

Article

# Impact of Financial Technology on Improvement of Banks' Financial Performance

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**Abstract:** This study investigates the main financial technologies adopted by banks to improve their financial performance. The study population consists of commercial banks listed on the Amman Stock Exchange and Abu Dhabi Securities Exchange, and includes financial information and data from 2012 to 2020. A total of 115 questionnaires, consisting of five questionnaires for each bank, were distributed to the study population in Jordan and the United Arab Emirates. The dependent variable is financial performance, while the independent variable is financial technology (FinTech). Multiple linear regression analysis was conducted to test the hypotheses. The results showed that FinTech has a positive effect on both total deposit and net profits. This study recommends that banks be encouraged to adopt inclusive strategies to attain sustainable development.

**Keywords:** financial technology (FinTech); financial performance; financial position; Amman Stock Exchange (ASE); Abu Dhabi Securities Exchange (ADX)



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## 1. Introduction

FinTech, short for Financial Technology, is a term that refers to the integration of finance and technology. It originated from the Financial Services Technology Consortium, which was established by Citigroup in the early 1990s (Schueffel 2016). This innovative concept entails a new financial model, whereby technology serves as the carrier to provide various financial services, including settlement, financial management, and financing through online platforms, mobile payments, cloud computing, and other emerging technological means (Schueffel 2016). With the advancement of the digital revolution, especially during the COVID-19 pandemic, computerized networks have replaced physical communication between customers and financial service providers (Feyen et al. 2021). This shift has caused a surge in the adoption of FinTech services, including online banking and mobile payments. Consequently, conventional banking faces a noteworthy risk as individuals change the way they manage their accounts (Hassan and Misrina 2021).

According to analysts at Standard and Poor's, the impact of FinTech on the global financial industry could be enormous, leading to a massive transformation of traditional financial products and services. The Klynveld Peat Marwick Goerdeler (KPMG) report of 2019 revealed that global investment in FinTech reached USD 111.8 billion in 2018, reflecting a growth rate of 120% from the previous year. In the Middle East and North Africa (MENA) region, there are currently over 310 FinTech startups, with around 7% based in Jordan and 50% in the United Arab Emirates (UAE). The Central Bank of Jordan has been a key player in the development of FinTech, recognizing the vital role that banks play in its progress, as it is considered the future of the banking industry (AB Accelerator 2020).

In Jordan, the percentage of banking customers stands at less than 35%, while mobile phone usage has surpassed 100%. The Central Bank of Jordan has been instrumental in

promoting financial inclusion through the implementation of retail payment systems, electronic payments such as cash transfers and billing, and innovative identity solutions that cater to vulnerable segments of society, including rural residents and women. To further support electronic transactions, the Central Bank plans to establish legal frameworks. Consequently, the banking sector is well-positioned to leverage innovative FinTech solutions to lower costs, increase flexibility, attract deposits, and enhance financial inclusion.

The Central Bank of the UAE has reported a continuous development in the FinTech industry in recent years, resulting in the UAE becoming the largest regional center for startups in this field. The report highlights the advantage of the advanced FinTech structure in the UAE, which enabled banks and financial institutions to provide services at a relatively low cost during the COVID-19 pandemic. In a recent report, the Central Bank stated that banks and financial institutions have been able to deal flexibly with the pandemic, reaching a wider population and promoting financial inclusion through digital banking and initiatives aimed at increasing payments, transfers, and e-commerce.

In the realm of economics, Schumpeter posits that any economic change is driven by entrepreneurial activities, market power, and innovation. This line of reasoning has sparked theories surrounding the FinTech revolution. Schumpeter also suggests that innovation initially creates a monopoly, which is eventually eliminated by imitators and rivals. Therefore, if banks were to leverage FinTech and employ innovative products and services to gain a competitive edge, they could potentially influence their financial performance (Ziemnowicz 2020; “Joseph A. Schumpeter and Innovation”). In this study, we will analyze the financial performance and financial position of selected commercial banks operating in Jordan and the UAE, and investigate whether there is an impact of FinTech measured by Financial Inclusion (FI), Alternative Payment Methods (APMs), and Automation (Auto) using a questionnaire on the financial performance of banks in terms of two factors (Total Deposit and Net Profit—NP). Based on these premises, the main inquiry of this study is formulated as follows:

Q1: Does the adoption of FinTech impact the financial performance of banks?

While financial ratios such as ROA, ROE, and C/I are important for analyzing the financial efficiency of banks, measuring financial performance using total deposit and net profits is also crucial for several reasons: Total deposit is an indicator of a bank's ability to attract deposits from customers. Higher total deposit can indicate a larger customer base and increased trust in the bank's ability to manage funds, which can attract more customers and increase profits. Moreover, net profits provide a measure of a bank's profitability. They take into account all expenses, including operating expenses and loan losses, and show how much money the bank has left over after expenses are paid. Higher net profits indicate that the bank is generating more revenue than it is spending, which is a positive sign for investors. Finally, total deposit and net profits are easily understandable by both investors and the general public, which makes them useful indicators for measuring a bank's financial performance. They can be used to make quick comparisons between different banks, or to evaluate a bank's performance over time.

The structure of the paper will follow a logical sequence of sections. The next section will be the theoretical framework, where the relevant literature and theories related to the research topic will be presented and discussed. This section will provide a conceptual framework for understanding the research problem and the research questions. Following the theoretical framework, the research methodology section will be presented. This section will describe the research design, data collection methods, and analysis techniques that were used in the study. It will explain how the data was collected, how it was analyzed, and how the results were interpreted. After the research methodology section, the results and hypothesis testing will be explained. This section will present the findings of the study and describe how the hypotheses were tested. It will provide an objective analysis of the data and discuss the statistical significance of the results. Finally, the findings discussion and recommendations section will be presented. This section will summarize the main findings

of the study and discuss their implications. It will also provide recommendations for future research and suggest ways in which the results of the study can be applied in practice.

