

FINTECH AS A STRATEGIC DRIVER OF DIGITAL TRANSFORMATION: BUSINESS MODELS, MANAGERIAL IMPLICATIONS, AND FINANCIAL INCLUSION IN DEVELOPING ECONOMIES

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Abstract

FinTech has not only emerged as a means for financial inclusion but also as a strategic enabler of digital transformation and competitiveness for financial institutions and companies operating in developing countries. This paper examines the effects of FinTech adoption on the efficiency of transactions, optimization of costs, accessibility of credits, and value addition, particularly examining managerial and business implications. This paper uses primary data collected from 100 respondents in the Palghar district of the Mumbai region, using Paired t-tests and ANOVA to examine the effect of FinTech adoption on the number of transactions and the effect of digital literacy on FinTech adoption. The findings indicate that FinTech adoption has a significant effect on enhancing the efficiency of transactions, reducing operational costs, and enhancing the scalability of financial services, particularly among digitally literate individuals. Cybersecurity risks and infrastructure constraints are still challenges for strategic adoption. Through the application of global best practices such as the India Jan Dhan-UPI model, the Kenya M-Pesa model, and the Brazil Caixa Tem model, this paper illustrates how FinTech-enabled business models support performance enhancement and inclusive growth. This paper provides a contribution to management literature by conceptualizing FinTech as a strategic tool for operational efficiency.

Keywords: FinTech Strategy, Digital Business Models, Financial Management, Financial Inclusion, Digital Literacy, Developing Economies.

1.0 Introduction

Background on Financial Inclusion and Digital Platforms:

The rapid transformation of technology and business models in today's digital economy has become a major force impacting FinTech (financial technology), which was originally seen as a means to promote social inclusion, but is now an essential part of managing a business. In the financial services industry, the ability of businesses to be competitively positioned has changed significantly since the advent of FinTech; the fact that banks and other financial institutions must implement FinTech solutions to remain competitive to allow them to continue providing quality service to their customers and, thereby, continue to compete effectively as more non-banking digital businesses enter their market.

Organizations that have developed FinTech-enabled platforms are capable of efficiently growing their businesses through the ability to scale their operations, leverage data to make decisions, and automate processes; this creates an overall increase in the organization's performance and its competitiveness in the global economy. For companies operating in developing economies, the implementation of FinTech-enabled solutions has provided them with improved performance and efficiencies in accessing the financial services sector in two primary ways: through improved access to capital and by increasing the overall financial sector's institutional efficiency/profitability; through digital platforms (mobile payments, e-wallets, and other forms of alternative lending), businesses can eliminate the need for expensive physical infrastructure to serve previously untapped markets at lower transactional costs than continuing to operate in a "brick and mortar" fashion would have resulted in achieving.

This research explores how the adoption of FinTech relates to digital transformation and strategic management, and investigates how technology-driven financial services affect firm efficiency, transactional behaviour, and management decision-making at the firm level of operation in the Palghar District of Mumbai.

1.1 Literature Review

Financial inclusion guarantees access to affordable financial services since unbanked and underbanked people can access affordable financial services, and it is critical in alleviating poverty and enhancing economic stability (Kumar and Sinha, 2021). The emergence of online services, such as mobile banking and fintech apps, has made finances much more accessible, particularly in rural and semi-urban regions (Allen et al., 2022).

The current literature on managerial topics has now uniformly stressed the need for digital transformation as a key enabler of organizational competitiveness and sustainability. The use of FinTech is a key area of business model transformation, where financial institutions can now transform the way they can create value for their customers, generate revenues, and interact with their customers (Arner et al., 2021). It has been found that digital financial platforms enhance operational efficiency by reducing transaction costs, increasing processing speed, and enabling real-time analysis of managerial control (Fu & Mishra, 2022). From the innovation management point of view, FinTech enables experimentation with digital ecosystems, partnerships, and platforms, which help companies expand their business quickly in low-to-moderate income and rural areas (Chen et al., 2023). However, the current literature on technology adoption has identified some challenges that impede the ability of firms to harness their strategic value through the development of digital capabilities (Kar et al., 2023). Hence, the need for public-private partnerships and regulatory frameworks to ensure that FinTech innovations are aligned with sustainable business outcomes and contribute to inclusive economic growth (Iyer & Singh, 2024). Fintech has become one of the major forces, providing microfinance, peer-to-peer lending, and blockchain-based opportunities such that underserved populations can now get credit, insurance, and investments (Chen et al., 2023). Nevertheless, issues like digital literacy, cybersecurity threats, and infrastructural constraints do not allow widespread adoption (Kar et al., 2023).

