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The role of financial technology in enhancing digital banking services in Iraqi government banks: An analytical study in Iraqi government banks

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Abstract
The purpose of this study is to understand the role of financial technologies in the expansion of digital banking services in the Iraqi public sector, focusing on the analysis of the effectiveness of these technologies in improving these services. This study highlights the technical challenges faced by public sector banks during digital transformation and shows how financial institutions can leverage finch to improve their digital banking infrastructure and increase efficiency. This online survey is designed to focus on three key areas: demographics, financial technology, and digital banking. Based on the results, survey participants showed significant agreement on issues related to finch and digital banking. A sample consisting of bank managers and employees of the public banking sector in Baghdad province was selected. The sample size was 100 questionnaires, which were distributed using stratified random sampling. Twelve surveys were excluded because they did not meet the statistical requirements to answer all questions. Therefore, 88 questionnaires were accepted for analysis, representing 88% of the target sample size.

Keywords: Financial technology, banking services, government banks

Introduction

Rapid and successive transformations in various fields are witnessing an enhancement of the importance of information and communications technology, as these transformations push international and economic entities to compete and innovate to ensure their survival and excellence at the global level. The most prominent of these organizations are banks, whose adoption of technology and development of banking services over the past few decades has made them more efficient and effective in providing a better customer experience. These trends are expected to remain influential in the coming years, highlighting the importance of keeping pace with technology in improving banking services and ensuring their continuity.

However, digital transformation has become a major focus for the banking sector, as the digital revolution that the world witnessed has transformed the financial and banking services sector and brought about major changes in the banking environment. These developments include the provision of digital financial services, the adoption of global trends in digital banking, the digital economy, and the emergence of new technologies such as encryption and technology. Blockchain is radically changing the financial landscape. (Narain, 2016: 20) [8].

Digital developments in banking services allow customers to conduct their transactions easily and quickly via digital platforms, while providing secure protection for their accounts and viewing their monthly data without the need for personal presence at the bank. This is done through the use of advanced technologies such as artificial intelligence. This trend requires public institutions and banks to develop strategies that enhance their ability to compete and characterize their performance with efficiency and continuity. (Rawwash, 2020: 918) [18].

Hence, the introduction of information technology into the banking system has significantly improved the quality and development of banking services, making it possible to keep pace with rapid developments in this field. This transformation also led to the emergence of the concept of "electronic banking". The reason for this is that in recent years, the banking sector has made great progress at the global level, and new banking services have become

completely different from traditional services, and banks are becoming more and more innovative and forward-looking with the aim of achieving customer satisfaction and strengthening relationships because the number of cases in which services are provided It is increasing. This is because we began to strive towards innovation and implementation. Together with our customers. (Moro-Visconti, 2020, 10316) [17].

Research Problem

State-owned banks in Iraq face significant challenges in providing advanced digital banking services, opening the door to research into how financial technology can be used to improve services. In this context, the limited adoption of financial technology poses challenges to digital transformation. Therefore, this study raises questions about how financial technology can be used to improve digital banking infrastructure in Iraq and increase the overall efficiency of public banks. This leads to the main research question: What is the role of financial technology in improving banking services in Iraqi public banks? This raises several sub-questions, including.

- What is financial technology?
- What are its benefits in the financial sector?
- What is the extent of its impact on the government banking sector in Iraq?

Research Objectives

- Analysis of the role of financial technology in developing the digital banking infrastructure in Iraqi state-owned banks.
- Study the impact of financial technology in improving the provision of banking services to customers and facilitating daily financial transactions.
- Study the challenges that may face the application of financial technology in public sector banks in Iraq and provide recommendations to overcome them.
- Evaluate the effectiveness of current policies and procedures in Iraqi public banks in the areas of financial technology integration and the provision of advanced digital banking services.
- Determine the economic and social benefits of introducing financial technology in the public banking sector and its impact on economic development.

Research Importance

The importance of the research lies in providing a deep and analytical understanding of the impact of financial technology on digital banking services in public banks in Iraq. This study will help researchers and academics better understand digital transformation in the banking sector and how to improve services.

From a practical standpoint, this study can contribute to policy and decision making to improve the productivity and efficiency of public banking institutions in Iraq. This research can also provide valuable information for bankers and leaders to better integrate financial technology to meet customer needs and boost the national economy.

Research Hypotheses

This study is based on the hypothesis that financial technology plays an important role in improving and expanding digital banking services in public banks in Iraq.

