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The Impact of Digital Payments in the Modern Global World: A Comparison Between India, EU/US/UK, and Italy

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ABSTRACT

This study explores the rapid growth of digital payment systems and their impact on financial inclusion and literacy around the world. Over the past decade, these platforms have become increasingly integrated into the economies of many countries, changing the way people access and manage money. The research focuses on how digital payment systems have emerged in the modern global context and examines their influence on financial literacy across different populations. A comparative analysis is conducted for countries including the United States, India, the European Union, and Italy, highlighting differences in adoption, regulatory approaches, and accessibility. Using qualitative analysis of policy reports and secondary data from international financial institutions, the study identifies both opportunities and challenges associated with digital payment expansion. Findings suggest that while these systems make financial transactions easier and more efficient, gaps in digital skills, infrastructure, and access remain. The study emphasizes the need for targeted policies and education programs to ensure that digital payments contribute to inclusive and sustainable financial development.

Keywords: Digital Literacy, Italy, EU, Payment, Finance, Financial Inclusion, Digital Payment Systems, Economics, Youth, Fintech Education, India, USA.

1. INTRODUCTION

Over the past decade, digital payment systems have spread quickly across the globe, changing the way people buy, sell, and transfer money. “The history of e-payment can be traced back to 1918 the time when currency was first introduced in the United States of America (U.S.A) by the Federal Reserve Bank with the aid of telegraph” (Kabir et al. 112). The most noticeable changes are now happening in developing economies. In many of these places, digital payments are opening doors for people who were previously excluded from financial services and are reshaping how local businesses and markets operate. Understanding these changes is important for seeing how digital tools can support long-term, sustainable development. Digital payment systems are payment systems that facilitate digital payments across multiple forums with the ease of a click. “Digital payments have been advantageous in many ways such as transparent transaction cost savings, faster payouts, decrease time use, better tracking, and increased trust, user-friendly, expense control” (Kwabena et al. 80). Understanding the impact of digital payments on developing economies is essential because these technologies are rapidly reshaping financial systems, social participation, and economic opportunity. As governments and businesses increasingly transition toward cashless ecosystems, the benefits—such as reduced transaction costs, increased financial inclusion, and improved transparency—are not distributed evenly.

Marginalised communities often experience the greatest potential gains, including safer ways to store and transfer money, greater access to credit, and participation in digital marketplaces previously out of reach. However, without careful policy design, these same groups risk being further excluded due to limited digital infrastructure, low digital literacy, and structural inequalities. Studying this topic therefore helps ensure that digital payment systems become tools for reducing, rather than reinforcing, economic and

social disparities in developing economies. Thus, Electronic payment systems services provide the means to overcome obstacles associated with payments and other financial transactions executed outside the banking hall through electronic platforms, and can contribute to national economic growth and financial inclusion (Zwingina et al.72). Digital payments are rapidly reshaping everyday life in developing economies, changing how people save, spend, and do business. These tools offer real opportunities—especially for greater financial inclusion, faster transactions, and new paths for economic growth—but their benefits don't reach everyone equally. Issues like limited infrastructure, regulatory gaps and low digital literacy still shape who gains and who gets left behind. Because of this, it's important to look closely at both the potential and the pitfalls of this shift. This research sets out to explore these complexities and to understand the conditions that can help digital payments support more inclusive and sustainable development.

2. DIGITAL LITERACY FOR DIGITAL PAYMENTS - INDIA HOW DID THEY EMERGE

“India is home to 17.5% of the world's population and nearly 76% of its adult population does not understand even the basic financial concepts. Post-independence,” (Tiwari et al. 217) the Government of India has made sustained efforts to bring larger sections of society within the formal financial system through banking expansion, policy reforms, and institutional restructuring. However, mere access to banking facilities has not been sufficient to ensure meaningful participation in the financial system. This gap between access and effective usage gave rise to the concept of financial literacy, which has gradually evolved into financial digital literacy with the advancement of technology and digital payment systems.

Historically, financial transactions in India were rooted in cash-based and informal mechanisms. “In ancient times, commodities were exchanged against payment settlements through barter system” which later evolved into coin- and currency-based systems (Tiwari et al. 218). The emergence of banks helped formalise savings and credit, but “banking services were largely restricted to deposits and withdrawals” leaving day-to-day transactions outside the formal system (Tiwari et al. 218). For low-income and marginalised populations, banking was perceived as irrelevant, reinforcing financial exclusion.

