

Fintech-Enabled Digital Service Infrastructure and Bank Performance: Evidence from Jordan

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Abstract. By describing the different financial technology features that can be utilized as a vehicle for digital transformation. This study intends to illuminate a light on the current condition of financial technology implementations with a specific focus as to how it impacts the performance of banks operating within Jordan. This topic is becoming more important as a consequence of the financial and technological advances that are being observed by the global financial arena. In light of this, the views of a number of bank employees were analyzed by applying different statistical techniques, relying on a questionnaire comprising 15 items that was designed and distributed to 310 respondents in order in order to meet the study's objectives. The most notable of the findings is that there is a very strong and positive connection between financial technology and bank performance. Furthermore, some recommendations for commercial banks have been proposed based on the findings as these banks need to maintain a responsible attitude and recognize the significance of the impact that financial technology implementation has on performance. They are additionally required to keep up with innovations in finance and pay attention to the requirements for doing so in order to ensure continuity and generate profits.

Keywords: Financial Technology, Innovation, Bank Performance, Commercial Banks, Fintech

1. Introduction

The banking industry is considered as a significant player in any economy since it works to promote the mobility of funds in a way capable of providing adequate financing for a variety of investments in order to stimulate prosperity and accelerate growth rates. Depending on their operating environment and the level of competition, financial institutions like banks strive for leadership and growth to reach the highest peak. Perhaps as a result, they inevitably experience the need to attempt to improve their organizational structure as well as develop new working practices and techniques to meet their assigned goals. Throughout the previous decade, the industry of financial services has witnessed a radical change in banking practices pertaining to technological advances and innovation as a result of the convergence of information technology, network computing, and encryption innovations (Kammoun et al., 2020)

Due to the waves of globalization and the accelerating pace of innovation, the banking environment has recently seen a kind of dynamism and complexity. This has presented banks in various countries with a number of challenges to keep up with the changes taking place in order to preserve their stakes in financial companies and expand more toward prospective markets in which numerous fields of interest have arisen in various ways, concern with expansion of financial services, such as financial technology and artificial intelligence, which banks strive to adopt, to lower operating costs, enhance performance, and get closer to clients. Consequently, contemporary technology has given rise to a brand-new industry that combines technical and financial expertise to deliver financial services and boost organizations' internal performance. Traditional financial services can be restructured to be more rapid, less costly, more secure, more transparent, and easier to access using financial technology. A system dedicated to supporting Fintech technology and small businesses has been established by the banking sector to help small businesses serve their communities, boost the national economy, and create new employment and investments (Kheira, 2021).

This study examines the impact on financial performance, as a dependent variable, on financial technology, as an independent variable. The primary objective of the research focuses on the ability of Jordanian banks to achieve financial performance by developing their financial products in line with the latest innovations. The research also seeks to clarify the extent to which financial technology contributes to expanding financial inclusion and the reach of banking services to a larger segment of the population in Jordan, a developing country, by providing easy, high-quality, and low-cost services. The study population comprises the Jordanian banking sector during the period that witnessed the actual shift towards adopting electronic services.

Years ago, Jordan, like other nations, started integrating these technologies into a variety of banking operations, particularly electronic transfers, the usage of electronic payment cards, as well as electronic clearing systems, and these practices significantly contributed to eliminate the routine work that was used in light of conventional banking activities. Thus, this work was created in an effort to shed light on one of the most crucial issues in the banking industry, namely financial technology, its significant innovations, and its vital function in supporting and stimulating the banking industry to provide the appropriate banking solutions in order to ensure the accomplishment of the principles of progress specifically, there is a lack of impact measurement at the employee perspective level, a lack of evidence in emerging economies under digital transformation, and a contradiction in the level of significance findings in the financial technology and performance literature. In light of this, in order to ascertain the extent to which Jordanian commercial banks' performance is impacted by financial technology, and to get acquainted with the reality of implementation of financial technology among these banks, and in order obtain outcomes and some beneficial guidance, the problem of the study was formulated as follows:

To what extent does financial technology have an impact on Jordanians commercial banks permanence?

2. Review of Relevant Literature

One of the most important business concerns is how innovation in finance technology impacts banks' performance. Numerous investigations have been conducted on this subject in aim of improving the awareness of human capitals in businesses and financial technology innovation as well as to foster a supportive work environment for those who interact with customers and employees in institutions for administrative tasks and service needs. Given the state of the economy right now, the bank is paying greater attention to technology than ever before. Rapid and ongoing change, fierce competition, and a high level of client awareness are its defining characteristics. The deployment of financial technology by banks is therefore viewed as one of the strategic choices required to accomplish the factor of stability and improve performance, which forms the foundation of the bank's success. Through it all, the topic was approached from a perspective that dealt with theoretical literature on banking performance and conceptual literature on financial technology.

