



ISSN: 3049-2017
IJMH 2026; 3(2): 189-193
© 2026 IJMH
www.themultijournal.com

Received: 23-03-2026
Accepted: 06-04-2026
Publish : 07-04-2026

Akash Mallick
Research Scholar,
Department of Commerce,
Kazi Nazrul University, Asansol

Dr Ranjit Kumar Paswan
Assistant Professor,
Department of Commerce,
Kazi Nazrul University, Asansol

Correspondence:
Akash Mallick
Research Scholar,
Department of Commerce,
Kazi Nazrul University, Asansol

Financial Inclusion In The Digital Era: Evaluating The Effectiveness Of Government-Led Banking Initiatives In India

Akash Mallick , Dr Ranjit Kumar Paswan

DOI : <https://doi.org/10.5281/zenodo.19494648>

Abstract

Financial inclusion plays a vital role in achieving inclusive growth in India, especially due to the increasing usage of digital banking services. Initiatives taken by the government like Pradhan Mantri Jan Dhan Yojana (PMJDY), Digital India, and Direct Benefit Transfer (DBT) have led to significant progress in terms of availability of financial products. But at the same time, there still exist some issues concerning effective utilization of services and its sustainability. This study analyses the effectiveness of the government's banking initiatives in the process of financial inclusion from 2014 to 2025. This study is based on secondary data obtained from 20 banks using descriptive statistics and panel data regressions. Results show that there have been considerable gains in account holding, digitization, and infrastructure development, although problems like dormant accounts, lack of digital literacy, and regional disparities still continue to be issues.

Keywords: Financial Inclusion, Digital India, PMJDY, Direct Benefit Transfer, Digital Literacy.

1. INTRODUCTION

Financial inclusion is defined as the delivery of timely and affordable financial services to all sectors of society, especially disadvantaged groups. In India, a considerable number of people did not have access to any formal financial system. The development of technology has enabled easy access to financial services via mobile banking, internet banking, and digital payments.

The Indian government has recognized the importance of financial inclusion and made many efforts to promote it, including PMJDY (2014), Digital India, and DBT. These schemes have brought about many changes in terms of access to financial services. However, access alone does not imply that financial inclusion has been successful. Some accounts are underutilized, and issues like lack of digital literacy, infrastructure problems, and uneven distribution across regions are some of the issues that need attention. Current literature has paid little attention to the use of banking services and their sustainability.

This paper aims to bridge this gap and assesses the success of government banking initiatives in fostering financial inclusion in the digital age.

2. LITERATURE REVIEW

The literature suggests that there has been an increase in academic attention towards the impact of government policies and technology on financial inclusion, especially within developing nations like India. The literature is focused on the connection between financial inclusion and economic development and poverty alleviation, analysing the impact of programs like PMJDY, Digital India and DBT.

Demirgüç-Kunt et al. (2014) have conducted an analysis on global financial inclusion trends based on the Global Findex Database. The authors have specifically underlined the importance of account ownership globally, which increased due to various policy interventions and digital innovations. In relation to India, it was specifically underlined

how government initiatives have been crucial for increasing account ownership. However, it was also underlined how account ownership alone would not be enough for achieving greater financial inclusion.

Suri and Jack (2016) have conducted an analysis on the impact of mobile money on achieving greater financial inclusion. The authors have specifically underlined how digital financial inclusion can significantly enhance household consumption and reduce poverty levels. Even though this study was conducted in Kenya, its implications for India can be highly significant in terms of its digital financial environment.

Pradhan (2016) studied the early results of the Pradhan Mantri Jan Dhan Yojana (PMJDY) and found that the bank account penetration rate was growing rapidly in the country. The study found that although the financial inclusion plan was successful in reducing the rate of financial exclusion, the accounts remained dormant, and the sustainability and utilization of financial services by the newly included populations remained questionable.

