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Digital Financial Technologies as Drivers of Inclusive Growth: A Strategic Review of Pakistan's Fintech Landscape

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Abstract

Fintech has changed the way traditional banking and financial service delivery are done, offering a number of fresh, innovative solutions to the problem. This article explores how financial technologies have led to better economic development in Pakistan when it comes to delivering financial services. It also investigates in particular for people living in remote or underserved areas how well off they can be served by financial technology. Since levels of financial inclusion in Pakistan are rather low, there is the potential for fintech to be a catalyst to make finance more inclusive and to drive system upgrades. The study is using a sophisticated evaluation technique for fintech's application in Pakistan's problems and will supply a set of strategies as well as policy recommendations. Technologies such as digital banking platforms, online payment systems, micro-finance technologies, and other new forms of lending--advising services that can be automated have great potential to reduce the cost for financial service delivery so it is lighter on the consumer's wallet. Looking at the existing environment of fintech reveals significant barriers--a lack of regulation, digitally illiterate populations and insufficient infrastructure. Despite its potential as a mainstream phenomenon, conformed to Pakistan's particular circumstances through policy recommendations from research findings, this paper offers a systematic analysis of the state of the literature and secondary data. It also draws lessons from countries where fintech has been successfully integrated and looks at how best such combinations can be applied here. Overall, this study helps further illuminate the role of fintech in Pakistan and presents opportunities worth exploring for digital financial solutions, which are both a sustainable form of economic development and well-adapted to Pakistan's conditions.

Keywords: *Fintech, Financial Inclusion, Digital Banking, Economic Development*

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1. INTRODUCTION

Fintech has exhibited an incredible growth rate in the past decade to reshape the worldwide financial landscape and restructure traditional financial systems in both advanced and emerging economies. Progress in digital technologies, increasing availability of the internet and a mushrooming number of smartphones have together catalysed the development of fintech, providing the means for financial services to become faster, more inclusive and cheaper. Available projections indicate that by the year 2024, global fintech investment is predicted to rise rather significantly, becoming close to USD 15.9 billion, indicating investor confidence in fintech and its technology-driven innovation (The Pulse of Fintech - Q4 2016 - KPMG Bermuda, 2017). This growth of investment is another sign of the growing recognition of fintech as a driving force in transforming the financial sector. In the simplest terms, fintech refers to the application of new technologies to improve the delivery and efficiency of the financial services sector (Leong, 2018; Ammar et al., 2025). Keeping true to its meaning, "Fin-tech" implies the coupling of finance and technology and encompasses a wide range of digital solutions, such as mobile and electronic payment systems, peer-to-peer lending networks, digital and branchless banking models, systems for automated investment and wealth management, insurance technology applications and blockchain-enabled financial infrastructures. Although fintech ecosystems already exist in many developed countries, there is a recent evidence of faster diffusion in

