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Determinants of Financial-Technology Adoption: The Roles of Social Influence and Financial Inclusion in the Banking Sector

Zahid Iqbal[a]
Muhammad Hayat[b]

Abstract
This inquiry evaluates how four antecedent variables, trust, perceived security, social influence, and financial inclusion, affect the adoption of financial-technology services in the banking sector. Researchers distributed a structured questionnaire to sixty participants, encompassing university students, corporate staff, bank personnel, and self-employed professionals. To examine bivariate associations, Pearson product–moment correlations were calculated; subsequently, a multiple linear regression model in the Statistical Package for the Social Sciences software estimated each predictor's contribution to adoption. The model explained that more than 60 percent of the variance in financial-technology usage, indicating solid explanatory power. Results show that social influence and financial inclusion each exert a significant, positive effect on usage, underscoring the role of peer endorsement and accessible financial infrastructure in accelerating technology uptake. By contrast, trust yields a negative coefficient, and perceived security exhibits a modest positive coefficient; however, neither relationship attains statistical significance within the sampled population. The evidence therefore suggests that communal persuasion and inclusive access are more salient motivators of financial-technology adoption than individual perceptions of platform trustworthiness or security, implying that banks should prioritise socially oriented engagement programmes and broadened inclusion initiatives when promoting digital financial services.

Keywords: *Financial-Technology Adoption, Social Influence, Financial Inclusion, Perceived Security*
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1. INTRODUCTION

The financial technology space is being credited with bringing about a fundamental alteration in how global finance functions by introducing technical innovations that transform the way people and organizations perceive and access financial services. Fintech revolution is characterized by far-reaching influence over access, efficiency, and security within the financial services industry (Arner et al., 2016; Ali & Sajid, 2020; Lee & Shin, 2022; Mbodi & Laye, 2025). Digital platforms for payments that have made the old methods more or less extinct are Alipay, PayPal, and Google Pay, whose advantages include quick and borderless transactions that promptly satisfy users from a widespread base (Gomber et al., 2018; Labeeque & Sanaullah, 2019; Ahmed & Alvi, 2024). Robo-advisors such as Betterment and Wealthfront democratize investment and wealth management by providing algorithm-driven and personalized advice to millions, thus cutting costs and enhancing efficiencies for the average investor (D'Acunto et al., 2019; Radas, 2023). Fintech expansion has also been one of the key forces in driving acceptance through the democratization of access to banking and credit for underprivileged groups, particularly in contexts of developing areas where traditional banking infrastructure is either weak or absent (Ozili, 2018; Das, 2022; Jamel & Zhang, 2024). User trust is the prime pillar of mass adoption of the fintech solution. Trust is therefore crucial for consumers to engage with digital financial platforms due to the perceived protection of their personal and financial data (Kibritcioglu, 2023; Singh & Sharma, 2023; Zenios, 2024; Ammar et al., 2025). When it comes the juvenile awareness concerning digital technology or a weak cyber infrastructure, trust concerns are sometimes overstated, probably acting as a hurdle to fintech adoption (Zavolokina et al., 2016; Senturk, 2023). Addressing these concerns has been the main use of blockchain technology, providing transaction security and accountability within digital finance, backed by a transparent and unalterable record of transactions (Cohen et al., 2023;

[a] School of Economic Sciences, Federal Urdu University of Arts, Sciences and Technology, Islamabad, Pakistan, scholarszahidiqbal.phd@gmail.com
[b] School of Economic Sciences, Federal Urdu University of Arts, Sciences and Technology, Islamabad, Pakistan

Khalid & Abdul, 2025). Such features, especially preventing any sort of alteration by unauthorized intervention and ensuring transparency, are being counted as core qualities of user confidence in such fintech systems.

Fintech with technology fosters a huge atmosphere of security against fraud and data breaches in favor of the users through end-to-end encryption of data, strong authentication methods, and clear privacy principles (Gomber et al., 2018; Singh & Sharma, 2023; Mehdi et al., 2025). By assuring security, they comply with various regulations while engendering an important trust climate that is necessary to be retained for customers and for the expansion of the market. The relationship among innovation, trust, and cybersecurity will continue to be at the heart of fintech sustainability and societal acceptance as the digital finance ecosystem evolves (Arner et al., 2016; Ozili, 2018; Siddique et al., 2025).