The first main hypothesis: “There is a significant correlation between financial technology and digital banking services.” The following sub-hypotheses emerge from it:

- **The first sub-hypothesis:** “There is a significant correlation between payment services and digital banking services.”
- **The second sub-hypothesis:** “There is a significant correlation between financing and investment services and digital banking services.”
- **The second sub-hypothesis:** “There is a significant correlation between insurance services, wealth management, and digital banking services.”

Study Population and Sample

The research community consists of workers in the private banking sector in Baghdad Governorate. The research sample included workers in the banking sector, such as bank managers and employees who rely on computer technology and digital electronic applications. The sample size was 100 questionnaires, which were randomly distributed to the study population. (12) Questionnaires were excluded because they did not meet the statistical requirements to answer all questions. Accordingly, the number of questionnaires that were validated in the analysis reached (88), which corresponds to the target sample size (88%).

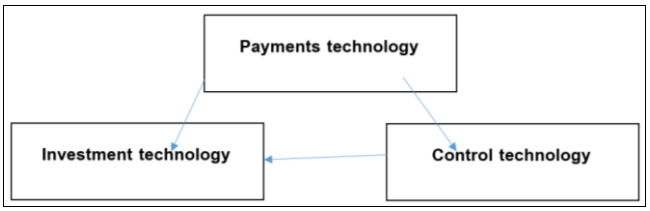
Research Tool

In his study, the researcher adopted the questionnaire as a tool for collecting data, and the statistical analysis of the data was carried out using the program SPSS.

Statistical Methods Used

This study uses different statistical techniques to analyze the data and interpret the results. These methods include using descriptive statistics to summarize the data and describe it in general, in addition to applying reliability testing according to Cronbach's alpha coefficient and regression analysis to understand the relationships between variables. The study also uses exploratory statistics methods to explore data, discover unexpected trends and relationships, and apply hypothesis testing according to the Pearson correlation coefficient. Thanks to these multiple statistical methods, it is possible to achieve a deep and comprehensive understanding of the data and reach accurate conclusions that support the research objectives of the study.

Study Model



Chapter One: Financial Technology

First - The Concept of Financial Technology

The term spread Fin-tech has recently become popular in the economics literature related to financial services. This term refers to the application of technology in the financial services industry. The popularity of this term reflects the growing interest in technological innovation in the financial services industry, as the term Fintech comes from two abbreviations: "Fin", which refers to "Finance", and "Tech",

which refers to "Technology". This term has sparked differing opinions regarding its meaning and importance. (Kouachi & Jebali, 2020: 3) [5].

The Digital Institute in the Polish capital, Dublin, also defines financial technology as the sum of the latest innovations and developments in the financial sector, including a set of digital programs used in financial banking services. According to the Financial Stability Board, fintech is a financial innovation that uses technology to create new business models, applications, processes, and products that significantly impact financial markets, financial institutions, and the provision of financial services. (Ali, 2019: 3) [4].

Second - Benefits of Financial Technology

Today, financial technology has become very important because it brings enormous benefits to banking operations and financial flows. These benefits can be summarized as follows.

1. **Expanding financial inclusion and stimulating economic growth**: Financial technology promotes financial inclusion through innovations that enable the provision of financial services to individuals not directly connected to banking institutions. It also enhances economic activity by providing alternative financing to small and medium-sized enterprises (Tremblay & *et al*., 2003, p. 838) [20].
2. **Achieving financial stability:** The use of financial technology contributes significantly to regulatory compliance and effective risk management, further enhancing the stability of the financial system.(Arner & *et al*., 2022, p. 51) [9]
3. **Facilitating foreign trade and individuals' remittances:** FinTech is increasingly providing efficient and effective cross-border payment mechanisms, facilitating cross-border trade and facilitating workers' remittances abroad.(Lemoine, & Unal, 2017, p.8) [15].
4. **Increasing the efficiency of government operations:** As the use of electronic payment methods increases government efficiency, further reforms are needed to address regulatory gaps and ensure consumer protection and information security. (Alqama, 2018: 93) [3].

From this standpoint, the role of financial technology is primarily to contribute to improving the financial environment at the bank level, and it is also important in simplifying banking financial transactions and improving the quality of financial services.

Third: The Importance of Financial Technology

Financial technology is a vital opportunity for the financial services industry, and the most important opportunities provided by financial technology can be summarized as follows.