It is crucial that governments and the private sector support the financial inclusion of people using digital platforms. The collaboration of the state and the business world contributes to the creation of a solution that can be scaled, the increase of financial literacy, and the creation of trust towards digital financial systems (Iyer and Singh, 2024). It will be necessary to presuppose the maximization of the impact of digital financial inclusion by addressing the obstacles.

Research Gap

While existing studies largely emphasize FinTech's role in financial inclusion and social development, limited empirical research examines FinTech as a strategic digital transformation tool influencing operational efficiency, transaction behavior, and managerial decision-making at the firm and user level. Moreover, there is insufficient region-specific evidence based on primary data from semi-urban and emerging markets, and the moderating role of digital literacy as a managerial capability remains underexplored. This study addresses these gaps by linking FinTech adoption to performance-oriented outcomes through a strategic management perspective.

1.2 Significance of the Study

The current research could potentially expand what we know about why financial inclusion through a digital platform is important and how it benefits the residents of Palghar. The research should give financial institutions, policymakers, and technology providers insight into how those in the digital financial services space are using these services as well as the challenges they face using them and where they might stop using them. As such, this research will serve as a tool for financial institutions, policymakers, and technology providers to help them create better strategies to expand financial inclusion through digital services. This research can help create financially inclusive economies that serve the underserved in Palghar and potentially be used by other underserved economies.

1.3 Objective of the Study

1. To investigate the effect of FinTech services on the rate of financial transactions.
2. To establish the most significant obstacles to the introduction of digital financial services.
3. Making comparisons with international best practices in financial inclusion using a case study.
4. To Research International Best Practices and Government interventions that affect the financial inclusion in developing economies.

1.4 Hypothesis

- **H₀1:** The adoption of FinTech services does not significantly increase the frequency of financial transactions.
- H₁1:** The adoption of FinTech services significantly increases the frequency of financial transactions.
- **H₀2:** Digital literacy does not significantly impact the ease of using FinTech services.
- H₁2:** Digital literacy significantly impacts the ease of using FinTech services.

1.5 Research Methodology

1.5.0 Research Design

The research design used in the study is descriptive and exploratory. This is because the study aims to describe the FinTech adoption process and explore the impact of FinTech adoption on the performance of the bank. A sample size of one hundred respondents was chosen for the study. This is because one hundred respondents will give enough power to the study while also giving an insight into the users' behavior and transactions in the developing market. The study uses paired t-tests and ANOVA to determine the impact of FinTech adoption on the performance of the bank and the role of digital literacy as a moderating factor in the use of technology.

1.5.1 Population:

The population consists of people living in the Palghar district of Mumbai region who either have access to or have used digital financial services.

1.5.2 Sample Size

The study aims to collect responses from one hundred participants.

1.5.3 Sampling Technique

The study adopts a non-probability sampling technique, which involves purposive sampling, and the individuals who are going to be sampled are selected based on their exposure to digital financial services. Additionally, the study adopts snowball sampling, which is used to widen the scope to such an extent that the initial respondents are asked to recommend others who have had a similar experience.

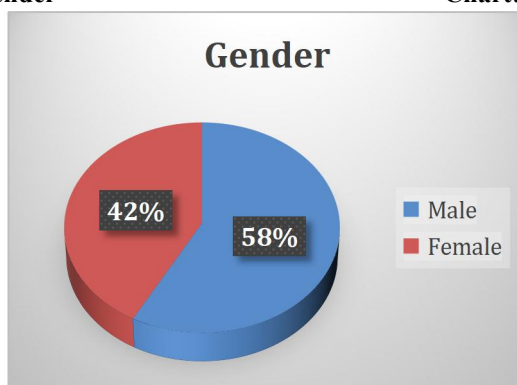
1.5.4 Data Collection Method

Well-structured questionnaires will be adopted to collect primary data for this study, and secondary data will be collected from research papers, research articles, research theses that have been authored by research scholars, newspapers, books, among others.