A major turning point came after bank nationalisation, when India witnessed “A paradigm shift from priority sector lending to deposit services to comprehensive financial services” (Tiwari et al. 218). Despite these reforms, large sections of the population remained excluded due to low income, illiteracy, and lack of awareness. Globally, “About 1.7 billion adults remain unbanked” and India constitutes a significant share of this population (Tiwari et al.218). This reality underscored the importance of not just financial inclusion, but also the capability to understand and use financial services effectively. The emergence of financial digital literacy in India is closely linked to the growth of digital financial inclusion (DFI). “The government introduced landmark initiatives such as no-frills accounts and the Pradhan Mantri Jan Dhan Yojana (PMJDY)” to expand banking access (Tiwari et al.218). These initiatives were complemented by digitalised services linked to Aadhaar and bank accounts, particularly for direct benefit transfers. While PMJDY significantly increased account ownership, a large proportion of these accounts remain dormant, especially in rural areas, indicating limited financial capability and understanding. Digital technology became a critical enabler in addressing this challenge. Over time, “Innovation in digital technologies has led to adoption of digital payments to boost slow penetration of financial inclusion” (Tiwari et al.217). Platforms such as UPI, mobile banking, e-wallets, and payment banks transformed the way transactions are conducted. However, adoption has been uneven “Education, awareness and internet accessing devices are three major reasons behind lower penetration of digital payments in India” (Tiwari et al.217).

Financial digital literacy goes beyond knowing how to open a bank account. It includes understanding digital payment tools, assessing risks, protecting personal data, and building trust in technology. “Lack of education, technical knowhow and threat to cyber-crime” significantly slowed down adoption (Tiwari et al.218). The Digital India initiative marked a major policy push towards digital financial literacy. With increasing internet penetration and smartphone usage, India entered “a tsunami for digital payments” (Tiwari et al. 219). The growth of UPI transactions—from negligible volumes in 2016 to hundreds of millions within two years—demonstrates the potential of digital platforms. Yet, the rural–urban divide remains stark. “While 70% of urban internet users have used at least one digital payment,” rural areas lag significantly due to infrastructure deficits and low digital awareness. Trust plays a central role in financial digital literacy (Tiwari et al.220). “Trust is the major issue along with education and technical expertise,” compounded by fears of fraud and cybercrime (Tiwari et al. 220). Without confidence in digital systems, users revert to cash, even when digital options are available. This explains why, despite rapid growth, reliance on cash is not going to end anytime soon in a large and diverse economy like India.

Another critical aspect of financial digital literacy is the ability to integrate financial services into daily life. “For any digital payment program to succeed, the digital-to-real life gap must be bridged” (Tiwari et al. 220).

Financial digital literacy also contributes to transparency and economic empowerment. “Digital payments can increase transparency and security having shown that shifting from cash to digital has reduced benefit leakage in welfare schemes” (Tiwari et al. 220).

These outcomes reinforce the importance of equipping citizens with the skills and confidence to use digital financial tools effectively.

In conclusion, financial digital literacy in India has emerged as a critical pillar supporting the broader goals of financial inclusion and economic stability. While policy initiatives such as PMJDY, Aadhaar linkage, and Digital India have created the necessary infrastructure, however, it is clear that “Education, awareness, and access to digital devices remain decisive factors” (Tiwari et al.226). Bridging gaps in literacy, trust, and infrastructure is essential for transforming access into meaningful usage. As India continues its transition toward a digital economy, strengthening financial digital literacy will determine whether growth is inclusive, secure, and sustainable.

