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The Influence of Fintech Adoption on Financial Inclusion and Economic Growth in Emerging Economies

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Abstract

Fintech adoption is transforming financial systems in emerging economies by expanding access to digital payments, mobile banking, digital lending, and other financial services. This review examines the influence of fintech adoption on financial inclusion and economic growth, focusing on its benefits, challenges, and policy implications. The reviewed literature indicates that fintech can improve access to banking, savings, credit, and remittances, particularly among underserved populations and small businesses. It can also support entrepreneurship, reduce transaction costs, improve financial efficiency, and contribute to economic development. However, cybersecurity threats, data privacy concerns, irresponsible digital lending, and unequal digital access may limit these benefits. Effective regulation, consumer protection, digital infrastructure, and financial education are therefore essential for responsible fintech development. The review highlights the importance of inclusive digital financial systems in promoting equitable financial access and sustainable economic growth across emerging economies.

Keywords: *Fintech Adoption; Financial Inclusion; Economic Growth; Digital Financial Services; Emerging Economies.*

INTRODUCTION

Financial technology (fintech) has become an important part of the financial sector, transforming the way individuals and businesses access, manage, and transfer money. It refers to the application of digital technologies to financial services, including mobile banking, digital payments, mobile wallets, online lending platforms, and other technology-based financial solutions [1]. In emerging economies, fintech has gained importance because traditional banking systems often face challenges in reaching rural communities, low-income households, and small businesses. Digital financial services can reduce transaction costs, improve the speed of financial transactions, and make financial services more accessible to people who have limited access to conventional banking facilities [2]. The growing use of smartphones, internet connectivity, digital identification systems, and online payment platforms has further supported fintech adoption across developing markets. These developments have created new opportunities to expand access to savings, credit, payments, and other essential financial services. However, the extent of these benefits depends on the availability of digital infrastructure, affordability, financial literacy, and public trust in digital platforms [3].

Financial inclusion is essential for reducing financial inequalities, supporting entrepreneurship, and strengthening economic development. It enables individuals and businesses to access and use appropriate financial services for saving, borrowing, making payments, and managing financial risks. In emerging economies, wider access to these services can help small enterprises obtain finance, improve household financial management, and encourage participation in formal economic activities [4]. Research published by the International Monetary Fund indicates that digital financial inclusion is positively associated with GDP per capita growth in developing countries, although the effects vary according to national conditions and the types of financial services adopted. Therefore, understanding the relationship between fintech adoption, financial inclusion, and economic growth is important for evaluating the contribution of digital financial innovation to sustainable development [5].

This review examines existing research on the influence of fintech adoption on financial access and usage, its potential contribution to economic growth, and the major barriers that may limit its benefits in emerging economies. It also considers the importance of digital infrastructure, financial literacy, and appropriate regulatory measures in promoting inclusive and sustainable fintech development.

FINTECH ADOPTION AND FINANCIAL INCLUSION IN EMERGING ECONOMIES

Fintech adoption has contributed to financial inclusion in emerging economies by expanding access to banking, savings, credit, insurance, and remittance services through digital platforms. Mobile banking, digital wallets, and online payment systems enable individuals to conduct transactions quickly and conveniently, often at lower costs than traditional financial channels [6]. These services are particularly valuable for rural populations, low-income households, women, and micro, small, and medium-sized enterprises (MSMEs), which may face geographical, financial, or documentation barriers when accessing conventional banking. Digital transaction records can also help small businesses demonstrate their financial activity and improve their opportunities to obtain credit [7]. The growing adoption of mobile money and digital payment systems in emerging economies, particularly in Africa and Asia, demonstrates the potential of fintech to reach underserved populations and encourage participation in formal financial systems. However, the benefits of fintech depend on affordability, internet connectivity, digital literacy, consumer trust, and the availability of suitable financial products. Financial inclusion involves more than simply opening an account or making digital services available; it also requires individuals to use these services regularly and effectively [8]. Some people may own bank accounts or digital wallets but rarely use them for savings, payments, or borrowing because of limited awareness, financial constraints, or concerns about digital security. Therefore, assessing fintech's contribution requires examining both access to financial services and their actual usage. This distinction is essential for understanding whether fintech adoption promotes meaningful, equitable, and sustained financial inclusion in emerging economies [9].