- **Easy access to capital:** Digital platforms enable peer-to-peer lending, which can provide financing to small and medium-sized businesses that cannot access traditional financing.
- **Speed up financial transactions at lower costs**: Fin-tech enables cross-border financial transfers to take place faster and at lower costs, strengthening emerging financial markets and increasing financial stability.
- **Positive impact on financial stability**: Competition between traditional banks, digital banks, and financial technology companies increases financial stability and reduces systemic risks.
- **Improving traditional banking services** Fin-Tech can help banks improve traditional services by making them more efficient and flexible. This includes providing clients with automated recommendations to help them navigate their investments and provide a better customer experience. (Benjamin, 2023: 22) [2].

Fourth: Dimensions of financial technology

Payment Technology: It refers to the process of transferring amounts from payer to beneficiary using electronic payment mechanisms, allowing customers to access and manage their bank accounts through an online user interface.

Financial Management Technology: Electronic devices such as computers, cameras, and advanced communication equipment are used to provide information to various departments of an organization and take immediate corrective action when actual performance deviates from predetermined plans.

Investment Technology: It includes electronic processes through which investors obtain advice, guidance and information to facilitate their decision-making and choose their investment portfolio at the lowest costs, and the processes through which this service is provided to all segments of society will appear.

Fifth: Characteristics of Financial Technology

The most important characteristics of financial technology have been identified as follows.

- **Transparency:** Reduce information asymmetry and ensure accurate risk assessment. This reduces the possibility of late payments, delayed payments, and loss of liquidity. New technologies are increasing transparency and generating additional information.
- **The speed:** With high-speed data analysis, these technologies include big data analytics, machine learning, and algorithms that complete financial transactions in much less time than traditional trading.
- **Available to all users:** The project aims to ensure that all social groups have access to financial services without discrimination and allows startups to reach all groups and expand their target audience through partnerships and product redesign.
- **Strong Financial Infrastructure:** Contributes to the foundation that supports other financial services such as digital identity verification, customer due diligence, data sharing, and payment facilitation, including cross-border remittance solutions.

Chapter Two: Banking Services

In the eighteenth and nineteenth centuries, the number of banks gradually increased due to the Industrial Revolution, with the spread of banks that resemble joint-stock companies, and the emergence of banks specializing in industrial, agricultural, and real estate credits. Banks play a vital role in the economy, receiving deposits and making loans, making a profit from differences in interest rates. In the process of financial intermediation, assets are converted into various liabilities by linking the economic factors of surplus and deficit. (Gaweesh, 2023, 695) [12].

First - The Concept of Banking Services

The concept of banking services in providing this service is linked to the performance of the individuals who provide it, or to the intangibility of the activity being provided, as the banking service represents an activity or service that is provided through individuals or devices, and its provision may or may not be related to a commodity, and it may be related to withdrawing The recipient of money from an ATM using banking, and filling out the form for withdrawals or deposits is linked to the individuals who interact with the recipient and the use of an auxiliary commodity, and thus the recipient's level of satisfaction is affected by the efficiency of the workers and the development of the devices and machines used. Hence, it appears to us that understanding banking service includes two basic aspects: benefit and characteristics.

Second - Types of banking services

1. Traditional services

Traditional banking includes a wide range of services provided by traditional banks. A brief explanation follows: (Syrian Virtual University Publications, 2018: 16) [7].

- **Managing current accounts in local and foreign currencies:** It allows customers to open current accounts to manage their daily finances, easily access funds, and make withdrawals and deposits. (Demirgüç-Kunt & *et al*., 2020, p.S6) [11].
- **Internal and external bank transfers, and issuing traveler's checks:** It provides bank transfer services to facilitate the transfer of funds between accounts in the same bank or between different banks, and issuing traveler's checks allows customers to pay the amounts due in currency units different from the local currency. (Humphrey & Berger, 1990, p. 50) [13].
- **Issuing savings certificates in local and foreign currencies:** Banks provide savings services by issuing savings certificates that provide a certain return over a specified period of time, and customers can choose the currency of the certificate and the appropriate investment period for them. (Abdul Rahman and Hashem, 2022: 30) [6].
- **Granting credit facilities and financing foreign trade:** Banks provide loan and financing services to personal and corporate clients. These services include providing lines of credit to individuals and companies and financing foreign trade projects to support cross-border business activities. (Al-Hajj, 2004: 90) [1] Together, these services represent the traditional aspect of banking services and meet the needs of customers in the areas of managing their money, transferring funds, investing and financing.

