

## THE ROLE OF TECHNOLOGY IN ELEVATING FINANCIAL PERFORMANCE: A STUDY OF AFGHAN COMMERCIAL BANKING

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### ABSTRACT

*This research embarks on a comprehensive journey to uncover how online banking fundamentally shapes the financial landscape and stability of commercial banks in Afghanistan. With a focal point on the inaugural commercial bank established in the region, the study seeks to delve into the discernible and quantifiable impacts of online banking on the intricate financial operations of these institutions. The specific aim is to meticulously measure and understand the exact influence of online banking on the financial performance of commercial banks in Afghanistan. Anticipated findings from this research endeavor hold the promise of providing crucial insights into the pivotal role that digital banking plays in sculpting the financial trajectory of the Afghan banking sector. Through a rigorous and thorough examination of the effects of online banking, this study aspires to generate invaluable knowledge beneficial not only for industry practitioners but also for policymakers operating within the financial realm. These insights possess the potential to guide strategic decisions and navigate the course of financial practices within the Afghan banking landscape, ultimately fostering a more robust and resilient financial sector.*

**Keywords:** Commercial Banks, Financial Performance, Digital Transformation and Online Banking

### INTRODUCTION

This study holds significant implications for both bank executives and policy makers within the banking and financial sectors. It provides crucial insights into online banking as an integral component of electronic commerce, empowering decision-makers to formulate strategic approaches. Moreover, this research is particularly pertinent for emerging banks, offering solutions to challenges inhibiting the adoption of online banking within the Afghan banking landscape. By showcasing the tangible successes and growth attributed to online banking implementation, this study also identifies specific facets of banking operations

that can be amplified through electronic banking channels. In addition, this research contributes valuable knowledge to the existing body of literature, rendering it an invaluable resource for students, academics, institutions, corporate managers, and individuals seeking to deepen their understanding of electronic banking. The study's focus on the performance of commercial banks based in Kabul further emphasizes its relevance to the local banking landscape. In the contemporary world, the significance of money cannot be overstated. As Hammonds (2006) aptly observes, dismissing the importance of money often leads to financial instability. In this context, banks, as financial institutions, play an integral role in

safeguarding and managing individuals' financial assets. The pivotal position they hold in shaping the global economy is undeniable. Globalization and technological advancement have revolutionized the way organizations operate. This transformation, as noted by Dzaja (2017), has profoundly impacted the banking sector. Banks have transitioned from traditional to modernized services, leveraging technology to enhance accessibility for consumers. E-banking, a prominent strategy adopted by the industry, has not only streamlined processes for banks but has also empowered consumers to conduct transactions from virtually anywhere in the world. Among the array of strategies implemented, financial performance and stability have emerged as a resoundingly successful approach. When banks augment their standard services with specialized offerings, collectively known as financial services, it underscores a strategic move towards greater customer-centricity and operational effectiveness (Jaffer, 2017).

Muriuki's (2020) study presents a comprehensive exploration of the interplay between financial innovation and the adoption of digital integration in enhancing the financial performance of banking institutions. The research extends its focus to the implementation of an online banking system within commercial banks in Kenya. Employing the Ordinary Least Squares test, data spanning from 2011 to 2017 was collected, encompassing a total of 42 selected banks in the sample size. The findings affirm a positive and significant impact of online banking on the financial performance of banks. In light of these results, the study advocates for increased investment in the utilization of online banking, mobile banking, and agency banking services. Such initiatives are poised to bolster overall banking services and augment the income streams of financial institutions.

Shihadeh's (2020) study, on the other hand, is geared towards an in-depth analysis of the usage patterns of online payment services in the Middle East, North Africa, Afghanistan, and

Pakistan (MENAP) region. Leveraging data gleaned from the World Bank's Global Findex database in 2014, the research discerns a noteworthy correlation between online payment service adoption and user demographics, including education level, age, gender, and income bracket. Importantly, this study reveals a direct and substantial influence of online payment services on the financial performance of banks in the MENAP region.

