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An Assessment of Fintech Application in Afghanistan: Feasibility Study

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ABSTRACT
Although fintech is an emerging sector in Afghanistan, it aims to address the substantial gap in financial access by removing time and location barriers and offering faster, safer, more affordable, and inclusive financial services. This paper provides strategic insights into the deployment of fintech in Afghanistan using two key analytical frameworks: pestle analysis and Porter's Five Forces. In this study, we adopt a descriptive qualitative approach using secondary (public) data on recent fintech developments in Afghanistan. By synthesizing Pestle and Porter's Five Forces, this article aims to identify and describe potential opportunities and threats in the external environment and analyse the competitive landscape of the fintech sector in Afghanistan. Our key findings in the pestle analysis indicate that political instability, widespread poverty, gender gap, and public trust and reliance on the informal hawala system have constrained the macro environment for the fintech sector in Afghanistan. While the government's move towards digital payments and revenue collection, the need for international organizations, and the high rate of unbanked and young population create potential opportunities in the Afghan fintech sector. In Porter's Five Forces analysis, the fintech sector in Afghanistan operates in an oligopoly market; the bargaining power of suppliers is very high, the bargaining power of individual buyers is low, but international organizations and UN agencies have high bargaining power, and the biggest threat to the fintech sector as a substitute product is the informal hawala channel. And finally, the key to fintech success in Afghanistan relies on aligning services for the less educated but needy social structure of the country.

KEYWORDS: Fintech Application, PESTEL Analysis, Porter's Five Forces, Challenges, Opportunities

1. INTRODUCTION

Fintech, or financial technology, is the application and integration of new technology to improve and facilitate financial services. By leveraging technological innovations, fintech creates an opportunity to reduce the cost and time of transactions and accelerate them for what today's global economy requires. Fintech is a broad term that encompasses digital payments, digital banking, cryptocurrencies and blockchain, wealth & insurance technology, and artificial intelligence, as they combine technological innovations with financial activities, all falling under the Fintech concept (Statista, 2026).

The Oxford Dictionary defines fintech as “the use of computer programs and other technologies to provide banking and financial services” (Oxford University Press, 2020). Fintech is an emerging industry that automates financial processes. In today's information age, advances in technological innovations, including mobile phones, the internet, artificial intelligence, and digitization, have revolutionized financial inclusion, enabling people around the world to manage their financial lives using digital platforms (Klapper et al., 2025). According to (KPMG, 2026), total global investments in the fintech sector reached $116 billion between 2024 and 2025; of this amount, $19.2 billion was invested in the payments sector. In 2025, the USA accounted for the largest share of fintech investment globally.

Mobile phones and the internet are recognized as key drivers for the launch of fintech activities and provide the necessary infrastructure for the development of the fintech sector. Currently, financial access is provided by mobile network operators and other fintech companies. According to a recent Global Index Report, mobile money accounts have contributed positively to global financial access. The report also noted that account ownership in low and middle-income countries has increased, reaching 75% in 2024, of which 18% were mobile money account holders (Klapper et al., 2025).

In Afghanistan, the financial sector remains underdeveloped with poor use of digital solutions, despite 70 percent of the population using mobile phones and 30.5 percent of the population being online by early 2025. The financial inclusion rate is very low compared to peer countries, with only 10 percent of adults having access to financial accounts. The formal financial sector in Afghanistan is heavily focused on the traditional banking sector, which fails to provide adequate, efficient, and convenient services to all groups of people, especially in remote areas. As a result, most of the country’s population remains unbanked and relies on informal financial channels. The payment system is also considered inefficient, with most payments being made in cash and only 8% of adults participating in digital payments (Kemp, 2025; UNDP, 2026; Zaheer, 2023).

Afghanistan continues to rank poorly in terms of e-government. According to the e-Government Development Index (United Nations E-Government Survey, 2024), Afghanistan scored 0.14 out of 1, indicating the government’s poor use of information and communication technology (ICT) in delivering public services. Given all the problems mentioned, Afghanistan's financial sector needs modernization, and this will be achieved by digital solutions. The purpose of this research is to assess the macro-environment and competitive landscape of the fintech sector in Afghanistan using the PESTEL and Porter’s Five Forces frameworks. This study will help understand the macro-environmental factors affecting fintech applications in Afghanistan and the competitive dynamics that determine the attractiveness of the fintech sector for investments.