1.6 Data Analysis

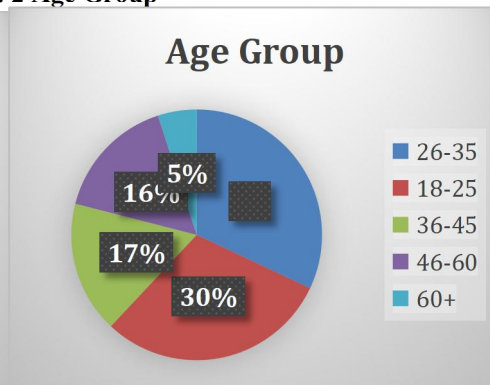
Primary data

Chart: 1 Gender



Source: Primary data

Chart: 2 Age Group



Source: Primary data

Chart: 3 Use FinTech Services

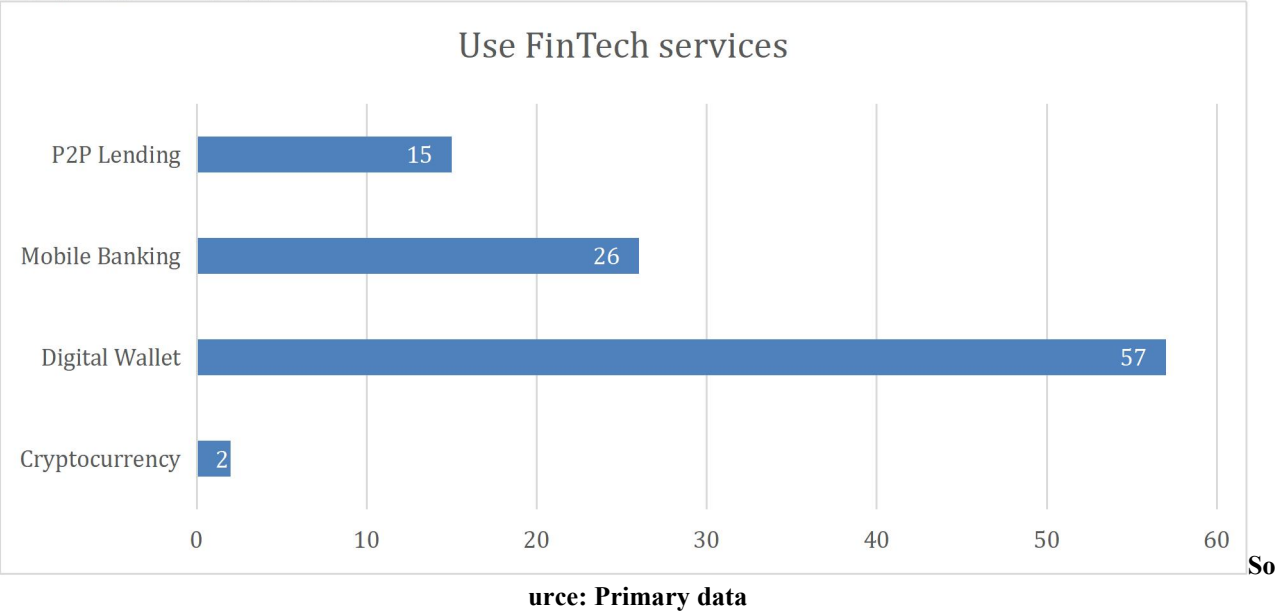


Chart: 4 Learn about Fintech Services

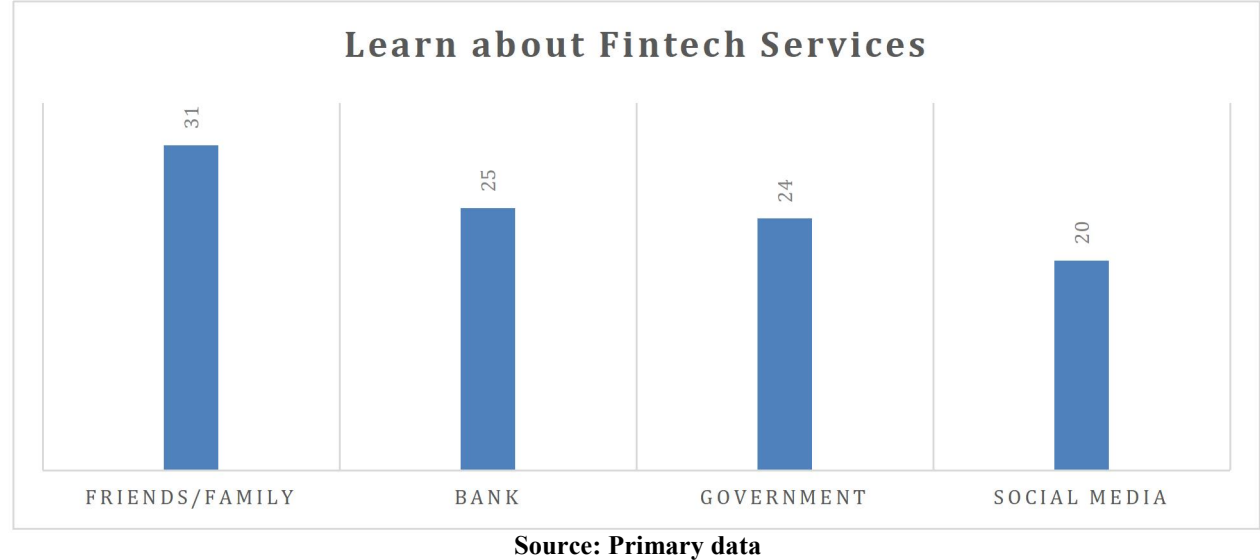