## 2. Theoretical Framework and Previous Studies

### 2.1. About Financial Technology (FinTech)

[Barbu et al. \(2021\)](#) define FinTech as a collection of innovative services supported by the advancements in information systems and communication technology. [Abad-Segura et al. \(2020\)](#) describe the FinTech sector as comprising innovative firms that provide financial services, mainly relying on technology, and explain that FinTech emerged from the combination of the terms “finance” and “technology.” [Gai et al. \(2018\)](#) suggest that FinTech reflects the financial service sector’s adaptation to technology. [Zaghol et al. \(2021\)](#) add that FinTech involves the use of the internet and computerized advancements within the financial services sector. FinTech is expected to lead to new plans of action, outputs, applications, and cycles in the financial market. Additionally, FinTech involves computer programs and other technologies used to facilitate financial and banking services, leading to the introduction of various financial transactions, such as credit cards, fund transfers, ATM/debit cards, e-money, and other payment processors ([Nurlaela et al. 2020](#)) FinTech services have expanded to different industries and fields, including e-commerce, risk management, virtual currencies, mobile payment, portfolio management, customized consulting, and system integration ([Nicoletti 2017](#)). The growth of the FinTech industry has been associated with the challenges customers faced in accessing traditional financial services during the 2008 financial crisis ([Knight and Wójcik 2020](#)).

According to [Lim et al. \(2019\)](#), FinTech relies on advanced technologies such as artificial intelligence, mobile wallets, Internet of Things, near-field communication, and blockchains. [Suseendran et al. \(2019\)](#) have highlighted that the role of such technologies in FinTech service development is being evaluated. [Barbu et al. \(2021\)](#) have also pointed out that the increasing influence of the FinTech sector depends on technological innovation and the combination of innovative procedures and customized creation and delivery of 24/7 financial services, all of which contribute to enhancing consumers’ experience.

[Nangin et al. \(2020\)](#) have noted that FinTech is closely linked to innovation in financial service delivery and the evolution of financial business models. Additionally, FinTech firms are more focused on technology than traditional financial institutions. Information technology allows consumers to access financial services quickly, conveniently, and at a lower cost. Furthermore, [Romanova and Kudinska’s \(2016\)](#) study suggests that FinTech is being adopted by both innovative IT firms and the traditional financial sector. The former includes firms that provide new financial services utilizing technology, while the latter includes insurance companies, banks, and brokerage firms. Both groups use technology to enhance their service offerings.

FinTech enables the connection of borrowers and lenders through online platforms, thereby bypassing traditional banking procedures and systems. This sector is expected to grow rapidly and dynamically by offering financial services through the use of computers and other digital technologies. According to [Zaghol et al. \(2021\)](#) and [Puschmann \(2017\)](#), the digitalization of financial services sector is the broad manifestation of FinTech, which considers the possible financial solutions through IT. In the MENA region, [Naz et al. \(2022\)](#) investigated the growth of FinTech during the COVID-19 pandemic and concluded that digital platforms’ innovation creates an unconventional economy, bridging the gap between technology and individuals involved in financial outreach, networking, and prosperity of the FinTech industry. [Hassan and Misrina \(2021\)](#) investigated the impact of FinTech on the work-from-home and mobile banking operations of Islamic banking during the pandemic and found that the increased use of FinTech by Islamic financial institutions enhances work-from-home activities, forcing people to adopt different practices, including mobile banking, which has gained recent attention.

## 2.2. FinTech and Banks

FinTech has garnered significant attention from governments, policymakers, regulatory agencies, and analysts due to its controversial status (Naz et al. 2022). According to Fernando and Dharmastuti (2021), the development of FinTech within a country is attributed to its positive impact on the public and banks, as it eliminates high-interest rate loans. They further justified this statement by pointing out that FinTech ensures secure financial management for individuals. Additionally, Petralia et al. (2019) explained that the introduction and growth of FinTech have a significant impact on traditional business models within the banking sector.

FinTech has permeated various financial areas, including deposits, payments and investments, credit, and capital raising (Nguyen 2022). Cornelli et al. (2020) noted that central banks are starting to consider FinTech data, such as credit volume, to monitor financial and economic conditions, enforce macroprudential policies, and make financial policy decisions. Cheng and Qu (2020) mentioned that FinTech could affect traditional banks in two ways: through the application of technology among banks and outside of FinTech (including FinTech firms) and through the application of technology to bank-FinTech partnerships. However, De Roure et al. (2021) emphasized the competition between FinTech and traditional financial companies, with the latter being influenced in terms of their risk-taking, innovation, and performance.

The study conducted by Buchak et al. (2018) is the first to consider the integration of regulatory factors when investigating the impact of FinTech credit on bank performance. Several studies, including those by Nguyen (2022) and Chen et al. (2019), support the potential of FinTech to enhance financial services by improving service quality, promoting affordable transactions, and enhancing business structures. Furthermore, Yao and Song (2021) noted that FinTech may aid commercial banks in diversification strategies. According to Li et al. (2017), there is a positive relationship between banks' stock returns and the growth of FinTech activities.

Thus far, two hypotheses have been considered: disruptive innovation and consumer demand. FinTech's growth could have an impact on the banking sector. The consumer demand hypothesis suggests that FinTech, by responding to customer demand, will replace emerging financial entities. In contrast, the disruptive innovation hypothesis suggests that market entrants follow and use innovative technologies to offer accessible and affordable services that are highly competitive within the market (Nguyen 2022). According to Yudaruddin (2022), the customer theory explains that FinTech startups replace old services within the banking sector to meet customer demand. The theory of disruptive innovation suggests that FinTech startups benefit from innovative technology aimed at providing economical and easy access to services among customers, leading to significant competition among traditional banks.

Juengerkes (2016) suggests that collaborating with FinTech startups can benefit banks by allowing them to face disruptive innovation while also building trust with their clients. Nguyen (2022) points out that FinTech also offers benefits in terms of mobile payments, which can be made at lower costs. However, Abdul-Majid et al. (2017) note that Islamic and conventional banks differ in their adoption of technology. Yudaruddin (2022) explains that Islamic banks face higher costs associated with Sharia advisors and have lower levels of innovation compared to conventional banks. Panjwani and Shili (2020) also point out that the degree of innovation in Islamic financial entities is generally low. Furthermore, Ali et al. (2019) have found that Islamic banks respond slower to the impact of FinTech when compared to conventional banks.