1.2 Research Problem

Despite the growing role of fintech in fostering financial inclusion, Afghanistan still faces great hurdles in accessing formal and digital financial services. The nation has a high unbanked population fraction, low levels of digital financial services and ongoing reliance on cash and informal financial services (World Bank, 2025; UNDP, 2025). Even though access to mobile phones and the internet has improved, digital financial services are not widely adopted due to economic constraints, lack of digital infrastructure, financial and digital literacy, and lack of trust in the financial services sector (GSMA, 2025; World Bank, 2025). Furthermore, the political and regulatory uncertainty, gender-related challenges and strong dependence on informal financial mechanisms continue to hamper the growth of fintech in Afghanistan (UNDP, 2025). Thus, there is a need for a thorough examination of the macro-environmental and competitive landscape which influences fintech development. The present study aims to fill this gap through the use of PESTLE Analysis and Porter's Five Forces framework to evaluate the feasibility, opportunities and challenges of fintech applications in Afghanistan.

1.3 Objectives of Research

1.3.1 General Objective

To evaluate the possibility of implementing fintech applications in Afghanistan through PESTLE Analysis and Porter's Five Forces.

1.3.2 Specific Objectives

1. To analyze the various political, economic, social, technological, legal and environmental forces impacting the Fintech landscape in Afghanistan.
2. To evaluate competition in the Afghan ICT sector.
3. To understand the key opportunities and threats for fintech applications in Afghanistan.
4. To give strategic inputs to develop and implement fintech services in Afghanistan.

1.4 Hypotheses Development

Three hypotheses are suggested based on PESTLE Analysis and Porter's Five forces:

H1: The feasibility of fintech applications in Afghanistan is significantly impacted by political factors.

H2: The viability of adopting fintech applications in Afghanistan is greatly shaped by economic considerations.

H3: Social conditions play a significant role in the viability of the use of fintech applications in Afghanistan.

H4: Technological factors play an important role in the feasibility of fintech applications in Afghanistan.

H5: Legal factors are a major constraint on the viability of the applications of fintech in Afghanistan.

H6: The Afghan fintech industry is highly competitive and can have a significant impact on the attractiveness and viability of the sector.

H7: Informal financial channels have a significant impact on the viability of fintech applications in Afghanistan.

1.5 Significance of the Research

This study is important, as it offers a strategic evaluation of the possibility of implementing fintech in Afghanistan. It brings together the PESTLE Analysis and Porter's Five Forces to highlight the key external factors, challenges and competitive landscape of the fintech space. The results can help shape policy, financial institutions, fintech providers, investors and development organizations to better understand what is needed to successfully develop fintech. The study could also help advance financial inclusion by highlighting areas for greater access, affordability and effectiveness of digital financial services for the underserved and unbanked in Afghanistan.

2. LITERATURE REVIEW

In strategic management, assessing the external macro-environment is a key requirement that helps identify and manage challenges while simultaneously capitalizing on opportunities. There are significant tools for evaluating the external environment, one of which is pestle analysis an acronym representing six macro-environmental factors (Political, Economic, Social, Technological, Environmental, and Legal) that impact any business operating within that environment. Another strategic tool used in this study is Porter's Five Forces Framework. This model helps determine the competitiveness of an industry through five major forces (rivalry among existing competitors, threat of new entrants, bargaining power of buyers, bargaining power of suppliers, and threat of substitutes). This model helps in making better strategic decisions by understanding the external environment of the business (Tini Adiatma & Harinda, 2026).

A review of the literature reveals that previous studies on fintech in the Afghan context have primarily focused on topics such as financial inclusion, the relationship between fintech and small and medium-sized enterprises (SMEs), green finance and fintech within the banking sector; meanwhile, few qualitative studies have analyzed the competitive landscape and the contextual or macro-environmental factors influencing fintech deployment in Afghanistan (Sadat et al., 2025).

This study fills the methodological and contextual gap related to fintech research conducted in Afghanistan. On the one hand, few studies have focused on the application of fintech in Afghanistan, and secondly, there is no research yet to combine two strategic models (PESTELand Porter’s Five Forces Framework) to analyze the external and competitive environment of the fintech sector in Afghanistan. Synthesizing the pestle analysis and Porter’s Five Forces Framework helps relevant stakeholders make better strategic decisions (Rahman et al., 2025).

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3. RESEARCH METHODOLOGY

3.1 Research Design

The present study is of a descriptive and qualitative type of research with a deductive approach that has been used to evaluate the feasibility of fintech applications in Afghanistan. PESTLE Analysis and Porter's Five Forces were adopted in the study to analyze the macro-environmental and competitive factors that impact the Fintech sector in Afghanistan. Furthermore, a critical realism perspective is also used to comprehend the factors underpinning the development of fintech based on the secondary data sources found. Moreover, the critical realism perspective is used to make sense of the underlying factors that have influenced the development of fintech based on the secondary data sources identified.

