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## **DIGITAL BANKING SERVICES IN CORPORATE FINANCE INCLUSION AND SUSTAINABLE DEVELOPMENT OF BUSINESS GROWTH IN INDIA**

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### **Abstract**

This paper examines the role of digital banking in advancing financial inclusion and supporting sustainable development in India. With the growth of digital platforms like UPI, RuPay, and mobile banking apps, alongside initiatives such as the Pradhan Mantri Jan-Dhan Yojana (PMJDY), India's financial landscape has seen a transformative shift. These digital tools have not only brought underserved populations into the formal financial system but have also contributed to key Sustainable Development Goals (SDGs), including poverty reduction, gender equality, and economic growth. By reducing transaction costs and providing direct financial access through digital payments, these innovations have empowered low-income groups and supported the expansion of small and medium enterprises (SMEs). However, the rapid adoption of digital banking also raises concerns about data privacy and security. This paper underscores the importance of strengthening cybersecurity measures and enhancing financial literacy, especially in rural and low-income areas, to maximize the impact of digital banking in India. Through a comprehensive analysis, this study provides insights into how digital banking can serve as a sustainable driver of economic and social development in the country.

**Keywords:** Digital Banking, Financial Inclusion, Sustainable Development Goals, UPI, RuPay, Financial Empowerment, Poverty Reduction, Gender Equality, Digital Payments, Economic Growth, India, Pradhan Mantri Jan-Dhan Yojana..

### **INTRODUCTION**

The evolution of banking in India has transformed significantly, from traditional banking to a digitally driven financial ecosystem. Before independence, around 600 banks were established, with the Bank of Hindustan in 1770 marking the beginning of formal banking in the country. Institutions like the Oudh Commercial Bank and Punjab National Bank have persisted through time, demonstrating the resilience of India's banking sector (Jupiter Money, 2023). Technological advances began reshaping this landscape in the late 1990s when online banking and digital payments emerged as new financial service formats (Vskills, 2023). Today, almost all Indian financial institutions offer digital banking services, from mobile applications to online transactions, reflecting the sector's rapid adaptation to a digital economy (FI Money, 2023). Government initiatives have accelerated this transition, especially the Pradhan Mantri Jan-Dhan Yojana (PMJDY), which aimed to provide basic financial services to unbanked populations, thereby promoting financial inclusion. By bringing millions into the formal banking system, PMJDY has paved the way for economic empowerment and enhanced access to financial resources (IMF, 2022). Digital payment platforms such as UPI, RuPay, and BHIM have further expanded access, making financial transactions more efficient and promoting India's movement toward a cashless economy (Kumar, 2023). Studies have shown that digital financial inclusion is integral to economic growth and sustainable development, particularly in emerging economies (Tay, Tai, & Tan, 2022). Research indicates that digitalization in banking not only supports financial inclusion but also contributes to reducing income inequality, fostering economic resilience, and aligning with India's Sustainable Development Goals (SDGs) (Kaushal & Karki, 2019).



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## LITERATURE REVIEW

**G. Popkova, A. Davydova, A. Babayan (2022),** ) explored the digitalization of Russia's banking sector and the regulatory adjustments required to keep pace with global banking trends, suggesting that harmonizing financial legislation can support digital transformation in banking.

**Tay, Tai, Tan (2022),** examined the impact of COVID-19 on digital financial inclusion in Asia, highlighting how the pandemic accelerated growth but exposed gaps related to gender, wealth, and urban-rural divides, recommending improved digital infrastructure and financial education.

**Y. Mpofo (2022),** analyzed the effects of mobile money taxes in Africa, noting that while they boost government revenue, these taxes can impede financial inclusion and threaten sustainable development goals.

**Aguayo, Slusarczyk (2020),** focused on Santander Bank in Spain, assessing operational risks in digital banking and finding that risks, particularly online fraud, are manageable with appropriate cybersecurity measures.

**Kaushal, Karki (2019),** discussed India's rapid digital economy growth, projecting a potential \$1 trillion value by 2025, driven by digital applications across various sectors, and emphasizing its role in promoting financial inclusion and reducing income inequality.