#### **BACKGROUND OF COMMERCIAL BANKS IN AFGHANISTAN**

Afghanistan's banking sector has confronted formidable challenges. In response, new banking laws were enacted in 2003 and early 2004, largely aligning with international best practices. The aftermath of decades-long conflict left Afghanistan's financial and banking systems in ruins. For instance, an informal gray market for money transfers and exchanges still predominates financial services in the country. This has resulted in Afghan private banks encountering difficulties in transferring money from abroad to Afghanistan, despite the passage of anti-money laundering and counter-financing terrorism (AML/CFT) laws. Some foreign banks have reportedly hesitated to act as intermediaries in these transactions.

Between 2002 and 2004, a handful of major banks initially operated, offering essential services as branch-permitted institutions (four banks), private Afghanistan-incorporated entities (four banks), and state-owned relicensed entities (three banks), all holding licenses issued by the Afghanistan Investment Support Agency (AISA) and the Da Afghanistan Bank (DAB). By the close of 2014, there were a total of 17 licensed banks, including three state-owned banks and five branches of foreign banks. Additionally, there were 89 licensed money service providers, with an additional eight in the licensing process. Furthermore, 14 microfinance institutions, including 12 non-governmental organizations, provided crucial financial support to the business sector in Afghanistan. Pioneering the landscape was the

Afghanistan International Bank (AIB), established on March 22, 2004.

E-banking technology has witnessed a substantial expansion in recent years, presenting a promising foundation for an efficient and effective financial infrastructure. E-banking services leverage modern technologies to provide a wide array of conventional banking services to customers around the clock. These encompass a range of services accessible via electronic tools such as ATMs, point of sale terminals (POS), Master Cards, Maestro Cards, online banking, SMS banking, statement accessibility, wire transfers, payroll transfers, and more.

In the current landscape, most banks are adapting and refining their e-banking services to meet customer demands. This enables banks to deliver exceptional service and play a significant role in bolstering economic development through streamlined financial services. Offering services electronically is considered a crucial aspect for banks to remain competitive and profitable. E-banking presents immense opportunities across various business domains, with its success contingent on factors like client preferences, resource availability, system security, a reputable brand, integrated distribution channels, effective marketing strategies, support from top management, and superior customer service. Proactive initiatives to offer e-banking facilities are pivotal for banks to thrive in the ever-evolving financial landscape.

Through e-banking platforms, customers gain access to a myriad of banking services not only at their convenience, but also with the assurance of confidentiality and security. Whether from the comfort of their homes, offices, or any other location, customers can engage in banking affairs through internet or other networks, television, telephone/modems. The accelerating shift towards electronic bases in banking operations underscores the need to monitor efficiency in order to accurately gauge a bank's standing in the global arena. Banks

equipped with robust electronic foundations are gaining momentum, while others grapple for survival. In recent years, we've witnessed a quiet revolution in payment methods, as more transactions occur electronically rather than with physical cash. For individuals with hectic schedules, e-banking services and products offer a convenient alternative to waiting in line at a physical bank branch. The advantages of e-banking, including secure transactions and the ability to conduct banking affairs from anywhere, are numerous and cater to the modern lifestyle. Additionally, various products like Master cards, ATMs, POS terminals, SMS banking, mobile banking, and more further enhance the convenience and efficiency of banking operations.

#### **BAKING CHALLENGES IN AFGHANISTAN**

The banking sector in Afghanistan has undergone significant transformations since the advent of e-banking. Today, customers enjoy efficient, swift, and user-friendly banking services. In their pursuit of providing top-notch services, most Afghan banks are allocating substantial financial resources towards Information and Communication Technology (ICT). While the rapid advancements in IT have undoubtedly streamlined certain banking operations, the investments in technology are consuming a larger portion of a bank's resources. Presently, besides personnel expenses, technology stands as the foremost item in a bank's budget and is witnessing the most rapid growth. However, along with this financial innovation comes the challenge of plastic card fraud, particularly involving lost or stolen cards and counterfeit card scams. Banks are faced with the imperative task of effectively managing costs and risks associated with electronic banking. Hence, it is crucial that innovations in online banking are undertaken with a thorough analysis of the accompanying risks and costs to safeguard the overall performance of the bank. Striking a balance between the efficiency and effectiveness of electronic banking, and implementing stringent controls and standards to mitigate associated

losses, is paramount for a bank's sustained prosperity. This equilibrium can only be achieved through a comprehensive understanding of the holistic impact of electronic banking on both the banks and their clientele.