3. DIGITAL LITERACY FOR DIGITAL PAYMENTS - HOW DID THEY EMERGE IN UK, US, AND ITALY

Financial literacy differs notably across countries, even among advanced economies with developed financial markets. A comparison of Italy, the United States (US), and the United Kingdom (UK) reveals systematic variation in financial knowledge levels, the role of education, and the influence of financial behaviour. These differences indicate that financial literacy is shaped not only by individual characteristics but also by national financial and institutional contexts. Financial literacy is assessed through an objective index based on four financial knowledge questions covering investment risk, credit and mortgages, inflation, and basic money management (Nicolini et al. 1). Each correct response contributes to the overall score, allowing for consistent cross-country comparison. Using this measure, the US records the lowest average financial literacy score (2.25 out of 4) (Nicolini et al. 4), while Italy scores 2.33 and the UK scores 2.42 (Nicolini et al. 5). Although the numerical differences appear small, they are statistically significant, demonstrating that financial literacy outcomes vary meaningfully across countries. Education is identified as one of the most consistent predictors of financial literacy across Italy, the US, and the UK (Nicolini et al. 2). Individuals with higher levels of formal education consistently achieve higher financial literacy scores than those with less than a high school education. However, the strength and persistence of this relationship vary across national contexts. In the US, education shows a strong positive association with financial literacy, but its explanatory power declines when financial behaviour variables are included, suggesting that practical financial experience plays an important role alongside formal education. In contrast, education remains a strong and significant determinant of financial literacy in Italy, even after accounting for financial behaviour. This indicates that education plays a particularly important role in contexts where engagement with complex financial products is more limited. The UK shows a positive but less uniform relationship between education and financial literacy, suggesting that factors beyond formal schooling also contribute to financial knowledge.

Table 1 Financial literacy questions

	US	UK	Canada	Italy
Investment	<p>If interest rates rise, what will typically happen to bond prices?</p> <ul style="list-style-type: none"> • They will rise • They will fall • They will stay the same • There is no relationship between bond prices and the interest rate • Don't know • (Refused) 	<p>Which of these savings and investments do you think would have the least value directly affected by stock market performance?</p> <ul style="list-style-type: none"> • Cash ISA • Insurance/investment bond (e.g. managed bond, with-profits bond) • Savings account with a bank or building society • Equity ISA • Endowment policy (with profits or unit linked) • Unit trust • Personal pension plan (with profits or unit linked) • Don't know • (Refused) 	<p>Lindsay has saved \$12 000 for her university expenses by working part-time. Her plan is to start university next year and she needs all of the money she saved. Which of the following is the safest place for her university money?</p> <ul style="list-style-type: none"> • Corporate bonds • Mutual funds • A bank savings account • Locked in a safe at home • Stocks • Don't know • (Refused) 	<p>A firm can raise money by issuing stocks or bonds. Which one is more risky for the investors?</p> <ul style="list-style-type: none"> • Stocks • Bonds • Stocks and bonds have the same risk • I don't know the difference between stocks and bonds • Don't know • (Refused)
Credit (mortgage)	<p>A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.</p> <ul style="list-style-type: none"> • True • False • Don't know • (Refused) 	<p>Can you tell me for which of these types of mortgage you would be guaranteed to pay off the full amount borrowed if you kept up the repayments?</p> <ul style="list-style-type: none"> • Repayment mortgage • Low-cost endowment mortgage • Interest-only mortgage with an associated investment in a stocks and shares ISA or PEP • Interest-only mortgage with no associated investment • Don't know • (Refused) 	<p>Which of the following will help lower the cost of a house?</p> <ul style="list-style-type: none"> • Paying off the mortgage over a long period of time • Agreeing to pay the current rate of interest on the mortgage for as many years as possible • Making a larger down payment at the time of purchase • Making a smaller down payment at the time of purchase • Don't know • (Refused) 	<p>With which of the following mortgages can you know from the beginning the maximum value and the total number of the instalments that you'll have to pay to repay your debt?</p> <ul style="list-style-type: none"> • Floating rate mortgage • Fix rate mortgage • Fix rate mortgage with fix instalment • Don't know • (Refused)
Inflation	<p>Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?</p> <ul style="list-style-type: none"> • More than today • Exactly the same • Less than today • Don't know • (Refused) 	<p>If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power as a year's time?</p> <ul style="list-style-type: none"> • Yes • No • Don't know • (Refused) 	<p>If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power as a year's time?</p> <ul style="list-style-type: none"> • Yes • No • Don't know • (Refused) 	<p>Suppose you have €1000 in your bank account with an interest rate of 1% and no fees or other expenses. Suppose that the inflation rate is equal to 2%. Do you think that at the end of the year, when you'll have back your money, you'll be able to buy the same amount of goods that you can buy today with your €1000?</p> <ul style="list-style-type: none"> • Yes • No, I'll be able to buy less • No, I'll be able to buy more • Don't know
Money management (bank account)	<p>Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think would you have in the account if you left the money to grow?</p> <ul style="list-style-type: none"> • More than \$102 (EUR 76) • Exactly \$102 • Less than \$102 • Don't know • (Refused) 	<p>Looking at this example of a bank statement, please can you tell me how much money was in the account at the end of February?</p> <ul style="list-style-type: none"> • More than \$102 (EUR 76) • Exactly \$102 • Less than \$102 • Don't know • (Refused) 	<p>If you had a savings account at a bank, which of the following statements would be correct concerning the interest that you would earn on this account?</p> <ul style="list-style-type: none"> • Sales tax may be charged on the interest that you earn • You cannot earn interest until you pass your 18th birthday • Earnings from savings account interest may not be taxed • Income tax may be charged on the interest if your income is high enough • Don't know • (Refused) 	<p>Look at this bank statement. Can you tell me how much money you have in your account at the end of the period?</p>

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Financial literacy

© Nicolini et al.