Chart: 5 Fintech Changed your Financial Transactions

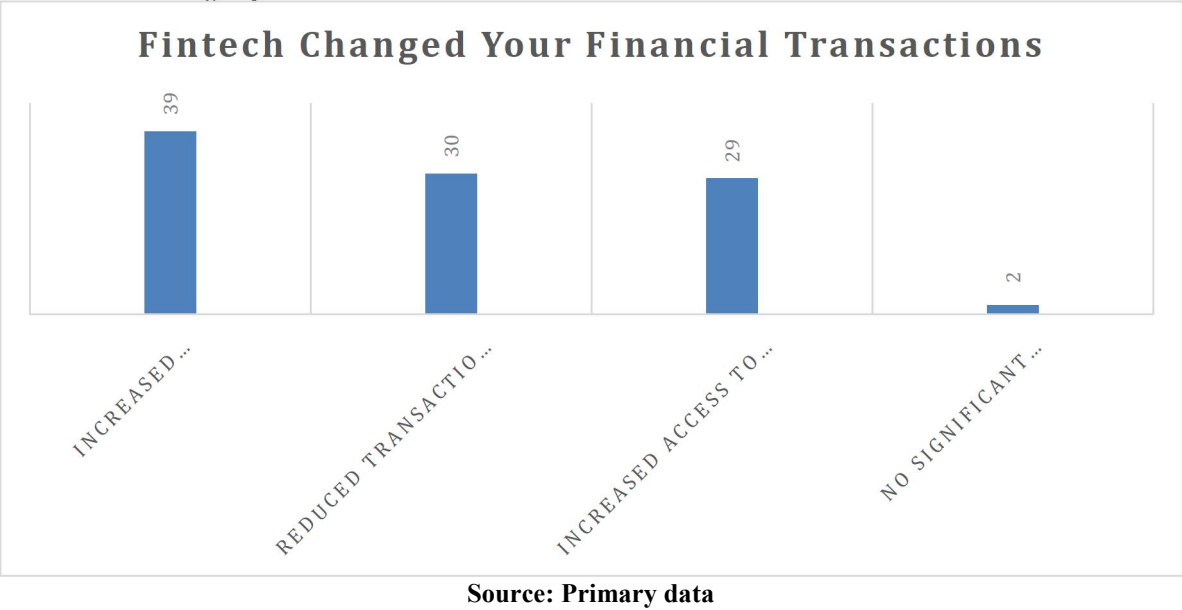
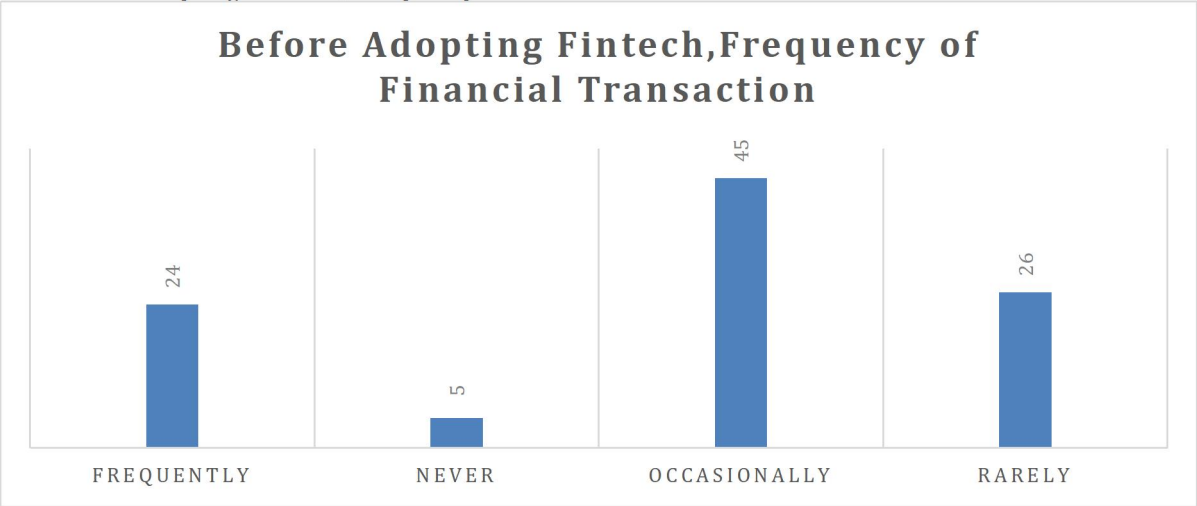
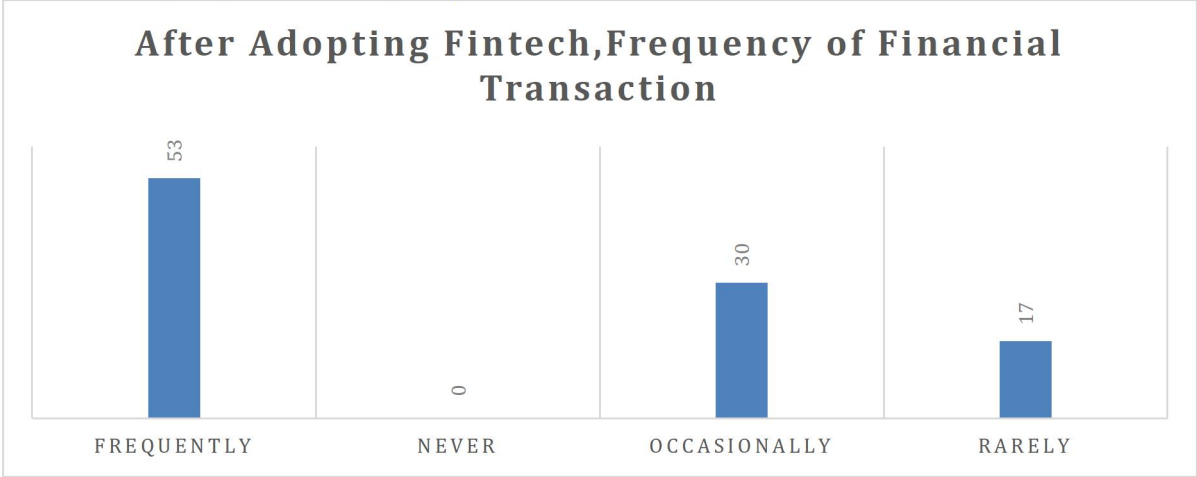