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developing economies, including Pakistan, where digital financial services are more widely accepted as an effective tool for financial inclusion, access to formal finance and broader economic empowerment (Bazarbash, 2019; Gomber et al., 2018; Haddad and Hornuf, 2019; Ozili, 2018; Philippon, 2016; Sahay et al., 2020; Thakor, 2020; Umari et al., 2025)
And in the case of Pakistan, although a significant proportion of the population still remains unbanked or underbanked, fintech has huge potential to effect financial inclusion, access to formal financial services, and drive greater participation in the economy. Conventional banking mechanisms have had many issues with reaching out to a wide section of society due to geographical barriers, high transaction costs, and stringent requirements for documentation. Whereas fintech-based solutions can overcome many of these constraints using mobile-enabled platforms and digitally deliver financial services. Acknowledging the transformative nature of fintech, the Government of Pakistan and the Punjab State Bank of Pakistan have taken several measures together to support the growth and adoption of fintech and contribute towards strengthening the digital financial ecosystem, which includes various policy initiatives and regulatory reforms aimed at accelerating the pace of adoption of fintech and strengthening the digital financial ecosystem. These initiatives are structured in ways that promote innovation while at the same time ensuring financial stability and the financial protection of consumers. Existing assessments suggest that by 2025, the lifecycle of Pakistan's digital financial services industry may stand at a good value of nearly USD 36 billion, generate jobs for nearly four million people, and help them to contribute seven per cent of national gross domestic product (SDPI, n.d.). Such predictions illustrate the potential of fintech in resolving the structural vulnerabilities that have been lingering in Pakistan's financial system, in particular through promoting digitalisation, lowering transaction costs and widening access to credit and payment facilities (Hasan and Qureshi, 2023; Shah and Khalid, 2022; Aysan et al., 2023; Demirguc-Kunt et al., 2024; Khan et al., 2023; Khera et al., 2024; Mushtaq and Bruneau, 2023; Naeem et al., 2025).
Despite its huge potential, the adoption and diffusion of fintech in Pakistan are still faced with several interconnected challenges. One of the most important barriers is the insufficiency of digital infrastructure, particularly in remote and rural areas where access to reliable forms of internet connectivity has been limited. Low levels of digital and financial literacy also limit user adoption, where many people lack the skills or the confidence to engage with digital financial platforms. Cybersecurity risks and issues about data privacy are also contributing factors to the growth of distrust in the use of fintech solutions, which puts major investors off from full adoption of digital services. Although Pakistan became a member of the United Nations 'Better Than Cash Alliance' in 2014, the process of moving towards a cashless economy was not growing as fast as they expected. Structural inefficiencies, incoherent and evolving regulatory facades, and recurring socio-economic inequalities are still widening the gap in the wide availability of fintech within various segments of society (Khan & Javaid, 2023; Rehman & Abbas, 2021; Ali et al., 2025). In addition to this, the size of the informal economy in Pakistan and the unequal access to smartphones and affordable digital gadgets further limit the diffusion of fintech, especially among the low-income populations and the inhabitants of rural areas (Yaseen and Rauf, 2024; Bilal and Ahmed, 2023; Ali et al., 2025).
A perusal of the available literature shows that while there has been considerable academic interest in the scope of fintech, its economic contributions and how it has contributed to improving service delivery in Pakistan, there has been relatively less research in terms of the barriers that are impeding the growth and adoption of fintech. It is important to identify and understand these challenges to design effective policies and strategies for promoting sustainable fintech development. Without addressing issues in regulatory uncertainty, cybersecurity vulnerabilities and trust deficit, the benefits of fintech could remain unrealised in the long run. Drawing lessons from countries that have achieved successful digital financial ecosystem development can offer valuable lessons for Pakistan (Rahman & Siddiqui, 2024; Torres & Malik, 2022; Ali et al., 2025). Therefore, the objective of this study is to systematically find the barriers hindering fintech adoption in Pakistan and propose an evidence-based solution based on the best practices available from the rest of the world. To address these constraints and ensure the development of a more inclusive, secure, and resilient digital financial ecosystem, policymakers and industry stakeholders can work towards supporting the following measures and can promote the overall contribution of the digitalisation of financial services to support the economic modernisation, financial deepening, and long-term sustainable development of Pakistan.

2. LITERATURE REVIEW

The usage of the expression "fintech" began to be used in academic and professional discourse in the early 1990s; however, it was only much later that fintech came to be established as a domain of the subject of scholarly investigation. The publication of the first academic study implicitly devoted to the subject of fintech took place in 2015, and this marked the beginning of systematic and theory-driven research in the subject area (Puschmann, 2017; Ali et al., 2025). Following this milestone, fintech has been defined and understood in a variety of ways by researchers, regulators and industry practitioners as a result of its dynamic evolution and ever-growing functional scope. The Organisation for Economic Co-operation and Development defines fintech as the innovative and creative application of technology when it comes to the provision of financial services (OECD, 2018). Put simply, fintech is technology used to increase operational efficiency, increase access and reduce costs in the provision of financial services. Traditionally, financial services were often expensive and slow and were limited to a specific part of the population. The emergence of fintech startups has therefore had a significant impact on altering this environment by providing faster, cheaper and more convenient alternatives to the traditional models of delivering financial services and redefining the way that individuals and businesses interface with the financial system. (Arner et al., 2020; Demirguc-Kunt et al., 2022; Gomber et al., 2018; Laidroo et al., 2021; Lee & Shin, 2018; Milian et al., 2019; Philippon, 2016; Wipps & Bunge, 2010; Aziz et al., 2025), And it can alter soybean production efficiency, thereby reducing its profitability (Arner et al., 2020; Demirguc-Kunt et al., 2022; Ahmed & Alvi, 2024; Khan et al., 2025)