3.2 Research Location and Population

This study is focused on the geographical context of Afghanistan. As it is a secondary data-based study, the research population includes all documents, reports, studies and institutional information on fintech, digital financial services, financial inclusion, digital payments and the Afghan financial sector published from 2021 to 2026.

3.3 Sampling Method and Sample Size

Relevant secondary sources were selected by a purposive sampling method, which uses credible and relevant sources and which meets with the study framework. The second sampling method used was snowball sampling, that is, looking at the works that are cited in the first sample. The final sample comprised documents which contained adequate evidence to support the PESTLE and Porter's Five Forces analyses.

3.4 Sources of Data

All the information acquired for the study is secondary data that is sourced from academic and institutional sources. Information from academic sources was gathered from Google Scholar, Research Gate and Afghanistan Academic Scientific Journals. Sources of institutional and industry refer to the World Bank, IMF, UNDP, UNCDF, UNICEF, Da Afghanistan Bank (DAB), NSIA, GSM, ITU, DataReportal and other relevant sources and industry reports. Sourced materials were used first that were credible and published independently.

3.5 Data Collection Instrument

Secondary data were collected and organized in a structured manner using a document-review and data-extraction framework as the primary tool. The extracted information was classified into the six PESTLE dimensions and Porter's Five Forces: political, economic, social, technological, legal and environmental factors, supplier power, buyer power, threat of new entrants, threat of substitutes and competitive rivalry.

The documents collected were screened following the aforementioned criteria source credibility, relevance to the study on fintech and digital financial services, publication date, geographical relevance and consistency with the study's theoretical frameworks. Documents were excluded where the sources were not reliable; where information was outdated; where it was promotional; where there was significant bias; and where there was lack of relevance to Afghanistan. The selected evidence was then evaluated according to empirical support, cross-referencing the evidence from multiple sources, and its possible effects on the fintech industry in Afghanistan.

3.6 Method of Collecting Data

The data were obtained from a systematic review of the publicly available secondary sources. First, academic databases and institutional portals were used to search for relevant keywords related to fintech, digital payments, financial inclusion, mobile money, and digital financial services in Afghanistan. Second, snowball sampling was employed to sift away more relevant sources from the references of selected documents. The search and screening process continued until thematic saturation was reached, which is when further sources no longer yielded any significantly different information that added value to the PESTLE and Porter's Five Forces frameworks.

4. RESULTS AND DISCUSSION

4.1 PESTEL Analysis

The following results are based on a PESTEL analysis of the FinTech sector in Afghanistan.

4.1.1 Political Factors

In the Political segment, the role of government actions and approaches is evaluated in relation to the economy or industry. Key elements of political factors include trade policies, tax policies, government regulations, labour laws, and political stability, which can affect the activities and growth of businesses and industries.

The role of political factors on FinTech application in Afghanistan (Very-High)

The financial sector in Afghanistan including fintech faces an uncertain political situation due to recent political changes and the international community's non-recognition of the current government; this has eroded public confidence in the formal financial sector and exposed it to challenges such as liquidity pressure and instability risk. Sanctions on cross-banking and finance pose challenges for international organizations in transferring and distributing humanitarian and cash assistance. However, this need has led international organizations to seek effective, transparent, and secure alternatives such as FinTech to meet the needs of people, especially in remote areas.

The current government's recent efforts and initiatives to digitize payments and government revenue collection to create greater transparency, fight corruption, and reduce the use of cash could provide significant opportunities for the further development and expansion of the financial technology (FinTech) sector in Afghanistan. The perceived security and trust (stemming from political stability) are important factors for the adoption and development of fintech (Sadat et al., 2025).

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4.1.2 Economic Factors

The Economic segment focuses on the economic conditions in which businesses operate. Key economic factors include interest rate, inflation rate, economic growth, exchange rate, unemployment rate, and disposable income; changes in economic factors can significantly affect purchasing power, operating costs, and investment in various industries in a country.

The role of economic factors on Fintech application in Afghanistan (Very-High)

The recent banking and liquidity crisis in the country (August 2021), coupled with restrictions on withdrawals, has undermined public trust in the formal sector especially the banking system. A crisis in one part of the financial system can affect other parts, leading people to shift to a cash-based economy and informal or Hawala channels. The widespread poverty is another obstacle to fintech application in Afghanistan, preventing people from having smartphones and limiting their access to the internet and digital platforms.

The potential demand stemming from the large unbanked population and the cash-based economy which carries high transaction costs creates opportunities for the application and expansion of financial technologies (FinTech) in Afghanistan.

