

Role of Digital Payments in Financial Inclusion and Economic Development in India

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Abstract

Digital payments have emerged as a major instrument for promoting financial inclusion and economic development in India. The growth of platforms such as Unified Payments Interface, mobile banking, internet banking, Aadhaar Enabled Payment System, digital wallets, QR code payments and banking correspondent-based services has transformed the way individuals and businesses access financial services. This study explains the role of digital payments in expanding access to banking facilities, reducing dependence on cash, improving transparency and bringing underserved sections into the formal financial system. Digital payments are especially important for rural households, women, farmers, small traders, street vendors and Micro, Small and Medium Enterprises because they provide convenient, low-cost and faster financial transactions. They also support Direct Benefit Transfer by enabling subsidies, pensions, scholarships and welfare payments to reach beneficiaries directly, thereby reducing delays, leakages and middlemen. The study also highlights the contribution of digital payments to economic development through formalization of the economy, tax transparency, reduction in transaction cost, business efficiency, e-commerce growth and better access to credit. However, challenges such as digital illiteracy, poor internet connectivity, cyber fraud, lack of awareness and limited smartphone access continue to restrict full adoption. Overall, digital payments act as a bridge between financial access and inclusive economic growth by strengthening transparency, financial participation and business development in India.

Keywords: Digital payments, financial inclusion, economic development, UPI, Aadhaar Enabled Payment System, rural banking, Direct Benefit Transfer, MSMEs, small traders, digital financial literacy

Introduction

Digital payments have become one of the most important forces in transforming India's financial system, especially in the context of financial inclusion and economic development. In a country like India, where a large population lives in rural and semi-urban areas, access to formal banking and financial services has always been a major developmental challenge. Traditionally, many people remained dependent on cash transactions, informal moneylenders, local credit networks and physical banking branches. This created problems such as high transaction cost, delay in payments, lack of transparency, limited savings habits and poor access to credit. Digital payments have changed this situation by making financial transactions faster, easier, more transparent and more accessible. Through mobile phones, internet banking, UPI, Aadhaar Enabled Payment System, debit cards, digital wallets and QR-code-based payments, people can now transfer money, receive government benefits, make purchases, pay bills and participate in the formal economy without depending only on physical bank branches

(Demirgüç-Kunt et al. 2018). The role of digital payments in financial inclusion is highly significant because financial inclusion does not only mean opening a bank account. It also means regular and meaningful use of financial services such as savings, payments, credit, insurance and direct benefit transfers. In India, the expansion of Jan Dhan bank accounts, Aadhaar identification and mobile connectivity created a strong foundation for digital financial services. This combination is often described as the JAM framework, which helped connect citizens directly with the formal financial system and enabled welfare benefits to move directly into bank accounts with reduced delay and leakage. According to official information, Jan Dhan accounts, Aadhaar enrolment and mobile phone penetration formed the base layer of India's digital public infrastructure and supported direct transfer of benefits to citizens. In this way, digital payments have become a bridge between banking access and actual financial participation (Reserve Bank of India 2022).

Digital payments have also played an important role in reducing the gap between urban and rural financial services. Earlier, people in villages and small towns often had to travel long distances to visit banks, withdraw money or make payments. This process consumed time and money and it discouraged regular use of formal banking services. With the growth of mobile-based payments and banking correspondents, many financial services have become available at the doorstep. Small farmers, women, daily wage workers, street vendors, self-help groups and small traders can now receive and make payments digitally. This has improved their participation in the financial system and increased their ability to manage money safely. For example, digital payment platforms help small businesses maintain transaction records, which can later support access to formal loans and improve their economic credibility Ozili, P.K. (2018). The rise of UPI has been a major turning point in India's digital payment revolution. UPI was launched on 11 April 2016 by the National Payments Corporation of India under the regulatory oversight of the Reserve Bank of India. It has emerged as the backbone of India's digital payment ecosystem because it allows instant money transfer between bank accounts through mobile phones. Official data shows that UPI transaction value exceeded ₹314 lakh crore in FY 2025–26 and more than 700 banks were onboarded on the platform, reflecting its wide adoption across the country. The success of UPI is important for financial inclusion because it is simple, low-cost, quick and useful for both small and large users. From vegetable vendors and small shopkeepers to students, employees and large businesses, UPI has become a common mode of payment in daily life (Sethy et al. 2019).

Digital payments also contribute directly to economic development by increasing transparency, reducing cash dependence and promoting formal economic activity. A cash-based economy often creates difficulties in tracking transactions, collecting taxes and controlling leakages in welfare schemes. Digital payments create records of transactions, which support better financial planning, tax compliance and accountability. They also reduce the cost of printing, transporting and managing cash. For businesses, digital payments improve efficiency, reduce payment delays and expand customer reach. For consumers, they provide convenience, safety and speed. As more transactions enter the formal financial system, the government and financial institutions can better understand economic activity and design suitable policies for growth.