Comparatively, fintech startups are able to provide more value at comparatively cheaper rates by using digital platforms, automation and data-driven decision making. These startups often have leaner company structures with not a lot of physical branches and more flexible business models, which means that these companies will be able to quickly respond to the needs of consumers. As a result, fintech companies are presenting a challenge to traditional banks and financial institutions in the form of innovative and more convenient solutions for digitally savvy consumers. This growing competition has raised an important question of what exactly is fintech? As varied conclusions about fintech regulations are still present, researchers provided different kinds of classifications in which one of the most commonly used shares six main models of fintech business - payments, asset management, crowdfunding, lending, insurance services, and capital markets (Accenture, 2016; Khan et al., 2025; Khalid et al., 2025). Among these, the biggest popularity and adaptation of fintech has been made in the field of payment-related services, particularly peer-to-peer mobile payments and digital wallet services.
The role of government and its representatives is also important in the development and effectiveness of fintech ecosystems. Policymaking and regulatory oversight, along with strategic planning, have a major influence on the design, implementation, and scale-up of fintech services in an economy (van Zanden, 2023; Ramzan et al., 2023). Although fintech startups provide more competition for existing financial institutions, some scholars consider that fintech should not be considered as a threat in totality. Instead, fintech can be used to augment the traditional banking business with the end goal of improving efficiencies in operations and services. Research conducted by Sloboda et al. (2018) reveals that banks that adopt and implement financial innovations in their financial operations are more efficient and become more profitable. This implies that the partnership between fintech companies and traditional financial institutions can also be mutually beneficial rather than purely competitive. The overarching goal of the innovation in the financial services sector is to provide the consumer with more value, either in making choices more convenient, accessible and of a higher quality of service. Fintech is a large contributor to enhancing customer experience by enabling users to perform transactions no matter where they are and at any time of the day by using mobile devices and digital platforms. Prominent online payment services like PayPal, Amazon Pay, and Alipay are some of the best examples of how Fintech solutions can provide fast, secure and convenient payment services. Along with that, several peer-to-peer payment systems have been introduced by companies such as GoogleWallet, WeChat, Venmo and Facebook Messenger, which would allow users to send money seamlessly without having to go through the conventional banking channels. These platforms are more efficient and user-friendly than in-person payments/student writings, or traditional bank transfers (McCaffrey & Schiff, 2017). Moreover, the invention of artificial intelligence has only seen worsening of the fintech capabilities, particularly through cognitive impacts on language communications and automatic decision-making processes (Omri, 2022; Ali & Mohsin, 2023; Javaid et al., 2024; Mbodj & Laye, 2025). Media sensitisation and technological response have also influenced the perception and motivation of users (Adjasi & Yu, 2021; Iqbal et al., 2024) and remote work options, which have been the intuitive triggers for providing more convenient and accepting digital services (Ali & Sajid, 2020; Fatima et al., 2024).
Fintech has not only caused a revolution in financial systems in the developed economies, but it has also created drastic impacts in the poorer and developing nations. In many underdeveloped countries, it has been proven that fintech has contributed to financial inclusion by bringing basic financial services to people who couldn't access the formal banking system. Despite these benefits, the adoption of fintech in Pakistan is faced with many challenges. Some of the major challenges in this regard are low literacy rate, low level of digital awareness, absence of trust by the customers in fintech products, limited technological infrastructure and absence of any definite and consistent regulatory framework (Qayyum et al., 2020; Roy & Madheswaran, 2020; Sulheri et al., 2024; Bozic & Bozic, 2025). These barriers are throttling the adoption on the part of consumers, as well as the growth of fintech companies in the country.
Additionally, financial cooperation among the South Asian countries is not very effective, which further restricts the right of expansion of the financial industry in the region. Limited cross-border cooperation, regulatory diversity and disalignment favour innovation and scaling (Javed, 2019; Zubari & Hayat, 2020; Ali & Sajid, 2020; Dahmani & Makram, 2024) Being a developing country, Pakistan is far behind the leading economies in South Asia in adopting fintech because a large percentage of people still prefer to use cash instead of the digital payment modes. This preference for cash runs deep - behavioural habits, trust issues, and uneven access to digital infrastructure have all given women their love for cash. Addressing these structural and behavioural challenges is an imperative part of ensuring that Pakistan can maximise the transformative potential of fintech and bring its financial system in line with the digital trends in the human economy.