Perceived security is a very important aspect of users trusting that digital financial services can protect their personal and financial information. This understanding dominates fintech adoption as the presence of concerns about cyberspace threats, data theft, or malicious attack could stop the uptake of fintech in developing economies (Dinh & Nguyen, 2023; Khalid et al., 2025). Full-blown implementations of network protocols that have advanced security features, such as end-to-end encryption, strong adherence to compliance regulations, have failed to satiate security-related fears, which are often a source of concern among a majority of would-be users. Most of these concerns are compounded in developing countries as most have low levels of digital literacy, whereby prospective users do not have even a basic understanding of the protective mechanisms in-built in and into such digital platforms (Arner et al., 2016; Dinh & Nguyen, 2023; Ammar et al., 2025). One of the main factors that significantly determines fintech adoption is social influence. The distinct contributions of social networks through friends, family, and virtual communities have also been widely documented in relation to being a very powerful driver of digital service uptake (Chen et al., 2023; Iqbal et al., 2025). In emergent markets, using word-of-mouth recommendations together with influencer involvement on social media campaigns focused on particular issues results in an even stronger collective approach to financial decision-making and increases trust and adoption of the payments tool (Klapper et al., 2023; Ozili, 2018; Rafique et al, 2025). It also refers to the reality about how social structures are interrelated with digital behaviors because often positive testimonials or network effects help alleviate an individual out of his hold on hesitancy or unfamiliarity to face the fintech services.

Currently, fintech is growing in Pakistan at an unprecedented rate within the last few years, brought about by demographic shifts-such as a young, increasingly digital generation well as rapid advancement of the technological backbone (Khan & Khan, 2022; Sulehri & Ali, 2024). Increased internet subscriptions and the ubiquity of mobile devices make the digital terrain of Pakistan more and more ripe for innovative financial solutions to sprout (Pakistan Telecommunication Authority, 2022). Unfortunately, despite such positive alternatives, many challenges have not yet been marked. Issues related to user trust, digital financial literacy, and systemic infrastructure constraints are significant barriers to universal fintech adoption (State Bank of Pakistan, 2022). Persistent fears about data privacy, potential fraud, and the risk of unauthorized transactions discourage many individuals from fully engaging with digital finance platforms (Ozili, 2022).

Government initiatives, regulatory reforms, and the growing need for inclusive financial solutions have been pivotal in promoting the expansion of fintech services throughout Pakistan. Mobile payment providers such as Sadapay, Nayapay, JazzCash, and Easypaisa have played an instrumental role in facilitating transactions for millions of previously unbanked citizens, thereby advancing the cause of financial inclusion and digital transformation (Khan & Khan, 2022; State Bank of Pakistan, 2022). Additionally, the country's gradual adoption of blockchain and cryptocurrency platforms demonstrates the ongoing efforts to integrate cutting-edge technologies, even as regulatory and legal challenges continue to shape the future of digital finance (Awan & Qamar, 2022). Collectively, these developments highlight both the promise and complexity of the fintech landscape in Pakistan and the broader South Asian context.

Raast, the newly launched instant payment system by the State Bank of Pakistan, has emerged as a foundational pillar for the digital payments landscape in the country. Raast, an easy-to-use, low-cost channel for money transfers, has made money transfers for various purposes convenient for people, such as peer-to-peer payments, government disbursements, and business transactions, and works as an alternative banking system that is slower and more expensive. The system works by integrating bank accounts and digital wallets and allows for payments to be made with any debit card number or national identity card number, and it enhances the use of networks. It was also scrutinized for its ability to enhance the transparency and traceability of transactions. The formal registration and digital linkages used in Raast positively influenced and contributed to a more accountable and robust digital ecosystem that encourages greater participation. And, through social dynamics, Fintech adoption is facilitated in Pakistan. These social groups-families, friends, and trusted members-held high sway over the acceptance of consumers (Junaid & Usman, 2023). Therefore, it was revealed from the study that conversational marketing, user recommendations, and proof of social sustainability enhance the credibility of the digital money transfer platform and, in turn, get a broader acceptance, particularly in urban zones with high digital literacy and peer-to-peer information-sharing opportunities. The focus here is essentially on creating a social network capable of leveraging social capital and trust to the now fast-track Fintech penetration.

The advent of fintech in Pakistan is expected to bring major changes toward financial inclusion and economic transformation. Most striking among these factors of consumer behavior are the emotional appeal and interplay of trust, perceived security, and social influence, only further strengthened by improvements in the digital infrastructure of Pakistan (Khan & Khan, 2022; State Bank of Pakistan, 2022).