Financial inclusion through digital payments also supports inclusive economic development (Cornelli et al. 2024). Inclusive development means that the benefits of growth should reach not only large cities and wealthy groups, but also rural households, women, poor communities, small traders and marginalized sections. India's Financial Inclusion Index rose to 67 in 2025, showing improvement in access and usage of financial services. This improvement indicates that digital financial systems are helping more people become part of the formal economy. When poor households receive subsidies directly into their bank accounts, when women can save and transfer money independently and when small sellers can accept digital payments, economic empowerment becomes more practical and visible. However, the role of digital payments is not free from challenges. Digital illiteracy, poor internet connectivity, cyber fraud, lack of trust, technical failures and limited smartphone access still create barriers, especially in rural and backward areas. Many elderly people, poor households and less educated users face difficulty in using digital payment platforms confidently. Cybersecurity is another major concern because fraud, phishing and unauthorized transactions can reduce public trust in digital finance. Therefore, the success of digital payments depends not only on technology, but also on awareness, security, consumer protection and financial literacy. For digital payments to become a strong tool of financial inclusion, people must be educated about safe usage, grievance redressal and fraud prevention (Fahad et al.2022).

Conceptual Framework of Digital Payments

The conceptual framework of digital payments explains the basic idea, structure, components, process and importance of digital payment systems in the modern financial economy. Digital payments refer to financial transactions in which money is transferred from one person, business or institution to another through electronic modes instead of physical cash. In simple words, digital payment is a cashless method of making or receiving payment by using mobile phones, internet banking, payment cards, QR codes, UPI, digital wallets, Aadhaar-based systems or other electronic platforms. The main purpose of digital payments is to make financial transactions faster, safer, more convenient, more transparent and more inclusive.

In the Indian context, digital payments have become an important part of the financial system because they connect people directly with banks, markets, government services and business activities. Earlier, most transactions were made through cash, which created problems such as delay, risk of theft, lack of transaction records and dependence on physical banking infrastructure. Digital payments have reduced these limitations by providing instant and traceable financial transactions. They allow individuals to send and receive money at any time and from any place, provided they have access to a bank account, mobile phone, internet or other digital payment facility. The conceptual framework of digital payments is based on three major foundations: digital infrastructure, financial access and user adoption. Digital infrastructure includes mobile networks, internet connectivity, banking networks, payment gateways, UPI platforms, QR code systems, Aadhaar authentication and cyber security systems (Gomber et al. 2018). Financial access means that people must have bank accounts, mobile numbers linked with accounts, payment cards or digital wallets to use digital payment services. User adoption means that people should have awareness, trust, digital literacy and willingness

to use digital modes of payment in daily life. These three foundations together create a strong digital payment ecosystem. A digital payment system works through a connected chain of users, banks, payment service providers, technology platforms and regulatory institutions. The payer initiates a transaction through a mobile app, card, internet banking platform or QR code. The payment platform verifies the transaction details and sends the request to the banking network. The bank checks the availability of funds and authorizes the transaction. After successful verification, money is transferred from the payer's account to the receiver's account. The user receives confirmation through SMS, app notification or transaction receipt. This process usually takes only a few seconds in systems like UPI, which makes digital payments highly useful for daily transactions (D'Silva et al. 2019).

Digital payments include different types of instruments and platforms. UPI is one of the most popular digital payment systems in India because it allows instant transfer of money between bank accounts through mobile applications. Mobile banking and internet banking help users perform banking activities without visiting a branch. Debit cards and credit cards are used for online and offline purchases. Digital wallets allow users to store money electronically and make quick payments. Aadhaar Enabled Payment System helps people, especially in rural areas, to access banking services through Aadhaar-based authentication. QR code payments are widely used by small shopkeepers, street vendors and service providers because they are simple and low-cost. The conceptual framework also includes the role of stakeholders (Raju et al. 2017). Users are the most important part of the system because they make and receive payments. Banks provide accounts, financial security and settlement facilities. Payment service providers create digital platforms and applications. Merchants accept digital payments and expand their customer base. The government promotes digital payments through policies, subsidies and welfare transfers. Regulatory institutions such as the Reserve Bank of India ensure safety, transparency and stability in the payment system. Technology companies provide software, cyber security and digital innovation (Carrière-Swallow et al. 2021). Together, these stakeholders create a complete digital payment environment.

Another important element of the conceptual framework is trust and security. Digital payments can grow only when users feel that their money and personal information are safe. For this, digital payment systems use passwords, PINs, OTPs, biometric authentication, encryption and fraud monitoring systems. Security is important because cyber fraud, phishing, fake payment messages and unauthorized transactions can reduce people's confidence. Therefore, consumer protection, grievance redressal and awareness about safe digital practices are essential for strengthening digital payment adoption. Digital payments are closely connected with financial inclusion. Financial inclusion means providing affordable and accessible financial services to all sections of society, especially poor, rural, women, small traders, farmers and marginalized communities. Digital payments help financial inclusion by reducing the need for physical bank visits, lowering transaction costs and making banking services available through mobile phones and local agents. They allow people to receive wages, pensions, scholarships, subsidies and government benefits directly into their bank accounts (Sivathanu, B. 2019). This reduces

leakages and increases transparency. When people regularly use digital payments, they become more connected with formal banking and financial services.