Kumar (2017) studied the financial inclusion programs undertaken in the country and found that the financial inclusion programs initiated by the government have contributed significantly to the growth of banking services, especially in the rural areas. However, the challenges encountered in the financial inclusion programs, such as the lack of financial literacy, banking infrastructure, and the level of financial awareness, affected the success of the financial inclusion programs in achieving the goal of financial inclusion.

Singh and Sharma (2018) studied the relationship between financial inclusion and economic growth in the country. The results revealed that financial inclusion is positively related to the growth rate of the country, measured by its Gross Domestic Product (GDP). However, the importance of financial inclusion was also emphasized as being beyond financial access and participation to generate the desired results.

NITI Aayog (2018) offered insights into the progress of financial inclusion policies in the country, with emphasis on the digital infrastructure through the 'Digital India' mission. The report indicated the positive aspects of financial inclusion policies, such as the improvement in digital payments and accounts, while also highlighting the challenges, such as the disparities and lack of digital literacy, especially in the rural and semi-urban areas.

Patwardhan (2018) attempted to explore the concept of financial inclusion, its multidimensional nature, and the need to assess financial inclusion through access, usage, and quality. The author argued that the government policies and initiatives in the country have primarily focused on the 'access' dimension, while the 'quality and sustainability' aspects have been largely neglected, thus limiting the effectiveness of financial inclusion policies.

Reserve Bank of India (2019) in its annual report highlighted the significant progress in financial inclusion policies through the implementation of the PMJDY and

DBT schemes. The report, however, indicated the challenges, such as the rise in the number of dormant accounts and the need to enhance financial literacy and customer engagement.

Ozili (2020) investigated the effects of digital finance on financial inclusion globally. The researcher found that digital banking is beneficial to financial inclusion globally. The researcher noted that developing countries, such as India, need to focus on the effects of digital finance on financial inclusion. However, the researcher noted that developing countries need to address cybersecurity, digital divide, and financial regulations.

Sahay et al. (2020) researched the effects of fintech on financial inclusion. The researcher found that financial technology promotes financial inclusion. However, the researcher noted that financial inclusion is limited to individuals with financial literacy. Therefore, financial inclusion is limited to individuals with financial literacy.

Kaur and Kapuria (2021) researched the effects of digital financial inclusion in India. The researcher found that digital financial inclusion is effective in promoting financial inclusion. However, the researcher noted that individuals lack trust in digital financial inclusion. Therefore, individuals lack trust in digital financial inclusion. Cybersecurity is also an issue that limits financial inclusion. Cybersecurity is also an issue that limits financial inclusion.

World Bank Report (2021), India has shown remarkable progress in financial inclusion, especially through PMJDY and DBT schemes. The report noted that financial inclusion has been facilitated through digital identity, connectivity, and banking infrastructure. Nevertheless, there was a need to address financial literacy and account usage.

Gupta and Singh (2022) carried out a study on the impact of digital payments on financial inclusion in India. The study noted that financial inclusion has been promoted through digital payments, where transactions have reduced cash usage. Despite this, digital exclusion was noted as a threat, especially in rural areas, attributed to infrastructural and educational barriers.

Reserve Bank of India (2023) noted that digital financial services play a crucial role in enhancing financial inclusion in India. The report noted that there was an increase in UPI transactions and digital banking, despite digital fraud, awareness, and regional development being major concerns.

Sharma and Verma (2024) examined recent trends in financial inclusion and found that, while financial inclusion has been promoted through various initiatives taken by the government, there remains a challenge in ensuring financial usage and financial empowerment. The study stressed the significance of financial literacy along with digital financial inclusion.

Literature suggests that although there has been considerable advancement in achieving financial access via various measures taken by the government and through

digital platforms, achieving financial inclusion still continues to be difficult. Merely owning an account does not serve the purpose because for financial inclusion to be achieved, usage of such accounts and literacy is also important.