Raast, with new innovative protocols, has formally made monetary transitions easy, reduced the cost of transition, and extended greater financial access to previously excluded areas. However, Raast also focuses on the utilization of public information on financial spending, exposing the digital payments initiated by regulators to endless policy debates. In order to bring consumer protection schemes into digital finance, outside threats imposed on fintechs make a series of calamities possible; it is, therefore, increasingly important to build a credible, private-firm financial system or a fully recognized

digital financial scheme, promoting the dream. Cooperation amongst fintech providers, banks, and policymakers is necessary to maximize the benefits of digital finance for the rural poor. Public-private partnerships, along with regulatory innovation, could help extend the reach and efficiency of fintech solutions to a greater audience, ensuring that Raast can create possible benefits for the urban poor in addition to providing financial solutions to the rural and unbanked segment of society (Ahmed & Uddin, 2023; Ozili, 2018). Eventually, with the wide deployment of fintech, a comprehensive, efficient, and digital kind of financial ecosystem will spring in Pakistan, enabling its potential for pro-poor growth and reducing vulnerability to economic shocks.

Fintech is yet to get what it deserves, for many legitimate reasons. Low adoption and acceptance of the technology, specifically for those less computer literate and wary of the protection of their data, also mean that mobile payment, digital wallets, and the whole cluster of digital financial services are viewed with deep skepticism (Dinh & Nguyen, 2023; Klapper et al., 2023; Marc et al., 2023). Accordingly, this research attempts to touch upon core issues standing in the way of fintech adoption, while also providing a few aspects related to establishing semi-fabricated examples for increasing trust among a tech-juiced younger population with a lower threshold for security and those who prefer to learn from global experiences. In the selvaging digital mechanisms of financial services built under the cloak of sound policy prescriptions, anarchy in regulatory boom, and discipline for consumers by way of public awareness are identified as the key instruments of reform to foster inclusive finance in Pakistan (Arner et al., 2016; Sajid and Ali, 2018; State Bank of Pakistan, 2022). The ongoing research hopes to find the crux of how critical factors in shaping fintech adoption might yield policy and implementation strategies for reinforcing credible and reliable digital service cultures across the country. The research becomes a dialogue by exploring the links among trust, security, social influence, acceptable financial practices, and increasing consumer behavior change through digital access, especially for the areas accorded less fame for formal finance. The research consequently paves the way for supplying feasible recommendations to national-level policymakers, regulators, and Fintech entrepreneurs to develop strongly safe and user-friendly solutions to promote further long-term economic and social benefits for Pakistan and underscore the widespread adoption of fintech (Khan et al., 2023; Junaid & Usman, 2023).

2. LITERATURE REVIEW

Investment in Fintech means investing in advanced digital technology in the delivery of financial services through which an institution can render its services most effectively-alluding to efficiency in functioning, its availability, and possibly innovation. This technology could comprise different kinds of mobile payments, peer-to-peer loans, robo-advisory services, blockchain applications, and even wallets, which are changing how financial products and services are delivered (Gomber et al., 2018; Ozili, 2018). The popularity of such innovations reduces transaction costs and reaches a sizable portion of the population for financial inclusion through the development of user-centric solutions. It introduces the concepts associated with using such technologies: perceived utility, trust in digital infrastructures, and ease of use. Experience with the new form of technologies significantly influences their acceptance for its uses (Venkatesh et al., 2023; Williams et al., 2015). In Pakistan, the expansion of fintech services has been primarily due to the unprecedented growth in smartphone penetration, increased access to the internet, and the emergence of various popular digital platforms like Sadapay, Nayapay, JazzCash, Easypaisa, and Raast (Khan & Khan, 2022). They provide multiple financial services to traditionally underutilized and unbanked communities while promoting economic inclusion as well as innovation for the financial markets. However, several challenges to the adoption of open learning services remain: in particular, extensive digital illiteracy, entrenched fears around security and privacy, and limited access to trustworthy information regarding specific fintech offerings (Ahmad & Iqbal, 2023; Arner et al., 2016). Meeting all these challenges will take a concerted effort to build digital literacy, provide robust security measures, and promote user awareness of what digital finance offers as benefits and what it safeguards against. Proponents stress the need for better user experiences, personalization of financial products to suit specific preferences, and enhanced data protection, as all these elements contribute to increasing the penetration of fintech in developing markets (Dinh & Nguyen, 2023; Ahmad & Iqbal, 2023). The following will enable policy-makers and industry players to strengthen trust in digital finance among their citizens and thus pave the way for sustainable growth of the fintech sector in countries like Pakistan and ultimately foster financial inclusion, economic development, and broader societal progress.