Chart:6 Before Adopting FinTech, Frequency of Financial Transaction



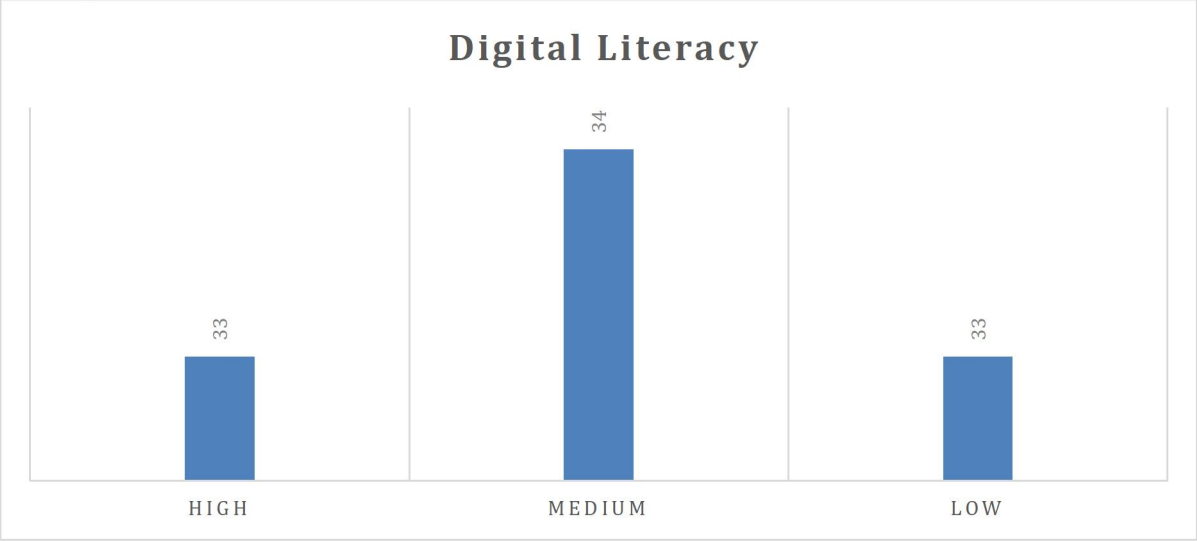
Source: Primary data

Chart:7 After Adopting FinTech, Frequency of Financial Transaction



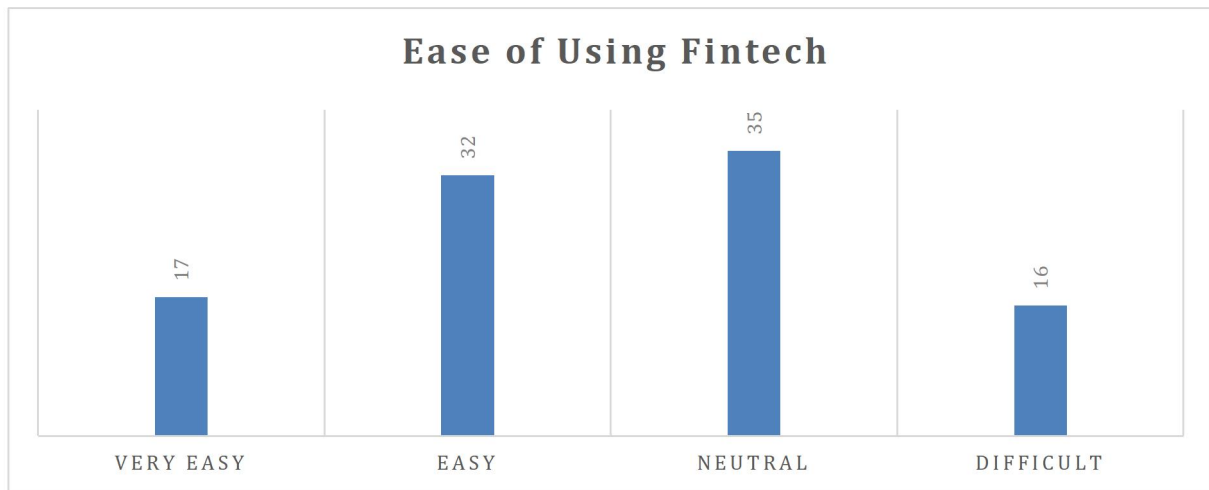
Source: Primary data

Chart:8 Digital Literacy



Source: Primary data

Chart:9 Ease of Using Fintech



Source: Primary data

1.6.0 Hypotheses Testing

H₀₁: The adoption of FinTech services does not significantly increase the frequency of financial transactions.