(Nicolini et al. 4)

Differences across countries are also evident when financial literacy is examined by topic area. Investment-related knowledge is the weakest component of financial literacy in all three countries (Nicolini et al. 4), highlighting a widespread difficulty in understanding risk and return. This weakness is especially pronounced in the US and Italy. In contrast, knowledge related to credit and mortgages is strongest in the US and the UK, (Nicolini et al. 5) reflecting higher participation in mortgage markets and greater exposure to borrowing decisions. Italy shows comparatively lower performance in this area, consistent with lower household debt levels and reduced engagement with credit markets. Understanding of inflation varies across countries, with Italian respondents demonstrating the highest level of correct responses (Nicolini et al. 4). This suggests that historical and economic experiences may influence familiarity with certain financial concepts. Meanwhile, the UK stands out in money management skills, with over 90 percent of respondents correctly answering questions related to bank accounts indicating strong competence in routine financial tasks. These findings suggest that everyday financial practices and institutional arrangements contribute significantly to financial literacy outcomes (Nicolini et al. 4).

Beyond education, financial behaviour is shown to be a key factor shaping financial literacy. Individuals who engage in financial activities such as owning investment products, comparing financial service providers, seeking financial advice, reading financial newspapers, or using information intermediaries consistently display higher financial literacy levels (Nicolini et al. 6). When these behavioural variables are incorporated into analytical models, the explanatory power of education decreases, particularly in the US and UK. This demonstrates that financial literacy is not solely acquired through formal education but is also developed through experiential learning and market participation. Income is also positively associated with financial literacy across all three countries. Higher-income individuals consistently demonstrate stronger financial knowledge (Nicolini et al. 7) which may reflect greater opportunities to interact with financial products and services. Age patterns show that middle-aged individuals tend to have higher financial literacy than younger or older cohorts, suggesting that experience accumulated during active working years contributes to financial understanding. Gender differences are present as well, with men generally scoring higher on financial literacy measures than women, indicating persistent disparities in financial knowledge across countries.

Overall, the comparison of Italy, the US, and the UK demonstrates that financial literacy is the outcome of an interaction between education, financial behaviour, and national context (Nicolini et al.7). While education provides a foundational role in all three countries, its effectiveness is closely linked to opportunities for financial engagement. The findings suggest that policies aimed at improving financial literacy should account for cross-country differences rather than adopting uniform approaches, as financial knowledge is shaped by country-specific financial systems and consumer experiences.

4. CHALLENGES

Financial inclusion and well-being have always been hindered by challenges like lack of financial literacy, technology, and digital financial inclusion. This subtopic is broken up into 3 parts to shed light upon the assortment of challenges faced by each of the following countries

i. India

Financial inclusion and financial well-being in India have consistently been hindered by a range of structural, socioeconomic, and technological challenges, particularly for marginalized and informal-sector populations. As we are aware, financial inclusion has become a policy agenda for the governments and central banks in emerging economies, in which India is not an exception (Nandru et al.1139), yet exclusion persists despite large-scale initiatives. India's financial system aims to provide savings, credit, payments, and insurance products to vast segment of population (Nandru et al. 1139), but barriers such as lack of awareness, limited outreach, and inadequate infrastructure restrict effective participation. accessibility, availability, usage, and affordability are found to be significant determinants of financial inclusion, (Nandru et al.1139) indicating that mere account ownership does not ensure meaningful inclusion. Programs such as Pradhan Mantri Jan Dhan Yojana (PMJDY) and PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) (Nandru et al.1140) have expanded access to formal banking, yet challenges like physical proximity of bank branches, automated teller machines (ATMs) (Nandru et al.1143) and affordable credit continue to limit their impact.