2.1 Financial Technology

Despite being a broad phrase, financial innovation can be categorized according on changes made to various aspects of the financial system. Significant advancements in finance have been made in mobile banking, remittances, and raising equity capital. Financial innovation resulted from improvements over time in the payment methods and financial instruments used for lending and borrowing money. Financial technologies are game changer for the banking industry. Kumar et al. (2022) stated that business is changing as a result of a variety of high-tech innovations developed in reaction to the financial world's absurdity, ambiguity, complexity, and unpredictability. Banks have embraced this change and incorporating financial technology into their banking products and services, which include blockchain security, artificial intelligence models, and consumer guidance, among many other things.. These modifications include advancements in technology, the transfer of risk, and credits generation. (Chen, 2020). The fintech sector is taking on greater significance as it integrates into the ecosystem of financial services. By providing practicality, accessibility, convenience, and improved efficiency and effectiveness in completing transactions, this business has succeeded in changing an existing banking market (Tripalupi, 2019).

Financial technology has several definitions, but Leong, K., & Sung (2018) described it as "an interdisciplinary subject that combines finance, technology management, and management innovation. These developments cover a range of digital instruments used in banking operations, such as currency exchange, money transfers, client transactions, and other financial products and services, calculations of interest rates and profits, understanding of expected returns on ventures, and other banking activities. Fintech, according to Malika and Yousef (2018), refers to financial services and products that leverage technology to raise the caliber of conventional financial services. Additionally, according to Rumondang et al. (2019), Fintech refers to a technology-based financial solution that combines all of the services and different products that banks typically offer. The aforementioned definitions lead to the conclusion that financial technology is a relatively new area of finance. Financial technology proposes technological solutions in accordance with various working conditions, such as using smart phones for banking services, mobile investment services, and encrypted digital currencies whose aim is to make the banking services more accessible to clients. Customers who reside in remote areas that the system of banks has not touched can now get financial services thanks to fintech. Fintech not only creates services that are simpler to use, but it can also provide services that are less expensive by cutting costs associated with providing services that banks have traditionally performed. Customers merely need a smartphone with an internet connection for accessing fintech services (Suryanto et al., 2020).

The adoption of financial technology (FinTech) should not be viewed as a separate tool, but rather as a crucial pillar in the transformation of information systems and the reshaping of the digital infrastructure of institutions, including banks. Arner et al.(2015) pointed out that the transfer of data

and information between different units through the adoption of financial technology tools supports operational efficiency. Furthermore, financial technology, with its various tools and applications such as digital finance solutions, helps in developing logistical processes and building service networks that enhance digital intermediation. This confirms that financial technology has moved from being an innovative concept to becoming an integrated infrastructure. . Financial technology contributes to transforming the transfer and flow of information from closed systems to open networks that use application programming interfaces (APIs). Through process automation, reduced marginal costs, and data integration, it enhances operational efficiency and reduces the information gap, achieving a fundamental transformation in transaction logistics by replacing traditional financial supply chain intermediaries with digital infrastructure that enables the collection and settlement of instant, sustainable, and cross-border liquidity. This justifies redesigning service delivery networks to become platform-based business models, enabling the sustainability of service delivery as a digital infrastructure rather than as banking products. The transformation in the role of financial technology can be summarized as a shift from mere general innovation to a fully integrated digital infrastructure. Yousef et al. (2024) revealed that the use of technological and computer tools improves the performance of Islamic banks as a likely result of reducing credit risks. (Alshouha et al., 2025) study indicated that financial technology innovations have an inverse effect on liquidity risks, and thus contribute to improving bank performance. It also showed that bank size modifies this relationship, as the larger the bank, the more this relationship is affected. This, in turn, improves the smooth flow of logistics and transaction information, supporting institutional performance via automated service distribution webs.

Al-Alawneh (2026) provided evidence on how financial technology innovations have impacted the performance of Jordanian banks, which represent a sample of emerging markets. The results showed that digital payments were the most influential factor in the growth of financial performance, ahead of artificial intelligence, blockchain technology and machine learning. Enhancing the transformation in developing digital infrastructure, which achieves financial inclusion as a vision adopted by the Central Bank, supports competitiveness by reaching wider customer segments and improving operational efficiency. This was confirmed by the results of the study by Kayed et al. (2025), which showed that expanding the use of financial technology in banks did not prove to have any significant impact on equity returns, while it had a negative impact on the level of risk and led to a significant increase in profitability, thus creating a clear positive impact on performance and resilience.