## 3. Research Methodology

### 3.1. Research Population and Sampling

The research was conducted on commercial banks that are listed on the Amman Stock Exchange (ASE) and Abu Dhabi Securities Exchange (ADX), during the period 2012–2020. All 13 Jordanian commercial banks listed on the ASE and 10 Emirati commercial banks

listed on the ADX were selected as the sample for the study. The participants of the study were key employees and managers working in different departments of the commercial banks listed on the ASE and ADX. Convenience sampling, a non-probability sampling method, was adopted due to the difficulties in accurately identifying the study population. A total of 115 questionnaires were distributed, with 5 questionnaires sent to each bank, and 97 were retrieved by the study sampling unit. Of the 115 questionnaires, 11 were excluded for being incomplete. The statistical analysis was conducted on 41 valid questionnaires from the study participants in Jordan and 45 valid questionnaires from the UAE.

### 3.2. Research Hypotheses

The following hypotheses were formulated:

H1: FinTech has a statistical impact on financial performance measured by the total deposit of commercial banks.

H1.1: Financial inclusion has a statistical impact on financial performance measured by the total deposit of commercial banks.

H1.2: Alternative payment methods (APMs) have a statistical impact on financial performance measured by the total deposit of commercial banks.

H1.3: Automation has a statistical impact on financial performance measured by the total deposit of commercial banks.

H2: FinTech has a statistical impact on financial performance measured by the net profits of commercial banks.

H2.1: Financial inclusion has a statistical impact on financial performance measured by the net profits of commercial banks.

H2.2: APMs have a statistical impact on financial performance measured by the net profits of commercial banks.

H2.3: Automation has a statistical impact on financial performance measured by the net profits of commercial banks.

### 3.3. Measurement of Study Variables

The present study encompassed a set of variables that needed to be precisely measured to test the hypotheses and obtain meaningful outcomes. The primary independent variable was financial technology (FinTech), which was assessed by three variables: financial inclusion, APMs, and automation. The dependent variables were the financial performance of banks, gauged by total deposit and net profits.

Dependent variables (financial performance):

The financial performance was measured by the researcher based on two factors, namely, total deposit and net profits. The data pertaining to these variables were gathered from the financial reports of the sample commercial banks for the period of 2012–2020. To ensure consistency between the independent and dependent variables of the study, the researcher calculated the arithmetic averages of the data of each bank for a period of 9 years.

As mentioned previously, this study adopted two dependent variables: total deposit and net profits.

#### 1. Total deposit:

Total deposit refers to the sum of “savings” and “deposits.” Specifically, it denotes the total amount deposited by individuals, institutions, and other financial institutions (RHB Investment Bank 2007). The equation for solving the percentage of total deposit is as follows:

Total deposit = Demand Deposits, Term Deposits, and Interest and Non-Interest-Bearing Deposits.

#### 2. Net profit:



Net profit is the result of subtracting all expenses from revenues. This figure is the aggregate result of all operating and financing activities of an organization. Hence, it is routinely relied upon by investors, creditors, and lenders to make decisions on firm operations. Net profit is calculated as follows:

Net Profit = Net Revenue, Cost of Goods Sold, Operating Expenses, Financing Costs, and Tax Costs.

Independent variables (FinTech):

The questionnaires distributed in September 2022 aimed to measure the dimensions of FinTech, including financial inclusion, APMs, and automation. The questionnaire provided the participants with separate paragraphs for each of the three dimensions. To ensure consistency between the independent and dependent variables, the researcher separated the questionnaires of each bank and then calculated the overall average of responses for each bank to produce a single questionnaire. The participants' responses for each FinTech dimension were measured using a 5-point Likert scale.

1. Financial inclusion:

Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs (e.g., transactions, payments, savings, credit, and insurance) and are delivered responsibly and sustainably. Financial inclusion is measured in three dimensions: (i) access to financial services, (ii) usage of financial services, and (iii) quality of products and service delivery

2. APMs:

APMs are cashless payment methods. They include payments made using credit or debit cards, loyalty program points, bank transfers, direct debits, e-wallets, mobile platforms, local card schemes, prepaid and postpaid methods, e-invoices, or cryptocurrencies.

3. Automation:

Automation is defined as the conversion of a work process, procedure, or equipment to automatic operation or control. Automation does not simply transfer human functions to machines as it also involves a deep reorganization of the work process, thereby redefining both human and machine functions (Gerovitch 2003). Robotic process automation and cognitive automation strategies can drive cost reduction and operational improvement regardless of location. The three independent variables were measured using a structured online questionnaire and key performance indicators. The results were analyzed accordingly, and the arithmetic mean and standard deviation were calculated.

### 3.4. Research Design

The questionnaire administered in September 2022 was developed based on inputs from bank managers, literature review, and pre-survey evaluation. It was structured into two sections for easy comprehension by the participants. The first section contained questions relating to participants' demographics such as age, gender, years of experience, position, and academic background. The second section focused on the FinTech dimensions of financial inclusion, automation, and APMs in commercial banks. The questionnaire employed a 5-point Likert scale, with a rating of 1 for the least important and 5 for the most important. The selected sample was made up of key employees and managers from Jordanian and UAE banks who had a significant understanding of FinTech and its relevance in the banking industry. Convenience sampling was used to select participants who were easily accessible and available to complete the questionnaire. The participants occupied various positions and had varying experience levels in the banking industry.

## 4. Results and Hypotheses Testing

This section presents the statistical analysis results related to the data collected from the market and the data obtained from the study tool (questionnaire). The analysis focused

on the role of FinTech in enhancing the financial performance of commercial banks in Jordan and the UAE.

4.1. Demographic Information

Table 1 displays the demographic distribution of the study sample. The majority of participants from commercial banks in Jordan and the UAE were male, representing 65.9% and 66.7% of the sample, respectively. In terms of academic qualifications, most held bachelor’s degrees (i.e., 68.3% for the Jordan sample and 46.7% for the UAE sample), while a smaller proportion held master’s and doctorate degrees (i.e., 14.6% and 7.3% for the Jordan sample and 22.2% and 11.1% for the UAE sample, respectively). Additionally, most participants were between 35 and 40 years old (i.e., 34.1% and 42.2% for the Jordan and UAE samples, respectively) and had worked in the industry for more than 5 years (i.e., 80.5% and 84.4% for the Jordan and UAE samples, respectively), resulting in increased questionnaire stability. Furthermore, the study tool received 41 and 45 responses from the Jordan and UAE samples, respectively. The participants mainly consisted of accountants (i.e., 48.8% and 28.9% for the Jordan and UAE samples, respectively) and managers (i.e., 22% and 22.2% for the Jordan and UAE samples, respectively), all working in the public debt, securities, and deposit departments, with relatively equal distribution in the Jordan sample, and a higher proportion of participants working in the securities department in the UAE sample (i.e., 42.2%).