3. RESEARCH APPROACH AND METHODOLOGY

This study uses qualitative research with an extensive review of the existing academic literature and analysis of the secondary data sources. A detailed review of fintech-related initiatives launched in Pakistan is carried out through a critical analysis of a set of scholarly studies, policy reports and industry publications. Drawing from international experiences, the study also highlights structural, regulatory, and institutional challenges that limit the expansion of fintech in Pakistan. In addition, recent statistical evidence relating to the financial ecosystem of Pakistan is discussed, including evidence on indicators such as the level of financial inclusion and the proportion of the population that has formal bank accounts. For this purpose, the data of the Global Findex database and publications of the State Bank of Pakistan are used, and the reliability and contextuality of the findings are ensured (Hasan et al, 2022; Raza et al, 2023).
Following the global financial crisis in 2008, the financial sector witnessed the swift rise of new and improved financial services that are enabled through technology and commonly known as financial technology or fintech. In its simplest

representation, fintech is the integration of digital technologies in the provisioning of financial services and changes the traditional banking and financial intermediation process. Scholars have conceptualised fintech in several ways depending on its scope and functional application; but, based on the classification of Dorfleinter et al. (2017), fintech was classified into four broad functional segments, which capture the essence of every domain of fintech operation. Recent literature also further highlights the broader understanding that fintech innovations have brought financial accessibility to a new level, reducing transaction costs and facilitating digital inclusion, especially in developing economies (Ali et al., 2024; Khan et al., 2023; Mehmood et al., 2022; Javaid et al., 2024; Ullah et al., 2023; Fatima et al., 2024; Hassan et al., 2021; Iqbal et al., 2022; Ramzan et al., 2

According to this classification, fintech activities fall into four main categories: those related to financing services which include financing activities such as crowdfunding and peer to peer lending; asset management services based on the use of digital tools for investment advisory services and portfolio management; financial services related to payment which includes electronic and mobile payment services; and other types of fintech activities which include insurance technology and other financial innovations. These categories collectively encapsulate the variety in which fintech is shaping financial system change in the delivery of financial services going forward, adverse to regular financial system structures.

4. FINANCIAL INCLUSION IN PAKISTAN

According to the State Bank of Pakistan, Financial inclusion means the degree to which individuals and businesses have access to and utilise a wide array of formal financial services. One of the most frequently used measures of financial inclusion is the percentage of the population with bank accounts because it measures the extent of integration with an economy. Among South Asian Association for Regional Cooperation countries, Pakistan has relatively low financial inclusion - only Afghanistan has higher levels of financial inclusion. As of 2017, only 21 per cent of Pakistan's adult population was able to hold a bank account, which is still far below the percentage recorded for its neighbours such as Bangladesh, India, Nepal and Sri Lanka. This constant gap indicates the structural issues of the financial system of Pakistan (Hasan et al., 2022; Raza et al., 2023).

In an economy where a significant portion of the population is still excluded from gaining access to formal financial services, financial technology has emerged as a game-changing solution to this ongoing problem. The growth of fintech has resulted in other channels for the delivery of financial services to underserved and unbanked segments of the population. Since the early 2000s, the introduction of mobile banking services has given a shot of adopting fintech technology at a rapid pace in Pakistan. Mobile money platforms like Easypaisa, launched by Telenor Pakistan, have played a pivotal role in widening financial access opportunities for unbanked people via mobile phone by facilitating simple transactions like bill payments, cash deposits and withdrawals, and domestic money transfers (Khattak & Ullah, 2019). These services have made transactions much more economical and convenient for the users.

Table 1: Top Fintech Startups in Pakistan

Company Name	Category	City	Total Funding
Abhi	Earned Wage Access (EWA) Platform	Karachi	$19.1M
Bazar	Retail Fintech Platform	Karachi	$108M
Finja	AI-Driven Digital Wallet and Payment Solutions Platform	Lahore	$25M
CreditBook	Bookkeeping and Cash Flow Management Platform	Karachi	$12.5M
NayaPay	Digital Wallet and Payment Services Platform	Karachi	$13M

Building on this momentum, Mobilink (now Jazz) in 2012 teamed up with the National Bank of Pakistan and launched JazzCash, another notable mobile financial service platform, which helped scale the digital payments ecosystem (Akhtar & Ghani, 2018). In parallel, it has been seen that some commercial banks have launched mobile banking applications in order to stay competitive and facilitate digital transformation. To further foster the fintech diffusion, the State Bank of Pakistan and the government have launched multiple policy initiatives like the National Payment Strategy, Mobile Payment Gateway initiatives and the Digital Onboarding System. These measures are aimed at bringing a modern payment infrastructure and promoting cashless payments. Recent statistics show that there was a 53 per cent rise in the payment volume accessible over the internet between 2017 and 2018, which points to such a fast-moving step towards the development of digital financial services (Ali et al., 2024; Khan et al., 2023).