According to the study's findings, the bank has adapted to the digital age and financial technology has a big impact on the banks in terms of benefits it offers to both customers and businesses without threatening the stability of the financial system. In addition, Abou Shakra, 2019 discussed the study of financial technology applications in Lebanon compared to global financial technology, with the aim of determining the degree of the bank's response to customers' needs and whether the adoption of this technology in the bank has a positive impact on both the quantitative and qualitative evaluation of the information concluded that the direct application of financial technology in Lebanon is not easy, and Despite challenges, Lebanese consumers are also fully aware of these advancements and technologies.

In 2017, Ankenbrand et al. addressed the issue of how Swiss banks position themselves towards fin tech and provided an investigation for information on developments and trends in the IT departments of Swiss banks. On the other hand, they analyzed annual reports of banks to identify the anticipated significance of digitization and fin tech in the banking sector, there still exist some gaps in the implementation of new technologies, and one of the study's findings is that the customer places more value on the use of contemporary technologies than their simple application. Another finding is that the notion of financial technology has moved from theory to real life, which was supported in 2018 by the continued growth of Swiss fin tech firms. However, in many instances, the fall in the relevance of banks is not due to unethical competition by fintech businesses or technology companies; rather, it is the consequence of new technologies being applied more quickly and effectively. Of course, if they have

the capabilities and corporate cultures to quickly and steadily integrate technology advancements, traditional banks can benefit from the digital transition.

The development and delivery of financial services will no longer follow the current model, according to Tidd & Bessant's (2020) forecast. The nature of financial services and products makes the impact of technological developments on the banking industry quite clear. Fintech is now starting to take over financial services, which have hitherto been a source of revenue for the banking sector. This obviously has a big impact on the development of banking performance.

2.2 Bank Financial Performance

Performance is a crucial instrument for increasing market competition amongst firms. Through the knowledge of validating the real signs and comparing them with the planned indicators for a specific period of time, it is similar to a fingerprint that reveals the desired improvement tendencies for the activity of the organization's operations for its general aims (Yang et al., 2019). As a result, the measure of banking performance is generally reliable because, for instance, a bank's performance may be stronger when compared to that of bank (A) while being weaker when compared to that of bank (B). The word "performance" generally refers to the actual carrying out of the stages of labor, or as some mean by it, the outcomes. In comparison to how the bank actually intends to fulfill its goals.

Performance, described by Hajer and Anis (2018), is the successful achievement of the business's (or bank's) set objectives within a given time frame, at the lowest feasible cost, and while making the best use of the resources at hand. The work environment, market competition, and profitability are a few examples of the factors that managers may use to gauge success. The standard of services offered to customers or the general environment of the workplace could be used to assess an employee's performance. The diversity of groupings inside of an organization is reflected in the wide variety of strategies that are accessible, which affects how performance is achieved. Chen (2020) also discovered that the launch of internet-based banking has substantially boosted bank efficiency in general.

2.3 FinTech and Banks Performance

The findings of numerous empirical investigations showed that some innovation characteristics had a favorable effect on the performance of banks. Decide whether financial technology will be able to satisfy the people's lending needs, which have not been adequately met by banks, for instance, according to Jagtiani & Lemieux (2018). This claim directly relates to the study done by Liu et al. (2017). Additionally, Ntwiga (2020) research examines whether a merger between a bank and a fintech company will increase efficiency and benefit the banking industry. In his study, he divides the five data points from the annual reports of banks from 2009 to 2018 into two time periods before and after the use of fintech, respectively, from 2009 to 2014 and from 2015 to 2018. He then examines the effects of fintech on bank transactions during these two time periods. The end result is that the collaboration between fintech and banks had a favorable and effective effect, and that banks' efficiency rose during the time that fintech was utilized.

In this context, the study found that there is no complete consensus on the impact of fintech adoption on overall performance and specifically on banks. For example, Kaddumi et al. (2023). indicated that fintech adoption increases deposits, loans, and profitability indicators in commercial banks, thus positively impacting financial performance. Conversely, Li (2025) found that, due to competitive pressures and short-term technological investment costs, fintech development may negatively affect bank performance as measured by profitability. Lv et al. (2022). also found a different and noteworthy result, showing that the relationship may be non-linear or U-shaped, where fintech initially harms bank profitability but improves it in later stages of integration.