Table 1. The Demographic Distribution of the Study Sample.

Category	Variable	Jordan		UAE	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	27	65.9%	30	66.7%
	Female	14	34.1%	15	33.3%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>
Academic level	Ph.D.	3	7.3%	5	11.1%
	Masters	6	14.6%	10	22.2%
	Higher diploma	2	4.9%	7	15.6%
	Bachelor	28	68.3%	21	46.7%
	Diploma	2	4.9%	2	4.4%
	High school	0	0%	0	0%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>
Age	From 35 or Less	7	17.1%	8	17.8%
	From 35–40	14	34.1%	19	42.2%
	From 40–45	10	24.4%	9	20%
	From 45–50	7	17.1%	5	11.1%
	More than 50	3	7.3%	4	8.9%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>
Experience	Less than 5 years	8	19.5%	7	15.6%
	5—Less than 10 years	10	24.4%	12	26.7%
	10—less than 15 years	20	48.8%	20	44.4%
	More than 15 years	3	7.3%	6	13.3%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>

**Table 1.** *Cont.*

Category	Variable	Jordan		UAE	
		Frequency	Percentage	Frequency	Percentage
Location	Jordan	41	100%	0	0%
	UAE	0	0%	45	100%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>
Job title	Financial analyst	4	9.8%	11	24.4%
	Manager	9	22%	10	22.2%
	Accountant	20	48.8%	13	28.9%
	Auditor	3	7.3%	6	13.3%
	Loan officer	5	12.2%	5	11.1%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>
Department	Public debt department	14	34.1%	15	33.3%
	Securities department	13	31.7%	19	42.2%
	Deposit department	14	34.1%	11	24.4%
	<b>All</b>	<b>41</b>	<b>100%</b>	<b>45</b>	<b>100%</b>

*4.2. Descriptive Analysis*

Table 2 displays the descriptive analysis of responses to questions related to the independent variable of financial inclusion. In the Jordan sample, the items “The bank participates in the development of different sectors within the economy” and “The bank plays a major role in obtaining economic development” received the lowest and highest scores of 3.488 and 3.854, respectively. On the other hand, in the UAE sample, the items “Banks offer all types of banking services through the internet or some kind of banking application” and “The bank plays a major role in obtaining economic development” received the lowest and highest scores of 4.400 and 4.533, respectively.

**Table 2.** Results of the Descriptive Analysis of the Independent Variable, Financial Inclusion.

No.	Question	Jordan			UAE		
		Mean	Standard Deviation	Importance	Mean	Standard Deviation	Importance
1	The bank provides financial services that are useful to different segments within society.	3.854	0.691	High	4.511	0.589	Very high
2	The bank plays a major role in obtaining economic development.	3.854	0.654	High	4.533	0.588	Very high
3	Institutions and people can access remotely different financial services at low cost.	3.707	0.716	High	4.467	0.625	Very high
4	The main goal of banks is to help individuals with limited income to enhance their financial status.	3.707	0.642	High	4.422	0.621	Very high
5	Clients have good opportunities to benefit from payment services, including digital payments.	3.585	0.805	High	4.511	0.695	Very high



**Table 2.** *Cont.*

No.	Question	Jordan			UAE		
		Mean	Standard Deviation	Importance	Mean	Standard Deviation	Importance
6	Banks offer all types of banking services through internet or some kind of banks application	3.610	0.703	High	4.400	0.618	Very high
7	The bank preserves clients' interests and rights	3.561	0.709	High	4.444	0.725	Very high
8	The bank enhances the awareness of its clients in relation to their ability to make financial decisions.	3.610	0.628	High	4.400	0.654	Very high
9	The bank adopts an inclusive strategy for the purpose of attaining sustainable development.	3.537	0.636	High	4.444	0.693	Very high
10	The bank participates in the development of different sectors within the economy.	3.488	0.553	High	4.400	0.720	Very high
<b>Average Answers of Financial Inclusion</b>		<b>3.651</b>	<b>0.566</b>	<b>High</b>	<b>4.453</b>	<b>0.520</b>	<b>Very high</b>

The average results indicate that financial inclusion is of higher importance in the UAE than in Jordan. Specifically, in the Jordan sample, the items related to this variable had an arithmetic mean of 3.651 and a standard deviation of 0.566, indicating high importance. Meanwhile, in the UAE sample, the items related to this variable had an arithmetic mean of 4.453 and a standard deviation of 0.520, indicating very high importance. Overall, financial inclusion was deemed of high importance among the study samples from Jordan and the UAE.

Table 3 displays the descriptive analysis of responses to questions related to the independent variable of APMs. The lowest and highest scores for the Jordan sample were received by the items "Following APMs will lead to novel payment systems in banks" and "The use of APMs has an impact on the effectiveness of bank performance", respectively, with scores of 3.780 and 4.073. Similarly, the UAE sample's lowest and highest scores were received by the items "Following APMs will lead to novel payment systems in banks" and "The bank shifted to the use of APMs for the purpose of improving its service quality", with scores of 4.067 and 4.244, respectively.

As indicated in the table, the degree of APM application was high in Jordan and the UAE. Specifically, the Jordan sample's APM-related items had an arithmetic mean of 3.890 and a standard deviation of 0.494, indicating high importance. The UAE sample's APM-related items had an arithmetic mean of 4.156 and a standard deviation of 0.440. In summary, the application of APMs among the study samples in Jordan and the UAE was of high importance.