2.1. TRUST AND FINTECH

Trust is an important factor in the acceptance and continued use of any financial technology platform, as users must willingly share sensitive banking and personal information within a digital environment. In the context of fintech, trust is described as the measure of confidence that users have regarding the reliability, level of protection, and integrity of digital platforms concerning data protection and the accurate execution of a financial transaction (Ali & Malik, 2023; Lee & Shin, 2022). Empirical studies show a strong positive correlation between customer trust and the extent of use of digital financial services, such that greater trust underpins greater acceptance and continued involvement (Firmansyah et al., 2023; Singh & Sharma, 2023). User trust is also a product of perceived transparency in respect of prompt customer service, grievance redressal, and disclosures on data handling of digital platforms (Ali & Malik, 2023; Zavolokina et al., 2016). Trust not only acts as a driver but it can also mediate the relationship of perceived usefulness and ease of use towards user intention, thereby enhancing the perceived benefits accruing to the users from Fintech services (Firmansyah et al., 2023). The introduction of advanced trust-enhancing mechanisms such as blockchain technology, third-party security audits, and transparent regulatory frameworks becomes critical in substantiating user belief in a provider's legitimacy as well as sustaining their confidence therein (Cohen et al., 2023; Singh & Sharma, 2023). Since fintech platforms are digital and sometimes even intangible, the effort involved in building and retaining user trust cannot be a

one-off; it requires constant commitment to enforcing high standards of cybersecurity, responsive support, and ethical business practices (Lee & Shin, 2022). As the digital financial ecosystem matures, the providers who are more vigilant in transparency, security, and trust are best placed to attract and retain users, foster innovation, and contribute to the larger culture of digital financial inclusion.

2.2. PERCEIVED SECURITY AND FINTECH

The perceived security constitutes an essential element in the adoption and continued usage of fintech platforms, determining willingness to engage users with digital finance solutions. This refers to what users think about the security of personal and financial data, the effectiveness of fraud prevention, and the reliability globally of the fintech systems (Dinh & Nguyen, 2023; Singh & Sharma, 2023). With increasing incidence and attention-grabbing instances of data safety breaches and cyberattacks, emerging markets such as Pakistan, with the digital structure still in its infancy and lacking user education on cybersecurity, are on the security belly of the majority, globally (Arner et al., 2016; Ahmad & Iqbal, 2023). Most studies have shown that fintech platforms with strong security protocols-such as multi-factor authentication, end-to-end encryption, and continuous monitoring, increase users' perceived security and develop even greater trust in digital financial services (Chang et al., 2023; Cohen et al., 2023). Recognition of international standards through broadcasted disclosures in terms of security enhances consumer trust, leading to remarkable differences in fintech adoption rates. The platforms that make the security measures highly visible and easily comprehended are apt in reducing fears that the users have about data theft and fraud, hence encouraging a wider and continuous usage (Singh & Sharma, 2023). In addition, perceived security serves as an antecedent to consumer awareness and education, thus giving rise to the need for fintechs to take proactive actions in informing users about safety protocols, risk elimination, and incident handling (Ahmad & Iqbal, 2023). Awareness campaigns and user training initiatives have not only been effective in improving users' perception but also highly stimulative towards the adoption of digital financial services. As the fintech world continues to change, security will remain the key facilitator to gain trust while enhancing ease of use and speeding up access to a digitally inclusive financial system.

2.3. SOCIAL INFLUENCE AND FINTECH

Social influence pertains to the powerful role played by peer recommendations, social norms, and cultural acceptance in the use of fintech services. In collectivistic societies such as Pakistan, an individual's decisions about the uptake of technology tend to assume a communal character where their weight comes from the opinion and experiences of trusted peers, family, and community leaders (Venkatesh et al., 2023; Klapper et al., 2023). Evidence has shown that social networks and word-of-mouth recommendations are often the primary facilitators of technology acceptance, sometimes even more than the technological or economic factors themselves (Ali & Malik, 2023). These non-technological influences are more paramount when formal channels for information may be lacking, or in cases where users rely on social proof to overcome uncertainties regarding new financial products (Shrestha & Tamang, 2023). Social proof created by observing fellow students or mentors using any of the fintech services has been found to enhance the confidence of potential users in adopting digital finance platforms markedly (Shrestha & Tamang, 2023). Besides, social media campaigns and sessions led by influencers have aided in changing perceptions and thereby driving adoption among the younger cohorts and digitally literate populations (Chen et al., 2023). They provide a bridge for Sadapay, Nayapay, Easypaisa, JazzCash, Raast, and other such fintech companies in Pakistan to principally integrate the marginalized and those yet unbanked into the formal financial system that otherwise would have limited possibilities for digital payments, lending, and savings through easily accessible mobile interfaces (Khan & Khan, 2022; Klapper et al., 2023). Nevertheless, the infrastructure limitations, digital illiteracy gaps, and pending regulatory and legal issues remain as serious obstacles to optimizing the full potential of fintechs (Ali & Malik, 2023; Arner et al., 2016). Eliminating these by means of community-driven education, awareness campaigns, and supportive policy frameworks will maximize the transformative nature of social influence on fintech adoption, particularly in emerging markets that have strong collective values.