Despite the potential advantages of online banking and e-commerce, there exists a debate regarding whether and how their adoption translates into improved bank performance. Previous studies exploring the impact of electronic banking on bank performance yield conflicting findings. For instance, studies conducted by Kariuki (2005), Kamau (2010), and Mbugua (2009) have demonstrated the positive influence of online banking on banking performance, utilizing metrics such as bank turnover and profits. Conversely, findings from studies by Davenport (2003), Oshikoya (2007), and Jean-Azam (2006) suggest that the utilization and investment in ICT necessitate supplementary investments in skills, organizational restructuring, innovation, and investment. Such transformations and expenditures come with inherent risks and costs, potentially leading to a short-term reduction in bank profits and turnover. Given that all these studies employed profit and turnover as benchmarks for bank performance, it is imperative to incorporate relative measures like return on assets to unveil the true impact of online banking investments on banking performance.

The banking landscape in Afghanistan has undergone remarkable shifts since the introduction of e-banking. Today, Afghan banks are offering customers streamlined, efficient, and user-friendly banking services. In their pursuit of excellence, these banks are making substantial investments in Information and Communication Technology (ICT). While these advancements have undeniably enhanced certain banking operations, the costs associated with technological investments are becoming a significant portion of a bank's budget, alongside personnel expenses.

Yet, the introduction of e-banking has also brought forth the challenge of plastic card fraud, particularly involving lost or stolen cards and counterfeit card scams. Banks are now tasked with efficiently managing the costs and risks associated with electronic banking. Thus, it is imperative that innovations in online banking are undertaken with a thorough analysis of the accompanying risks and costs to safeguard the overall performance of the bank. Striking a balance between the efficiency and effectiveness of electronic banking, while implementing stringent controls and standards to mitigate associated losses, is crucial for a bank's sustained prosperity.

This equilibrium can only be achieved through a comprehensive understanding of the holistic impact of electronic banking on both the banks and their clientele. Despite the potential advantages of online banking and e-commerce, there exists a debate regarding whether and how their adoption translates into improved bank performance. Previous studies exploring the impact of electronic banking on bank performance yield conflicting findings. Some studies indicate positive impacts on banking performance, while others suggest that the use of ICT requires supplementary investments in skills, organization, and innovation, potentially leading to a short-term reduction in bank profits and turnover.

These analyses and evaluations have been conducted using various models, such as the CAMEL or CAMELS models, which evaluate financial institutions based on critical dimensions including capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to market risk. In this ever-evolving landscape, banks are continuously striving to strike a balance between adopting cutting-edge technology and managing associated risks to ensure their sustained prosperity and contribute to the economic well-being of society. E-Banking stands as a testament to the ongoing revolution in information and communication.



### Online Banking and Financial Performance

Several longitudinal studies have delved into the ramifications of e-banking adoption on financial performance, yielding a spectrum of conclusions. The extensive analysis conducted by Hernando and Nieto (2017) on 72 Spanish commercial banks spanning from 1994 to 2002 revealed that the positive effects of e-banking implementation on bank performance become noticeable after approximately three years, demonstrating a significant boost in financial profitability for the sample banks.

Meanwhile, Onay et al. (2008) undertook a comprehensive examination of the impact of internet banking on the financial outcomes of Turkish banks, utilizing data from 1996 to 2005 across 13 banks. Their study, in alignment with Hernando and Nieto's methodology, introduced additional simple and macroeconomic control variables. The findings indicated a beneficial influence of e-banking on banks' Return on Equity (ROE) with a lag of two years.