**Table 3.** Results of the Descriptive Analysis of the Independent Study Variable, Alternative Payment Methods.

No.	Question	Jordan			UAE		
		Mean	Standard Deviation	Importance	Mean	Standard Deviation	Importance
1	The bank shifted to the use of APMs for the purpose of improving its service quality.	3.756	0.624	High	4.244	0.609	Very high
2	By following APMs, the bank grabs the attention of other new clients such as individuals and institutions.	3.780	0.652	High	4.156	0.562	High
3	By following APMs, that will lead to novel payment systems in the bank.	3.780	0.613	High	4.067	0.539	High
4	APMs supported the services provided by the bank.	3.927	0.608	High	4.089	0.557	High
5	The use of APMs has an impact on the effectiveness of bank's performance.	4.073	0.608	High	4.178	0.614	High
6	The use of APMs have led to increase in the number of clients,	4.049	0.590	High	4.133	0.505	High
7	The use of APMs have led to decline in cost of services offered by the bank	3.927	0.648	High	4.133	0.588	High
8	The use of APMs have impacted the bank financial performance positively.	3.829	0.667	High	4.200	0.548	Very high
9	Clients of the bank use the method they prefer in order to meet their needs.	3.878	0.600	High	4.200	0.548	Very high
10	The bank offers widely accepted payment approaches including traditional and online payment methods.	3.902	0.583	High	4.156	0.520	High
<b>Average Answers of Alternative Payment Methods (APMs)</b>		<b>3.890</b>	<b>0.494</b>	<b>High</b>	<b>4.156</b>	<b>0.440</b>	<b>High</b>

Table 4 presents the descriptive analysis of the responses to questions regarding the independent variable of automation. In the Jordan sample, the items "By implementing automation, the bank is involved in the surrounding economy" and "There is a gap in the potential competences of employees in the bank" received the lowest and highest scores of 3.951 and 4.704, respectively. In the UAE sample, the items "There is a reduction in the cost related to human resources" and "The bank uses and applies an artificial intelligence technology system within its operations" received the lowest and highest scores of 4.067 and 4.244, respectively.

**Table 4.** Results of the Descriptive Analysis of the Independent Study Variable, Automation.

No.	Question	Jordan			UAE		
		Mean	Standard Deviation	Importance	Mean	Standard Deviation	Importance
1	The bank uses IT solutions for the purpose of automating different process and operations that are performed.	4.073	0.685	High	4.111	0.611	High
2	The bank adopts automation workflow system.	4.024	0.758	High	4.111	0.573	High
3	Automation adoption affected employment structure in the bank.	3.951	0.773	High	4.111	0.532	High
4	By implementing automation, the bank is involved in the surrounding economy.	3.951	0.740	High	4.156	0.601	High
5	The bank uses and applies artificial intelligence technology system within its operations.	4.024	0.758	High	4.244	0.609	Very high
6	Automation system is upgraded as per clients' needs	4.000	0.742	High	4.222	0.599	Very high
7	Automation system is adaptable due to change in banks work flow	4.073	0.787	High	4.200	0.625	Very high
8	There is a reduction in the cost related to human resources.	4.098	0.700	High	4.067	0.654	High
9	There is a gap in potential competences of employees in the bank.	4.122	0.704	High	4.133	0.694	High
10	There exists an organizational change in the bank.	4.122	0.714	High	4.133	0.625	High
<b>Average Answers of Automation</b>		<b>4.044</b>	<b>0.645</b>	<b>High</b>	<b>4.149</b>	<b>0.489</b>	<b>High</b>

As the table indicates, the degree of automation was high for both Jordan and the UAE. Specifically, for the Jordan sample, the items related to this variable had an arithmetic mean of 4.044 and a standard deviation of 0.645. For the UAE sample, the related items had an arithmetic mean of 4.149 and a standard deviation of 0.489. Therefore, the application of automation among the study samples from Jordan and the UAE was of high importance.

Table 5 provides a summary of the average results for the FinTech dimensions, namely financial inclusion, APMs, and automation. The results showed that all dimensions of FinTech were highly applied in commercial banks in Jordan. Notably, automation had the highest degree of importance, with an arithmetic mean of 4.044, followed by APMs with an arithmetic mean of 3.890, and financial inclusion with an arithmetic mean of 3.651.

In contrast, for the UAE sample, financial inclusion had the highest degree of importance, with an arithmetic mean of 4.453, followed by APMs with an arithmetic mean of 4.156, and automation with an arithmetic mean of 4.149.

**Table 5.** Results of the Descriptive Analysis of FinTech Dimensions.

No.	Fintech Dimensions	Jordan			UAE		
		Mean	Standard Deviation	Importance	Mean	Standard Deviation	Importance
1	Financial Inclusion	3.651	0.566	High	4.453	0.520	Very high
2	Alternative Payment Methods (APMs)	3.890	0.494	High	4.156	0.440	High
3	Automation	4.044	0.645	High	4.149	0.489	High

Table 6 provides a descriptive analysis of the dependent variables, total deposit, and net profit. In the Jordan sample, the arithmetic mean of total deposit was 3,172,946,654 with a standard deviation of 4,728,519,832. The highest and lowest values were 20,514,800,000 and 328,734,948, respectively. For the UAE sample, the arithmetic mean of total deposit was 20,439,242,674 with a standard deviation of 29,782,239,560. The highest and lowest values were 131,599,229,287 and 462,427,746, respectively. Due to the volatile economic conditions and the impact of the COVID-19 pandemic, the standard deviation values increased. As for net profit, the arithmetic mean in the Jordan sample was 45,626,942 with a standard deviation of 73,948,116. The highest and lowest values were 433,514,000 and −4,511,275, respectively. In the UAE sample, the arithmetic mean of net profit was 449,990,176 with a standard deviation of 707,044,774. The highest and lowest values were 2,794,605,010 and −283,650,289, respectively.

**Table 6.** Results of the Descriptive Analysis of the Dependent Variables.

		Jordan		
Variable	Mean	Std. Deviation	Min	Max
Total Deposit	3,172,946,654	4,728,519,832	328,734,948	20,514,800,000
Net profit	45,626,942	73,948,116	−4,511,275	433,514,000
		UAE		
Variable	Mean	Std. Deviation	Min	Max
Total Deposit	20,439,242,674	29,782,239,560	462,427,746	131,599,229,287
Net profit	449,990,176	707,044,774	−283,650,289	2,794,605,010

All figures in the table are in Jordanian dinars.

### 4.3. Validation of Data for Statistical Analysis

#### 4.3.1. Normal Distribution Test

The researcher extracted the regression standardized residuals of the study model through multiple regression analysis and then tested these residuals with the normal distribution test (i.e., Kolmogorov–Smirnov test) to ensure that the residuals followed the normal distribution. The normal distribution of the residuals in the study model was verified using the Kolmogorov–Smirnov test, and the results are presented in Table 7.