## OBJECTIVES

- To assess the impact of digital banking on financial inclusion in India.
- To examine the contribution of digital banking to Sustainable Development Goals (SDGs) in India.

## RESEARCH METHODOLOGY

This study utilizes a secondary data analysis approach, drawing on a wide range of sources including national and international publications, government reports, and studies from reputable journals. Data were gathered from financial reports, articles, and official publications from organizations such as the Reserve Bank of India (RBI) and the National Payments Corporation of India (NPCI). The analysis focuses on evaluating the impact of digital banking on financial inclusion and sustainable development, examining both its contributions and limitations, and identifying key areas for policy improvement.

## DIGITAL PAYMENTS AND TRANSACTIONS

- **Mobile Money** (2007, established by Safaricom in Kenya): A service that allows users to send, receive, and save money via mobile phones, promoting financial inclusion in countries like Kenya and Tanzania.
- **Unified Payments Interface (UPI)** (2016, developed by the National Payments Corporation of India - NPCI): A mobile-based payment system that allows users to transfer money between bank accounts, facilitating digital transactions, especially for the unbanked and underbanked in India.



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- **RuPay** (2012, established by the National Payments Corporation of India - NPCI): A digital payment platform enabling debit card payments, contributing to the expansion of digital payments in India, particularly for underserved populations.
- **BHIM** (2016, developed by NPCI): A mobile payment platform that facilitates direct bank transfers, enhancing digital payment adoption in India, particularly among the unbanked and underbanked.

## DATA ANALYSIS AND INTERPRETATIONS

### 1. Mobile Money:

**Table 1: Market Share**

App	Transaction value (₹)	%	Rank	Transaction number (millions)	%	Rank
PhonePe	5,247,424,900,000	49.25%	1	2,993.83	47.33%	1
Google Pay	3,666,690,900,000	34.42%	2	2,130.63	33.68%	2
PayTM	1,111,496,600,000	10.43%	3	933.88	14.76%	3
Cred	197,164,300,000	1.85%	4	14.89	0.24%	9
Yes Bank Apps	152,360,400,000	1.43%	5	60.80	0.96%	5
ICICI Bank Apps	115,092,900,000	1.08%	6	37.34	0.59%	7
BHIM	78,239,500,000	0.73%	7	24.48	0.39%	8
Amazon Pay	67,518,000,000	0.63%	8	68.77	1.09%	4
Axis Bank Apps	12,139,500,000	0.11%	9	53.99	0.85%	6
Airtel Payments App	5,552,600,000	0.05%	10	7.41	0.12%	10

**Source- NPCI portal**

As depicted in the table above, it is evident that mobile banking apps are ranked by their level of activity. These ranking highlights that people are highly active and heavily rely on online mobile apps for seamless transactions, often without much concern for data privacy and security, largely due to their perceived sense of security.



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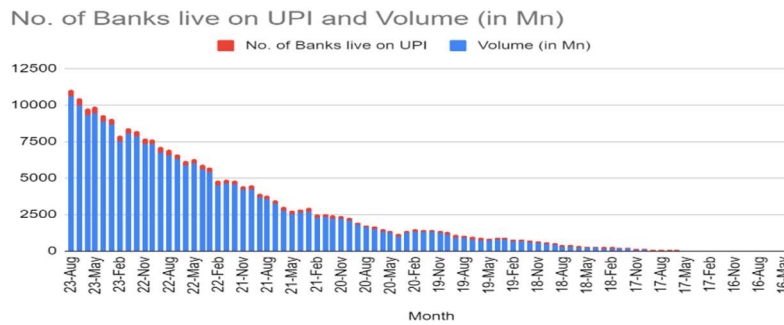
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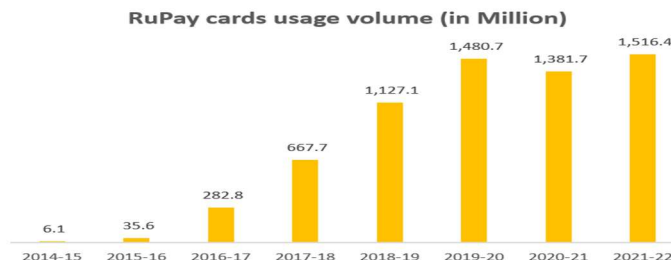
**2. Unified Payments Interface (UPI):**