H₁₁: The adoption of FinTech services significantly increases the frequency of financial transactions.

Adoption of FinTech services on frequency of financial transactions.

Paired T test

parameter	Value
P-value	0.0005583
t	3.567
Sample size (n)	100
Average of differences (\bar{x}_d)	0.44
SD of differences (S_d)	1.2335
Normality p-value	0.00002043
A priori power	0.9986
Post hoc power	0.942
Skewness	-0.1063

Since the p-value < α , H₀ is rejected. So The adoption of FinTech services significantly increases the frequency of financial transactions

H₀₂: Digital literacy does not significantly impact the ease of using FinTech services.

H₁₂: Digital literacy significantly impacts the ease of using FinTech services.

Digital literacy impacts the ease of using FinTech services.

ANOVA test

Groups	Count	Sum	Average	Variance
Digital Literacy	100	200	2	0.666667
Ease of Using FinTech	100	352.9189	3.529189	0.801985

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	116.921	1	116.921	159.2222	3.59E-27	3.888853
Within Groups	145.3965	198	0.734326			
Total	262.3175	199				

The p-value is < .00001. Since the **p-value < 0.05**, you **reject the null hypothesis** This means Digital Literacy significantly impacts the adoption of FinTech services.

1.6.1 Secondary Data Analysis

Global Best Practices and Government Initiatives Influencing Financial Inclusion in Developing Economies

In the recent past, some developing countries have proved that financial inclusion is not only a dream but also a reality if the right combination of policy and innovation is achieved. In whatever geography one may find himself or herself, the truth is that when governments work together with digital platforms, they are able to reach people who were previously not included in the financial system. This makes transactions cheaper, enhances delivery, and most importantly, gives people control over their financial lives.

India: Digital Inclusion as a National Mission

The Digital India program was launched in 2015 and has been instrumental in helping promote financial inclusion in India. Through the use of digital solutions, the Digital India initiative has enabled and increased the capacity of both citizens and their governments; thus, all citizens are now able to access government services due to the launch of various initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), which sought to eliminate barriers to banking access by eliminating the minimum amount required in order to open a bank account.

With PMJDY creating the opportunity for millions of people—many of whom may have never had access to a bank account before—to gain access to the formal financial system by eliminating the need for a minimum balance in order to open bank accounts, by the end of 2023 there were over 500 million PMJDY accounts opened, confirming how large and broad the PMJDY program is and demonstrating the amount of trust in the financial system overall. In addition, the opening of these PMJDY accounts will also allow access for all PMJDY recipients of DBT (direct benefit transfer) payments since payments will now be delivered easily and quickly by directly transferring payments instead of through third parties, avoiding lengthy delivery times and the potential for corruption.

Kenya: Financial Access through the Mobile Phone

M-Pesa has led the way towards achieving digital financial inclusion in Kenya. As such, it has become one of the first companies in the world to provide a way for individuals to use their phones to transact or deposit money without having to visit a bank branch.

M-Pesa is successful in providing low-cost, simple access to financial services for the many rural residents and low-income individuals living in Kenya. Consequently, current values indicate that 96% of households in Kenya use mobile-based financial services, according to GSMA.

M-Pesa has been able to grow to include micro-loans, savings, and insurance services as a result of the Kenya National Fintech Strategy (2021-2025), which identifies M-Pesa as a primary focus point for digital financial services.

Brazil: Digital Finance in a Time of Crisis

The way that Brazil's government has dealt with COVID-19 is a good example of how digital financial infrastructures (DFI) can create stability during difficult periods. Brazil's government worked with the state-owned bank Caixa Econômica Federal to create the mobile app Caixa Tem. This app made it quick and easy for many people to open an account, especially people who have never used a formal financial system before. The app allowed users to receive government aid, pay bills and withdrawal cash from their account, so users had access to needed funds when there was much uncertainty during COVID-19.