Microfinance institutions have also made use of fintech solutions to improve the efficiency of operations and reach. In 2018, Telenor Microfinance Bank launched Khushhal Digital Platform to give its clients access to digital financial services that facilitate service delivery and the overall financial inclusion (Telenor Microfinance Bank, 2018). Moreover, Pakistan has observed another increase in the number of fintech startups in recent years, which represents a growing demand from consumers for innovative digital financial solutions. Current estimates are that there are some 422 fintech companies operating in the country, among them firms providing services ranging from digital payments to earned wage access. The growing popularity of platforms like Abhi and NayaPay is one example of the broader impact that fintech had on the transformation of consumer financial behaviour as well as strengthening the digital financial ecosystem in Pakistan (Javaid et al., 2024; Ullah et al., 2023; Fatima et al., 2024; Audi et al., 2023).

5. CHALLENGES FOR FINTECH ADOPTION IN PAKISTAN

Based on a comprehensive analysis of different sources of secondary data, the current study identifies a few of the structural and behavioural barriers that still restrict the growth of fintech in Pakistan. The challenges are most notable amongst the population, such as a lack of toxicological infrastructure, a low degree of digital literacy, low access to formal banking services, low degree of public trust on fintech based solutions. These constraints combined make it difficult to make a full transition to a digital financial ecosystem.

Deficient infrastructure is still one of the biggest challenges of fintech in Pakistan. Persistent problems like erratic electricity supply, limited coverage of broadband internet connectivity and clunky internet speeds make digital financial transactions a non-starter, especially in rural and semi-urban areas. In addition, regulatory ambiguity with respect to fintech operations leaves firms that are trying to innovate in the financial sector in uncertainty. A lack of clear policy frameworks, as well as a lack of skilled fintech professionals, is a boondoggle that hinders the ability of this sector to scale and innovate effectively. These challenges thus make it a hard task for Pakistan to attain an overall digitalisation of financial services (Hassan et al., 2022; Raza et al., 2023).

Another major hindrance for diffusion of fintech is the low degree of digital literacy of consumers. Many people are not used to using digital tools and platforms, so the application of fintech can appear complicated. For those users who are not savvy technologically, fintech services may appear to be impenetrable, and this may discourage the use and perpetuate the use of traditional financial methods (Naeem et al., 2018). Empirical evidence demonstrates that the perceived difficulty of use is an important issue in terms of consumers choosing to switch from traditional financial services, even when alternatives to traditional financial services (fintech) may be of better value and convenience to consumers.

In line with earlier studies, the human beings who believe that fintech platforms are not easy to grasp are more inclined to adhere to traditional monetary solutions, notwithstanding their inefficiencies. These findings are consistent with the findings of previous studies, which emphasise the fact that digital illiteracy continues to rely on old-fashioned financial practices, especially in rural areas (Bommer et al, 2023; Ashraf et al, 2021; Majid, 2021). The ease of use perception has been illustrated to play the decisive role in the development of the fintech adoption behaviour (Tun-Pin et al., 2019). This challenge in Pakistan is particularly acute because a substantial population is facing limited access to digital education and technological resources, particularly women that is intimidating the financial inclusion gap even further (Zulfiqar et al., 2016; Javaid et al., 2024; Ullah et al., 2023).

Limited access to the formal banking infrastructure is also one of the major factors resulting in a low rate of financial inclusion in Pakistan. Factors such as low income levels, poor level of financial literacy, location of banking facilities, complicated procedure to open an account and high cost lead to this participation in the formal financial system. Comparative evidence suggests how severe this gap is - in 2021, an estimated 78 per cent of people 15 years and above in India had bank accounts, and it was nearly 80 per cent in China. In comparison, the banking penetration level in Pakistan remains much lower. Infrastructure differences are also manifest in automated teller machine availability. While in China, in 2015, there were approximately 76 ATMs per 100,000 adults; ATM availability was only 9 per 100,000 adults. These disparities are really indicators of the lack of access to conventional banking services. Expanding the accessibility to alternative financial institutions and fintech-driven solutions is a viable path towards solving the shortcomings of finance and for better formulation in Pakistan's finance infrastructure (Ali et al., 2024; Khan et al., 2024)