2. Unconventional services: (Syrian Virtual University Publications, 2018: 16-17) [7]

Banks provide a variety of financial services to individuals and businesses. This includes issuing negotiable certificates of deposit, which stimulates trading in financial markets and provides financial liquidity to clients. In addition, banks provide insurance services and obtain loans from insurance companies to protect customers' assets and provide credit opportunities. In addition, it offers securitization services that convert assets into marketable securities, providing clients with the opportunity to realize economic benefits. When it comes to international trade, banks that deal in currencies on behalf of companies facilitate cross-border trade, facilitate the efficient processing of foreign currency transfers, and reduce the risk of price fluctuations.

Third- Digital Banking Services

FinTech is evolving and forms an important basis for improving the efficiency of the banking sector and the quality of services provided by investing in innovative technologies and applications that have become available through advances in the FinTech industry. The importance of digital banking is clear for several reasons.(LIORCA, 2017, 46) [16].

1. Payment services: represents continuous research and development in the field of financial technology. These services include key innovations such as:

- **Mobile payment:** Includes facilitating financial transactions through mobile applications.
- **Low-Cost International Money Transfers:** Cross-border money transfers are becoming cheaper and easier.
- **Free Currency Exchange:** Currency exchange services are provided efficiently and without exorbitant costs.
- Managing payment flows in online transactions. Online transactions simplify the electronic payment process. (Dahlberg & *et al*., 2008 p.168) [10].

2. Personal Banking Services: It includes simple online banking services offered to individuals, providing access to personal budgeting solutions and a variety of financial products. These services are characterized by low cost and no need to physically visit an institution to manage your personal finances.

3. Investment and Financing: Fin-tech companies not only provide investment opportunities through crowdfunding platforms, but also offer a variety of offers to their clients, including loans, capital investments, and even cash donations. Which expands investment opportunities and opens new horizons for clients. (Jenik& *et al*. 2017, p. 41) [4].

4. Services Provided To Banks: Big data solutions contain huge amounts of data and rely on collecting and analyzing huge amounts of banking and financial data. These tools represent an innovative use of financial technology to effectively manage customer relationships and improve interactions between banks and customers (Sun, & *et al*., 2014p. 2) [19].

Fourth: Dimensions of Banking Services

Analysis of the quality of banking services depends on several important marketing aspects.

1. **Intangibility:** It means customers cannot see or touch banking services before making a purchase. This makes it difficult for marketers to offer and promote their services. The marketing implications are the importance of understanding customer needs and satisfaction in order to improve service quality and deliver services in a way that meets expectations.
2. **Inseparability**: Refers to the close connection between the service and the employees who provide it. This means that the quality of banking services depends on

the performance of employees. Therefore, banks need to provide proper training to their employees and improve their skills to provide quality services.

3. **Quick yard:** This means that banking services cannot be saved. This makes it difficult for banks to plan to meet ever-changing demands. The importance of marketing lies in developing effective response strategies to fluctuations in demand.
4. **Changeability:** Refers to differences in service quality due to various factors such as employee skills and service delivery conditions. Service quality analysis requires monitoring and improving service processes and standardizing performance to provide a unified customer experience.
5. **Property:** It means that the banking service is not owned by the customer and cannot be transferred to him. However, banks need to offer a unique customer experience that builds a sense of belonging and brand loyalty.
6. **Difficulty of Profiling:** This indicates the difficulty of defining uniform standards for service quality due to the diversity of situations and factors associated with service delivery. For this reason, banks must define specific quality standards and regularly monitor their effectiveness.
7. **Customer Engagement**: Refers to the customer's role in producing and marketing the service. Banks need to encourage active customer participation and understand their needs to improve service quality and customer satisfaction.(Al-Bahi, 2016: 35-36)

Fifth: Characteristics of Banking Services

Banking services acquire unique characteristics that distinguish them from other products. Below is a description of these characteristics and their marketing implications.

Stored Services: Banking services are intangible and difficult to store or provide in advance because they are created and consumed instantaneously based on customer demand. This highlights the importance of providing fast and efficient services that respond immediately to customer needs, thus increasing customer satisfaction and loyalty to the bank.

Lack of patent protection. The possibility of multiple banks providing banking services without patent protection means intense competition among banks. Therefore, banks must consider developing and providing innovative and unique services to attract and retain customers.

Indivisibility or fragmentation: This characteristic refers to the inability to separate or fragment when providing banking services, and providing integrated and comprehensive services to fully meet the needs of customers, and the importance of this is emphasized.

Expanding usage locally and internationally. Providing banking services locally and internationally increases our ability to reach more customers and serve them in a more diverse and comprehensive way.