IMPACT OF FINTECH ADOPTION ON ECONOMIC GROWTH AND DEVELOPMENT

Fintech adoption can support economic growth and development by reducing transaction costs, improving financial efficiency, and facilitating the movement of money between individuals and businesses. Digital payments enable faster transactions, reduce dependence on cash, and improve the recording of business activities, potentially encouraging formal economic participation [10]. Mobile banking and digital lending platforms can also help entrepreneurs and micro, small, and medium-sized enterprises (MSMEs) access financial resources, manage cash flows, expand operations, and invest in productive activities. These improvements may increase business efficiency, support employment generation, and strengthen economic productivity [11]. Digital financial inclusion is also associated with higher GDP per capita growth, as improved access to financial services can encourage investment, consumption, and entrepreneurial activity. However, the economic effects of fintech vary according to the type of service and the conditions in which it operates. Digital payments can improve transaction efficiency and financial transparency, while digital lending may help address credit shortages for underserved businesses [12]. Conversely, excessive borrowing, high lending costs, cybersecurity risks, and inadequate consumer protection can reduce these benefits. Similarly, access to digital finance alone does not guarantee productive investment or sustained economic development. The overall contribution of fintech therefore depends on effective regulation, reliable digital infrastructure, financial literacy, and responsible use of financial services. When supported by appropriate policies, fintech adoption can strengthen financial intermediation, encourage business development, and contribute to more inclusive and sustainable economic growth in emerging economies [13].

Table 1: Impact of Fintech Adoption on Economic Growth and Development

Area of impact	Contribution to economic growth and development
Reduction in transaction costs	Digital financial services reduce the time and cost of transferring money, making financial transactions more efficient.
Entrepreneurship and MSME development	Digital lending and alternative financing can improve access to capital, helping small businesses invest, expand operations, and generate employment.
Digital payments and business formalization	Electronic transactions create digital records, support transparent business activities, and may encourage informal enterprises to enter the formal economy.
Productivity and operational efficiency	Faster payments and convenient financial management can improve cash flow, reduce administrative work, and support business productivity.
Financial inclusion and GDP	Wider access to digital financial services can support savings, investment, and economic

growth	participation, contributing to GDP per capita growth.
Risks and limitations	Excessive digital borrowing, cybersecurity threats, unequal digital access, and weak consumer protection can limit the economic benefits of fintech.

RISKS AND POLICY MEASURES FOR INCLUSIVE FINTECH-LED GROWTH

Despite its potential to improve financial inclusion and economic development, fintech adoption presents several risks in emerging economies. Cybersecurity threats, digital fraud, identity theft, and misuse of personal financial data can cause financial losses and reduce public trust in digital services [14]. Digital lending platforms may also encourage excessive borrowing through unclear loan conditions, high charges, or inadequate assessment of repayment capacity. Furthermore, the benefits of fintech are not distributed equally. Rural populations, low-income households, and women may face barriers due to limited internet connectivity, smartphone access, digital literacy, or financial knowledge. These challenges can widen existing financial inequalities if digital services are not designed to meet the needs of underserved groups [15].

Addressing these risks requires effective regulatory frameworks, stronger consumer protection, and investment in reliable digital infrastructure. Financial authorities should establish clear rules for fintech providers, protect customer data, strengthen cybersecurity measures, and ensure transparent disclosure of fees and lending conditions. Accessible complaint-resolution mechanisms and safeguards against irresponsible lending are also necessary to protect consumers [16]. In addition, expanding affordable internet access, providing financial education, and improving digital skills can help underserved communities use fintech services safely and effectively. Collaboration among governments, financial institutions, technology providers, and regulators is essential to encourage responsible innovation. These measures can help ensure that fintech adoption supports broad-based financial inclusion, protects vulnerable users, and contributes to sustainable economic growth [17].

Table 2: Risks and Policy Measures for Inclusive Fintech-Led Growth

Major risk or challenge	Recommended policy measure	Expected contribution
Cybersecurity threats and digital fraud	Strengthen cybersecurity standards, fraud monitoring, and secure authentication.	Protects users' funds and builds trust in digital finance.
Data privacy and misuse	Enforce data-protection rules and informed-consent requirements.	Safeguards personal information and encourages responsible data use.
Irresponsible digital lending	Require transparent loan terms, fair practices, and appropriate credit assessments.	Reduces over-indebtedness and promotes responsible borrowing.
Rural–urban and gender inequalities	Expand affordable internet, digital infrastructure, and accessible financial services.	Improves access among underserved populations.
Low financial and digital literacy	Provide financial education, digital-skills training, and fraud-awareness programmes.	Encourages safe and effective use of fintech services.
Weak regulation and consumer protection	Establish clear licensing, supervision, and complaint-resolution mechanisms.	Supports accountability, financial stability, and sustainable fintech development.