A significant amount of empirical research has shown that lack of trust is still one of the most important barriers to fintech adoption. Since fintech platforms are directly linked to financial transactions, fears surrounding data security, breaches of consumer data and fraud are a major factor in consumer behaviour. With security-related apprehensions, users have less confidence in the digital financial systems and with that, there is a lesser acceptance of fintech. Cao (2016) emphasised that the perceived security risks hurt an individual's willingness to adopt fintech services. An analysis of available literature tends to agree that trust deficit is one of the dominant constraints that subsist in the area of fintech diffusion. Nevertheless, the trust gap is not consistent in various demographic segments, since different studies report that younger consumers in Pakistan and especially those in the ages of 18-30 years have higher levels of openness to fintech solutions due to higher levels of digital familiarity and higher risk tolerance (Ali et al., 2024; Javaid et al., 2024). Despite the existence of several challenges, Pakistan's huge unbanked population is a big opportunity for fintech firms. Fintech innovations have the potential to increase financial inclusion dramatically, make services more efficient, and decrease transaction costs. Key areas that fintech can provide the biggest impact are digital payment systems, online lending platforms, financial advisory services and insurance technology. Such segments have scalable solutions which promise the extension of financial access to disadvantaged populations while also modernising the financial ecosystem (Khan et al, 2023; Ullah et al, 2023).

Historically, payment transactions were time-consuming and expensive; however, payment transactions have been made faster, more affordable and very convenient with the innovations of fintech to change the payment systems. The total preponderance towards a cashless society around the world has hastened the development of digital payment solutions across the markets. Payment systems are typically split up into two broad segments: consumer and retail payments and wholesale payments. Consumer and Retail payments sum up to money wallets, person-to-person transfers and digital currency payments, while wholesale payments tend to cover transactions between banks of a nation and large-value payments (Mellon, 2015). Mobile payment adoption has grown exponentially all over the world; there is a similar potential for this to come to be true in Pakistan as well, and through mobile platforms, this might be pivotal in enhancing financial inclusion. Services such as Easypaisa and JazzCash have witnessed an increasing number of users, especially amongst the youth users. Empirical evidence from Nazir et al. (2021) proves the positive results of mobile payment systems that boost the efficiency and lower the transaction cost of the payment system within the payment infrastructure of Pakistan.

In a financial environment where traditional banking still continues to thrive and flourish, digital banking still has the potential to disrupt the banking sector in Pakistan. Digital banking can help in bridging the structural gaps by reaching people who are not included in the traditional frameworks of banking. Prior research shows digital banking lowers the total cost of transactions with resulting improvements in efficiency, especially in terms of enhancing financial access to those who bank with low-income households and small and medium enterprises (SME). During the COVID-19 pandemic, the digital banking channels have witnessed a visible shift in Pakistan, which was caused by the restriction of movement and an increase in demand for contactless transactions. The constant increase in the penetration of the internet is also a further indication of favourable conditions for the expansion of fintech. Although the consumption of cash is a predominant choice among consumers, the pandemic is a major aspect of easing consumer perspectives toward digital banking. In response, the State Bank of Pakistan has initiated a number of initiatives aimed at promoting the use of branchless and digital banking to expedite the process of financial inclusion (Hassan et al., 2022; Fatima et al., 2024; Audi et al., 2023).

Fintech has also made the process of borrowing easier for the segments which traditionally have been underserved by banks. Digital lending platforms provide for peer-to-peer financing that can enable access to credit at relatively cost-effective rates through simplified and transparent procedures. In Pakistan, such platforms can increase entrepreneurship by flipping the access to finance of small businesses and individuals to credit that is excluded from the traditional credit markets. Being able to mitigate information asymmetry and inefficiencies of operation, the fintech-lending models have been a viable avenue for achieving inclusive economic growth (Raza et al., 2023; Mehmood et al., 2022; Ramzan et al., 2023). Insurance-oriented fintech businesses largely contain sophisticated data analytics and digital tools to assess risk, underwriting decisions, as well as provide customised insurance product offerings to consumers. The emergence of online insurance marketplaces has made it easier for consumers to compare insurance policies, premiums, and coverage options and make informed decisions. In Pakistan, where the level of insurance penetration is relatively low, fintech-driven insurance is a potential which can bring many examples to update the insurance industry with an increase in the number of items covered & enhance the risk management system through the provision of insurance via technology-enabled services (Hassan et al., 2022; Raza et al., 2023).