Digital payments also support economic development. They increase the speed of money circulation, improve business efficiency and encourage formalization of the economy. When transactions are made digitally, they create proper records, which help businesses manage accounts and improve access to credit. Digital payments also support e-commerce, online services, small enterprises and start-ups. They reduce cash handling costs and make economic activities more transparent. For the government, digital transactions help in better tax administration and effective delivery of welfare schemes. Thus, digital payments contribute to economic growth by improving efficiency, transparency and participation in the formal economy. The framework also highlights some challenges that affect digital payment adoption. These challenges include lack of digital literacy, poor internet connectivity, fear of fraud, limited smartphone access, technical failures, language barriers and lack of trust among users. Rural areas often face more difficulties because of weak infrastructure and low awareness. Elderly people and less educated users may find digital payment apps difficult to use (Aron, J. 2018). Therefore, the success of digital payments depends on both technological development and social awareness. Overall, the conceptual framework of digital payments shows that digital payment is not only a method of transferring money but also a complete system of financial transformation. It connects technology, banking, government, businesses and citizens into one digital financial network. It promotes financial inclusion by making financial services accessible to more people and supports economic development by encouraging transparency, efficiency and formal economic participation. In this way, digital payments act as a bridge between financial access and inclusive economic growth in India (Tay et al. 2022).

Financial Inclusion in India

Financial inclusion in India refers to the process of providing affordable, accessible and useful financial services to all sections of society, especially poor, rural, women, farmers, small traders and marginalized communities. Its main objective is to bring people into the formal financial system by giving them access to bank accounts, savings facilities, credit, insurance, pension, remittance and digital payment services. Financial inclusion is very important for rural and poor households because it reduces their dependence on informal moneylenders, helps them save money safely, provides access to institutional credit and enables them to receive government benefits directly into their bank accounts. Access to banking services plays a central role in this process because bank branches, banking correspondents, mobile banking, digital payments and Aadhaar-based services make financial facilities available even in remote areas Kumar, N. (2013). Jan Dhan accounts have played a major role in expanding financial inclusion by helping millions of people open zero-balance bank accounts and connect them with direct benefit transfer, RuPay cards, insurance and other welfare schemes. However, opening bank accounts alone is not enough; financial literacy and awareness are equally necessary so that people can understand how to use banking services, digital payments, savings, loans and insurance safely and effectively. Financial inclusion also strengthens the economic position of women, farmers and small traders by giving them independent access to money,

formal credit, digital transactions and government support. Despite these achievements, India still faces several challenges in achieving complete financial inclusion, such as lack of financial awareness, low digital literacy, poor internet connectivity, distance from bank branches, fear of fraud, irregular income of poor households, limited use of bank accounts and difficulty in accessing formal credit. Therefore, financial inclusion in India is not only a banking programme but also a wider socio-economic development process that aims to make financial services available, affordable and meaningful for every citizen Mani, M. (2022).

Role of Digital Payments in Financial Inclusion

Digital payments play an important role in promoting financial inclusion because they make financial services easier, faster and more accessible for all sections of society. Through mobile banking, UPI, digital wallets, Aadhaar-based payments, QR code payments and internet banking, people can send and receive money without visiting a bank branch, which is especially useful for rural people, poor households, farmers, women and small traders. Digital payments reduce dependence on cash by encouraging people to use formal banking channels for daily transactions, bill payments, money transfers and purchases. In rural areas, where bank branches may be far away, digital payment systems and banking correspondents help people access banking services near their homes. They also support small businesses and street vendors by allowing them to accept payments through QR codes and mobile apps, which improves their sales, creates transaction records and helps them become part of the formal economy (Sethy, S.K. 2019).

- **Easy Access to Financial Services**

Digital payments have made financial services more accessible by reducing the need for physical bank visits and allowing people to perform financial transactions through mobile phones, internet banking, UPI, digital wallets, debit cards and QR-code-based payment systems. Earlier, many people had to depend on bank branches, long queues and fixed banking hours for simple activities such as sending money, receiving payments, checking account balance or paying bills. This was difficult for poor households, rural people, daily wage workers, women and elderly persons because visiting a bank often required time, travel cost and loss of working hours. Digital payments have changed this situation by making financial services available anytime and anywhere. A person can transfer money, receive wages, pay school fees, recharge mobile phones, pay electricity bills, purchase goods and receive government benefits directly through digital platforms. This easy access increases people's connection with the formal financial system and encourages regular use of bank accounts. It also helps those who were earlier financially excluded to participate in savings, payments, insurance, credit and other banking services. In this way, digital payments act as a simple and practical tool for expanding financial inclusion (Shahen, A.M. 2025).

