the country continues to evolve its financial inclusion strategies, the lessons learned from this period will be invaluable in shaping policies that can further bridge the gap between financial access and economic opportunity for all segments of society.

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