To come out with some relevant insights for Pakistan, a wide study of available literature material was done, learning some lessons from the rest of the world, where fintech adoption resulted in some visible success. In particular, the experience of China, the United Kingdom and India was explored owing to their advanced bank fintech environments, as well as strong institutional underpinnings (Ali et al., 2024; Khan et al., 2023).

In India, government-led initiatives have played a decisive role in the accelerating adoption of fintech and the application of digital payments. The launch of the Unified Payments Interface helped a great deal in boosting efficiency and ease of financial transactions, which boosted the usage of fintech across the country (Saini & Bhati, 2019). UPI made digital transactions simpler and made life more convenient for the players, and helped India in becoming a cashless economy in a very short period of time. As of 2021, India constituted about 40 per cent of the global total of real-time digital transactions, which is one of the leading countries in the world to adopt fintech. According to the International Monetary Fund, national initiatives, such as India Stack and the JAM trinity, have helped to further the cause of financial inclusion. A combination of technologies, infrastructure, firm regulatory support and innovation-friendly policies has allowed for the collaboration between government institutions, banks and private firms to create an environment for fintech-friendly support. These strategies offer valuable lessons that can be incorporated by Pakistan in order to address the challenges of fintech (Mehmood et al., 2022; Javaid et al., 2024).

Another great example of the transformative impact of fintech on financial systems is China. The popularisation of financial services such as WeChat Pay and Ant Financial of Alibaba Group from Tencnet has resulted in a significant increase in digital footprints. This has also transformed the world of people's daily routines, although few understand the technology at work behind this transaction (Chen et al., 2018). They presented once mainstream products like loans and insurance in digital ecosystems on an everyday basis. The cost of this kind of innovation today is high, and most of them all are still a long way from. Fintech innovation has managed to increase its speed through a sort of combinatory calculation only after it was joined to large user volumes and advanced digital infrastructure. A recent research also states that the success of fintech in China has a close relation to data-driven innovation, platform integration and regulatory experimentation (Zhang et al., 2023; Liu et al., 2022). The United Kingdom is known as one of the most fintech-friendly economies in the world: there are currently over 1,600 fintech companies. Investors are confident about prospects for sustained growth, and policy is further developing, with estimates projecting that by 2030, this number could double from what it is today! With its strong legal system, access to skilled workers and positive regulatory environment, despite uncertainties resulting from Brexit, the United Kingdom remains an investment leader for Fintech. Regulatory sandboxes and innovation hubs have further helped Britain when it comes to being a world fintech hub. That being said, those international experiences also imply that policy synchronisation and regulatory clarity, as well as institutional cooperation, are important for fintech growth. These points are extremely important for Pakistan, as it has its own burgeoning fintech developments to bring to the table (Fatima et al., 2024; Audi et al., 2023).

6. INFERENCES AND SUGGESTIONS FOR PAKISTAN

The experience of India's National Payments Corporation reveals that having a secure digital payment infrastructure is essential to driving access to financial services. The successful operation of real-time payment systems all over the nation shows that their power to radically change all financial transactions is evident - as NPCI can do in a short time domestically, it may also be able to do overseas. These developments indicate that Pakistan will have to focus on investment in similar digital infrastructure if it is to establish a stronger franchise ecosystem. Using technology to simplify complex financial processes can greatly increase users' engagement and speed up the popularisation of Fintech. The EASE 3.0 framework's intuitive system design and user-friendly interface in India will provide just such transformations for any repetitive routine. This will enable efficient customer service as well as user acceptance (Sharma et al. 2016; Mehmood et al. 2018).In the United Kingdom, a great deal of growth in fintech has sprung from the establishment of regulatory sandboxes and innovation hubs. These are controlled environments where novel products can be tested and developed. Likewise in kin Pakistan too, similar frameworks should be set up to support fintech startups, promote multinational cooperation, and align the rules of countries and regions through regulation collaboration between regulators, financial institutions, or even technical companies that provide services for network technologies. Studies show that regulatory sandboxes are crucial to achieving a balance of innovation and consumer protection, even more so in young fintech markets (Zetzsche et al., 2013; Arner et al., 2022). In India, the development of fintech has once more proved the importance of constant technological change. The rapid transition towards non-cash transactions and the launch of DigiLocker are both examples of digital tools that can improve transaction security and trust. Pakistan should follow a similar path by carrying out the SDI for a secure digital identity system and a reliable document management system. This will bring confidence to fintech and security for businesses. Moreover, emerging technology like blockchain and Web 3.0 provide prospective to enhance the transparency, data security and decentralisation of the financial services, which could further promote fintech innovation in Pakistan (Khan et al. 2024; Ali et al. 2023).