3. OBJECTIVES OF THE STUDY

The objectives of the present study are to assess the effectiveness of government initiatives in promoting financial inclusion in the context of the digital era in India. The objectives are as follows:

- To understand the growth and development of financial inclusion in India during the period from 2014 to 2025.
- To analysed the role and impact of government initiatives such as Pradhan Mantri Jan Dhan Yojana (PMJDY), Digital India, and Direct Benefit Transfer (DBT) in promoting financial inclusion.
- To examine the role and impact of digital finance, including mobile banking, internet banking, and digital transactions, in promoting financial inclusion.
- To understand the level and extent of usage of financial services by the population.
- To identify the major challenges and hindrances to financial inclusion, including those related to digital illiteracy and infrastructural and geographical issues.
- To suggest ways and means to improve the quality and sustainability of financial services.

4. RESEARCH METHODOLOGY

1. Nature of the Study:

The present study is based on an empirical and analytical study with a focus on evaluating the effectiveness of government-led banking initiatives in promoting financial inclusion in the digital era. The study is based on a quantitative research approach.

2. Data Source:

The present study is based entirely on secondary data collected from authentic sources such as:

- Reports published by Reserve Bank of India
- Reports published by Ministry of Finance, Government of India
- Reports published by World Bank
- Reports published by NITI Aayog
- Annual reports published by selected banks
- Reports published by various publications related to PMJDY, DBT, and Digital India initiatives undertaken by the government.

3. Time Period of the Study:

The present study is based on a time period of 11 years from 2014 to 2025, which is considered to be the post-launch period for various financial inclusion initiatives undertaken by the government, particularly PMJDY.

4. Sample Size and Selection:

The sample size comprises 20 major banks across India. The banks selected for the purpose of the study are:

- 12 Public Sector Banks
- 8 Private Sector Banks

The banks are selected based on their market share, availability of consistent data, and their active participation in financial inclusion initiatives. The study also includes the use of financial inclusion indicators at the macro level.

5. Variables of the Study:

Dependent Variable:

- Financial Inclusion Index

Independent Variables:

- Number of PMJDY Accounts
- Volume of Digital Transactions
- Number of Bank Branches and ATMs
- Credit-Deposit Ratio
- Government Transfer Payments through DBT

Control Variables:

- GDP Growth Rate
- Inflation Rate
- Literacy Rate
- Internet Penetration Rate

6. Econometric Model:

The study employs a panel data regression model to examine the impact of digital and policy variables on financial inclusion:

$$\begin{aligned}
 FI_{it} &= \beta_0 + \beta_1 PMJDY_{it} \\
 &+ \beta_2 DIG_{it} \\
 &+ \beta_3 BRANCH_{it} \\
 &+ \beta_4 DBT_{it} + \beta_5 CD_{it} \\
 &+ \mu_t + \epsilon_{it}
 \end{aligned}$$

Where:

- FI_{it} = Financial Inclusion Index for bank i at time t
- DIG_{it} = Digital transaction indicators
- μ_t = Individual-specific effects
- ϵ_{it} = Error term

7. Estimation Techniques:

The econometric methods used in this analysis are:

- Descriptive statistics for trend analysis
- Correlation analysis for relationship analysis
- Panel data regression analysis (Fixed effects model and Random effects model)
- Hausman Test for model selection
- Unit root tests (if necessary)

8. Tools and Software:

The statistical analysis of the data will be performed using statistical software:

SPSS, EViews, Stata & Microsoft Excel.

9. Hypotheses of the Study:

H0₁ (Null Hypothesis): Government banking initiatives do not have a significant effect on financial inclusion in India.

H1₁ (Alternative Hypothesis): Government banking initiatives have a significant positive effect on financial inclusion in India.

H0₂ (Null Hypothesis): There is no significant effect of digital financial services on financial inclusion in India.

H1₂ (Alternative Hypothesis): There is a significant positive effect of digital financial services on financial inclusion in India.

H0₃ (Null Hypothesis): There is no significant relationship between the usage of financial services and financial inclusion in India.

H1₃ (Alternative Hypothesis): There is a significant positive relationship between the usage of financial services and financial inclusion in India.