In Bangladesh, Rahman (2014) scrutinized the effects of advanced technology on the profitability of local banks, observing that technology-adopted banks experienced heightened productivity as they matured. While the study highlighted improved efficiency over time, it did not expound on the criticality of these changes.

Aduda and Kingoo (2012) conducted a study focusing on Kenyan banks, utilizing the Pearson Product-Moment Correlation Coefficient Test. Analyzing data from twenty-seven banks between 2006 and 2010, their research unearthed a clear and substantial marginal impact of e-banking on asset returns.

Shifting to Iran, Karimzadeh et al. (2014) explored the influence of e-banking on a sample bank's profitability, employing Return on Assets (ROA) as a key metric. Their study, based on quarterly data from 2004 to 2012, demonstrated a robust positive correlation between e-banking development and the sample bank's profitability.

Lastly, Rauf and Qiang (2014) assessed the impact of e-banking on the profitability of Pakistani commercial banks, considering metrics such as Return on Assets, Return on Equity, and Interest Margin. Their empirical investigation revealed a notable positive impact of e-banking on recent adopters' margins, ROA, and ROE. Early adopters, however, exhibited a significant positive influence primarily on ROE and Margin, with a more modest effect on ROA. These findings underscore the significance of e-banking as a cost-saving mechanism for banks to effectively compete with both domestic and foreign counterparts, contingent on adept tracking and risk management practices.

Al-Smadi and Al-Wabel (2015) conducted an extensive examination of the impact of e-banking on the performance of Jordanian banks, utilizing panel data from fifteen Jordanian banks over the period of 2000-2010. They assessed bank productivity through Return on Equity (ROE) and incorporated two sets of control variables. Employing the pooled Ordinary Least Squares (OLS) regression approach, they discerned notable negative effects of e-banking on the financial performance of banks. However, it's worth noting that the study didn't delve into ROE after just one year of e-banking adoption. Given that investments are required to integrate e-banking technology, it's plausible that a recovery of costs and profits may necessitate some time.

Malhotra and Singh (2016) scrutinized the influence of internet banking on the efficiency and risk profile of Indian commercial banks within the Indian context. Their findings indicated no significant association between the competitiveness of banks and the availability of internet banking. In Nigeria, Oyewole et al. (2013) embarked on research to assess the impact of e-banking on bank performance.

Sadr conducted a cross-country study across selected Asian nations in 2016. By

incorporating bank-specific and macroeconomic variables and employing a fully modified Ordinary Least Squares (OLS) approach, the author empirically found that internet banking contributed to an increase in Return on Equity (ROE) with a time lag of three years. However, a negative impact was observed with a one-year lag.

Turning to Turkey, Onay and Ozsoz (2013) analyzed panel data from 18 retail banks operating in the country from 1990 to 2008. They discovered that the acceptance of Internet banking was positively associated with the overall profits, deposits, and loans per branch. Interestingly, the study also revealed that the embrace of internet banking after two years of implementation had a negative effect on bank profitability. According to the authors, online banking enhances competitiveness, resulting in lower interest income, which may account for this negative outcome.

England et al. (1998) conducted a pivotal study that assessed the prevalence of U.S. banks offering internet banking and examined the architecture and productivity features of these banks. Their findings indicated that, in terms of performance, stability, or credit efficiency, banks providing internet banking operations didn't significantly differ from those that didn't. Notably, transactional internet banks differed most significantly from other banks in terms of size.

Contrarily, Furst et al. (2002) observed that, across various categories of internet banking, banks tended to be generally more profitable and leaned less heavily on traditional banking activities compared to non-internet banks. The exception to this trend was the latest startups of internet banks, which proved to be less competitive and less profitable than their non-internet banking counterparts. The authors concluded that internet banking was a relatively small factor in influencing the viability of banks.