4.1.3 Social Factors

Social or Socio-Cultural factors include demographic structure, Religious and cultural beliefs, attitudes, literacy rate, and consumer behaviour that influence market preferences.

The role of social factors on Fintech application in Afghanistan (Very-High)

Lack of an ID card is a key social challenge that prevents individuals from having a financial account. Without an ID card, Afghan fintech cannot open and activate accounts for individuals, and this limitation is even greater for women. The low level of financial literacy is another social factor affecting the application of FinTech in Afghanistan and hindering the development of digital financial platforms in the country.

Public trust and long-standing reliance on the informal Hawala channel have isolated people from using digital platforms and fintech services, as they operate traditionally and require less documentation, allowing people to conduct transactions with less fear of fraud and technical failures, risks that fintech and digital platforms face.

Afghanistan's young demographic structure can be seen as a significant social opportunity to advance fintech adoption in the country, accelerating the use of financial technology compared to societies with a larger adult population.

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4.1.4 Technological Factors

Technological factors include elements such as changes in the rate of new product development, increases in automation, and advancements in service industry delivery. In the case of Fintech application in Afghanistan, technological factors play a valuable role as the backbone and main driving force of FinTech, and without a robust technology infrastructure in the country, the expansion of digital financial services seems unlikely.

The role of technological factors on Fintech application in Afghanistan (Very-High)

Mobile and internet penetration is the key driver for fintech applications in Afghanistan. However, the quality and accessibility of these services are not uniform across the country, with a huge gap between urban and rural areas. Another barrier to the adoption and expansion of fintech in the country is the limited use of smartphones, which hinders people from easily using fintech applications.

Interoperability and challenges facing the Afghanistan Payment System (APS), especially after August 2021, are another barrier for fintech users to use and accept electronic payments over cash, limiting their ability to access a wide range of financial services. However, expanding the use of FinTech services in the country depends on modernizing this system.

Fintech systems are more vulnerable to cybersecurity threats and require significant investment and attention. While many fintech startups in Afghanistan operate with minimal cybersecurity measures, outdated technology infrastructure, limited access to formal security licenses, lack of data protection law and information security regulations, and high reliance on foreign technology infrastructure and technical expertise all increase vulnerabilities and undermine trust in fintech platforms.

4.1.5 Environmental Factors

Environmental factors include weather or climate change, pollution levels, and environmental policies, which put today's businesses under more pressure than ever before to operate in an environmentally friendly and sustainable manner.

The role of environmental factors on Fintech application in Afghanistan (High)

Environmental disasters such as climate change and drought and their consequences have led to increased attention and efforts to find effective controls and environmentally friendly solutions.

In this context, Afghanistan's agricultural sector is considered highly vulnerable to climate change. Equipping and financing farmers to cope with such events or helping to mitigate the adverse effects through loans and cash assistance, recently facilitated through the collaboration between microfinance institutions and fintech platforms demonstrates the effort and motivation for fintech application in the country. Lack of access to a consistent electricity grid is another challenge that can affect the accessibility and operation of telecom and internet services in the country. This challenge also forces individuals and businesses to use green energy, such as solar-powered infrastructure, which can create an optimal opportunity for continuity of fintech activities in the country.

4.1.6 Legal Factors

Legal factors refer to a set of legal boundaries and obligations within which business activity must take place. Legal factors include labour law, industry regulations, health and safety regulations, discrimination, and antitrust laws.

The role of legal factors on Fintech application in Afghanistan (High)

Legal factors serve as operational boundaries for Afghan fintech firms and include legal and regulatory requirements that provide a framework for supervising and regulating for these institutions.

Strict KYC regulations and AML/CFT measures by regulatory bodies on financial institutions, including fintech, challenge the provision of easy financial services and limit the widespread use of fintech services in the country. The government usually takes these precautionary measures to keep itself away from the Financial Action Task Force (FATF) black and grey lists and global sanctions stemming from money laundering and terrorist financing.

The transformation of financial systems from conventional to Islamic is another legal issue raised by the current government, which requires financial institutions, including fintech, to provide Islamic financial services in accordance with Sharia. Recently, Da Afghanistan Bank (DAB) has issued regulations on Islamic finance and Sharia-compliant loans within the framework of Islamic contracts, a move that has largely addressed the challenge of a lack of regulation and, through collaboration with fintech platforms, has provided an opportunity for the development of Islamic digital finance in the country.

The constant changes in technology and its close connection with the fintech sector have increased the need for new regulations from the government; at the same time, the lack of clear regulations on the effective and safe use of new technologies such as blockchain and cryptocurrencies has led to a complete ban on the use of these technologies in the country, making it difficult for Afghan fintech to use them for international payments and settlements, thereby distancing fintech from decentralized technologies.