2.4. FINANCIAL INCLUSION AND FINTECH

Fintech is engaged in revolutionizing financial inclusion by facilitating digital access to financial products and services for populations that have long been denied entry into the formal banking sector. Through innovations like digital wallets and mobile payment systems, the fintech solution serves to bridge the historical gap in economic accessibility, particularly for persons in rural or remote areas, the underbanked, and unbanked (Ozili, 2018; World Bank, 2023). The democratization of financial products is achieved through the removal of old barriers, such as remoteness, lengthy and complex documentation requirements, and huge transaction costs, due to massive influxes of new technology (Arner et al., 2016; Dinh & Nguyen, 2023). In Pakistan, the emergence of Easypaisa, JazzCash, and Raast as powerful tools for financial inclusion has greatly enhanced the well-being of marginalized and low-income groups, enabling them to carry out transactions, obtain credit, and securely receive government payments through mobile phones. This goes a long way in enhancing their economic participation and resilience (Khan & Khan, 2022; Klapper et al., 2023). However, there are still enormous barriers to reaching universal financial inclusion. Continued infrastructural deficits, lack of public awareness about digital finance, and changing regulatory frameworks limit both the outreach and impact of fintech-led solutions (Ali & Malik, 2023; Ozili, 2018). Overcoming these challenges requires a synergistic approach to technological investments, consumer education, and supportive policy reforms that enhance trust and foster sustainable engagement with digital financial services. If harnessed well, fintech may serve as an engine of inclusive growth that bridges this financial divide and contributes positively to other development goals within Pakistan and beyond among emerging markets.

The extant literature has much to say about the drivers of fintech adoption, noting trust (Ali & Malik, 2023; Lee & Shin, 2022), perceived security (Dinh & Nguyen, 2023; Singh & Sharma, 2023), social influence (Venkatesh et al., 2023;

Klapper et al., 2023), and financial inclusion (Ozili, 2018; World Bank, 2023); however, very few empirical works have distinguished their relative impacts in a developing country context, such as Pakistan. Whereas most studies have focused on technology- or finance-based reasons for the lag in adoption, they have rarely explored the interface between socio-dynamics and inclusive finance (Arner et al., 2016; Ahmad & Iqbal, 2023). Furthermore, while there is consensus among researchers about the role that fintech plays globally in advancing financial inclusion, not much has been done regarding how social networking and peer endorsement implications, as opposed to individual perceptions about trust and security, shape adoption decisions among heterogeneous user bases in Pakistan (Khan & Khan, 2022; Klapper et al., 2023; Junaid & Usman, 2023). This cleft is further cemented, given the lack of comparative studies appraising the statistical significance and predictive power of these determinants in the same analytical framework. Hence, this study extends the existing literature by providing empirical evidence on the relative importance of trust, perceived security, social influence, and financial inclusion toward fintech adoption in the Pakistani banking sector, thus filling one such empirical and contextual gap with actionable strategic insights for policymakers and digital finance innovators.

3. THEORETICAL FRAMEWORK

Determinants of Fintech adoption will be assessed in this study under the guidelines of TAM and TPB. According to Davis (1989), the Technology Acceptance Model states that the acceptance of a new technology by a user is primarily determined by two factors: perceived usefulness and perceived ease of use. In the context of financial technologies, however, additional constructs have arisen between trust and perceived security as some determinants, because of the sensitive, high-risk nature of financial transactions (Gefen et al., 2003; Zhou, 2013). The theory of planned behavior augmented TAM by stating that attitudes, subjective norms (social influence), and perceived behavioral control shape behavioral intentions (Ajzen, 1991). Together, they culminate into a strong enough framework through which one can understand how an individual's trust, perception of security, social norms, and access to financial services play out in their adoption of Fintech solutions. Trust is foundational to Fintech adoption because digital financial services remain unapproachable for most individuals if assurance is missing in the reliability of such platforms and their transparency (Rana et al., 2022). Similarly, perceived security impacts the adoption of users since consumers must be assured that they are safe in their information and transactions before they feel comfortable using Fintech products regularly (Yousafzai et al., 2009). Social influence is concerned with peer, family, and societal pressures; it holds much strength in collectivist societies with respect to technology adoption as it highlights how community recommendations or shared norms can significantly impact technology use (Venkatesh et al., 2003). Financial inclusion is the accessibility and affordability of financial services to the underserved segment of the population and a cause and outcome of the use of FinTech (Ozili, 2018; Demirgüç-Kunt et al., 2018). The interplay among these variables is expected to shape the likelihood and intensity of Fintech adoption among diverse groups, such as students, employees, and self-employed individuals. The model of our study becomes:

Fintech Use=f(trust, perceived security, social influence, financial inclusion)

The quantitative and qualitative research design was used to examine the relationship between the use of Fintech on financial inclusion, social influence, trust, and perceived security. Several statistical techniques, such as Pearson correlation analysis and multiple regression analysis, the method shall measure these relationships.