Providing exceptional service. Since the provision of banking services varies from one customer to another, banks must be able to respond individually and flexibly to customer needs.

Unable to check quality before providing services. The inability to verify quality before providing services means that banks must always be prepared to provide quality services that meet customer expectations.

Practical Framework for Research

Descriptive Statistics Results

The purpose of this study is to understand the opinions of a sample of participants about the role of financial technology in improving digital banking services and to determine the extent to which responses differ between individuals. To do this, the researchers collected information and created an electronic questionnaire consisting of three main axes. The first axis includes demographic information, while the second axis focuses on financial technology and its basic payment services, financial and investment services, insurance services, wealth management, and others. The third axis relates to digital technologies in banking services and the most important aspects such as trust, comfort, quality of banking services, perceived risks, perceived value, and functional quality.

Stability Test: To ensure the reliability of the questionnaire, a reliability test was conducted by calculating the Cronbach's alpha coefficient according to the following table.

Table 1: Shows the stability value of number of paragraphs and its interviewer

Stability value	Number of paragraphs	Interviewer	
0.782	5	Payment services	Financial technology
0.772	5	Finance and investment services	
0.799	5	Insurance and wealth management services	
0.893	15	Total	
0.709	3	trust	Digital banking services
0.711	3	Comforts	
0.737	3	Quality of banking services	
0.742	3	Perceived risks	
0.738	3	Perceived value	
0.801	3	Functional quality	
0.943	18	Total	
0.966	33	The questionnaire as a whole	

From the table above it is clear that the value of the reliability coefficient for the academic variables and their main dimensions is high, as the result obtained is estimated at (0.966). This means that there is good internal consistency between the statements and at an acceptable level for the purposes of statistical analysis.

1. The first axis (financial technology). The importance of this axis appears in Table (2), which reflects the sample response through the arithmetic mean, standard deviation, and coefficient of variation.

Table 2: Descriptive outputs of the financial technology variable

Coefficient of variation %	Standard deviation	Arithmetic mean	Questions	
17.36%	0.750	4.320	The bank provides the feature of remote electronic payment via mobile phone and the Internet.	1.
17.49%	0.740	4.230	The use of financial technology helps facilitate payment services for customers.	2.
19.38%	0.779	4.020	Customer-oriented banking services, such as online payment, contribute to increasing the number of customers.	3.
18.01%	0.744	4.130	The payment processes provided by the bank thanks to financial technology enhance its competitive position.	4.
18.60%	0.770	4.140	Electronic payment services save time and effort for bank employees.	5.
18.15%	0.757	4.168	Payment services	
15.91%	0.649	4.080	The use of financial technology in the bank allows it to provide financing services with high accuracy.	6.
17.05%	0.704	4.130	The bank provides customers with online financial advice for financing and investment services.	7.
18.00%	0.727	4.040	The bank provides financing opportunities for individuals through electronic platforms.	8.
18.23%	0.733	4.020	Online financing and investment operations help raise the levels of project implementation.	9.
18.59%	0.736	3.960	Electronic loan platforms make it easier for customers to obtain the best investment offers.	10.
17.54%	0.710	4.046	Finance and investment services	
16.26%	0.670	4.120	The bank offers insurance products electronically.	11.
20.82%	0.860	4.130	The bank provides, through an electronic network, many different forms of insurance.	12.
16.74%	0.698	4.170	Using remote insurance applications helps facilitate dealings with customers.	13.
16.31%	0.659	4.040	Through financial technology, the bank carries out financial planning operations and develops investment portfolio management operations.	14.
17.33%	0.778	4.490	The bank seeks to attract different segments of customers who do not have bank accounts.	15.
17.49%	0.733	4.190	Insurance and wealth management services	
17.73%	0.733	4.135	Financial technology	

The results showed that the majority of respondents positively and highly agreed with the survey statements regarding all aspects of financial technology. The overall arithmetic mean also shows a high value (4.135), a standard deviation (0.733), and a coefficient of variation of 17.73%.

- In the financial and investment services industry we found that the sixth question received the largest number of answers, as it had an arithmetic mean (4.08), a standard deviation (0.649), and a coefficient of variation (15.91%). This demonstrates the importance of leveraging financial technology to provide accurate financial services and highlights the strong desire to use technology to improve the quality of financial performance.
- Question No. 12 “Banks that provide various types of insurance using electronic networks” received the lowest response rate. The arithmetic mean was (4.13), the standard deviation was (0.86), and the coefficient of variation was (20.82%). This demonstrates the importance of electronic banking in providing some types of insurance, but the speed of response in this case may be affected by individual needs.
- As for the third axis (digital banking), its importance appears in Table (3). It shows the sample response based on the arithmetic mean, standard deviation, and coefficient of variation.