4.2 Porter's Five Forces Framework

In this section, we discuss the results of the competitive environment analysis of the fintech sector in Afghanistan, based on Porter's Five Forces framework.

4.2.1 Rivalry among Existing Competitors (Level= Medium to High)

The competition issue focuses more on those in the market offering similar products or services. There are factors that determine the intensity of competition in a sector, including the number of competitors, the similarity of products and services, the size or growth rate of the industry, the exit rate, and the level of fixed cost or capital expenditures.

The number of competitors in the Afghan FinTech sector is limited, characterized by an oligopolistic market structure; additionally, the industry's growth rate is low due to its nascent nature; both factors keep the intensity of competition moderate. However, low switching costs for customers – resulting from the ease of switching platforms and the fact that FinTech companies offer similar products and services – keep the intensity of competition high. Although some FinTech platforms, such as HesabPay, have recently introduced differentiated products and features in terms of offering Islamic loans, international remittances, and merchant payments, this prevents fintech platforms from simply pursuing price wars.

To overcome existing competition, Afghan fintech companies must focus on streamlining processes, offering diverse and low-cost services, ensuring the security and safety of customers' assets, and reducing technical difficulties - strategies that reflect the community's real and potential needs for the fintech sector.

4.2.2 Threat of New Entrants (Level= Low)

Some factors determine the threat posed by new entrants such as capital requirements, the competitive advantages of existing rivals, the reactions of current competitors, and sometimes government policies all of which influence the entry of newcomers into an industry.

Despite the untapped market for fintech in Afghanistan, which is a strong incentive for new entrants, several structural barriers, such as high capital requirements coupled with government licensing restrictions, lack of foreign support and joint ventures due to sanctions and political changes, and the competitive advantage of existing players, have kept the threat of new entrant's low and prevented new entrants from easily entering the fintech sector of the country.

4.2.3 Bargaining Power of Suppliers (Level= Very High)

The bargaining power of suppliers in Afghanistan's FinTech sector is very high, as they provide the critical infrastructure and services that enable FinTech activity in the country. These suppliers are telecom companies that have very high bargaining power due to their limited number and unique providers of communication gateways such as OTP and USSD codes. These gateways allow FinTech customers to conduct transactions without access to the Internet. Internet service providers are another key supplier that provides access to the Internet and allows FinTech customers to use and benefit from smart FinTech applications.

Fintech companies in Afghanistan also rely on commercial banks for their liquidity; without an active escrow account, a licensed fintech company cannot generate or issue electronic money. Due to the limited number of Afghan commercial banks and the recent banking and liquidity crisis in the country, their bargaining power is high. Finally, another key supplier in the Afghan fintech sector includes companies that provide security and operational licenses alongside physical equipment and technical expertise. Due to the lack of investment in the country's technology infrastructure, Afghan fintech companies are heavily dependent on these suppliers, which significantly increases their bargaining power.

4.2.4 Bargaining Power of Buyers (Level= Low to High)

Fintech customers in Afghanistan do not have the same bargaining power. The first set of customers is the public customers, who usually use Fintech services for top-ups and purchasing packages, paying utility bills, merchant payments, domestic remittances, and, to a limited extent, international payments and, more recently, obtaining agricultural loans. Since the number of FinTech's in Afghanistan is limited and people have limited options for using digital financial services, the bargaining power of public customers is weak.

International organizations and UN agencies are the second largest group of fintech customers in Afghanistan. They typically use fintech platforms to distribute humanitarian and cash aid to people in need, especially in remote and affected areas. Their bargaining power is high, as they handle a high-volume of transactions that have a significant impact on fintechs' operations and profitability. They can impose prices and other terms on local fintech.

4.2.5 Threat of Substitutes (Level= Very High)

Fintechs in Afghanistan offer almost identical products and services. The traditional Hawala system, with very high bargaining power, is one of the biggest competitors to the formal financial sector, especially digital financial services. With a long history of operation, this system has been able to build trust and account for a large portion of Afghans' daily transactions. Although they do not make loans or take deposits, due to a lack of or weak supervision by the Central Bank, they process most domestic and cross-border money transfers with minimal KYC and AML/CFT requirements.

The cash-based economy, despite offering opportunities for digitalization, is one of the main competitors of fintech in the country. Most people in the country prefer cash transactions, mainly due to fears of fraud, technical failures, and poor digital knowledge.