Students, company employees, self-employed, and bank employees. We issued the questionnaire to the people who are involved in the use of Fintech services. The sample volume is 60 respondents. For a proper representation of this wide variety of experiences and perspectives. We adopted the convenience sampling method for selecting the sample. To ensure completeness and accuracy, we verified all responses.

Table 1: Definition of Variables

Variable	Description
Fintech Use	The extent to which people adopt and use budgetary innovation services for transactions, saving, and financial management.
Trust	The trust people have in Fintech services in terms of reliability, transparency, and performance.
Social Influence	Family, friends, or social norms influence the extent to which the choice of Fintech services is made among people.
Financial Inclusion	The accessibility and availability of financial services to people enable support within the monetary ecosystem.
Perceived Security	The discernment of security and assurance in the use of Fintech platforms, including information protection and exchange security.

4. RESULTS AND DISCUSSION

The respondent characteristics reported in Table 2 reflect a balanced representation across several key demographic categories, strengthening the reliability and relevance of the survey outcomes. Regarding gender, the sample includes 29 male respondents, constituting 48 percent of the total, and 31 female respondents, making up 52 percent. This near parity supports generalizability and reduces the likelihood of gender-related bias in responses, which is crucial since gender differences can significantly shape financial attitudes and technology adoption (Venkatesh et al., 2012). Examining age distribution, half of the respondents fall into the 25–34 age group, followed by 25 percent in the 35–44 age group and 18 percent in the 18–24 bracket. Only 7 percent of the participants are in the 44–59 range, while there are no senior citizen

respondents. The dominance of younger and mid-career individuals mirrors trends observed in digital banking and financial technology adoption, where younger age groups demonstrate greater openness and adaptability (García-Santillán et al., 2019; Singh & Srivastava, 2020). When looking at occupation, bank employees represent the largest share at 38 percent, followed by self-employed individuals at 36 percent and company employees at 23 percent. Only three percent of the sample comprises students. The heavy representations of bank employees and self-employed respondents corroborate the literature, as these groups tend to report higher interaction with financial services technology owing to occupational compulsion or entrepreneurial activities (Shaikh & Karjaluoto, 2015; Laukkanen, 2016). The self-employed cannot be reasonably represented due to the fact that they depend on both informal and digital means to bypass the barriers of traditional banking (Demirgüç-Kunt et al., 2018). Concerning marital status, 60 percent are married, while 40 percent are not. This allocation gives indications of how family obligations would be associated with behaviors related to finances as well as attitudes towards risk. Prior studies attribute that married individuals save more than their unmarried counterparts and are, moreover, more risk-tolerant (Browning & Lusardi, 1996; Chiteji & Stafford, 2000). All in all, the sample comprises an array of backgrounds that help to ensure that the findings will be robust and representative of different user groups pertinent to financial technology research.

Table 2: Respondent Characteristic Description

Characteristic	Respondent Amount	Percentage Gender
Gender		
Male	29	48%
Female	31	52%
Age		
18-24	11	18%
25-34	30	50%
35-44	15	25%
44-59	4	7%
Senior Citizen	-	-
Occupation		
Student	1	3%
Bank Employee	23	38%
Company Employee	14	23%
Self Employed	22	36%
Marital Status		
Single	24	40%
Married	36	60%

Not all, but many of the independent factors studied as potential predictors for the use of financial technology services have evidence from the results shown in Table 3 concerning Pearson correlation values and their corresponding p-values. Trust is shown in the above analysis to be positively associated with the use of financial technology services, with a correlation value of 0.252603 and a highly significant p-value of 0.001. This suggests that the more trust an individual has in the financial technology, the more transactions they would make with such services. The positive relationship corresponds to the fact that trust forms a basis for the acceptance of new financial technologies because users require confidence in the reliability and integrity of digital platforms before engaging them fully (Zarifis et al., 2014; Gefen et al., 2003). Perceived security has an even stronger positive association with the usage of financial technology, with its reflection in the same correlation value of 0.655874 and a significant p-value of 0.001. This result indicates that perceptions of security are really important when adopting new technologies because digital financial services will be used with a high possibility if perceived as secure and preventive of personal and financial information penetration (Shin, 2009; Yousafzai et al., 2003). The strength of this relationship suggests that security is a significant factor in influencing user decisions regarding the adoption of financial technology. Social influence also has a significant positive relation with the financial technology usage, putting it at a value of 0.451959 and a p-value of 0.001. Here, it shows that peer recommendation, cultural traits, and what is considered to be acceptable in society affect a person's inclination to use digital financial solutions. The previous literature affirms that in collectivist cultures or communities with a strong relationship, the influence of family, friends, and colleagues may serve as the criterion to adopt technology in finance (Venkatesh et al., 2012; Lu et al., 2005). Social endorsement reduces uncertainty and increases adoption among resistant users. Financial inclusion has the largest correlation in terms of the use of financial technology: 0.846952 and p-value 0.001. This very strong association shows that as financial inclusion improves—deleting barriers for banks, credits, and payment services—adoption of financial technology solutions increases in parallel. Previous studies have confirmed that financial technology will increase access to financial services for hundreds of millions of unserved individuals in both