LITERATURE REVIEW

(Malik & Shahid, 2026) [18] investigates gaps connecting economic policy uncertainty to these dynamics and synthesises research on interactions among FinTech, financial inclusion, and sustainable development. Research links peer-to-peer credit, digital payments, and mobile banking to better access for MSMEs and smallholder farmers; adoption and welfare impacts are mostly determined by trust and transparency. FinTech and green finance may complement each other, yet distributed ledger applications present resource and environmental issues. However, integrated empirical work that concurrently models EPU, FinTech, inclusiveness, and sustainability is still uncommon. Economic policy uncertainty, as assessed by news-based indexes, might hinder FinTech scaling and lower business investment. Consumer protection, data privacy, digital identification, and the usage of regulatory sandboxes are all aspects of governance. Investments in digital infrastructure, inclusive product design, improved data governance, and coordinated regulation are all required by policy implications. Unified conceptual models, enhanced sustainability indicators, longitudinal and geographically diverse quantitative investigations, particularly in African

contexts, and empirical assessments of interactions with policy uncertainty are among the top research priorities.

(Uddin & Barai, 2026) [19] In order to remove geographical boundaries and lower transaction costs for users, especially those who were previously excluded, financial technology (Fintech) enables access to financial services without the need for physical branch infrastructure. Fintech's impact on bank-level financial inclusion and performance is still up for debate, especially when it comes to economies at different stages of development. However, evidence from global financial databases indicates that fintech has been instrumental in bringing unbanked adults into the formal financial system. The influence of fintech adoption on financial inclusion and bank performance in 14 Asian nations, broken down into four subgroups, is better understood according to this study. Using Driscoll–Kraay fixed-effects estimation and bank-level panel data from Bloomberg for 173 banks between 2016 and 2024, the study concludes that fintech adoption significantly and generally consistently advances financial inclusion across Asian banking systems, irrespective of a country's level of development. Additionally, they demonstrate that the effects of fintech on profitability are not universal nor immediate, and that in economies with higher levels of technical sophistication, these effects may initially be negative before any longer-term performance benefits become apparent.

(Pervaiz et al., 2025) [20] investigate how financial technology affects economic growth in G20 markets. This study employed secondary data and had a quantitative design. In this study, financial technology is the dependent variable, economic growth is the independent variable, and inflation is the control variable. The World Bank, IMF, and other sources provided secondary data for the study. The results of this study are further supported by the substantial positive effects of financial technology on the economic development of G20 markets. Only G20 markets were included in this analysis. The G20 market is the sole potential-gathering location included in this analysis. The study's ramifications are extremely pertinent to manufacturers, bankers, SMEs, researchers, investors, and the banking industry as a whole, particularly to those who wish to switch to an online system. The study's recommendations for the future include checking the relevance of FinTech and adding new factors from other markets, including developing economies.

(Mandić et al., 2025) [21] examine the advantages and disadvantages of FinTech and pinpoint specific risks that affect users, particularly vulnerable groups, we implemented the PRISMA methodology. Using the Web of Science database, a thorough literature analysis was carried out to examine current studies on FinTech and its connection to financial inclusion, with an emphasis on related dangers. Contrary to prior bibliometric studies that have broadly addressed FinTech innovations, this review identifies and categorises critical risks that impact financial inclusion, with a particular emphasis on "regulatory barriers, digital literacy, and socio-cultural challenges|. The results show that research on FinTech and financial inclusion has significantly increased. This draws attention to issues like financial literacy, regulation, and data privacy. This study intends to educate stakeholders and policymakers about practical ways to address these issues and advance secure, inclusive financial ecosystems by mapping FinTech-related vulnerabilities.

(Mbarek, 2025) [22] From 2017 to 2023, this study examines how institutional quality affects the link between financial inclusion and fintech uptake in 32 emerging economies. We use panel data approaches with instrumental variables to solve endogeneity issues using a unique dataset that combines Global Findex data, IMF financial access measures, and World Bank governance measurements. Our results show that institutional quality considerably influences the effect that fintech adoption has on financial inclusion, which is noteworthy. Similar levels of fintech penetration result in 2.4 times more financial inclusion in nations with stronger legal systems, political stability, and regulatory frameworks. We pinpoint three crucial institutional mechanisms—contract enforcement, regulatory flexibility, and corruption control—that support the influence of fintech. These findings underline the need for parallel institutional reforms and have significant ramifications for governments looking to use financial technology to increase access to financial services.