The decision rule for this test is that the residuals are considered to follow a normal distribution if the *p*-value is greater than 0.05, while a *p*-value below 0.05 indicates that the normal distribution of residuals is abnormal (Babbie et al. 2018). As per the table, the *p*-values for all variables in both the Jordan and UAE samples were greater than 0.05, indicating that the residuals followed a normal distribution. Thus, the parametric tests can be used to evaluate the role of FinTech in improving the financial performance and position of commercial banks in Jordan and the UAE.

**Table 7.** Results of the Normal Distribution Test for the Study Data.

Variable	Jordan		UAE	
	Statistic (K-S)	Sig	Statistic (K-S)	Sig
Financial Inclusion	0.123	0.123	0.260	0.063
Alternative Payment Methods (APMs)	0.102	0.200	0.228	0.096
Automation	0.120	0.147	0.103	0.200
Total Deposit	0.341	0.076	0.240	0.094
Net profit	0.245	0.059	0.277	0.064

4.3.2. Linear Interference Test

To ensure the validity of the study data for statistical analysis, a multicollinearity test was conducted. According to [Luo et al. \(2007\)](#), multicollinearity occurs when there is a high correlation between two or more independent variables in a multiple regression model. This phenomenon can negatively affect the analysis by making it difficult to interpret the results and draw accurate conclusions, which, in turn, can undermine the generalization and accuracy of the study model. To address this issue, the study employed the variance inflation factor (VIF) and tolerance coefficient, as presented in [Table 8](#), to avoid problems with linear interference.

**Table 8.** Validity of Study Data for Statistical Analysis.

Variables	Multicollinearity			
	Jordan		UAE	
	Tolerance	VIF	Tolerance	VIF
Financial Inclusion	0.939	1.065	0.454	2.201
Alternative Payment Methods (APMs)	0.994	1.006	0.456	2.195
Automation	0.942	1.062	0.344	2.904
	<b>=1.960 Durbin-Watson</b>		<b>=2.048 Durbin-Watson</b>	

VIF is used to determine the presence of multiple correlations between variables. Under the general rule, inflation exists when the VIF is greater than 10; in this condition, the regression coefficients are poorly determined, owing to the increased inflation between the independent variables. According to [Table 8](#), all VIFs for the Jordan and UAE samples were less than 10.

The tolerance coefficient is used to detect the problem of survival of the independent variable within the study model being tested. In this test, a problem is detected if the tolerance factor value is less than 0.10. As shown in [Table 8](#), all tolerance factor values in the Jordan and UAE samples were greater than 0.10. As all study variables exceeded the threshold values of the two indicators, linear interference was not a problem in the study model.

The autocorrelation test (i.e., Durbin–Watson (D–W) test) was also conducted to ensure the absence of the autocorrelation problem in the model. According to [Field \(2013\)](#), the autocorrelation problem emerges when the adjacent values of variables are correlated and then affects the validity of the model’s unreal impact resulting from such correlation. The value of this test ranges from 0 to 4; results close to 0 indicate a strong positive correlation, while results near 4 indicate a strong negative correlation. The appropriate range for this test is between 1.5 and 2.5, and the optimal value is 2, indicating no autocorrelation between the adjacent values of the variables. [Table 8](#) shows that the calculated D-W values for the study model of the Jordan and UAE samples reached 1.960 and 2.048, indicating that no autocorrelation problem affected the validity of the model.



#### 4.4. Hypotheses Test

Before analyzing the hypotheses, the researcher separated the questionnaires from each bank. The average of all responses for each bank was calculated to derive one main questionnaire for each bank. With regard to the data collected from the financial statements of the commercial banks, the averages of workers for the entire study period were taken for each bank to determine the main average value for each bank for all the dependent variables.

**H1.** *FinTech has a statistical effect on financial performance measured by the total deposit of commercial banks.*

Multiple regression analysis was performed to determine the results for H1. The Sig. F value was adopted to accept or reject the study model and to determine the extent of its suitability to represent the relationship between the independent and dependent variables. According to the decision rule, the model is accepted when the Sig. F value is less than 0.05. Meanwhile, the Sig. T value was also adopted to determine the impact of each of the independent variables on the dependent variable. According to the decision rule, an effect exists when the value of Sig. T is less than 0.05, in which case the hypothesis is accepted. The adjusted R<sup>2</sup> value was used to determine the accuracy of the explanation of the independent variables for the dependent variable. Table 9 shows the results of the multiple regression test for the study model.

**Table 9.** Results of the Multiple Regression Test for the First Hypothesis.

Variable	Jordan				UAE			
	Coefficient	Std. Error	T-Statistic	Prob.	Coefficient	Std. Error	T-Statistic	Prob.
Constant	—	0.584	7.014	0.000	—	3.657	−3.705	0.010
Financial Inclusion	0.650	0.079	5.994	0.000	0.274	0.277	5.991	0.001
APMs	0.694	0.088	6.582	0.000	0.216	0.354	5.725	0.001
Automation	0.460	0.069	4.251	0.002	0.333	0.337	5.456	0.002
R	0.949				R		0.936	
R-squared	0.901				R-squared		0.877	
Adjusted R-square	0.867				Adjusted R-square		0.815	
S.E. of regression	0.142				S.E. of regression		0.273	
F-statistic	27.166				F-statistic		14.225	
Prob (F-statistic)	0.000				Prob(F-statistic)		0.004	

Table 9 shows the test results for H1 and its sub-hypotheses through multiple regression of the independent study variables represented by the FinTech dimensions (i.e., financial inclusion, APMs, and automation) and their impact on the dependent variable (total deposit) for the commercial banks in Jordan and the UAE.

For the Jordan sample, the calculated F value reached 27,166, which is significant at a level of 0.05, indicating that the proposed study model is appropriate. The results of the regression analysis also showed that the Sig. F value reached 0.000, which is below the 5% significance level. Therefore, H1 is accepted for the Jordan sample, that is, FinTech has a statistical impact on financial performance measured by the total deposit of Jordanian commercial banks listed on the ASE.

In addition, the adjusted R<sup>2</sup> value for the Jordan sample reached 0.867, indicating that only 86.7% of the fluctuations in the total deposit of Jordanian commercial banks could be explained by the changes brought about by the application of FinTech. Note that the adjusted R<sup>2</sup> value is between 0 and 1; if the value is less than 40%, it cannot be relied upon to build a mathematical equation for prediction and interpretation (Lehmann et al. 2011). Therefore, the adjusted value in this model can be judged as strong for the prediction and interpretation processes and is reliable.