4.3 DISCUSSION

Based on the results of this study, the feasibility of any fintech application in Afghanistan has been influenced by political, economic, social, technological, environmental, legal and competitive aspects. In general, the pestle analysis suggests that fintech has huge potential to contribute to financial inclusion and delivery of financial services, but is hampered by structural weaknesses in the formal financial sector, lack of infrastructure, regulatory issues, and high dependence on informal financial channels. The results align with the recent findings by UNDP (2026) that there is significant unmet need for financial services in Afghanistan and that digital solutions may have a significant role to play in bringing financial services to the unserved population.

The political findings indicate that the fintech sector has been facing heavy uncertainty and financial constraints from around the world. The findings reveal that the challenges with international payments and financial connectivity have been affecting the formal financial system and making it more dependent on informal channels. The World Bank (2025) also notes that international banking connectivity is still very limited, and de-risking by correspondent banks is still a constraint on Afghanistan's integration with international payment systems. Meanwhile, the imperative to provide humanitarian aid and information in a safe and transparent manner has presented a significant opportunity in the financial services sector: digital financial services. Thus, the political constraints play a two-way effect; they limit the use of traditional financial tools, and they add to the need for new digital payment tools.

The economic results show that the liquidity and banking challenges, poverty, and use of cash have had a negative impact on fintech adoption. But these are also the same conditions that provide a huge potential market for digital financial services, as a large share of the population is not in the formal financial system. A recent UNDP report (2026) also finds that the lack of access to bank accounts and credit among adults is a large market for financial services to be offered using digital technology. Rather than just a limitation, the economic environment is a clear business and development opportunity for fintech providers in the large unserved market.

Lack of identification documents, financial and digital literacy limitations, gender barriers and public demand for hawala also limit the adoption of fintech, according to the social findings. These results align with the evidence gathered by UNDP and UNCDF that the absence of IDs, less smartphone usage, less digital and financial skills, and lower confidence in electronic payments are significant limitations in the adoption of digital payments in Afghanistan (UNDP, 2023). This aspect of gender is relevant in particular due to the extra challenges women have in accessing smartphones, identification documents, banking services and digital skills. The success of fintech products and services in Afghanistan, then, requires more than technology – it also requires trust, knowledge and capability of the users of digital financial services.

The technological results indicate that mobile connectivity is a key pillar for the development of fintech, although poor network coverage, low smartphone penetration, poor interoperability and cybersecurity issues remain a barrier to adoption. According to the World Bank (2025), Afghanistan's digital payment system is still limited, and key payment platforms are plagued by operational and interoperability issues. Likewise, interoperability between financial service providers was cited by UNDP and UNCDF (2023) as one of the top challenges in building a successful digital payment ecosystem. Based on these results, it is concluded that investing in payment infrastructure, interoperability, cybersecurity, and connectivity is a key area that must be invested in alongside the investment in applications and mobile services for the expansion of fintech in Afghanistan.

The findings of environmental factors reveal that geographies make Afghanistan very vulnerable, climate-related shocks can impact digital financial service continuity and access, and electricity availability is unstable. Fintech, however, can also help build resilience by supporting vulnerable communities, agriculture finance and digital cash transfers. Examples of recent UNDP projects show that the application of digital financial services can help vulnerable groups and increase access to finance including with mobile and e-wallet solutions (UNDP, 2026). The challenges of the environment can, therefore, be both a threat and an opportunity for the fintech infrastructure and for fintech-facilitated climate and livelihood financing.

The legal findings are that regulation is both a constraint and an opportunity. Compliance requirements like KYC and AML/CFT can reduce access to the population of digital financial services, especially for underserved groups like those without formal ID, and raise compliance costs. Meanwhile, proper regulation is necessary to keep consumers safe, curb fraud and foster consumer confidence. The increasing initiatives under Islamic finance also offer opportunities to create digital financial products that are Shariah compliant. The digital financial inclusion, regulatory support, and Sharia-compliant financial products in Afghanistan were highlighted in UNDP's recent Access to Finance initiative (UNDP, 2026). This indicates that if regulation is not seen as being opposed or pitting financial integrity against accessibility, then fintech development is likely to be more successful.

The Porter Five Forces results suggest that the fintech industry in Afghanistan is unique in terms of its competition. The study concludes that the medium to high rivalry, low threat of new entrants, very high supplier power, asymmetric buyer power and very high threat of substitutes. This architecture is due to the relative immaturity of the Afghan fintech industry, and its reliance on a handful of telecoms, banking, tech, and infrastructure companies. Fintech companies' reliance on telecommunications networks, internet connectivity, banking liquidity, payment systems, and technical expertise make the power of the suppliers crucial. These dependencies can lead to higher costs of operations and limit the strategic autonomy of fintech providers.