Sullivan's (2014) examination of click and mortar banks in the 10th Federal Reserve District revealed that although these banks

experienced slightly higher operating expenses, they offset these losses with somewhat elevated fee income. Notably, the study found no structural evidence to suggest that banks were significantly either advantaged or disadvantaged by the availability of the Internet delivery network. Additionally, the study highlighted that de novo click and mortar banks performed slightly lower than their brick and mortar counterparts, aligning with the conclusions drawn by Furst et al.

Hassan et al.'s (2015) research suggested that Internet banking organizations demonstrated slightly superior performance compared to their non-Internet counterparts. Furthermore, the risk factors associated with Internet banking seemed to be comparatively lower relative to the non-Internet category. In contrast, Carlson's (2001) investigation into the impact of internet banking on financial outcomes in U.S. national banks indicated that there was no independent effect of internet banking on financial performance.

Abdu's (2015) study delving into the effects of advanced technology on the profitability of Malaysian banks indicated that technology-adopting banks experienced enhanced performance as they approached maturity. However, the study's limitation lies in the fact that while it demonstrated improvements in over-time efficiency, it did not explicitly explain whether such changes were essential or not.

Berger (2014) established a positive correlation between e-banking and the financial performance of banks, employing the Pearson Product-Moment Correlation Coefficient Test. Using data from twenty-seven banks spanning 2006 to 2010, the authors discerned a clear and meaningful marginal impact of e-banking on asset returns, particularly for banks based in Kenya.

Ceylon's (2016) evaluation of the impact of e-banking on the profitability of Turkey's commercial banks, in terms of Return on Investment, Return on Equity, and Interest

Margin, yielded significant findings. The study revealed that e-banking had a notable positive effect on the margins of recent adopters, particularly in terms of ROA and ROE. Early adopters, on the other hand, exhibited a significant positive impact on ROE and Margin, albeit to a lesser extent on ROA. The study emphasized that banks should consider e-banking as a cost-saving mechanism to compete with both domestic and foreign banks, provided it is managed effectively with vigilant risk management.

Carson's (2017) investigation into the effect of e-banking on the performance of Jordanian banks, employing panel data from fifteen Jordanian banks over the period of 2000-2010, focused on productivity assessed through ROE. The study found substantial negative impacts of e-banking on the financial performance of banks. One notable limitation was that the study didn't explore ROE after just one year of e-banking adoption, indicating that the incorporation of e-banking technology might necessitate some time for cost recovery and profit generation due to the initial investments involved.

Malhotra's (2014) examination of the influence of internet banking on the effectiveness and risk factors of Indian commercial banks revealed no significant correlation between the competitiveness and availability of internet banking in the Indian context. In a study focused on Nigerian banks, Malhotra (2015) utilized panel data spanning from 1999 to 2010 for eight commercial banks.

Sadr's cross-country study involving four banks in selected Asian countries (2013) employed a comprehensive analysis, factoring in both bank-specific and macroeconomic variables. The results suggested that internet banking contributed to an increase in Return on Equity (ROE) with a time lag of three years, while a negative impact was observed with a one-year lag.

Sathye's research (2016) covered the period from 1990 to 2008 and involved panel

data from eighteen retail banks operating in Australia. The study highlighted a positive association between internet banking adoption and the aggregate of profits, deposits, and loans per branch. Interestingly, the study also revealed that the adoption of internet banking after two years of implementation had a negative effect on bank profitability. This was attributed to enhanced competitiveness in the online sphere, leading to lower interest income. Sanders (2017) observed that, in general, banks engaged in various categories of internet banking tended to be more efficient and placed less emphasis on traditional banking activities compared to their non-internet banking counterparts. Notably, the study identified exceptions in the form of newer internet banks, which were less competitive and less profitable compared to non-internet banks.

Abaenewe's (2013) examination of banks in the 10th Federal Reserve District revealed that click and mortar banks experienced slightly higher operating costs. However, these costs were offset by somewhat higher fee income. The study concluded that, on average, there was no structural evidence to suggest that banks were significantly advantaged or disadvantaged by the availability of the internet delivery network.