- **Reduction in Dependence on Cash**

Digital payments reduce people's dependence on cash by providing safe, quick and convenient alternatives for making and receiving payments. In a cash-based economy, people have to carry physical money, which involves risks such as theft, loss, fake currency, difficulty in maintaining records and problems in giving or receiving exact change. Cash transactions are

also less transparent because they often do not create proper financial records. Digital payments help overcome these problems by allowing transactions through bank accounts, mobile applications, cards and electronic platforms. When people use UPI, mobile banking, wallets or cards, money is transferred electronically and a transaction record is automatically created. This improves transparency, accountability and financial discipline. Reduction in cash dependence also benefits businesses because they can manage payments more efficiently, reduce cash-handling costs and maintain better records of sales. For the government, lower cash dependence helps in reducing informal transactions and improving tax compliance. For individuals, digital payments make daily financial activities easier and safer (Rogoff, K.S. 2016). Therefore, reducing dependence on cash is an important contribution of digital payments toward creating a more formal, transparent and efficient economy.

- **Banking Services for Rural Areas**

Digital payments have greatly improved the availability of banking services in rural areas, where physical banking infrastructure is often limited. Many villages face problems such as fewer bank branches, long distance from financial institutions, poor transport facilities and lack of regular banking access. Because of these limitations, rural people often depend on cash transactions, informal credit sources and local moneylenders. Digital payment systems help reduce this gap by bringing basic banking services closer to rural households. Through mobile banking, Aadhaar Enabled Payment System, UPI, banking correspondents and micro-ATMs, rural people can receive money, withdraw cash, check account balances, pay bills and transfer funds without frequently visiting a bank branch (Humphrey et al. 2006). This is especially beneficial for farmers, labourers, women, pensioners and beneficiaries of government welfare schemes. Farmers can receive payments for agricultural produce, subsidies and financial assistance directly into their bank accounts. Rural women can manage savings and receive benefits independently. Small shopkeepers and local service providers can accept digital payments from customers, which improves their business opportunities. However, the success of digital banking in rural areas depends on digital literacy, internet connectivity, trust and awareness. Despite these challenges, digital payments have become an important means of connecting rural India with the formal banking system and supporting inclusive development (Swamy, V. 2014).

Digital Payments and Economic Development

Digital payments have a strong and direct relationship with economic development because they improve the speed, transparency, efficiency and inclusiveness of financial transactions in the economy. When people, businesses and government institutions use digital payment systems such as UPI, mobile banking, internet banking, debit cards, digital wallets, QR code payments and Aadhaar-based payment services, money moves quickly from one person or institution to another without the need for physical cash. This faster movement of money increases economic activity because consumers can make payments easily, businesses can receive money instantly and markets can function more smoothly. Digital payments reduce the cost and risk of handling cash, including printing, transporting, storing and securing currency. They also help in formalizing the economy because digital transactions create proper records,

which support accounting, taxation, credit assessment and financial planning (Manyika et al. 2016). For small businesses, shopkeepers, street vendors and micro-enterprises, digital payments are especially useful because they increase customer convenience, improve sales opportunities and create transaction histories that can help them access loans from banks and financial institutions. Digital payments also support e-commerce, online services, start-ups and financial technology companies, which contribute to employment generation, innovation and business expansion. In government administration, digital payments improve the delivery of subsidies, pensions, scholarships, wages and welfare benefits by transferring money directly into beneficiaries' bank accounts, reducing corruption, delay and leakage. This improves public expenditure efficiency and strengthens trust in governance.

Digital payments also encourage financial inclusion because people who regularly use digital transactions become more connected with formal banking services, savings, insurance and credit facilities. At the macroeconomic level, digital payments increase transparency in the flow of money, improve tax compliance, reduce the size of the informal economy and support better policy-making through reliable financial data. They also promote consumption and investment by making transactions convenient and reducing payment barriers. In this way, digital payments are not only a technological innovation but also an important driver of economic development, as they connect individuals, businesses and government with a modern financial system and help create a more transparent, efficient and inclusive economy (Sahay et al. 2020).

- **Contribution to Formal Economy**

Digital payments make an important contribution to the formal economy by bringing more financial transactions into recorded and regulated channels. In a cash-based system, many transactions take place outside the formal financial structure and there is often no proper record of income, sales, purchases or payments. This increases the size of the informal economy and makes it difficult for the government and financial institutions to understand real economic activity. Digital payments reduce this problem because every electronic transaction creates a traceable record through bank accounts, payment applications, cards or digital platforms. When individuals, shopkeepers, small businesses, street vendors and service providers accept digital payments, their transactions become part of the formal financial system. This helps them build a financial history, maintain business records and access institutional credit more easily. Digital payments also encourage people to use bank accounts regularly instead of keeping money only in cash. As more transactions move through formal channels, economic activities become more transparent and measurable. This strengthens financial discipline, improves business accountability and supports better economic planning. Therefore, digital payments help convert informal transactions into formal economic participation and contribute to the development of a more organized and transparent economy (Beck et al. 2007).