Table 3: Descriptive outputs digital banking services

Coefficient of variation %	Standard deviation	Arithmetic mean	Questions	
18.66%	0.750	4.020	Brand is important to the customer when it comes to banking services.	1.
17.92%	0.740	4.130	If you choose digital banking services, you will choose the services of your own bank.	2.
13.82%	0.597	4.320	The digital banking services provided by the bank are trustworthy.	3.
16.74%	0.696	4.157	Trust	
18.37%	0.755	4.110	Digital banking services are provided in all bank branches.	4.
16.87%	0.705	4.180	Digital banking services are convenient for the customer.	5.
17.72%	0.698	3.940	The bank provides the customer with the ability to deal with digital banking services from home.	6.
17.65%	0.719	4.077	Comforts	
15.15%	0.626	4.132	The bank meets customer expectations regarding digital banking services.	7.
18.18%	0.745	4.098	The bank provides distinguished financial services through digital banking services.	8.
20.49%	0.852	4.159	The digital banking services provided by the bank are of high quality.	9.
17.94%	0.741	4.130	Quality of banking services	
25.03%	0.979	3.911	The digital banking offered by the bank is free from electronic risks.	10.
22.32%	0.929	4.163	The digital banking services provided by the bank are secure.	11.
23.82%	0.987	4.144	My bank protects me from fraud and digital banking fraud.	12.
23.69%	0.965	4.073	Perceived risks	
20.36%	0.798	3.920	Through digital banking, access to banking services becomes faster.	13.
22.83%	0.915	4.008	Digital banking services save both money and effort.	14.
21.01%	0.876	4.170	The digital banking services provided by the current bank are beneficial to the customer.	15.
21.40%	0.863	4.033	Perceived value	
20.66%	0.827	4.003	The current bank makes it easy for the customer to deal with it online.	16.
19.99%	0.820	4.103	The information provided by the online bank about digital banking services is clear.	17.
19.24%	0.787	4.090	Digital banking services increase the possibility of a customer repeating dealings with the bank.	18.
19.96%	0.811	4.065	Functional quality	
19.55%	0.799	4.089	Digital banking services	

Looking at the typical answers to the three-dimensional questions, we see the following

- Arithmetic mean along the common axis (digital banking) - 4.089, coefficient of variation - 19.55%. This indicates that participants generally agree on the importance of access to digital banking.
- The third reliability question received the highest response rate, as this question had an arithmetic mean of 4.32, a standard deviation of 0.597, and a coefficient of variation of 13.82%. This reflects the importance of trust in the digital banking services provided by the banks that our sample deals with.
- Question 10 received the lowest response rate because it relates to measuring the digital banking risks that banks may pose. The arithmetic mean for this question was 3.911, the standard deviation was 0.979, and the coefficient of variation was 25.03%. This suggests that some participants may have concerns or questions about the potential risks of digital banking.

Based on these results, hypotheses related to the relationships between the study variables were discussed and tested by testing the following main research hypotheses.

The first main hypothesis: "There is a significant correlation between financial technology and digital banking services." The following sub-hypotheses emerge from it.

- **The first sub-hypothesis:** "There is a significant correlation between payment services and digital banking services.
- **The second sub-hypothesis:** "There is a significant correlation between financing and investment services and digital banking services".
- **The third sub-hypothesis:** "There is a significant correlation between insurance services, wealth management, and digital banking services".

Table 4: Pearson correlation coefficient values

Insurance and wealth management services	Finance and investment services	Payment services	Financial technology	Variables
0.469*0.000	0.840*0.000	0.507*0.000	0.717*0.000	Digital banking services

***Source*:** Prepared by the researcher, based on the results of statistical analysis. The correlation coefficient is significant at the level of significance (0.05)

The results presented in Table (4) provide an analysis of the relationship between the various variables in the study using the Pearson correlation coefficient. These results can be used to determine the impact of financial technology on digital banking and understand the relationships between different digital services.