With regard to the UAE environment, the calculated F value reached 14.225, which is significant at a level of 0.05, indicating that the proposed study model is appropriate. The results of the regression analysis also showed that the Sig. F value reached 0.004, which is below the 5% significance level. Therefore, H1 is accepted for the UAE sample, that is, FinTech has a statistical impact on financial performance measured by the total deposit of UAE commercial banks listed on the ADX.

Furthermore, the results of the regression analysis for the UAE sample showed that the adjusted R<sup>2</sup> value reached 0.815, which indicated that only about 81.5% of the fluctuations in the total deposit of commercial banks in the UAE could be explained by the changes resulting from the application of FinTech. Therefore, the adjusted value in this model can be judged as strong for the prediction and interpretation processes and is reliable. The results of the multiple regression test were used as basis to determine the impact of each FinTech dimension on the total deposit of the commercial banks in Jordan and the UAE.

**H1.1.** *Financial inclusion has a statistical impact on financial performance measured by the total deposit of commercial banks.*

With regard to the results for the Jordanian environment shown in Table 9, the significance level value (Sig. T) was below 5% as it reached 0.000. As stated previously, the decision rule states that the hypothesis is accepted if the value of Sig. T is less than 5%. Therefore, H1.1 is accepted, that is, financial inclusion has a statistical impact on financial performance measured by the total deposit of Jordanian commercial banks listed on the ASE.

With regard to the UAE environment, the significance level (Sig. T) was also below 5%, reaching 0.001. Following the decision rule that states that the hypothesis is accepted if the value of Sig. T is less than 5%, H1.1 is accepted, that is, financial inclusion has a statistical impact on financial performance measured by the total deposit of UAE commercial banks listed on the ADX.

As for the values of the coefficients, namely, 0.650 for the Jordan sample and 0.274 for the UAE sample, they indicated the positive impact of applying financial inclusion on the total deposit of the Jordan and UAE samples.

**H1.2.** *APMs have a statistical impact on financial performance measured by the total deposit of commercial banks.*

According to Table 9, the significance level (Sig. T) for the Jordan sample was lower than 5% as it reached 0.000. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case APMs impact the total deposit in Jordan. Thus, the second sub-hypothesis H1.2 is accepted, that is, APMs have a statistical impact on financial performance measured by the total deposit of Jordanian commercial banks listed on the ASE.

With regard to the UAE environment, the significance level value Sig. T was less than 5% as it reached 0.001. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case APMs impact the total deposit in the UAE. Thus, the second sub-hypothesis H1.2 is accepted, that is, APMs have a statistical impact on financial performance measured by the total deposit of UAE commercial banks listed on the ADX. Meanwhile, the coefficient values reached 0.694 for the Jordan sample and 0.216 for the UAE sample. This result indicated the positive impact of applying APMs on the total deposit in Jordan and the UAE.

**H1.3.** *Automation has a statistical impact on financial performance measured by the total deposit of commercial banks.*

According to Table 9, the significance level value (Sig. T) for the Jordanian environment was 0.002, which is lower than 5%. The decision rule states that the hypothesis is accepted

if the value of Sig. T is less than 5%, in which case automation impacts the total deposit in Jordan. Thus, the third sub-hypothesis H1.3 is accepted, that is, automation has a statistical impact on financial performance measured by the total deposit of Jordanian commercial banks listed on the ASE.

With regard to the UAE environment, the significance level value (Sig. T) was lower than 5% at 0.002. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case automation impacts the total deposit of UAE commercial banks. Thus, the third sub-hypothesis H1.3 is accepted, that is, automation has a statistical impact on financial performance measured by the total deposit of UAE commercial banks listed on the ADX.

The coefficient values were 0.069 for the Jordan sample and 0.333 for the UAE sample. These results indicate the positive impact of applying automation on the total deposit in Jordan and the UAE.

**H2.** *FinTech has a statistical impact on financial performance measured by the net profits of commercial banks.*

Table 10 shows the test results of the second main hypothesis and its sub-hypotheses obtained through multiple regression of the independent variables represented by the FinTech dimensions (i.e., financial inclusion, APMs, and automation) and their impact on the dependent variable (net profit) for the commercial banks in Jordan and the UAE.

**Table 10.** Results of Multiple Regression Test for the Second Hypothesis.

Variable	Jordan				UAE			
	Coefficient	Std. Error	T-Statistic	Prob.	Coefficient	Std. Error	T-Statistic	Prob.
Constant	—	0.538	2.626	0.028	—	4.968	−3.346	0.029
Financial Inclusion	0.659	0.073	7.386	0.000	0.274	0.339	4.737	0.009
APMs	0.622	0.081	7.177	0.000	0.351	0.485	4.494	0.011
Automation	0.611	0.063	6.858	0.000	0.534	0.466	4.485	0.011
R	0.966				R		0.932	
R-squared	0.933				R-squared		0.868	
Adjusted R-square	0.910				Adjusted R-square		0.769	
S.E. of regression	0.132				S.E. of regression		0.323	
F-statistic	41.575				F-statistic		8.769	
Prob(F-statistic)	0.000				Prob(F-statistic)		0.031	

For the Jordanian environment, the calculated F value reached 41.575, which is significant at a level of 0.05, thereby indicating the appropriateness of the proposed model. The results of the regression analysis also showed that the Sig. F value reached 0.000 and was thus below the 5% significance level. Therefore, the second main hypothesis is accepted for the Jordan sample, that is, FinTech has a statistical impact on financial performance measured by the net profits of Jordanian commercial banks listed on ASE.

The regression analysis of the Jordan sample showed that the adjusted R<sup>2</sup> value reached 0.910, which indicated that only about 91% of the fluctuations in the net profits of Jordanian commercial banks could be explained by the changes brought about by the adoption of FinTech. Moreover, the adjusted value in this model can be judged as strong in the prediction and interpretation processes and is reliable.

In the case of the UAE, the calculated F value reached 8.769, which is significant at a level of 0.05, thus indicating the appropriateness of the proposed model. Therefore, the fourth main hypothesis is accepted in the UAE sample. The regression analysis showed that the Sig. F value reached 0.031 and was thus below the 5% significance level. This result indicates that FinTech has a statistical impact on financial performance measured by the net profits of UAE commercial banks listed on the ADX.