Capital requirements, licensing policies, technology barriers, political instability and weak foreign investment are suggested as explanations for the low threat of new entrants. While Afghanistan has a huge underserved market, market potential is not enough to gain entry as fintech service providers need a solid infrastructure, license, liquidity arrangements and customers' trust. It is a situation where incumbent companies might benefit due to their institutional relationships and networks.

Lastly, the high risk of substitution indicated in the study, especially Hawala and cash, is one of the biggest hurdles for fintech penetration. The social acceptance, networks, and transaction processes of Hawala are well established and the process is relatively simple, whereas cash is familiar and accepted. The informal financial mechanisms are still very strong in Afghanistan, with the World Bank (2025) estimating that Hawala remains a significant part of cross-border financial transactions. But, what sets fintech apart is the ability to offer enhanced transparency, speed, traceability and reduced transaction costs. Digital payment programs in Afghanistan by UNDP and UNCDF demonstrated that digital payment takes 48 hours as opposed to seven days to complete a transaction and costs around 30 percent less (UNDP, 2023).

The overall findings indicate that fintech feasibility in Afghanistan could be considered as a high-potential but high constraint environment. The country has a number of positive factors such as a large unbanked population, high degree of mobile-phone penetration, youth population, the need for fast remittance and payment services, and growing interest in digital and Islamic finance. Meanwhile, weak financial institutions, low digital literacy, inadequate infrastructure, regulatory complexity, cyber security risks, reliance on Hawala and cash, and competition are significant constraints on fast growth. Recent evidence from around the world also shows that mobile money can be a key enabler for the underserved in the world, but for this to happen, Afghanistan needs to build infrastructure, interoperability, trust and an enabling regulatory environment (GSMA, 2025, 2026).

Thus, the main implication of this study is to make the fintech affordable, simple, trustworthy, secure, interoperable, Shariah compliant and accessible to rural and underserved population of Afghanistan for successful development. Providers should not take the approach of replicating advanced economies' fintech solutions, but should create solutions based on Afghanistan's socioeconomic, cultural, institutional, and technological environment. Such an approach may pave the way for fintech to gradually expand its focus on humanitarian payments to other financial inclusion, merchant payments, remittances, agriculture financing, and Islamic financial services.

5. CONCLUSIONS

The findings from the combination of the two PESTEL models and Porter's five forces show that Fintech has emerged in Afghanistan not only as a modern tool but also as an option or solution to existing challenges in the financial sector, especially the banking sector.

At the macro level (pestle analysis), Afghanistan's fintech sector faces a complex landscape; on the one hand, severe challenges such as political instability, widespread poverty, low levels of financial literacy, and other infrastructural challenges have limited the growth of the sector. On the other hand, the governments' trend towards digitalization of payments, the urgent need for international organizations to distribute humanitarian aid and cash assistance, high mobile phone ownership, and a large share of the young and unbanked population have created significant opportunities for fintech development in the country.

At the industry level, Porter's Five Forces analysis showed that the Fintech sector in Afghanistan is an oligopoly market, consisting of a limited number of Fintech companies, as the bargaining power of suppliers (Telecom companies, Internet service providers, technological and cybersecurity providers) is extremely high, and on the demand side, although individual customers have low bargaining power, UN agencies impose their terms with high bargaining power due to the high volume of transactions. However, the most critical finding confirms that the biggest threat to the survival of Fintech is the informal traditional channel, or the hawala System, which is considered the main competitor of FinTech firms due to its easy procedure, low documentation requirements, and long-standing public trust.

5.1 Suggestions and Recommendations

5.1. 1 Afghan FinTech firms

Turning the Hawala Threat into an Opportunity: Integrating traditional and reputable local money changers or Sarrafs into FinTech platforms as physical agents or master-agents to facilitate the cash-in and cash-out processes.

Technological simplification: Focusing on developing voice menus in Pashto and Dari languages based on USSD codes to cover the illiterate and rural population.

Increasing Interoperability with various financial service providers: Using sustainable open-source infrastructure and direct connection to the national switch or Afghan Payment System (APS) to increase accessibility and greater convenience for their customers.

5.1.2 The Central Bank and the Government (DAB & Regulatory Bodies)

Facilitation of Tiered KYC: Establishing multi-level KYC for rural women without ID cards, so that they can open low-profile electronic accounts/wallets with fewer ID requirements.

Transparent framework for new technologies: Developing clear regulations and regulatory sandboxes for the safe use of blockchain and cryptocurrencies by fintech platforms.