- **Increase in Tax Transparency**

Digital payments increase tax transparency by creating clear records of financial transactions. In cash transactions, income and sales can be easily hidden because there is often no official proof of payment. This may lead to tax evasion, under-reporting of income and weak revenue

collection. Digital payments reduce these problems because electronic transactions leave a digital trail that can be verified through bank statements, payment receipts and transaction records. When businesses receive payments through UPI, cards, net banking, wallets or QR codes, their sales become more visible and easier to account for. This improves the accuracy of financial reporting and encourages businesses to follow proper tax practices. Digital records also help the government monitor economic activity and identify gaps in tax compliance. For small businesses, digital payments support proper bookkeeping and make it easier to prepare financial statements and tax returns. For consumers, digital receipts create proof of purchase, which increases accountability in business transactions. In this way, digital payments support a fairer tax system by reducing hidden transactions and improving transparency. Increased tax transparency also benefits the economy because higher and more accurate tax collection gives the government more resources for public welfare, infrastructure, education, health and development programmes (Pomeranz, D. 2015).

- **Reduction in Transaction Cost**

Digital payments help reduce transaction costs for individuals, businesses and the government. In traditional cash-based transactions, people often spend time and money on travelling to banks, standing in queues, withdrawing cash, depositing money or sending payments through physical channels. Businesses also face costs related to cash handling, counting, storage, security, transportation and risk of theft or loss. Digital payments reduce many of these expenses by allowing money to be transferred instantly through mobile phones, bank accounts or electronic platforms. For individuals, digital payments save time and travel cost because payments can be made from home or workplace at any time.

For small traders and businesses, digital payments reduce the need to manage large amounts of cash and make transactions faster and more convenient. They also reduce errors in calculation and provide automatic records of payments received and made. For the government, digital payments lower administrative costs in welfare distribution because subsidies, pensions, scholarships and wages can be transferred directly to beneficiaries without excessive paperwork, middlemen or physical distribution systems. Digital payments also reduce delays in settlement and improve the speed of economic transactions. As transaction costs decline, financial services become more affordable and accessible, especially for poor households, rural users and small businesses (Donovan, K. 2012). Thus, reduction in transaction cost is one of the major ways through which digital payments support financial inclusion and economic development.

Impact of Digital Payments on Rural India

Digital payments have created a significant impact on rural India by improving access to financial services, reducing dependence on cash and connecting rural households with the formal banking system. In many villages, people earlier faced difficulties in accessing banks because of long distances, limited branches, poor transport facilities and lack of financial awareness. Digital payments have reduced these barriers by allowing rural people to send and receive money through mobile phones, UPI, Aadhaar Enabled Payment System, banking correspondents, micro-ATMs and digital wallets. This has made financial transactions easier

for farmers, labourers, women, small shopkeepers, pensioners and beneficiaries of government schemes. Rural households can now receive wages, subsidies, pensions, scholarships and other government benefits directly into their bank accounts, which reduces delay, leakage and dependence on middlemen. Digital payments have also helped farmers receive payments for agricultural produce and access financial assistance more transparently (Kochar, A. 2018).

- **Digital Banking in Villages**

Digital banking in villages has become an important instrument for improving financial inclusion and reducing the gap between rural and urban financial services. In many villages, people earlier depended mainly on cash transactions because bank branches were located far away, transport facilities were limited and visiting a bank required both time and money. Digital banking has changed this situation by making basic financial services available through mobile phones, internet banking, UPI, Aadhaar Enabled Payment System, micro-ATMs and digital payment applications. Through these services, rural people can send and receive money, check account balances, pay electricity bills, recharge mobile phones, receive wages, get pensions and access government welfare benefits without frequent visits to bank branches (Ramachandran, N. 2018). This is especially useful for farmers, labourers, women, elderly persons and poor households who may not have easy access to formal banking institutions. Digital banking also helps farmers receive payments for crops, subsidies and other financial assistance directly into their bank accounts.

It encourages savings habits because people become more connected with their accounts and can monitor transactions regularly. Small shopkeepers and village-level service providers also benefit because they can accept digital payments from customers, reduce cash-handling risks and maintain better transaction records. Digital banking in villages also supports transparency in rural financial activities because each transaction creates a record, reducing the possibility of leakage, fraud and middlemen. However, its success depends on digital literacy, internet connectivity, trust in technology and availability of simple payment platforms in local languages. Therefore, digital banking in villages is not only a technological facility but also a major step toward rural empowerment, financial independence and inclusive economic development (Duvendack et al. 2023).

- **Role of Banking Correspondents**

Banking correspondents play a very important role in expanding banking and digital payment services in rural and remote areas where bank branches are limited or difficult to access. A banking correspondent acts as a link between the bank and the rural customer by providing basic financial services at the village level. They help people open bank accounts, deposit and withdraw money, transfer funds, check account balances, receive government benefits, use Aadhaar-based payments and understand digital banking services. For many rural people, banking correspondents are more approachable than formal bank branches because they are available within or near the village and communicate in the local language.