**Table 2: Number of Banks using UPI**

Year	No. of banks live on UPI	Transaction volume (in mn)	INR value (in mn)	USD value (in bn)
2022	382	74,044.48	125,948,187.3	1,699.71
2021	282	38,744.55	71,592,858.0	966.17
2020	207	18,880.89	33,877,447.2	457.19
2019	144	10,787.54	18,366,381.8	247.86
2018	129	3,746.32	5,857,104.5	79.04
2017	67	418.8	570,208.7	7.7
2016	35	2.65	8,930.7	0.12



The table displaying annual UPI transaction volumes reveals a consistent and significant rise in the number of users choosing UPI for their digital payments, indicating a growing preference for this method over the years. Concurrently, the accompanying diagram tracks the monthly progression of banks adopting the UPI system, making it increasingly accessible to a broader customer base. This joint surge in UPI adoption by both users and banks is resulting in substantial profit growth, measured in millions, for the companies facilitating the UPI ecosystem, illustrating the financial benefits of this expanding digital payment platform in India.





### 3. RuPay:

The bar chart above illustrates a significant growth in the usage of Rupay cards over the years. In 2014-15, approximately 6.1 million Rupay cards were ordered, but by 2021-22, this number had surged to an impressive 1,516.4 million. This remarkable increase reflects a heightened interest among customers in transitioning to a cashless economy. Moreover, it indicates that people are becoming increasingly informed about these electronic payment platforms and are adapting to their usage accordingly.

### 4. BHIM:

The total value of digital payments during the last five financial years and in the current financial year are as under:

**Table 3: Digital Transaction report year-wise**

Financial Year (FY)	Total value of digital transactions (in lakh crore) #
2017-18	1,962
2018-19	2,482
2019-20	2,953
2020-21	3,000
2021-22	3,021
2022-23	2,050*

\*Data till 31<sup>st</sup> December 2022

# Note: Digital payment modes considered are BHIM-UPI, IMPS, NACH, AePS, NETC, debit cards, credit cards, NEFT, RTGS, PPI and others.

Source: RBI, NPCI and Banks

The table above demonstrates a consistent upward trend in the total value of digital payments over the past five financial years. This trend strongly implies that BHIM has effectively played a role in promoting digital payments and transactions in India, especially among individuals who are either not fully banked or lack banking services.

Digital banking in India promotes financial inclusion and supports Sustainable Development Goals (SDGs) such as poverty reduction, economic growth, and gender equality. Initiatives like PMJDY and Digital India showcase its transformative impact on economic empowerment. Key goals are effectively supported through data and analysis:

**Goal 1: No Poverty:** Digital banking aids in poverty reduction by enhancing financial inclusion. Through Direct Benefit Transfers, subsidies and financial aid reach low-income households directly, ensuring minimal dependence on intermediaries. For example, PMJDY provides basic savings accounts to millions of unbanked households, facilitating access to financial resources and contributing to poverty alleviation. **Table 1 - Market**



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*Share of Mobile Money Apps*, shows the extensive adoption of digital platforms like PhonePe and Google Pay, indicating their reach and role in facilitating transactions even for low-income groups.

**Goal 2: Gender Equality** Digital banking promotes gender equality by empowering women with direct access to financial resources. Initiatives such as Direct Benefit Transfers specifically benefit women by enabling them to independently receive government subsidies, fostering financial autonomy and reducing gender disparities. *Table 1 - Market Share of Mobile Money Apps*, also highlights the increasing usage of digital platforms by a diverse user base, including women, indicating growing financial access and independence.