An in-depth assessment of fintech success in the United Kingdom can also reveal that access to global fintech talent is a critical driver of growth. High educational standards, research capacity and a diverse, skilled workforce have supported continuous fintech innovation. In comparison, there is a significant gap in Pakistan in the number of specialised fintech professionals. Addressing this gap involves significant investment in the areas of education and skills development, specifically finance, data analytics and information technology. Expertise in developing human capital for fintech collaboration. Strengthening of university- industry linkages and localised training programmes could aid in the development of granular human capital for fintech development (Fatima et al., 2024; Javaid et al., 2023).

Consumer trust has become a decisive factor affecting the adoption of fintech. In technologically advanced economies like the United Kingdom, digitally literate users are more confident about fintech services, leading to the widespread use of such services. In Pakistan, however, the lack of digital literacy and security concerns still limit the acceptance of users. Policymakers must therefore focus on financial and digital education programs, above all for rural and underserved people. User awareness and trust can have a major impact on fintech adoption and long-term sustainability (Raza et al., 2022; Ullah et al., 2024). Overall, international evidence shows there is a strong correlation between high rates of fintech adoption and strong digital infrastructure and stable regulatory environments. For Pakistan, there is a need to ensure that there is a reliable financial infrastructure in place and regular regulatory frameworks. A predictable and supportive environment would not only foster innovation in fintech but also initiate domestic and foreign technologies, thereby speeding up the country's turbulent transition to attaining a more inclusive and technology-driven financial system (Hassan et al., 2023; Audi et al., 2023).

7. CONCLUSIONS

This paper scrutinizes the increasing importance of financial technology in the global financial landscape Once financial efficiency has more tools to work with, its cost of service to customers and clients will naturally decrease Financial technology innovation can help lower the cost of service delivery, boost efficiency, extend the reach of financial services On the one hand, the impact in this field on financial systems in developed economies has already begun Moreover, it enjoys almost equal importance in the underdeveloped world in which new vistas are opening up for financial inclusion (of course we could say the United States also has vast regions where such plants cannot exist at all) and wider participation in national economic development In Pakistan, considerable room has emerged for leveraging financial technology in the Financial system for two reasons: Household needs can be met instantly; and if enterprises do not go astray, enterprise growth will be sure Ultimately there are software problems and structural issues Like sql database consents being necessarily required and other technicals not yet entirely clear, as shown by a recent poll Limited technological infrastructure, low levels of digital and financial literacy among the poor, in-access to formal banking services Informal banking, plus worries about data security makes trust, remain the main ones that limit the use. As a result, from very poor to the lowest-rich areas of our country are similarly hard off. The study also provides a list of some of the main areas in which financial technology can change Pakistan's financial system. Digital payment methods, alternative channels of financing and technology-based advisory services should all be looked at to improve functioning and the range of service. But to realise these chances means combined efforts, emphasis should be given stop the systemic shortcomings. Drawing on the successful experiences of various countries in the integration of financial technology into their financial system can offer valuable insights for informing policies in Pakistan. From the perspective of policy, the results emphasize the importance of active government involvement in supporting the development of financial technology Strategic investment in digital infrastructure, pointed efforts to improve people A regulatory environment that ensures a balance between overly constrictive and permissive phases and one which is continuously adjusted, is necessary for the flourishing of the sustainable growth In short, financial technology industry has the potential to change the financial ecology of Pakistan significantly. It provides convenient access to financial services as well as offering value for money to other people who use these services. There are obvious efficiencies from using it. However, this transformation can only be achieved through concerted policy initiatives and institutional reform to address the many challenges facing us today. By working harder on building up a robust infrastructural base, improving skills and creating a stable regulatory environment, Pakistan will be able to gain all the advantages of financial technology as well as move closer to its long-term goal of financial inclusion and sustainable economic development.

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