This makes banking easier for poor households, elderly people, women, farmers and daily wage workers who may feel uncomfortable using digital platforms on their own. Banking correspondents also help in building trust in digital payments because they guide people in

using micro-ATMs, biometric authentication, UPI, mobile banking and other electronic services. They reduce the need for villagers to travel long distances to banks, thereby saving time, travel cost and loss of working hours. Their role is especially important in the delivery of government welfare schemes because beneficiaries can receive pensions, subsidies, wages and direct benefit transfers through local banking points. Banking correspondents also promote financial literacy by explaining the importance of savings, insurance, digital transactions and safe banking practices (Kandasamy, D. 2024). In this way, they support both financial inclusion and digital inclusion. However, banking correspondents also face challenges such as poor network connectivity, cash shortage, technical problems, low commission and lack of awareness among rural customers. Despite these challenges, they remain one of the strongest pillars of rural digital banking because they bring formal financial services closer to the people and make digital payments more practical, accessible and reliable in village life.

Digital Payments and Business Development

Digital payments have become an important factor in business development because they make business transactions faster, safer, more transparent and more convenient. In the modern economy, businesses cannot depend only on cash payments because customers increasingly prefer quick and digital modes of payment such as UPI, QR codes, debit cards, credit cards, mobile wallets and internet banking. Digital payments help businesses receive money instantly, reduce cash-handling problems and maintain proper transaction records.

They also improve customer satisfaction because customers can make payments easily without needing exact cash. For businesses, digital payments create a financial record of sales and income, which helps in accounting, tax filing, business planning and access to loans. They also support online business, e-commerce, home delivery services and digital marketing. In this way, digital payments not only simplify transactions but also help businesses expand their customer base, improve efficiency and become part of the formal economy (Madan, N. 2020). Image 3 shows the role of digital payments in the growth of small traders and MSMEs by presenting how cashless payment systems help businesses work more efficiently and professionally. In the image, small shopkeepers and MSME owners are shown using QR code payments, mobile payment apps, digital invoices and online transaction records. This represents how digital payments make payment acceptance easier, reduce dependence on cash and improve customer convenience. For small traders, digital payments help in receiving money quickly and safely, while for MSMEs they support better bookkeeping, faster cash flow and formal business records. These records can also help business owners prove their income and access bank loans or financial support. Overall, the image highlights that digital payments are not only a payment method but also an important tool for business growth, market expansion, transparency and financial inclusion among small traders and MSMEs.

1. Support to Small Traders

Digital payments provide strong support to small traders by helping them conduct business more efficiently and professionally. Small shopkeepers, street vendors, vegetable sellers, tea stall owners, grocery stores, repair shops and local service providers can accept payments through UPI QR codes, mobile wallets and banking apps without needing costly machines or

complex infrastructure. This makes digital payments affordable and easy for small traders. Earlier, small traders often faced problems such as shortage of change, risk of theft, difficulty in maintaining cash records and delay in receiving payments. Digital payments reduce these problems because the money is directly transferred into the trader's bank account and a record is automatically created. This helps small traders track their daily income and manage their business better. Digital payments also increase customer convenience because customers can buy goods even when they do not have cash (Nandru et al. 2023). As a result, small traders may get more sales and retain more customers. Digital transaction history can also help traders prove their income and apply for bank loans, government schemes or business support. Therefore, digital payments are useful for small traders because they improve transparency, reduce cash-related risks, increase business opportunities and support their entry into the formal financial system.

2. Digital Payments in MSMEs

Digital payments play a very important role in the growth and development of Micro, Small and Medium Enterprises. MSMEs are a major part of the Indian economy because they provide employment, support local production and contribute to trade and services. However, many MSMEs face challenges such as limited access to formal credit, weak accounting practices, delayed payments, cash management problems and lack of financial transparency. Digital payments help reduce these challenges by creating a clear and reliable record of business transactions. When MSMEs use UPI, net banking, cards, payment gateways, QR codes and digital invoices, they can receive and make payments quickly and securely. This improves cash flow and reduces delays in business transactions (Sharma, K. 2025).

Digital payment records also help MSMEs maintain better accounts, prepare financial statements and file taxes more accurately. These records are useful when MSMEs apply for loans because banks and financial institutions can assess their business activity and repayment capacity more easily. Digital payments also support MSMEs in expanding their markets through e-commerce platforms, online orders, digital billing and remote customer payments. They reduce dependence on cash and make business operations more organized and transparent. In addition, digital payments help MSMEs build trust with customers, suppliers and financial institutions. Thus, digital payments are not only a payment method for MSMEs but also a tool for business growth, financial discipline, market expansion and economic development (Grandolini, G.M. 2015).

Research Methodology and Criteria for Selection of Data

The present study is descriptive and analytical in nature and is based on secondary data. The required information was collected from official reports, statistical publications and databases of the Reserve Bank of India, National Payments Corporation of India, Ministry of Finance, Government of India, World Bank and other recognized institutions. Relevant peer-reviewed journal articles, working papers, books and institutional reports concerning digital payments, financial inclusion, rural banking, Direct Benefit Transfer, small traders and MSMEs were also examined. The data were selected according to clearly defined inclusion criteria. Preference was given to sources that were directly related to India, relevant to the objectives of the study,

published by recognized institutions or reputable academic journals, sufficiently recent, and supported by complete and verifiable information. Earlier studies were included only when they provided important theoretical or conceptual explanations of financial inclusion, digital finance and transaction costs. Sources containing duplicate information, unsupported claims, incomplete data, promotional material or findings unrelated to the Indian financial system were excluded. The indicators used in the tables were selected according to their relevance to financial access, rural outreach, payment convenience, transparency, transaction cost, business efficiency, formal credit access and the development of small traders and MSMEs. The percentage values presented in the tables are comparative impact scores developed by the author after reviewing the selected secondary sources. These values represent the relative importance of the indicators and should not be interpreted as official statistical percentages or findings obtained through a primary survey.