Another critical issue is technology-driven exclusion. While digital payments and FinTech solutions promise efficiency and cost reduction, it is noted that marginalized groups often face difficulties in adopting digital financial services due to limited skills and trust. The financial literacy dimension is found statistically insignificant (Nandru et al.1139) for marginalized street vendors, suggesting that immediate financial needs dominate over formal financial knowledge. It is evident that financial inclusion contributes substantially to the well-being of marginalized street vendors (Nandru et al. 1140), but persistent gaps in digital financial inclusion and service delivery continue to weaken financial security and long-term financial well-being in India.

ii. EU/United Kingdom

In the European Union (EU) and the United Kingdom, financial inclusion has improved significantly, yet important challenges remain. One major issue is digital exclusion despite advanced digital markets. While both regions have strong banking systems, unequal access to digital devices, reliable internet, and digital skills (Ozili 694) continues to affect low-income households, the elderly, migrants, and rural populations. The shift toward online banking and cashless payments has unintentionally widened gaps for those who struggle with technology. Consumer-related novelty risk and lack of financial literacy, (Ozili 695) particularly among first-time users of digital financial services, also limits effective participation and leads to hesitation in adopting digital finance tools.

Additionally, trust, security, and regulatory challenges affect financial inclusion in the EU and UK. Concerns over data privacy, cybersecurity risks, online fraud, and misuse of personal data by large digital platforms (Ozili 696) reduce confidence in digital financial services. Although regulations such as the EU Digital Markets Act and UK competition frameworks aim to promote fairness and protect users, complex compliance requirements and strict identity verification rules can unintentionally exclude vulnerable groups, including informal workers and recent migrants. Operational risks and service disruptions in digital platforms (Ozili 698) further weaken trust. Moreover, social inequalities, including gender gaps and income disparities, continue to influence access to finance. Addressing these challenges requires balanced regulation, strong consumer protection, targeted digital literacy programs, and inclusive policy design (Ozili 701) to ensure that financial inclusion in the EU and UK remains fair, secure, and accessible to all.

iii. United States of America

The United States of America is without a doubt one of the greatest economies however it has been totally baffled with the challenges against financial inclusion and digital literacy, one can find a vast array of challenges in the United States of America. A major challenge facing U.S. households is the gap between financial knowledge and actual financial behavior. Although many Americans understand basic financial concepts, this knowledge often does not translate into effective long-term planning. As noted, “surveyed households are financially knowledgeable (mean score is 75.1%), but exhibit poor financial planning skills (mean score is 59.8%)” (Alhenawi and Elkhail 211) This reveals a critical problem: knowing what to do is not the same as doing it.

Another key challenge is the weak connection between financial education and real-world decision making. It is necessary to emphasize that “the correlation between knowledge and financial planning is low, albeit positive” (Alhenawi and Elkhail 211). In practice, this means that even financially informed individuals may fail to budget, save, or invest properly over the long run. Poor preparedness for economic shocks is widely common. Many households lack emergency savings and long-term security. Citing national data, the authors explain that “only 23% of U.S. households can go without income for three to six months before hardship sets in” (Alhenawi and Elkhail 212), and “20% of U.S. households will fall into financial distress if they have no income for two weeks or less” (Alhenawi and Elkhail 212). This shows how vulnerable a large portion of the population is to job loss or medical emergencies.

Debt is another major challenge. The paper finds that many households are burdened by borrowing and lack clear repayment strategies. The authors report that “almost half of surveyed households are in debt and do not have plans to pay it off” (Alhenawi and Elkhail 225). This reflects weak financial discipline and insufficient long-term planning.

Finally, the authors argue that financial education is often introduced too late in life. They conclude that “to promote financial literacy, we suggest that public policies strive to embolden financial education during early stages of life; preferably during college years” (Alhenawi and Elkhail 211). Without early and practical training, many Americans enter adulthood unprepared for complex financial decisions.

5. WAYS TO COMBAT CHALLENGES AGAINST DIGITAL LITERACY IN THE YOUTH

Digital literacy and financial inclusion are important topics that are vital to be imparted to our youth it can be done by employing several strategies such as

1. Early Digital Education

One major challenge is that financial literacy often begins too late. It is important to emphasize starting education early to build strong foundations (Kasman et al. 2), financial skills should be introduced in primary school in age-appropriate ways. Foundational

abilities such as critical thinking, self-control, and problem-solving (Kasman et al. 3) help young people navigate the financial world responsibly.