(Tarek & Daaboul, 2025) [23] investigate how FinTech growth affects financial inclusion and entrepreneurial finance, specifically the availability of loan and equity financing for small and medium-sized businesses (SMEs) in both established and emerging economies. The paper emphasises how improved financial accessibility fosters economic development by analysing these dynamics and highlighting the connection between FinTech development and the expansion of SMEs. The results demonstrate the revolutionary role that FinTech development plays in boosting entrepreneurial financing and financial inclusion. In order to promote FinTech-driven inclusion and entrepreneurship, the report emphasises the significance of investing in FinTech infrastructure and financial literacy. This research aims to contribute to the growing body of literature on FinTech's changing position in contemporary financial ecosystems by placing it in a global perspective and offering deeper insights into its implications for innovation and economic growth.

(Guermazi, 2025) [24] examine how FinTech affects sustainable growth. We start by examining the development of FinTech solutions and the major variables influencing their impact on sustainability. We emphasise how FinTech promotes ESG (environmental, social, and economic sustainability) in the financial industry. We also offer real-world examples of FinTech companies promoting ESG issues, improving renewable energy, and lowering energy prices. Additionally, we examine empirical research that demonstrates the substantial and beneficial influence of FinTech on a number of areas, including financial inclusion, green finance, women's empowerment, the adoption of renewable energy, ESG concerns, and environmental preservation. All parties concerned will be significantly impacted by these revelations. Stakeholders may actively help create a more robust, inclusive, and sustainable global economy by leveraging adherence to FinTech solutions and encouraging FinTech innovations, efficiency, and sustainability practices.

(Aleemi et al., 2023) [25] Examine how Fintech entrance affects banking competition and financial inclusion (FI) by incorporating conditionalities and non-linearity to identify possible avenues via which Fintech might influence market structure and inclusion. Results point to periods of low and medium inclusion between 2005 and 2018. However, FI has significantly increased after 2018. In a similar vein, the majority of banks had bigger Lerner margins, indicating ongoing monopolistic tendencies. Fintech's range shows extremely slow growth from 2005 to 2015. But since 2016, there has been a sharp rise in line with the central bank's regulatory effort. Additionally, the market dominance of banks is inversely correlated with fintech, suggesting a weakening influence. The inclusion channel, the growth channel, and the regulatory environment are the three transmission mechanisms we suggest for Fintech impacts. Furthermore, we observe a substantial and advantageous influence of Fintech on FI; however, the relationship is fundamentally non-linear.

DISCUSSION

The reviewed literature indicates that fintech adoption can strengthen the relationship between financial inclusion and economic growth in emerging economies. Digital financial services reduce geographical and operational barriers, enabling underserved individuals and small businesses to access payments, savings, credit, and remittance facilities. Improved financial access can support entrepreneurship, business expansion, productivity, and participation in formal economic activities. However, the benefits of fintech are influenced by institutional quality, regulatory effectiveness, digital infrastructure, and financial literacy. Evidence also suggests that increased fintech adoption does not automatically guarantee improved financial inclusion or economic performance, as access must be accompanied by regular and effective usage. Furthermore, cybersecurity threats, data privacy concerns, excessive borrowing, and unequal access may undermine consumer confidence and widen existing inequalities. These findings highlight the need for coordinated policy measures that combine technological innovation with effective supervision and consumer protection. Governments and financial institutions should prioritize affordable digital infrastructure, financial education, transparent lending practices, and accessible grievance mechanisms. Such measures can help ensure that fintech contributes to inclusive financial systems and sustainable economic development.

CONCLUSION

Fintech adoption has emerged as an important mechanism for improving financial inclusion and supporting economic growth in emerging economies. Digital payments, mobile banking, digital wallets, and online lending platforms can expand access to financial services, reduce transaction costs, and create opportunities for entrepreneurship and business development. These benefits can contribute to greater economic participation, improved productivity, and sustainable development. However, the effectiveness of fintech depends on more than technological availability. Digital inequalities, inadequate financial literacy, cybersecurity threats, data privacy concerns, and irresponsible lending practices may restrict its positive effects. Therefore, policymakers must strengthen regulatory frameworks, improve digital infrastructure, protect consumers, and promote responsible financial innovation. Financial institutions and technology providers should also ensure that digital services remain affordable, accessible, and suitable for underserved populations. Overall, fintech can support more inclusive and resilient economies when its adoption is accompanied by effective governance, equitable access, and policies that connect financial innovation with long-term economic development.

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