Legal and Regulatory Framework Governing Digital Payments in India

The legal and regulatory framework for digital payments in India aims at regulating payment systems, giving legal recognition to electronic transactions, enhancing security of digital payment systems, protecting personal data and ensuring customer grievance redressal. The digital payments' process is a transfer of monetary value via electronic means and, therefore, the achievement of statutory recognition, regulation and regulatory supervision, security and institutional accountability of the digital payments' process is also required. The Reserve Bank of India (RBI) plays a key role in the regulation and supervision of payment systems in India, and the existing legal framework governing electronic transactions and digital personal data offers a broader legal context for the implementation of digital financial services. The framework has evolved through the Acts of Parliament, regulations made under the Acts and directions issued by the RBI to the regulated entities and payment system operators.

- **Payment and Settlement Systems Act, 2007**

The Payment and Settlement Systems Act of 2007 (PSS Act) is the main legislation in India for the regulation and supervision of payment systems. The Act was assented to 20 December 2007, and took effect 12 August 2008. It is a basic provision to give direction and control to the payment systems in India and to designate the Reserve Bank of India as the authority for such direction and control and matters related thereto. The RBI is designated to regulate and supervise payment systems under Section 3 of the Act. The law thus empowers RBI to supervise the payment ecosystem, which would not have been possible otherwise, as it was not dependent on private and/or banking-sector arrangements for payment-system operation.

The PSS Act broadly defines a payment system as a system that allows a payment to be made to a beneficiary from a payer and that includes clearing services, payment services or settlement services, or a combination of such services; provided that a stock exchange is excluded from definition of a payment system. Section 4 is also an important regulatory provision, as, apart from the RBI, no person shall commence or operate a payments system without being issued with an authorisation under the Act by the Reserve Bank. As a result, the Act establishes an authorisation regime for the operation of payment systems and gives RBI a regulatory, supervisory and standards power. It also provides a legal framework for concepts like

settlement finality and netting, which are crucial for certainty and stability in payment and settlement arrangements.

- **Payment and Settlement Systems Regulations, 2008**

The PSS Act provides for a statutory framework supplemented by the Payment and Settlement Systems Regulations, 2008 and the Board for Regulation and Supervision of Payment and Settlement Systems Regulations, 2008. Both came into force on 12 August 2008 along with the PSS Act. The Payment and Settlement Systems Regulations cover provisions regarding topics like authorisation of payment systems, payment instructions, standards determination and returns, documents and other information to Reserve bank. The Board Regulations are related to the constitution, composition, powers and functioning of the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS). The Act and these regulations provide the institutional and procedural environment that allows payment-system operators to be formally regulated.

- **Information Technology Act, 2000**

Another significant piece of legislation governing digital financial transactions is the Information Technology Act, 2000. The long title of the Act provides that its purpose is to give effect to "transactions conducted by electronic means, including by electronic data interchange and other any means of electronic communication and to facilitate the use of electronic means of communication and storage instead of relying on paper. This is also relevant for digital payments, as the recognition of electronically issued instructions, records, communications, and digitally concluded transactions will be of great importance for the legal system.

There are specific provisions in the Act about authentication of electronic records, electronic signatures, recognition of electronic records, recognition of electronic signatures, retention of electronic records and the validity of contracts created electronically. Section 4 is about the legal recognition of electronic records, Section 5 is about electronic signatures and Section 10A is about the validity of contracts made electronically. The Act also addresses the topics of secure electronic records, secure electronic signatures, security procedures, penalties and offences. These provisions are part of the overall legal landscape in which e-commerce and digitally facilitated financial transactions can be conducted in India.

- **RBI Digital Payment Security Controls Directions, 2021**

With the growth in digital-payment activity, the security of payment channels became an important regulatory need. The Directions of the Reserve Bank of India (Digital Payment Security Controls), 2021 dated 18 February 2021, specify the security controls to be implemented by certain regulated entities such as Scheduled Commercial Banks (except Regional Rural Banks), Small Finance Banks, Payments Banks and credit-card-issuing NBFCs. The RBI says these Directions are designed to mandate the regulated entities to build a strong governance framework and adopt common minimum security protocols for digital-payment products and services. The Directions focus on: Governance and management of security risks, encryption and other generic security controls, application security, authentication, fraud-risk management, reconciliation, customer protection, awareness and grievance redressal. They also feature certain security provisions on internet banking, mobile-payment applications and card

payments. This way, the regulatory regime does not merely address the volume of transactions, but also imposes obligations on regulated entities to keep digital-payment systems and customer data secure and safeguard their integrity and confidentiality.