2. Participatory and Experiential Learning

Another barrier is passive learning. It is highlighted that participatory learning is more effective than lecture-only methods. (Kasman et al. 5) Youth learn financial skills best through hands-on experience—by solving problems, and exploring real-world financial scenarios. Learning by doing increases motivation and allows students to connect knowledge with real-life decisions. (Kasman et al. 4) Simulated environments, financial projects, and interactive tasks make financial literacy more meaningful and relevant to students' lives.

3. Parental Involvement

Parents should strongly influence how young people should engage with finance. It is universally stressed that parents are the first and most important teachers in shaping attitudes and behavior (Kasman et al. 7). When families model healthy financial habits children are more likely to adopt them. Programs should include take-home activities, parent guides, and family discussions about financial inclusion.

There are a plethora of measures that can be taken to combat challenges against financial inclusion and literacy. Some recommendations that could be uptaken are as follows:

1. Countries can combat low financial literacy by launching “Financial Fitness” campaigns similar to public health drives. Just as governments run anti-smoking or mental-health awareness programs, they can promote smart money habits through national challenges like “30 Days to Smarter Money,” monthly savings goals, and public budgeting contests. These campaigns make financial learning visible, engaging, and socially accepted. When people talk about saving, spending, and planning as openly as they talk about fitness and health, money management becomes a normal part of everyday life rather than a taboo topic.
2. Countries can improve financial literacy by integrating learning into national digital services. When citizens use tax portals, welfare platforms, pension systems, or online banking linked to national ID, the system can provide short, simple lessons at the exact moment people make financial decisions. For example, while applying for a loan, users could see quick explanations about interest rates, repayment risks, and long-term costs. This “learning while doing” approach helps people understand money concepts in real time and apply them immediately in their own lives.
3. Countries can strengthen financial literacy by embedding money education into workplaces. Employers can offer regular financial coaching sessions, salary-planning workshops, and guidance on savings, insurance, and retirement from the very first day of employment. When workers learn how to manage income, avoid debt, and plan long-term goals at their place of work, financial education becomes practical and continuous rather than limited to school years. This approach ensures that adults build real-life money skills alongside their careers.

These are some of the ways that financial inclusion and literacy can be improved in developing nations. This can strengthen the financial awareness allowing for the whole hearted development of a nation.

6. CONCLUSION

This study demonstrates that financial payment systems have experienced rapid and sustained growth over the past decade and are projected to continue expanding in both scope and adoption. Innovations such as mobile payments, digital wallets, and real-time transaction platforms have reshaped financial behavior, enabling faster, more efficient, and increasingly cashless economies. These developments reflect broader trends in technological advancement, globalization, and consumer preference for convenience and accessibility. Nevertheless, this expansion has occurred alongside a critical and persistent challenge: the risk of financial exclusion. While digital payment systems are often presented as tools for inclusion, they can simultaneously reinforce structural inequalities when access to technology, digital literacy, and financial infrastructure is unevenly distributed. Populations lacking reliable internet connectivity, formal identification, financial education, or trust in institutions remain disproportionately excluded from the benefits of digital finance. Consequently, the digital transformation of payment systems, if left unregulated or inadequately supported, may exacerbate socioeconomic disparities rather than reduce them. This research underscores that financial inclusion is not an automatic outcome of technological innovation. Instead, it requires deliberate policy intervention, institutional coordination, and long-term investment in human and social capital. The effectiveness of digital payment systems must therefore be evaluated not solely in terms of efficiency or market penetration, but also in relation to their capacity to promote equitable participation in the financial system.

Inclusion must be treated as a central objective, not as a secondary or residual effect of economic modernization. To mitigate the risks identified in this study, governments and financial institutions should adopt comprehensive and evidence-based strategies. These include integrating financial and digital literacy into national education frameworks, strengthening regulatory oversight to ensure consumer protection, and expanding infrastructure to underserved and rural areas. Moreover, financial technologies should be designed with accessibility and usability in mind, particularly for older adults, low-income populations, and individuals with limited formal education. At the international level, greater cooperation is needed to establish standards and share best practices related to digital finance and inclusion. As financial systems become increasingly interconnected, exclusion in one region can have broader economic and social consequences. Thus, inclusive financial development must be pursued as a global priority aligned with sustainable development goals and human rights principles. To summarise, the future of financial payment systems is unequivocally digital and rapidly evolving. However, their long-term success should be measured not only by technological sophistication or transaction volume, but by their contribution to inclusive, stable, and just economic systems. Only through intentional policy design, ethical innovation, and sustained educational efforts can digital payment systems fulfil their potential as instruments of empowerment rather than mechanisms of division.

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