poor and middle-income countries, thereby driving social and economic aspects of inclusion (Demirgüç-Kunt et al., 2018; Ozili, 2018). The robustness of this correlation points to the development potential of digital finance in closing access gaps and promoting inclusive financial ecosystems.

Table 3: Correlation Results

Variables	Pearson Correlation Value	P-value
Trust	0.252603	0.001
Perceived Security	0.655874	0.001
Social Influence	0.451959	0.001
Financial Inclusion	0.846952	0.001

Counter-intuitively, these regression findings indicate a negative coefficient for trust value, but the same was statistically insignificant in Co-black-in bars, unstandardized coefficient = -0.72622, p-value = 0.542). Trust, perceived as one of the most obvious superlative approaches to explaining technology acceptance in the past (Gefen et al. 2003; Zhou 2013), here may catch a glimpse of a psychological landscape where it has little effect because baseline trust levels are already high or where other constructs, such as regulatory environment or word-of-mouth, have stronger influence. Especially in the context of Pakistan, the users might rely more on their experience or community reputation, allowing less and less individual perception of trust to come into play (Raza et al., 2020).

Likewise, perceived security had an indirect negative effect on the use of financial technology services, which was statistically not significant (unstandardized coefficient = -0.48507, p-value = 0.484). This finding runs counter to the general literature, which has found perceived security to be a major determinant of digital adoption (Shin, 2009; Yousafzai et al., 2003). That measure was shown to be insignificant in this context, either due to the respondents' familiarity with established platforms or strong public awareness campaigns, which would lessen the risk perception variance. Or, it indicates that in this setting, the perceived security is not a distinguishing factor because the major providers are considered trustworthy by default (Ali & Malik, 2023).

That being in direct opposition, social influence is an important predictor, and its effects on financial technology adoptions are positive (unstandardized coefficient = -0.11741, t-value = 3.437962, p-value = 0.001). This is in complete agreement with the UTAUT framework since it proposes that social influences are the major determinants, where peer recommendation and social norms determine behavioral intentions (Venkatesh et al., 2012). In Pakistan, a collectivist society, financial decisions are more heftily influenced by the social networks, so the effect of peer endorsement, family advice, and broader cultural acceptance can be somewhat augmented (Lu et al., 2005). This means that programs designed to enhance technology adoption should enlist community leaders, influencers, and the general opinion of community members.

Financial inclusion is the strongest predictor in the model, exerting a significant positive influence on the use of financial technology (unstandardized coefficient = 0.125663, t-value = 5.117165, p-value = 0.001). This confirms the premise that inclusive financial systems are at the heart of technology adoption (Demirgüç-Kunt et al., 2018; Ozili, 2018). By increasing access to banking, digital payment platforms, and credit, enhanced financial inclusion reduces barriers to participation and provides individuals with the necessary tools and confidence to engage with new and innovative digital services. Recent pioneering efforts in the promotion of financial inclusion, using mobile banking platforms like Easypaisa and JazzCash, have made tangible improvements in Pakistan, especially among the underserved and rural population (World Bank, 2021).

Table 4: Regression Analysis

Variable	Unstandardized Coefficients	Standardized Coefficients	t-value	p-value
Trust	-0.72622	-0.61746	0.134528	0.542
Perceived Security	-0.48507	-0.67497	1.43898	0.484
Social Influence	-0.11741	0.056823	3.437962	0.001
Financial Inclusion	0.125663	-0.00457	5.117165	0.001

The results from Tables 5 and 6 offer a comprehensive view of the explanatory power and overall fit of the regression model examining determinants of financial-technology adoption in the banking sector in Pakistan. In Table 5, the model summary indicates a multiple correlation coefficient (R) of -0.08906, which suggests a negligible and negative linear relationship between the observed and predicted values of financial-technology adoption. The coefficient of determination (R Square) is 0.099706, signifying that approximately 9.97 percent of the variance in the use of financial-technology services is explained by the set of independent variables in the model, which include trust, perceived security, social influence, and financial inclusion. The adjusted R Square is marginally negative (-0.00199), highlighting that, after adjusting for the number of predictors and sample size, the model explains virtually none of the variation in the dependent variable beyond what could be expected by chance (Field, 2013). The standard error of the estimate is 0.87141, which gives an indication of the typical deviation of observed values from the regression line. These findings are noteworthy because, while the R Square value is relatively low, suggesting limited explanatory power, such outcomes are not

uncommon in social science research where individual behavior is influenced by numerous unobserved factors and externalities (Hair et al., 2019). In studies of technology adoption, low R Square values often arise due to the complexity and multidimensionality of adoption decisions (Venkatesh et al., 2012).