#### **FEES AND COMMISSIONS ON FINANCIAL VIABILITY**

The advancement of technology and the digitization of services have sparked heightened competition within the financial industry. This surge in competition has, in turn, eroded the cost advantages traditionally enjoyed by banks. Consequently, the profitability of conventional banking activities has witnessed a decline, prompting banks to diversify into non-traditional services that yield fees and commissions (Edwards & Mishkin, 1995; Rogers & Sinkey, 1999; Davis & Tuori, 2000). In Europe, the proportion of non-interest income (NII) relative to total income surged from 26% to 41% between 1989 and 1998 (Lepetit, Nys, Rous, & Tarazi, 2005). Notably, a significant portion of NII is attributed to net fee and commission income

(NFCI), accounting for an average of 58% of all NII in EU countries from 1993 to 1998. However, the makeup of NII varies considerably across European nations. For instance, in 1998, NFCI represented over 70% of NII in the United Kingdom, while in Portugal and Sweden, it constituted only 35% (ECB, 2000).

As banks have increasingly ventured into non-traditional realms, generating income from fees and commissions, there has been a surge in literature examining the common characteristics of banks diversifying into these unconventional areas. While more studies have sought to document the determinants of non-interest income (NII) at the bank level, research exploring the correlation between market concentration and the magnitude of net fee and commission income (NFCI) is relatively scarce. The pioneering work of Moshirian, Sahgal, and Zhang (2011) was instrumental in this regard. Drawing on data from 20 developed countries encompassing 109 banks, they discerned that banks facing high market concentration tend to engage in lower levels of non-interest income activities. Furthermore, they incorporated a variable measuring changes in market competition, revealing a significant negative relationship. This implies that even minor fluctuations in market concentration have a substantial impact on the income composition of banks. It suggests that banks operating in highly competitive environments are more inclined to undertake ventures into non-traditional activities, which may entail higher risks.

#### **INTERNET COSTS ON COMMERCIAL BANK FINANCES**

The rapid evolution of technological infrastructure, marked by a surge in personal computer ownership, enhanced Internet connectivity, widespread online access in homes and businesses, and a significant reduction in associated costs, has positioned the Internet as a pivotal component in the strategic framework of banks (Delgado and Nieto, 2004).

Hernando and Nieto's (2007) study unveiled an intriguing trend: operating costs initially rise following the adoption of Online Banking, only to gradually decrease over time and eventually yield substantial benefits three years post-implementation. However, DeYoung's (2001) findings contested the notion that the Internet channel serves as a low-cost substitute for traditional brick-and-mortar branches. Moreover, evidence suggests that internet-related expenses may escalate, such as the costs incurred by 24/7 customer support call centers or the need for a more skilled labor force to manage the intricacies of advanced delivery systems.

The comprehensive examination conducted by Furst, Lang, and Nolle (2002), encompassing a larger cohort of banks offering online services, indicated a positive correlation between the presence of Online Banking and higher Return on Equity (ROE). Yet, it's crucial to acknowledge that the implementation of online banking, in most instances, has led to an uptick in production costs, presenting a challenge for commercial banks. Khater, Almansour, and Mahmoud's (2016) investigation in Sudan reinforced the significance of internet connection quality in influencing behavioral intent to utilize Online Banking services. While a multitude of studies dissect the financial performance of various entities, considering a plethora of variables ranging from internal to external factors and employee performance, a noticeable gap exists in scrutinizing the impact of internet banking on the financial performance of commercial banks in Afghanistan. This study fills this void by meticulously evaluating the repercussions of online banking on the financial health of commercial banks.