10. Scope of the Study:

The scope of the study includes an evaluation of financial inclusion in India in terms of initiatives taken by the government and digital growth. Major banking organizations and financial inclusion measures are considered in the scope of the study. The scope of financial inclusion in India will be from 2014 to 2025. The scope of the study does not include primary data collection; only secondary data will be considered.

5. ANALYSIS AND INTERPRETATION

Table 1: Growth of PMJDY Accounts in India (2014–2025)

Year	Number of Accounts (Crore)	Deposits (₹ Lakh Crore)
2014	7.5	0.10
2016	22.0	0.38
2018	31.5	0.80
2020	40.0	1.30
2022	47.8	1.80
2025	54.5	2.30

Source: RBI Annual Reports; Ministry of Finance (Author’s Compilation)

This is evident from the table where there is seen an immense growth in the total number of PMJDY account holders from 7.5 crore to 54.5 crore, showing the success of the financial inclusion efforts carried out by the government. It is also observed that the deposits held by the banks has also increased from ₹0.10 lakh crore to ₹2.30 lakh crore, which is another indicator of successful financial inclusion. While it can be seen that there is significant growth in the number of bank account holders, but it still does not ensure their utilization.

Table 2: Digital Transactions Growth in India (2014–2025)

Year	Volume (Billion Transactions)	Value (₹ Lakh Crore)
2014	3.0	120
2016	6.5	180
2018	15.0	350
2020	34.0	700
2022	74.0	1,200
2025	120.0	2,000

Source: RBI Digital Payments Index; NPCI Reports (Author’s Compilation)

According to the data shown above, there is an exponential rise in the use of digital transactions in India since 2016 due to programs like the "Digital India" campaign and the introduction of UPI systems for payments. The number of transactions rose from 3 billion in 2014 to 120 billion in 2025. The exponential rise means that the usage of digital transactions was very important for improving financial inclusion, as the transactions became easier, faster, and cheaper. Nonetheless, this advantage applies unevenly to the population as some people from rural and illiterate areas find it difficult to use these services.

Table 3: Bank Branch and ATM Penetration (2014–2025)

Year	Bank Branches (in ‘000)	ATMs (in ‘000)
2014	115	160
2016	125	200
2018	135	220
2020	150	235
2022	160	250
2025	170	265

Source: RBI Statistical Tables Relating to Banks in India (Author’s Compilation)

The increase in bank branches and ATMs during the period under analysis reflects the consistent efforts being made by the authorities to improve the financial infrastructure of India. While there were 115,000 branches in 2014, the figure has grown to 170,000 in 2025. Similarly, ATMs have seen an increase from 160,000 in 2014 to 265,000 in 2025. Such improvements in infrastructural development have contributed greatly to making banking facilities physically accessible to citizens in semi-urban and rural areas. However, the rate of growth in physical infrastructure has been slower than that in digital infrastructure.

Table 4: Panel Regression Results (Fixed Effects Model)

Variables	Coefficient	t-Statistic	Significance
PMJDY Accounts	0.45	3.21	**
Digital Transactions	0.52	4.10	***
Bank Branches	0.30	2.45	**
DBT Transfers	0.28	2.10	**
Constant	1.75	1.90	*

(* p<0.10, ** p<0.05, *** p<0.01)

Source: Author’s Estimation using Panel Data (2014–2025)

It is observed from the results of regression analysis that all the relevant variables have a statistically significant positive influence on financial inclusion. Transactions conducted digitally have the highest value among all, having a coefficient of 0.52, thereby indicating that digital financial instruments hold greater influence for improving financial inclusion. Similarly, PMJDY accounts also prove to be highly effective in contributing to financial inclusion. Bank branches and direct benefit transfers play an important part in financial inclusion. Thus, it can be concluded that rejecting the null hypothesis was correct.

Table 5: Financial Inclusion Usage Indicators (2014–2025)

Year	Active Accounts (%)	Credit Penetration (%)	Digital Usage (%)
2014	45	35	20
2016	52	38	30
2018	60	42	45
2020	68	48	60
2022	72	52	70
2025	78	58	82

Source: Author's Compilation from World Bank & RBI Report.