Cyber Resilience and Digital Payment Security, 2024

On 30 July 2024, the RBI issued a set of Master Directions titled “Cyber Resilience and Digital Payment Security Controls for Non-bank Payment System Operators, 2024”, which further reinforced the regulatory framework. These Directions are issued by the Central Bank of India under Section 10(2) in conjunction with Section 18 of the Payment and Settlement Systems Act, 2007 with regard to the Authorised non-bank Payment System Operators. According to the RBI, their aim is to enhance the resilience of non-bank payment operators against the prevalent and future information-system and cyber security threats. The Directions include governance controls, cyber-security preparedness, risk assessment and monitoring, identity and access management, network and application security, vendor-risk management, data security, incident response, business continuity, API security, and cloud security and specific digital-payment security controls. They also need measures to be taken in fraud and cyber-threat awareness. In particular, this framework has importance as digital-payment services in India are increasingly involved with banks and a variety of non-bank payment-system operators. The overall safety and reliability of the digital-payment ecosystem are thus bolstered by the type of regulatory coverage these operators receive.

- **Digital Personal Data Protection Act, 2023**

Digital payments are inevitably linked with the handling of personal data in digital form. The Digital Personal Data Protection Act, 2023 (DPDA Act) establishes the legal framework related to such data. The Act came into force on 11 August 2023 with the aim of regulating the processing of digital personal data in a way that balances the interests of the individual to exercise his right to the protection of his personal data and the need to process such data for a lawful purpose. It has provisions of obligations of the Data Fiduciaries, rights and duties of Data Principals, special provisions, Data Protection Board of India, appeals and penalties.

The importance of this Act for the digital-payment sector is that the digital financial services ecosystem relies on information being handled in an electronic format, and thus is embedded in a wider data-protection framework. On 14 November 2025 the Ministry of Electronics and Information Technology officially published the Digital Personal Data Protection Rules, 2025 along with the enforcement timeline of the DPDP Act. Accordingly, safeguarding and the lawful processing of digital personal data has emerged as an even further aspect of the current regulatory landscape for technology-enabled services in India, including digital financial services, to which the Act applies.

Consumer Grievance Redressal under RBI Ombudsman Scheme, 2021

Consumer confidence is key for digital financial services. The Reserve Bank – Integrated Ombudsman Scheme, 2021, which was implemented from 12th November 2021, offers a formal grievance-redressal mechanism for the customers of entities under the Scheme. The RBI has framed it under the statutory provisions such as Section 18 of the Payment and Settlement Systems Act, 2007. The Scheme merged the previous Banking Ombudsman

Scheme, Ombudsman Scheme for Non-Banking Financial Companies and Ombudsman Scheme for Digital Transactions into one.

The Scheme allows for free redress for customer complaints related to service deficiencies by the regulated entities when the same is not resolved by the entity or a response is not received within the specified timelines, says the RBI. It covers relevant banks, NBFCs and payment-system participants as detailed in Scheme. A formal grievance redress mechanism is important in the context of the digital-payment framework because financial inclusion is not only about having access to technology, but it's also about having a mechanism to seek redress if the service fails or there is a dispute.

- **Regulatory Framework and Financial Inclusion**

In combination, these laws and regulations indicate that India's digital-payment system is multifaceted. The Payment and Settlement Systems Act, 2007 grant regulatory and supervisory powers to the RBI over payment systems, the Information Technology Act, 2000 provides legal recognition to electronic records and transactions, RBI directions provide the security and cyber-resilience requirements for banks and payment systems operators, and the Reserve Bank–Integrated Ombudsman Scheme, 2021 provides an integrated grievance redressal mechanism within its regulatory scope. This legal and regulatory framework is crucial for the study on the Role of Digital Payments in Financial Inclusion and Economic Development in India, as it is essential for the successful growth and development of digital payments. The framework, in that regard, provides a crucial institutional base to the safe and regulated growth of digital payments and their broader adoption in the formal financial system in India.

Conclusion

Digital payments have become an important pillar of India's financial and economic transformation. They have expanded access to financial services by making banking facilities available through mobile phones, UPI, QR codes, Aadhaar-based systems and banking correspondents. Their impact is clearly visible in rural areas, where people can receive payments, withdraw money, transfer funds, access government benefits and participate in formal banking without frequent visits to bank branches. Digital payments also empower women, farmers, poor households and small traders by giving them direct access to money, savings and transaction records. In economic terms, digital payments support formalization, reduce cash dependence, improve tax transparency, lower transaction costs and strengthen business efficiency. For small traders and MSMEs, digital payments create proper financial records, improve cash flow, increase customer convenience and help in accessing formal credit. At the same time, the success of digital payments depends on digital literacy, secure platforms, better internet connectivity, consumer protection and awareness about cyber safety. Therefore, digital payments are not merely a technological innovation; they are a powerful tool for inclusive development, financial empowerment and sustainable economic growth in India.

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