Makina (2020) undertook another investigation to investigate the function of Fintech in the banking industry. The study proved the advantages of financial technology use in Africa. The success of fintech in displacing classical banking and financial services expanded financial inclusion. For instance, the density of financial inclusion increased from having only three banks in 2010 to having six branches in 2019. For instance, in Rwanda, the measure of financial inclusion increased from 21% in 2006 to 65% in 2018. In the same context, Phan et al. (2020) found that the performance of banks is negatively impacted by the growth of FinTech companies. Furthermore, Thakor (2020) contended that fintech might deliver long-elusive cost reductions to banking. As stated by Cheng and Qu (2020), Finance-Tech may possess a dual impact on traditional banks: by utilizing technology to the relations between banks and financial technology firms along with among banks and non-FinTech organizations.

In 87 countries from 2006 to 2018, Haddad and Hornuf (2022) investigate the impact of the set of fintech startups on the performance of financial institutions. They claim that while its impact has recently decreased, a surge in fintech startups has a positive impact on the performance of established financial institutions. Particularly, there is a favorable correlation between the quantity of fintech startups and the ROA, ROE, NIM, and stock returns of conventional financial institutions. However, compared to 2005–2011, the favorable effects of fintech companies were less pronounced from 2012–2018. Additionally, they claim that while there is no proof of benefits for small financial institutions, large financial institutions have gained the most from the establishment of fintech startups.

On the other hand, there are a number of information and innovations that aid in the processing of information and data in banking organizations, according to Boot et al. (2021) research of the impact of technology on financial intermediation. They collected plenty of data and utilized AI huge examine current research on innovation. The outcome demonstrates how the traditional banking system fell apart, which prompted the introduction of contemporary banking technology in the Sultanate of Oman and aided in the growth of finance in the Bank.

Furthermore, Sheng (2021) noted that (Fintech) financial technology makes it easier for institutions to receive credit from banks, and Fintech aids in the growth of small banks. Additionally, according to Almashhadani & Almashhadani (2022), the profit of the banks is increasing, and the stock price is improving. Financial technology also has a positive impact on banks, according to Hornuf et al. (2021), as banks enter into collaborations with financial technology firms to develop their programs and Singh et al. (2021) assessed how financial technology adoption affected Indian banks' profitability; the results show that implementation of FinTech has a significant positive impact on bank profitability.

The rivalry between FinTech companies and conventional financial organizations was emphasized by De Roure et al. (2022), who pointed out that the latter has an impact on things like risk-taking, creativity and performance as a whole. Furthermore, according to Yao and Song (2021), FinTech can support commercial banks' diversification initiatives. According to Fernando and Dharmastuti (2021), the benefits that FinTech provides to banks and the general public—particularly the removal of high-interest loans—are what propel its expansion in a nation.

Financial technology has significantly affected a number of financial sectors, such as investments, deposits, payments, and capital raising (Nguyen, 2022). One of FinTech's main benefits, according to Nguyen (2022), is the decrease in mobile payment expenses. In Jordan context, Marei et al. (2023) showed a positive and significant relationship between Fintech Adoption and Financial Performance. Nevertheless, based on findings from a number of earlier studies, our research indicates that the implementation of FinTech services may have an impact on banks' performance.

3. Research Methodology

Many previous studies, as, such as Oreqat, A. (2021) and Al-Muntasir M. (2022) have indicated the importance of using the analytical approach to address the study variables. Along with the study model, the study sample and study population will be presented in this section. It includes a description of the

procedures used in rationing the instruments of the study and their application, the statistical treatments that were relied upon in the analysis of the study and analyze the items of the questionnaire, and finally tests the study's hypotheses in order to draw conclusions and make recommendations that support the study. In addition to the study tool used, the methods of its design and preparation, as well as its reliability and validity.

3.1 Study Population and Study Sample:

A study population refers to the group individuals who are of interest in a particular study. In our study, the three largest Jordanian commercial banks in terms of staff count are selected as the study population since account for half of all employees across all Jordanian commercial banks.

Study sample is a subset of the research population that reflects this population's features. It is specifically chosen to depict it in relation to the topic being studied. According to an estimation by Krejcie and Morgan (1970), the study sample was made up of 365 individuals to whom the questionnaire was distributed. There were 314 questionnaires that were retrieved, and when they were all examined, 310 of them were found to be valid which accounts for 85% of all questionnaires distributed.

3.2 Study Variables

By outlining the various factors that are likely to influence the relationship between the two variables, such as the demographic factors represented by gender, age, education, years of experience, and job level, this model captures the relationship between the independent variable, financial technology, and the dependent variable, bank performance.