According to the results of the regression analysis for the UAE sample, the adjusted  $R^2$  value reached 0.769, which indicated that only about 76.9% of the fluctuations in the net profits of the commercial banks in the UAE could be explained by the changes brought about by the application of FinTech. Therefore, the adjusted value in this model can be judged as strong in the prediction and interpretation processes and is reliable. The results of the multiple regression test were used as basis to investigate the effect of each fintech dimension on the net profits of the commercial banks in Jordan and the UAE.

**H2.1.** *Financial inclusion has a statistical impact on financial performance measured by the net profits of commercial banks.*

As indicated in the results of Table 10 for the Jordanian environment, the significance level value (Sig. T) was below 5% at 0.000. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case financial inclusion impacts net profits in Jordan. Therefore, the first sub-hypothesis is accepted, that is, financial inclusion has a statistical impact on financial performance measured by the net profits of Jordanian commercial banks listed on the ASE.

In the case of the UAE, the significance level value (Sig. T) was below 5% at 0.009. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case financial inclusion does impact net profits in the UAE. Therefore, the first sub-hypothesis is accepted, that is, financial inclusion has a statistical impact on financial performance measured by the net profits of UAE commercial banks listed on the ADX.

The coefficient values reached 0.659 in the Jordan sample and 0.274 in the UAE sample. This result indicated the positive impact of applying financial inclusion on the net profits in Jordan and the UAE.

**H2.2.** *APMs have a statistical impact on financial performance measured by the net profits of commercial banks.*

For the Jordanian case, the significance level value (Sig. T) was below 5% at 0.000. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case APMs impact the net profits in Jordan. Therefore, the second sub-hypothesis is accepted, that is, APMs have a statistical impact on financial performance measured by the net profits of Jordanian commercial banks listed on the ASE.

Regarding the UAE environment, the significance level value (Sig. T) was below 5% at 0.011. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case APMs do exert an impact on net profits in the UAE. Therefore, the second sub-hypothesis is accepted, that is, APMs have a statistical impact on financial performance measured by the net profits of UAE commercial banks listed on the ADX.

The coefficient values reached 0.622 for the Jordan sample and 0.351 for the UAE sample. These results indicated the positive impact of applying APMs on the net profits in Jordan and the UAE.

**H2.3.** *Automation has a statistical impact on financial performance measured by the net profits of commercial banks.*

As indicated by the results in Table 10 for the Jordanian environment, the significance level value (Sig. T) was below 5% at 0.000. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case automation impacts net profits in Jordan. Therefore, the third sub-hypothesis is accepted, that is, automation has a statistical impact on financial performance measured by the net profits of Jordanian commercial banks listed on the ASE.

Regarding the UAE case, the significance level value (Sig. T) was below 5% at 0.011. According to the decision rule, the hypothesis is accepted if the value of Sig. T is less than 5%, in which case automation impacts net profits in the UAE. Therefore, the third sub-

hypothesis is accepted, that is, automation has a statistical impact on financial performance measured by the net profits of UAE commercial banks listed on the ADX.

The coefficient values reached 0.611 for the Jordan sample and 0.534 for the UAE sample. These results indicated the positive impact of applying automation on the net profits in Jordan and the UAE.

## 5. Findings, Discussion, and Recommendations

### *Findings and Discussion*

The objective of this study is to analyze the main FinTech adopted by banks to improve their financial performance and position. It also examines whether such adoption does enhance banks' financial performance and position. The results obtained from the analysis of 86 questionnaires are briefly discussed herein.

H<sub>1</sub>: FinTech has a statistical impact on financial performance measured by the total deposit of commercial banks. The impact of FinTech on total deposit is significant since banks use technology to deliver financial services to clients who can, in turn, apply these services to deposit-related functions. Various deposit services such as savings accounts, checking accounts, and the use of ATMs are offered, and the deposits reflect banks' financial performance. Financial inclusion also has a significant impact on total deposit, as it allows clients to access financial services offered by banks, thus facilitating accessibility to various deposit-related financial services. APMs have an effect on total deposit since banks offer payment methods such as checks, mobile payments, credit and debit cards, and electronic bank transfers. Clients can utilize electronic wallets and other methods to access all available deposit services. Automation also impacts total deposit since it eliminates the need for human interaction and allows tasks to be performed automatically. For instance, clients may opt to use automated deposit services instead of in-person tellers. This study highlights the significant impact of FinTech on Jordan, with an adjusted R<sup>2</sup> value of 0.867.

H<sub>2</sub>: Fintech has a statistical impact on financial performance measured by the net profits of commercial banks. FinTech affects net profit as the use of technology enhances the creativity in providing clients with advanced financial services. Technology increases banks' gains by enhancing their efficiency and effectiveness. Meanwhile, net profit enhances banks' financial performance because financial performance is an overall assessment of banks' financial standing. Additionally, financial inclusion affects net profits. This result may be justified because financial inclusion in banks enables clients to access different financial services. It is also generally considered essential in economic development and is reflected by the net profits of banks. APMs also affect net profit as using APMs rather than cash will enhance the efficiency of bank operations and, in turn, influence bank gains reflected in net profits. In addition, automation affects net profit as it enhances the effectiveness and efficiency of bank operations. Specifically, it speeds up certain services that employees are responsible for accomplishing. The improved efficiency is reflected in the net profits of banks. In this study, FinTech has a great impact in Jordan given the adjusted R<sup>2</sup> value of 0.910.

In general, the main findings of this study are consistent with those of previous research. First, the study conducted by [Ibrahim \(2018\)](#) revealed the positive and significant effect of FinTech on financial performance. Second, the study conducted by [Dwivedi et al. \(2021\)](#) showed that the adoption of FinTech has a direct impact on the performance of the banking industry. Third, the study conducted by [Almulla and Aljughaiman \(2021\)](#) highlighted the negative relationship between FinTech services and bank performance. Fourth, the study conducted by [Bashayreh and Abu Wadi \(2021\)](#) found that FinTech has a positive impact on bank performance. Fifth, [Abbas and Shaheen \(2021\)](#) reported that FinTech plays a significant role in the banking sector. Although the research objective has been achieved, we believe that there are still other variables that can be added. Therefore, future studies can base on the research scope, specific conditions, to add other variables to more fully assess the impact of Financial Technology on the Improvement of Banks' Financial Performance. In addition, expanding the sample size in future studies also makes the research results more reliable.



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