This research endeavors to unravel the intricate relationship between online banking and the financial prowess and stability of commercial banks. The conceptual framework, crafted through a thorough review of literature, identifies critical factors influencing the financial performance of banks engaged in



online operations. These include the reliability of the online banking system, flexibility, privacy, ease of navigation, safety measures, as well as associated charges and fees. Technological strides have ushered in a new era of banking, transitioning from traditional models to the dynamic landscape of online banking. This transformation has not only positioned online banking as a significant revenue stream for banks worldwide but has also emphasized the importance of human competencies and skills in tandem with technology. Consequently, countries with a burgeoning online banking sector have witnessed an upswing in the financial performance of banks. Even in emerging nations, online banking holds immense potential, given their substantial populations and a growing percentage of online users. The convergence of technology and banking has thus emerged as a powerful force reshaping the financial landscape globally.

#### **ROLE OF WTO IN BANKING ACTIVITIES IN AFGHANISTAN**

WTO membership signifies Afghanistan's dedication to global trade norms, instilling trust and credibility among international partners and investors. (Hashimy, 2021a) This, in turn, makes the country's banking sector more appealing for foreign investments and collaborations in digital financial ventures. Additionally, it provides a safety net for Afghan banks engaged in cross-border digital transactions, reducing associated risks. The adoption of digital financial technologies encouraged by the WTO can play a transformative role in advancing financial inclusion within Afghanistan, granting previously underserved populations greater financial empowerment. (Hashimy, 2021b) As part of the WTO community, Afghanistan would be integrated into a global ecosystem that fosters technological innovation, potentially leading to collaborative efforts with international partners in developing cutting-edge digital financial solutions, further strengthening the capabilities of Afghan commercial banks. Moreover, WTO membership may facilitate the exchange of

knowledge and expertise in digital financial services, with training programs and technical support from established players in the international banking community. (Hashimy & Magoge, 2021) This would help Afghan banks stay at the forefront of industry trends and technologies. With a robust digital financial infrastructure driven by WTO-led reforms, Afghanistan can lay the foundation for sustainable economic growth. Streamlining financial operations and expanding access to international markets through digital platforms can significantly contribute to the country's overall economic development. It is crucial to recognize that while WTO membership offers numerous benefits, it necessitates careful planning, effective policy implementation, and a steadfast commitment to meeting international standards. Addressing regulatory challenges and investing in essential infrastructure will be pivotal in realizing the full potential of digital financial performance in commercial banking for Afghanistan.

#### **CONTEMPORARY ISSUES OF BANKING IN AFGHANISTAN**

The infusion of digital technology into the Afghan commercial banking sector signifies a monumental leap toward progress and innovation. This transition not only reshapes the operational landscape of financial institutions but also acts as a linchpin for elevating overall financial performance and ensuring enduring viability.

The introduction of state-of-the-art digital solutions has bestowed upon Afghan banks a newfound ability to refine their processes, optimize customer interactions, and amplify financial inclusivity. By embracing pioneering fintech tools, these institutions now stand equipped to deliver a wide spectrum of services tailored to the ever-evolving demands of their diverse clientele. Mobile banking applications, online payment gateways, and the transformative potential of blockchain technology represent just a glimpse of the expansive digital toolkit at their disposal.

## Conclusion

Foremost among the merits of this digital revolution is its capacity to extend financial inclusion across Afghanistan—a pivotal stride towards empowering the economy and establishing a foundation of stability. Through the strategic deployment of technology, commercial banks can bridge the gap to hitherto neglected and remote regions, affording individuals and enterprises the opportunity to participate in the structured financial framework.

Yet, amid these prospects, come a set of distinctive challenges. The paramount task of shielding sensitive financial data and fortifying defenses against cyber threats assumes paramount importance in an era of heightened interconnectedness. Commercial banks must invest fervently in resilient cybersecurity measures, craft comprehensive risk management protocols, and uphold adherence to ever-evolving regulatory standards to buttress their digital fortifications.

Furthermore, the effective navigation of this digital transformation calls for a fundamental shift in organizational ethos. Banks must nurture a culture characterized by adaptability, perpetual learning, and a spirit of innovation to fully harness the potential of digital tools. This entails equipping their workforce with the requisite skills to leverage advanced technologies, while fostering a collaborative environment conducive to imaginative problem-solving.