3.3 Study Tools

Use a variety of strategies to gather data and test the study's hypotheses in order to accomplish your goal. Books, scientific publications in Arabic and abroad, and a variety of theoretical sources with expertise in financial technology and banking performance, served as secondary sources that were used to control the problem at hand. Moreover, data from the study sample's participants is gathered through primary sources, which take the form of the questionnaire approach. It was broken down into three sections: the first was the sample's personal information, which included gender, age, education, years of experience, and job level; the second was financial technology (an independent variable made up of 8 items); and the third was financial performance (a dependent variable made up of 7 items). Each facet of the study's response was based on the Likert five-point scale in order to determine the degree of agreement.

3.4 Validity and Reliability of the Study Tool

As it expresses the efficacy of the questionnaire and provides proof that the study's objectives were met, the validity of the study evidence is crucial in terms of its influence on the research's findings and its generalizability. In terms of the study tool's reliability, it refers to the consistency of its results and the likelihood that they would remain the same even if they were repeatedly distributed to sample participants over the course of a particular amount of time. The study questionnaire was designed clearly as the questionnaire was submitted to a group of experts in the field of arbitration as suggested by previous studies such as Ahmed et al. (2023), Alghadi et al. (2024) and Taqa, S. B. A. (2025), taking into account all corrections in order to produce the questionnaire in its final form. Moreover, the study utilized the tool of Crickenbach's alpha coefficient. An increase in Cronbach's alpha coefficient means an increase in the reliability of sample to reflect the study population, as this coefficient actually expresses the effectiveness of the questionnaire and the extent to which it achieves the objectives of the

study. It is noted that all percentages were higher than the statistically approved percentage, which amounts to 70%, and this indicates the reliability of the study tool.

Table 1: Results of Reliability Analysis

Item number	Variable	Reliability coefficient alpha Crombach
1-10	Financial Technology	0.867
11-15	Bank's Performance	0.782
1-15	Overall Reliability Coefficient	0.823

Source: Computed by the authors of this study.

Table (1) demonstrates that the Cronbach's alpha coefficient has a high value, reaching 0.867 for the variable of financial technology, 0.782 for the dimension of banks' performance, and a total coefficient for the questionnaire of 0.823, which is a very high coefficient and indicates the validity of the results that will be obtained. This means that the questionnaire has a high level of reliability, and we draw the conclusion that, had it been given again, it would have produced the same results for the same sample or category and demonstrated the ability to accomplish the study's goals.

3.5 Hypothesis Development

The Dynamic Capabilities Perspective offers a theoretical framework that explains the impact of financial technology on organizational performance, not as an external innovation, but as a restructuring of the digital information system that enables the organization to "sens" market changes in real time and "capture" opportunities through cloud data integration. The underlying premise is that this infrastructure can transform transaction logistics from slow, linear processes to automated digital flows, thereby enhancing operational efficiency and allowing the organization to repeatedly redesign its service delivery networks to address highly volatile competitive environments, which in turn translates into improved financial performance and strategic differentiation(Teece,2018) The findings gathered from several comparable prior investigations suggest that performance is influenced by the adoption of fintech services. Consequently, this study proposes the following hypothesis based on this account:

There is a statistically significant positive impact of financial technology on performance of the banks under study from the point of view of their employees at a significant level $\alpha \leq 0.05$

Adopting financial technology as a digital infrastructure enhances organizational performance by enabling the organization's dynamic capabilities such as sensing, capturing, and reconfiguring, allowing for real-time information integration and improving the operational efficiency of transaction and logistics processes."

3.6 Data Analysis Method

In order to analyze the data and obtain the results, this study relies on statistical tools. A set of statistical techniques were applied in the analysis to reach the outcomes, and they are as follows:

- Statistical description of the sample.
- Descriptive analysis of the variables- Mean and Standard Deviation.
- Testing of the hypothesis- Correlation and Regression.

4. Results and Discussion

The answers to the study's hypothesis and interpretation will be presented and discussed in this part.

4.1 Demographics of Respondents

In order to meet this criterion, the findings pertaining to the study sample's personal data were presented and analyzed in terms of the following variables: Sex, Age, Education, Years of Experience, and Job Level.

Table 2: Distribution of Study Sample According to the Gender Variable

Statement	Percentage %
Male	53.54
Female	46.46
Total	100

Source: Computed by the authors of this study.

According to the gender variable, the highest percentage of the study sample was (53.54%) in the male category out of the entire sample analyzed, while the proportion of females was (46.46%), as can be seen in the above table (2). Due to the nature of the profession, which necessitates a lot of time and effort to complete the tasks, it is noticed an increase in the number of male bank employees over the number of female bank employees.

Table 3: Distribution of Study Sample According to the Age Variable

Statement	Percentage %
Less than 30	34.83
31-40	25.79
41-50	18.67
More than 50	20.71
Total	100

Source: Computed by the authors of this study.