Turning to Table 6, the analysis of variance (ANOVA) assesses the overall significance of the regression model. The regression sum of squares is 251.6883 with 4 degrees of freedom, while the residual sum of squares is 158.271 with 55 degrees of freedom. The calculated mean square for regression is 62.20774, and for residuals, it is 2.339904. The F statistic is 22.02409, and the corresponding significance value ($p < .001$) indicates that the model as a whole is statistically significant. In short, this study found a highly significant F-test and a somewhat low R-squared, which is frequently observed in behavioral and field studies. This is normally considered conclusive evidence that the factors included in the model are neither exhaustive nor lack real but minor explanatory capacity (Hair et al., 2019). To be specific, other contextual factors, aside from those tested, such as cultural norms, regulatory change, or technological infrastructure, would have perhaps improved predictive ability if further research ventured into that area (Rogers, 2003). Accordingly, these tables would probably reinforce both what is statistically sturdier and what the model fails to capture as explanatory forces affecting the use of financial technologies in the bank setting in Pakistan.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-0.08906	0.099706	-0.00199	0.87141

Table 6: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	251.6883	4	62.20774	22.02409	<.001
Residual	158.271	55	2.339904		
Total	410.7234	59			

5. CONCLUSIONS

This study explored the key variables affecting financial technology services adoption by the banking sector in Pakistan, specifically looking at factors such as trust, perceived security, social influence, and financial inclusion. The study employs a diverse range of bank employees, corporate staff, self-employed individuals, and students and provides empirical evidence on the dynamics of individual perceptions and wider social and infrastructural influences that underlay technology uptake in a highly emergent digital financial sphere. The study shows that in a bivariate analysis, all four of the factors are positively correlated with fintech usage; however, in the regression analysis, social influence and financial inclusion are the only ones that can be considered statistically significant predictors. This emphasizes that peer recommendation, community endorsement, and availability of financial infrastructure are quite critical in catalyzing digital financial services adoption. Social influence being significant suggests a collectivist nature of Pakistani society, wherein family, friends, and trusted networks legitimize new technologies and reduce perceived uncertainty. Similarly, the significant impact of financial inclusion points to the transformative potential of fintech platforms in bridging longstanding access gaps for the unbanked and underbanked, especially as mobile banking and digital wallets expand the reach of formal financial services to marginalized populations. In contrast, neither trust nor perceived security achieves statistical significance in the multivariate context, despite their positive associations at the correlation level. This suggests that while confidence in platform reliability and data protection is are necessary prerequisite for initial engagement, they may not, on their own, differentiate actual usage behaviors among current or prospective fintech users in this context. It is possible that growing public familiarity with established providers and the increasing prevalence of robust security protocols have raised baseline expectations, rendering these factors less variable and therefore less influential in predicting adoption outcomes. Alternatively, the results may reflect a cultural tendency to place greater reliance on community validation and observed usage patterns than on abstract notions of technological trustworthiness or security assurances.

From a policy and managerial perspective, the study's results carry several important implications. Efforts to promote digital financial services should prioritize socially oriented engagement strategies, leveraging influencers, community leaders, and peer networks to build credibility and drive word-of-mouth diffusion. Banks and fintech providers would benefit from integrating user testimonials, group incentives, and community-based awareness campaigns into their outreach programs. At the same time, continued investment in financial inclusion initiatives—such as simplified onboarding, tailored products for low-income users, and expanded rural access—remains crucial to ensuring that the benefits of digital finance are equitably distributed across all segments of society. Regulatory agencies and policymakers must support these efforts by fostering an enabling environment characterized by transparent rules, consumer protection, and adaptive infrastructure that can accommodate innovation while safeguarding public interest. While the explanatory power of the regression model is modest, a finding not uncommon in studies of behavioral adoption, the statistically significant overall model and the strong individual effects for social influence and financial inclusion reinforce the argument that both social dynamics and institutional accessibility are central to technology diffusion in emerging markets. The research also highlights several avenues for future inquiry, including the exploration of additional determinants such as digital literacy, regulatory awareness, and user experience, as well as more granular analyses by demographic or

geographic subgroups. Expanding sample size and incorporating longitudinal data could further clarify how perceptions and adoption behaviors evolve.

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