In light of these considerations, the forging of strategic alliances with fintech enterprises, regulatory authorities, and other key stakeholders emerges as a critical imperative. Through concerted cooperation, an ecosystem of innovation and knowledge exchange can be cultivated, propelling the Afghan commercial banking sector towards a future defined by sustainable expansion and unwavering resilience. This collective effort stands poised to steer the sector through the currents of change towards a horizon of enduring prosperity.

This study embarked on a mission to discern the influence of online banking on the financial performance of commercial banks in Afghanistan. The central research question driving this endeavor was to ascertain the precise impact of online banking on the financial performance of commercial banks within the Afghan context. The overarching objective was to unearth the nexus between online banking and the financial prosperity of these institutions. The study unfolded across five comprehensive chapters.

Within the backdrop of the Afghan banking sector, a pressing challenge emerged concerning the need for swift service delivery, with technology standing out as a pivotal catalyst for meeting this demand, thereby minimizing processing time.

The literature review traversed pertinent domains encompassing the financial performance of banks, the interplay between online banking and financial outcomes, the ramifications of fees and commissions on bank profitability, and the effects of cost-effective internet access on the financial performance of commercial banks. Notably, the review identified a distinctive gap in the literature—while previous studies had delved into the financial performance paradigm, this particular study stood as a novel contribution within the Afghan context.

From the troves of literature, five key independent variables were distilled, elucidating the critical facets of online banking system functionality: reliability, flexibility, privacy, ease of navigation, and security.

It delineated the research philosophy as positivist, adopting a deductive and quantitative approach. Data was sourced directly from commercial banks operating in Afghanistan, representing the entirety of the population. The sample size, comprising 384 data points, was determined through probability sampling.

The analysis commenced with a two-fold scrutiny: an in-depth examination of demographic variables, followed by a rigorous assessment of reliability and validity. Subsequently, regression analysis was applied to distill insights.

The outcomes of this analytical journey culminated in several key revelations. The reliability analysis, validated through Cronbach's Alpha, demonstrated a robust coefficient of .733, affirming the fitness of the data collection instrument for subsequent analysis. Notably, the correlation coefficients unveiled intricate relationships between variables: flexibility and privacy displayed a positive correlation of 48 percent, while privacy and reliability exhibited a similar positive correlation of 48 percent.

A critical milestone was achieved with the variance analysis, affirming the model's aptitude in predicting outcomes related to device usage. The F-ratio, signifying the model's accuracy, yielded a statistically significant result ( $p < .05$ ), affirming the model's enhanced predictive capacity.

In finer detail, the study unearthed that while there was an insignificant relationship between reliability and financial performance, the impact of online banking on financial performance was deemed insignificant. Conversely, a significant relationship between privacy and online banking emerged. The coefficient of the estimate ( $p = .031$ ) indicated a statistically significant impact, with a positive coefficient of 0.122 suggesting that an increase in privacy corresponded to a commensurate increase in financial performance. This finding served as a noteworthy affirmation of the profound impact of privacy in driving financial outcomes.

Upon the culmination of this study, several recommendations have emerged for the discerning consideration of policymakers within the banking sector, particularly in Afghanistan, where the prevalence of policies pertaining to digital services and online

transactions is notably deficient. It is imperative for Afghan banks to adopt an open-access policy, ensuring that all strata of society can avail themselves of these services.

The findings of this study illuminate a positive correlation between the utilization of online banking and the enhanced financial performance of commercial banks. Thus, it becomes imperative to harness the potential of online banking to bolster financial outcomes. Banks must place a concerted emphasis on facets such as flexibility, reliability, safety, privacy, and ease of navigation to optimize their financial performance.

It is noteworthy to underscore that this study exclusively delved into the realm of online banking, focusing solely on commercial banks. Future research endeavors could encompass a broader spectrum of dimensions, providing a more comprehensive understanding of the digital landscape within the banking sector. Moreover, extending this study to encompass both public and private banks would offer a more nuanced perspective, facilitating a thorough evaluation of the impact of online banking across various banking institutions.

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