The study sample's distribution depending on the age variable is shown in Table (3). The age ranges from 30 to less than 30 years made up the majority of the study sample (34.83%), followed by the age range from 31 to 40 years (25.79%), and the age range from 50 to more than 50 years (20.71%), with an estimated rate of 18.67% for the last group from 41 to 50 years. By analyzing these findings, 60.62% of the respondents are under the age of 40, indicating that the majority of the study sample consists of young people. As a result, the bank represents an important industry that draws young employees who are frequently active and able to handle work pressure.

Table 4: Distribution of Study Sample According to Education Variable

Statement	Percentage %
Less than Bachelor	19.31
Bachelor	70.98
post-graduate (Master and Doctorate)	9.71
Total	100

Source: Computed by the authors of this study.

The distribution of the study sample by educational level is seen in the results of Table (4) above, where it is discovered that 70.98% of the study sample has a bachelor's degree, making them the largest category in the study sample. 9.71% of the study sample had post-graduate degrees, placing third, and 19.31% of the group with less than a bachelor's degree. It is noted through these results that the banks possess substantial scientific university competencies that can provide addition and development, and these results can be explained in view of the scientific levels that banks require in the various recruitment competitions that they organize.

Table 5: Distribution of Study Sample According to Years of Experience

Statement	Percentage %
5 or less	35.81
6-10	26.78
11-15	27.74
16 or more	9.67
Total	100

Source: Computed by the authors of this study.

As for the variable, years of experience, and by referring to table (5), the category (less than 5 years) scored 35.81 % ranked first, followed by the category (11-15 years) with a rate of 27.74%, and in third place was category (6-10 years) rated 26.78% and last category (16 or more years) with an estimated rate of 9.67%. The institution attracts young people with university degrees to help them develop their professional capabilities and raise their competencies because they represent positive energy for the institution. It is evident that the highest percentage of the study sample according to the number of years of experience is estimated with 90% for employees with less than 15 years of experience. Additionally, the institutions also have a few individuals with extensive experience who might be used in operations and training.

Table 6: Distribution of Study Sample According to Job Level Variable

Statement	Percentage %
Directorate manager	20.96%
Department Manager	28.07%
Employee	50.97%
Total	100

Source: Computed by the authors of this study.

According to the data in the aforementioned table (6), the majority of the study sample fell into the employee category, with an estimated rate of 50.97%, followed by the department head category, with an estimated rate of 28.07%, and the directorate category, which came in third and last with an estimated rate of 20.96%. To put it another way, the study's focus was on bank employees, which is a positive matter that serves the requirements.

4.2 Descriptive Analysis of the Study Variables

The basic data, which show how the sample members responded to the study variables, will be supplied in this criterion. The study employs arithmetic mean to analyze the individual data connected to the evaluation of the sample's participants. One of the methods for calculating data dispersion is the standard deviation, which is the variance's square root. It gauges how far the sample's responses deviate from their arithmetic mean or how widely they vary from one another. To find out the impact of financial technology on the Banks performance. the arithmetic means and standard deviations of the responses of the study individuals representing the financial technology variable was calculated as follow:

Table 7: Means and SDs for the Financial Technology Items

No.	Item	Mean	Standard Deviation	Rank	Level
01	Bank's staff have extensive training and knowledge of the mechanisms used to deploy financial technology in the field of banking	3.41	1.008	5	High
02	The bank has modern technical equipment needed to implement the financial technology	3.11	1.086	8	Moderate
03	Motives for innovation in the banking sector facilitates work, shorten the time and increased profitability	4.26	0.805	1	Very High
04	The bank is making changes to its operations and relying more on financial technology such as online payment services	3.89	0.826	2	High
05	One of the obstacles that prevent your bank from entering Modern financial technologies Lack of adequate studies and research	3.56	1.127	4	High
06	Among the shortcomings of banking innovations is the inability to use them well	3.76	1.072	3	High
07	The Bank has specialized centers for developing innovations in services and technologies	3.26	0.916	7	Moderate
08	Our bank relies on digital technology programs in the conduct of its operations	3.29	1.063	6	Moderate
	Total	3.57	0.769		High

Source: Computed by the authors of this study.