5.1.3 International Organizations and UN Agencies to Support Digital Agricultural Finance

Direct cash grants to FinTech platforms that provide Islamic agricultural microloans based on Islamic contracts (e.g., Murabaha and Salam) to farmers affected by climate change.

5.2 Suggestions for Further Research

- This study, by combining two strategic frameworks (PESTEL and Porter models), assessed the external environment to identify challenges and opportunities that hinder the adoption of FinTech in Afghanistan. Therefore, for future research, an assessment of the internal environment (using SWOT analysis) is recommended to be conducted to identify the internal strengths and weaknesses of FinTech companies and implement more informed strategies for the greater success of the FinTech sector in Afghanistan.
- Future research should also focus on how to develop and modernize the traditional hawala system through integration with fintech platforms, which can help identify and implement effective solutions and ultimately help transform a large part of the informal financial system into a formal, digital, and effective system.
- Future research also needs to examine the role of new technologies such as blockchain in the transfer and management of international humanitarian aid to Afghanistan.

5.3 Conflict of Interest

The author of this paper declares no conflict of interest.

6. REFERENCES

Kemp, S. (2025). Digital 2025: Afghanistan. https://datareportal.com/reports/digital-2025-afghanistan

Klapper, L., Singer, D., Starita, L., & Norris, A. (2025). The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy. Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-2204-9

KPMG. (2026). Pulse of Fintech H2 2025. https://assets.kpmg.com/content/dam/kpmgsites/xx/pdf/2026/02/pulse-of-fintech-h2-2025.pdf.coredownload.inline.pdf

Oxford University Press. (2025). Fintech. In Oxford Learner's Dictionaries. Retrieved https://www.oxfordlearnersdictionaries.com/definition/english/fintech?q=fintech

Rahman, K. O., Achhia Khanam, Mehedi Hasan, Amir Hamza Akash, Rezwanul I Rezvi, Farhan Nasrullah, Shamina Sharmin Jishan, & Nayeema Nusrat. (2025). Decoding U.S. Retail Dynamics: A Holistic Strategic Analysis Using PESTEL and Porter's Five Forces Frameworks. Journal of Business and Management Studies, 7(2), 176–183. https://doi.org/10.32996/jbms.2025.7.2.12

Sadat, S. N., Hasan, H., & Yaser, M. (2025). FinTech and Financial Inclusion in SMEs of Afghanistan: Exploring the Mediated Moderation of Digital Financial Literacy. https://jbmrresearch.com/index.php/Journal/article/view/500/550

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2009). Research methods for business students (5th ed). Prentice Hall.

Statista. (2026). Topic: Fintech. Statista. Retrieved April 24, 2026, from https://www.statista.com/topics/2404/fintech/

Tini Adiatma, & Harinda, S. (2026). Pestel analysis for development of micro, small, and medium entreprises in Merauke City. Implementasi Manajemen & Kewirausahaan, 5(2), 168–182. https://doi.org/10.38156/imka.v5i2.535

UNDP. (2026). Private Sector Mapping in Afghanistan. https://www.undp.org/sites/g/files/zskgke326/files/2026-02/undp-ps_mapping_afghanistan-2025_0.pdf

United Nations E-Government Survey. (2024). United Nations E-Government Survey 2024: Accelerating Digital Transformation for Sustainable Development - With the addendum on Artificial Intelligence. United Nations.

World Bank. (2017). Collecting primary data in Afghanistan: Daunting but doable. World Bank Blogs. https://blogs.worldbank.org/en/endpovertyinsouthasia/collecting-primary-data-afghanistan-daunting-doable

Zaheer, N. (2023, August 4). Rethinking payments in Afghanistan [World Bank Blogs]. End Poverty in South Asia. https://blogs.worldbank.org/en/endpovertyinsouthasia/rethinking-payments-afghanistan

GSMA. (2025). The state of the industry report on mobile money 2025. GSMA Mobile for Development.

GSMA. (2026). The state of the industry report on mobile money 2026. GSMA Mobile for Development.

United Nations Development Programme (UNDP). (2023). Digital payments could make aid faster and more effective, especially for women and isolated communities. UNDP Afghanistan.

United Nations Development Programme (UNDP). (2026). Access to Finance (A2F) flagship initiative – Afghanistan: A journey toward prosperity through financial access. UNDP Afghanistan.

United Nations Development Programme (UNDP). (2026). Mapping Afghanistan's private sector: Challenges, opportunities and pathways for inclusive growth. UNDP Afghanistan.

World Bank. (2025a). Afghanistan development update: April 2025. World Bank.

World Bank. (2025b). Afghanistan development update: November 2025. World Bank.