1.7 Findings

This research strongly confirms that, when organisations adopt FinTechs, they experience better performance and efficiency, which shows that FinTechs are important strategic instruments for banks and other financial services providers. The results of the paired t-tests show that there is a statistically significant increase in the number of transactions after the organisations have adopted FinTechs ($p < 0.001$), which also supports the assertion that organisations have improved transaction speeds and levels of customer engagement. This is consistent with work done by Demirgüç-Kunt and colleagues (2022), who report that over 40% of adults living in developing nations made their first digital payment during the COVID-19 pandemic; thus demonstrating that digital finance is an effective driver of increased transaction activity and market penetration.

From a banking management point of view, an increase in the number of transactions directly contributes to increased fee-based income, reduced transaction costs, and optimized asset utilization. Digital platforms are major cost-saving factors compared to branch banking; previous studies have estimated that digital transactions incur 80-90% lower costs compared to traditional bank transactions (Sahay et al., 2020). The result of this study that 30% of the respondents reported a decrease in transaction costs thus reiterates the efficiency aspect of FinTech adoption and its effectiveness in optimizing cost-income ratios for banks.

Research findings confirm how scalable Fintech can be via higher levels of Digital Literacy. There is a statistically significant relationship between users of fintech with respect to Digital Literacy and the ease of using Fintech (p -value of 0.00001), indicating that increasing digital literacy will result in rapid growth rates of Fintech adoption at little to no additional cost to the user. In 2023, India's Unified Payments Interface (UPI) processed over 11 billion transactions, demonstrating significant potential for digital platforms to grow exponentially without increasing overall costs through equity outside of digitisation. In order to achieve such rapid growth, Fintech should design products/services around the needs of customers and make their on-boarding processes simple and straightforward for new users. In addition, Fintech

companies need to partner with like-minded organisations to facilitate digital literacy through educational outreach programs geared towards teaching consumers about using the Internet to access financial services.

Based on the findings from the research, there is a strong connection between government regulations and the support of consumers who access and use FinTech services. 42% of surveyed consumers found the use of FinTech services to have a favourable impact due to government-initiated programs (e.g., Pradhan Mantri Jan Dhan Yojana) where 500 million bank accounts were opened (Ministry of Finance, 2023). Additionally, government-funded programs create an environment for platforms to become commercially viable by providing continuous access (continual transactions), liquidity (constant inflow) from transaction fees, and increased consumer confidence/trust that the system will provide basic levels of security, privacy, and so on. Additionally, 48% of survey respondents indicated that they were concerned about security and privacy when using these services, further highlighting the need for increased data protection and consumer protections, as discussed by Kar et al. (2023).

In general, the results indicate that FinTech-enabled models can create the greatest strategic value if performance efficiency (cost savings and speed) is combined with scalability drivers (digital literacy, regulatory frameworks, and cybersecurity). FinTech is a profitability and competitiveness booster for banks, a tool for fast growth for FinTech companies, and a powerful instrument for building robust and efficient financial systems for governments.

1.8 Conclusion

According to this study, the use of financial technology (FinTech) can serve as a strategic enabler of digital transformation rather than a way to achieve financial inclusion. The results of empirical analysis show that FinTech has a significant, positive effect on the efficiency of transactions and reduces the total cost of operations through increased scalability to digitally competent customers within the financial services sector. However, the underdeveloped nature of digital competencies, cybersecurity risk, and infrastructure capacity constraints impede the ability to realise the strategic benefits of FinTech. The study demonstrates that FinTech-based business model innovations have the potential to provide sustainable long-term value to financial institutions while enabling inclusive growth in developing countries by combining local and global data.

1.9 Recommendations

Financial service providers must develop digital capability-building initiatives alongside their FinTech adoption process as a means to achieve greater user and operational benefit. Once user trust is established through comprehensive cybersecurity and data protection systems, financial services can be more widely adopted. By creating a digital infrastructure that meets scale and encourages innovative regulation, policymakers can create conditions for developing scalable FinTech ecosystems. Further, public/private partnerships should be strengthened to align FinTech innovations with economic development objectives and to facilitate access for all sectors of society.

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