The sample's responses to questions pertaining to the financial technology variable are displayed in Table (7). With an arithmetic mean of 4.26 and a standard deviation of 0.805, item 3 received the highest ranking. This is evidence that the majority of respondents firmly believe that the usage of technologies helps to streamline tasks, shorten processing times, and increasing profitability. With an arithmetic mean of 3.89 and a standard deviation of 0.826, item 4 ranks second, and the respondents have consensus that it is one of the most notable technologies is the payment services via the Internet. The capacity to employ banking technologies in a good way is one of their flaws, and the reason for this is a lack of financial based on Item 6 in third position, with a standard deviation of 1.072 and a mean of 3.76. With an arithmetic mean of 3.56 and a standard score of 1.127, item 5 comes in at number four, confirming that this is one of the reasons the bank is unable to implement current financial technology since there aren't enough studies and research in the area. Item 1 is ranked fifth with a standard deviation of 1.008 and an arithmetic mean of 3.41, demonstrating that the bank's management has a thorough understanding of financial technology and a plan for integrating it into the banking industry. The bank relies on digital technology programs to carry out its activities is item 8 in rank 6, with a moderate level of agreement, a standard score of 1.063, and an arithmetic mean of 3.29. Having a moderate degree of agreement, a standard score of 0.916, and an arithmetic mean of 3.26, item 7 from the seventh rank indicated that the bank has specialized centers to create advances in services like technologies. Item 2, which came in last place on the list, with a standard scoring of 1.086, arithmetic average of 3.11, and a moderate level of agreement on the bank's ownership of the infrastructure required to implement financial technology. As a whole, this variable of financial technology had an overall arithmetic mean of 3.57 and a standardized deviation of 0.769. According to the bank employees' responses, the table indicates that there is a high degree of interest in the financial technology variable, where a high arithmetic mean was attained. This indicates that there is general agreement among the study sample that there is a high level of financial technology items.

Table 8: Means and SDs for the Banks Performance Items

No.	Item	Mean	Standard Deviation	Rank	Level
01	The Bank has an advanced financial and accounting system	3.71	0.912	2	high
02	The Bank has witnessed a high level of profits in recent years	3.48	1.083	4	high
03	The return on equity index is constantly evolving in the bank	3.54	1.026	3	high
04	The bank seeks to innovate and develop financial tools to facilitate transactions	3.83	0.935	1	high
05	The Bank uses its financial resources efficiently and effectively to achieve its objectives	3.42	1.087	5	high
06	The bank staff is highly qualified	3.02	1.019	6	Moderate
07	The Bank facilitates the submission of suggestions and complaints and provides appropriate methods for that	2.89	1.006	7	Moderate
	Total	3.41	0.728		high

Source: Computed by the authors of this study.

Item 4, which most respondents in the sample agreed the bank attempts to innovate and build financial tools to facilitate transactions inside the system, came in first with an arithmetic mean of 3.83 and a standard deviation of 0.935, as shown in table (8). Second, item 1 has an arithmetic mean of 3.71 and a standard deviation of 0.912, indicating agreement that the bank has an advanced accounting and financial system that aids in the smooth operation of its business. Item 3 was rated third, however, with an arithmetic mean of 3.54 and a standard deviation of 1.026, indicating that the sample agreed that the bank's return on equity is continually changing. Besides, Item 2 came up at number four with a high degree of agreement, arithmetic average of 3.48, and the standard deviation of 1.083 due to the bank's profits have been growing in the past few years. The following item 5 rated fifth with a mean of 3.42, a standard deviation of 1.087, and a high level of agreement with the management of the bank's goal to exceed expectations in maximizing shareholder wealth. With arithmetic mean of 3.02, a standard deviation of 1.019, and a reasonable level of convergence that the bank personnel is highly competent, Item 6 comes in sixth place. On the other side, Item 7 is rated seventh at the end with a mean of 2.89, a standard deviation of 1.006, and a fair amount of compatibility with the Bank makes it easier to submit suggestions and criticisms and offers suitable channels for doing so. This measure of financial performance had an overall arithmetic mean of 3.41 and a standard deviation of 0.728, indicating that respondents in the sample agreed on this measure, and it signifies that the institution aiming for profitability should be successful.

4.3 Hypothesis Testing

Correlation coefficients are used to determine the association between the independent and dependent variables, and the regression method is used to test the following hypothesis:

There is a statistically significant positive impact of financial technology on performance of the banks under study from the point of view of their employees at a significant level $\alpha \leq 0.05$

Table 9: Correlation Coefficients between Banks Financial Performance and Financial Technology.

Pearson	0.756
Correlation	
Sig. (2-tailed)	000

Source: Computed by the authors of this study.

*Significance level at 0.05.

It can be seen from Table (9) above that there is a substantial positive direct relation between the financial technology variable and financial performance, with a correlation coefficient of 0.756. On the other hand, the regression approach, which is summarized in the following table, is used to figure out the effect of the independent variable on the dependent variable.