- **The relationship between financial technology and digital banking:** The correlation coefficient between financial technology and digital banking services reached 0.717, which is positive and statistically significant at a significance level of 0.05. This indicates a significant positive relationship between financial technology and the provision of digital banking services.
- **The relationship between payment services and digital banking services:** The correlation coefficient between payment services and digital banking services reached 0.507, which is positive and statistically significant at a significance level of 0.05. This indicates that there is a positive and significant relationship between payment services and digital banking services.
- **The relationship between financial/investment services and digital banking:** The correlation coefficient between financial/investment services and digital banking services reached 0.840, which is positive and statistically significant at a significance level of 0.05. This indicates that there is a significant positive relationship between financial and investment services and digital banking services.
- **The relationship between insurance services, wealth management and digital banking services:** The correlation coefficient between insurance services, wealth management, and digital banking services reached 0.469, which is positive and statistically significant at a significance level of 0.05. This indicates that there is a significant positive relationship between insurance services, wealth management, and digital banking services.

Based on these findings, sub-hypotheses were developed related to the relationship between financial technology and digital banking, payment services and digital banking, financial and investment services, digital banking, insurance and wealth management services, and digital banking.

Testing Hypotheses of Influence

Based on the above results, the second main hypothesis of the study was discussed and tested. "There is a huge impact of fintech on digital banking." Based on this main hypothesis, the following sub-hypotheses arise.

The first sub-hypothesis

"There is a significant effect of payment services on digital banking services."

Table 5: Testing the first sub-hypothesis

Indication	F	R^2	R	Mean squares	Degree of freedom	Sum of squares	Sample
0.000	33.828	0.257	0.507	2.599	1	2.599	Regression
-	-	-		0.077	98	7.530	Residual value
-	-	-		-	99	10.130	Total
Indication	**T**	**Beta**			**Transactions**		**Sample**
					Standard error	**Factor *β***	
0.010	3.641	-			0.499	1.318	Constant
0.000	5.816	0.507			0.124	0.719	Payment services

The results indicate that there is a statistically significant relationship between payment services and digital banking services. The values presented in Table 5 confirm this relationship and indicate the strength of the influence and relationship between these two variables.

Parameter value (R) for this model is (0.507), which is statistically significant at the 5% level, and its significance was confirmed by a T test (3.641). This is greater than the table value (1.984). It shows that there is a strong effect of the variable (payment services) on the variable (digital banking services). Its value (T = 3.641) is large and at a significant level (Sig = 0.010). This indicates that the regression curve is sufficient to describe the relationship according to the linear regression equation.

Y= 1.318 + 0.719X

The value of the marginal slope coefficient (0.719) shows that when payment services increase by one unit, the digital banking services variable increases by (71.9%). Based on the results shown in Table (5), the first sub-hypothesis was accepted, which is, "There is a significant influence relationship between payment services in digital banking services," meaning that financial technology in payment services has a significant impact on digital banking services.

The second sub-hypothesis: "There is a significant effect of financing and investment services on digital banking services."

Table 6: Testing the second sub-hypothesis

Indication	**F**	**R^2**	**R**	**Mean squares**	**Degree of freedom**	**Sum of squares**	**Sample**
0.000	234.056	0.705	0.840	3.220	1	3.220	Regression
-	-	-		0.003	98	0.336	Residual value
-	-	-		-	99	3.5557	Total
indication	**T**	**Transactions**					**Sample**
		Beta			**Standard error**	**Factor*β***	
0.002	3.123	-			0.119	0.372	Constant
0.000	30.626	0.952			0.030	0.906	Finance and investment services

The results showed that financial and investment services have a significant impact on digital banking. The values shown in Table (6) confirm this relationship and indicate the strength of the influence and relationship between these two variables.

Parameter value (The R) for this model is (0.840), which is statistically significant at the significance level (0.05), and the F value is (234.056), which is greater than the tabular value (3.04), which indicates that: it was. The relationship of the effective influence of each variable (financial and investment services) in (digital banking services). The value of the coefficient of determination (R2), which represents the explanatory power, was (0.705), which means that the variable (financial and investment services) can explain the variation in the variable (digital banking services) (70.5%). service), which indicates the presence of relationship. The effect was statistically significant at the 5% level. From the statistical results table (6), we see that the value (T = 3.123) is statistically significant (Sig = 0.002). It turns out that the regression curve is sufficient to explain the relationship according to the linear regression equation as follows.

Y= 0.372 + 0.906X

The value of the marginal slope coefficient (0.906) indicates that a one-unit increase in financial and investment services increases the digital banking services variable by 90.6%. This result can be interpreted as the growth of financial and investment services, which contributes significantly to the increase in digital banking. Therefore, this indicates the importance of financial and investment services in enhancing and expanding the use of digital banking services.