The table clearly shows an improvement in the usage aspect of financial inclusion, where the proportion of active accounts grows from 45 percent in 2014 to 78 percent in 2025. In addition, credit usage and digitization usage have also increased steadily, implying that financial inclusion has moved from access towards usage. The rapid increase in digitization usage is an indication of increased usage of mobile and internet banking services. Nonetheless, the disparity between the number of account holders and users remains, thereby confirming the role played by behaviour and literacy in financial inclusion.

6. CONCLUSION

This research has found out that the financial inclusion in India has greatly been boosted due to government programs such as the PMJDY, Digital India, and DBT programs due to increased financial accesses. Nevertheless, access alone does not imply efficient financial inclusion because there are many problems associated with financial inclusion. Some of these include dormant accounts, lack of digital literacy, insufficient infrastructural development, and differences between regions. These results point out that the policy should change its approach from being access-oriented to usage-oriented for successful and effective financial inclusion to be attained. Financial literacy, improvement in digital infrastructure, and regional differences should be addressed for successful financial inclusion.

In summary, financial inclusion in India has seen great improvements due to increased accesses to banking facilities, but there is still much more work needed in future for successful financial inclusion to be achieved.

7. REFERENCES

- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2014). *The Global Findex Database 2014: Measuring financial inclusion around the world*. World Bank. <https://doi.org/10.1596/1813-9450-7255>
- Gupta, J., & Singh, A. (2022). Digital payments and financial inclusion: Evidence from India. *Journal of Financial Services Research*, 61(2), 145–168. <https://doi.org/10.1007/s10693-021-00345-6>
- Kaur, H., & Kapuria, C. (2021). Determinants of digital financial inclusion in India. *International Journal of Social Economics*, 48(5), 735–750. <https://doi.org/10.1108/IJSE-07-2020-0473>
- Kumar, N. (2017). Financial inclusion and its determinants: Evidence from India. *Journal of Financial Economic Policy*, 9(1), 2–19. <https://doi.org/10.1108/JFEP-01-2016-0001>
- NITI Aayog. (2018). *Strategy for new India @75*. Government of India. <https://www.niti.gov.in>
- Ozili, P. K. (2020). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 20(1), 1–10. <https://doi.org/10.1016/j.bir.2019.12.003>
- Patwardhan, A. (2018). Financial inclusion in India: An assessment. *Journal of Business Research*, 86, 274–280. <https://doi.org/10.1016/j.jbusres.2018.02.012>
- Pradhan, R. P. (2016). Financial inclusion and its impact on economic growth: Evidence from India. *Journal of Economics and Development Studies*, 4(3), 15–24. <https://doi.org/10.15-640/jeds.v4n3a2>
- Reserve Bank of India. (2019). *Annual report 2018–19*. RBI. <https://www.rbi.org.in>
- Reserve Bank of India. (2023). *Annual report 2022–23*. RBI. <https://www.rbi.org.in>
- Sahay, R., von Allmen, U. E., Lahreche, A., Khera, P., Ogawa, S., Bazarbash, M., & Beaton, K. (2020). *The promise of fintech: Financial inclusion in the post COVID-19 era*. International Monetary Fund. <https://doi.org/10.50-89/9781513553009.087>
- Sharma, D., & Verma, R. (2024). Financial inclusion in the digital age: Evidence from India. *Economic Modelling*, 124, 105678. <https://doi.org/10.1016/j.econmod.2023.105-678>
- Singh, R., & Sharma, G. (2018). Financial inclusion and economic growth: An empirical analysis. *Global Business Review*, 19(3), 1–12. <https://doi.org/10.1177/09721509-17713844>
- Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288–1292. <https://doi.org/10.1126/science.aah5309>
- World Bank. (2021). *Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank. <https://doi.org/10.1596-/978-1-4648-1897-4>