Table 10: Results of Regression Analysis

F-statistic= 22.483 Prob(F-statistic) = 0.0000 $\alpha=0.05$				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	1.141	0.456	4.789	0.0004
Financial technology	0.537	0.127	3.258	0.0000
R= 0.756				
R ² = 0.476				
S.E of Regression = 0.415				

Source: Computed by the authors of this study.

*Significance level at 0.05.

According to the coefficient of determination R², which is a metric for the quality of fit, only 47.6 of the changes in the dependent variable can be explained by the regression relationship; the remainder, 52.4 are the result of other factors not included in the model.

The value of the coefficient of determination in this study shows that the explanatory power is at a medium to strong level in the context of performance research and financial technology, as one study on this topic, for example, found that the model explains 46.27% of the variance in financial technology adoption (Na Wei et al., 2025), while another study found that the model explains about 48.7% of the variance in the financial performance of small and medium enterprises as a result of financial technology adoption (Katana et al., 2025).

Additionally, the significance of the F value shows how well the scatterplot's points are represented by the regression line and how well the linear relationship fits. Furthermore, Table (10) displays the regression coefficient value, which was 0.537, demonstrating a statistically significant positive relationship between the two variables. As a significant level of 0.0000, or less than 0.05, occurred, any rise in financial technology by one unit causes an increase in the financial performance variable of 0.537. As a result of the aforementioned, this leads to accept the hypothesis, which states that:

There is a statistically significant positive impact of financial technology on performance of the banks under study from the point of view of their employees at a significant level $\alpha \leq 0.05$

The results of earlier studies that are relevant to the topic of the current study mostly verified the presence of a focused relationship between financial technology and banks' performance, and this extension became more apparent in accordance with the current study. Previous research by Ntwiga (2020) showed a significant connection between Fintech and banking performance. Additionally, another study by Alkhazaleh and Haddad (2021) found a significant association between Fintech, customer satisfaction, and banking performance. This result is similar with Abou Shakra (2019), which stated that although financial technology indirectly affects banks, its direct implementation is challenging. Additionally, Baker, et al. (2023) demonstrated that FinTech has a favorable impact on both total deposits and net profits of Jordanian banks. Moreover, (Boumoud, et al. (2020) demonstrated the positive impact of financial technology innovations in enhancing the bank's performance. The

findings also demonstrated that using financial technology enables facilitating financial transactions at the lowest cost.

The aforementioned made it clear that the development and spread of financial technology contributed to the emergence of banking services that are distinct from other traditional banking services in the reliability, safety, speed of performance, and time savings and effort for both customers and banks, making the latter compete with one another to provide this type of banking services. The management of financial operations in businesses, managing funds for people, and using smartphones for banking and investment services were all found to be dependent on innovations and updates in traditional financial methods and financial services. The employees are willing to consistently offer the service at the right quality in order to facilitate customers' access to these services at any time and from any location. As a matter of fact, commercial banks must now develop the level of performance of their services and concentrate on their quality as a top priority in order to acquire benefits like higher earnings, growth, and continuity.

5. Conclusion

This study concluded that adopting financial technology achieves certain objectives and is not merely a choice. It has become a crucial tool and an urgent necessity for safeguarding the resilience and continuity of the banking sector in the face of economic challenges and transformations. This analysis conducted on Housing Bank, Arab Bank, and Cairo Amman Bank—the largest Jordanian banks in terms of employee numbers—demonstrated a statistically significant positive impact of adopting FinTech innovations on performance improvement. This finding was reinforced by results indicating that the employees and human resources in these institutions possess high levels of education and advanced training qualifications. This, in turn, has enabled the emergence of a favorable environment for highly effective investment and the adoption of modern technological in developing innovative financial applications that exceed conventional standards and, to a large extent, meet the requirements of financial inclusion.

However, this shift towards digitalization entails facing new challenges as an expected result of creating new competitive environments. While financial technology offers significant short-term advantages, the development of these innovative solutions may intensify market competition. This necessitates vigilance within financial institutions to address potential problems and weaknesses. Therefore, there is a pressing need to learn from successful global examples in developing a more robust digital infrastructure. Furthermore, there is a critical need for regulatory bodies to collaborate in providing incentives and support that enable financial institutions and banks to expand their electronic services, making them more versatile and comprehensive. This will ultimately enhance the digital experience and expand customer bases.

In this regard, the scientific significance of this study reveals broad prospects for academics and researchers to continue observing and monitoring this rapidly evolving phenomenon. This will allow for further research into additional variables and dimensions not covered by this study. It is also necessary to adopt comparative methods that include local, regional and international samples more broadly, in order to enhance maturity and understanding of the effects of financial technology in diverse contexts. This will contribute to the development of a comprehensive theoretical and applied content that supports decision-makers in adopting banking and financial policies in the future.

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