**Goal 3: Decent Work and Economic Growth:** Digital platforms like the Unified Payments Interface (UPI) provide secure, cashless payment options that support the economic growth of small and medium enterprises (SMEs). By reducing transaction costs and formalizing economic transactions, these platforms contribute to decent work opportunities and a stronger economic environment. *Table 2 - Number of Banks using UPI*, reveals a substantial rise in UPI transactions, from 2.65 million in 2016 to over 74 billion in 2022. This indicates widespread acceptance of digital transactions across India, underscoring their impact on economic growth.

**Goal 4: Industry, Innovation, and Infrastructure:** Initiatives under the Digital India program have promoted efficient digital payment systems, making banking services more accessible and secure. UPI, RuPay, and Bharat Interface for Money (BHIM) have facilitated real-time payments, contributing to a cashless economy and driving innovation in the financial sector. The consistent increase in UPI adoption, as shown in *Table 2 - Number of Banks using UPI*, reflects the growing strength of digital infrastructure in banking. This infrastructure is crucial for facilitating innovation and expanding financial access.

**Goal 5: Reduced Inequalities:** Digital banking reduces income disparities by extending financial services to marginalized communities, including low-income and rural populations. Partnerships with fintech companies further broaden financial access, supporting investments in sustainable finance. The steady increase in rural account holders and transaction volumes in *Table 3 - Digital Transaction Report Year-Wise*, indicates an effective reduction in the urban-rural financial divide, which is crucial for addressing inequalities.

**Goal 6: Partnerships for the Goals:** Achieving SDGs necessitates collaborative partnerships across sectors. Multi-stakeholder partnerships between banks, fintech firms, and government agencies have been instrumental in scaling digital banking infrastructure, as demonstrated by initiatives such as UPI and BHIM, which foster inclusivity and financial literacy. As highlighted in *Table 3 - Digital Transaction Report Year-Wise*, the substantial transaction values underline the success of collaborations between banking stakeholders, promoting digital inclusion and supporting sustainable development goals

In summary, digital banking in India has boosted financial inclusion and economic growth, particularly through UPI and BHIM. It has enhanced access for women and rural populations. Continued investments in infrastructure and security will strengthen this inclusive ecosystem.

## FINDINGS AND SUGGESTIONS

India's expansion of digital banking, particularly through platforms like UPI and initiatives such as the Pradhan Mantri Jan-Dhan Yojana (PMJDY), has significantly promoted financial inclusion by bringing underserved and



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rural populations into the formal financial system. This growth aligns closely with Sustainable Development Goals (SDGs), contributing to poverty reduction, economic empowerment, and gender equality. For low-income individuals, digital transactions facilitate direct access to financial aid via Direct Benefit Transfers, minimizing dependency on intermediaries. Additionally, digital payment platforms have supported small and medium enterprises (SMEs) by lowering transaction costs and enabling broader market reach. Despite these advancements, the widespread use of digital banking has raised user concerns around data privacy and transaction security, underscoring the need for enhanced cybersecurity measures. To address these gaps, expanding financial literacy in rural and low-income areas is critical, empowering users to navigate digital platforms safely. Strengthening data protection policies will be essential for fostering sustained trust and maximizing the transformative impact of India's digital banking ecosystem

## CONCLUSION

In conclusion, digital banking in India has played a transformative role in advancing financial inclusion, aligning with Sustainable Development Goals (SDGs), and fostering economic empowerment across diverse populations. Through platforms like UPI, RuPay, and initiatives like the Pradhan Mantri Jan-Dhan Yojana (PMJDY), millions, particularly from underserved and rural communities, now have access to formal banking services. This access has enabled direct benefit transfers, reduced poverty, and empowered women by providing them with greater financial autonomy. Moreover, the widespread adoption of digital transactions has stimulated growth among small and medium enterprises (SMEs) by lowering costs and promoting cashless transactions. However, as digital banking becomes more integral, challenges around data privacy and transaction security demand stronger regulatory frameworks and cybersecurity measures to protect user data and build trust. Expanding financial literacy and digital education, particularly in rural areas, will further support safe usage and increase the positive impact of digital finance. Sustained efforts in these areas are crucial for building a resilient, inclusive digital banking ecosystem that supports India's economic and social development goals.

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