Based on the results shown in Table (6), the second sub-hypothesis was accepted, which is: "There is a relationship between the impact on financial and investment services and digital banking services." This confirms our deep understanding of the positive impact that financial and investment services have on the development and improvement of digital banking services.

The third sub-hypothesis: "There is a significant effect of insurance and wealth management services on digital banking services."

Table 7: Testing the third sub-hypothesis

Indication	**F**	**R^2**		**Mean squares**	**Degree of freedom**	**Sum of squares**	**Sample**
0.000	27.684	0.22	0.469	0.783	1	0.783	Regression
-	-	-		0.028	98	2.773	Residual value
					99	3.557	Total
Transactions Coefficients							
Indication	**T**	**Transactions**					**Sample**
		Beta			**Standard error**	**Factor*β***	
0.000	12.743	-			0.223	2.847	Constant
0.000	5.262	0.469			0.053	0.278	Insurance and wealth management services

The third sub-hypothesis confirms the significant impact of insurance and wealth management services on digital banking services. The values shown in Table (7) indicate that there is a strong and significant relationship between these two variables. Parameter value (R) for this model is (0.469) and is statistically significant at the significance level (0.05), and there is a strong influence relationship between the variables (insurance and wealth management services) and the variables (digital banking services). It appears that there is great strength in this relationship.

The coefficient of determination (R2, which reflects the explanatory power of the linear regression model, was (0.22). This value means that the linear regression model with variables (insurance and wealth management services) can explain the variance (22%) in the auxiliary variable (digital banking services). From the statistical results table (7), the value (T = 12.743) was found to be large and significant (Sig = 0.000). This indicates that the regression curve is sufficient to describe the relationship according to the linear regression equation.

$$Y= 2.847 + 0.278X$$

The value of the marginal slope coefficient (0.278) shows that when insurance and wealth management services increase by one unit, the digital banking services variable increases by (27.8%), which indicates the importance of these services in attracting customers and improving digital banking services.

Based on the results shown in Table (7), the third sub-hypothesis "There is a significant effect between insurance and wealth management services in digital banking services" was accepted. Therefore, the results can be relied upon to understand the relationship between insurance services, wealth management, and digital banking services.

In conclusion, and having examined the figures presented in Tables (4), (5), (6), and (7), the main hypothesis of the study was actually proven which was that financial technology has real and tangible effect on digital banking services. This implies that financial technology affects digital banking in a positive manner.

This breakdown of sub-hypotheses enables to assess the possible positive or negative influence of financial technologies on the banking activity in a digital environment. These hypotheses can be tested using appropriate data analysis and score the statistical instruments to determine whether the effects are significant.

The findings highlighted that insurance and wealth management services are essential in propelling and pushing the use of digital banking services.

Conclusion

In light of the findings of the study, they can be summarized as follows: In light of the findings of the study, they can be summarized as follows.

- **The importance of financial technology and digital banking:** The survey indicated that participants realized that integration of finance technology and digital banking can be an important tool in enhancing customer experience and the quality of financial services.
- **Trust and satisfaction with digital banking services:** The outcome revealed that the consumers had great trust and satisfaction with the quality of service and efficiency offered by banks that provided online banking services and they tended to make frequent use of these services.
- **Impact of financial technology:** This data demonstrates that a positive and significant influence is made by financial technology on the overall standard and performance of digital banking services, especially in areas of electronic payment transactions.
- **The impact of financial and investment services, insurance services and asset management:** The findings show that financial and investment services, insurance services, and asset management most definitely have direct influence on the products and services of digital banking, the latter of which are considered as a key driver of growth. Digitization. Transforming the financial sector.

The conclusion from these findings signifies the importance of digitization in the financial services industry. Financial technology, on the other hand, helps to make banking digital and offers a better customer experience.

Recommendations

1. Local authorities and financial institutions should be given the most possible emphasis in order to make wider public aware of the advantages of financial technology and how to use it securely and successfully. And that from
2. Through information and educational campaigns that aim to explain to people that financial technology has a number of advantages such as making the transactions easier and improving the digital banking services, as well as using these technologies safely and effectively by providing them with instructions and tips. Teach users how to change the settings.
3. Financial technology, as a matter of fact, must be an iterative process for technology to keep up to date with the latest technological development and to accommodate the modification of customer behavior and needs. This goal can be realized by making investments in research and development as well as constantly using the latest technologies and digital solutions to provide better customer service and improve the customer experience, thereby strengthening the competitiveness of financial institutions in the market.
4. Banks and financial institutions need to earmark resources on building back-office technology and customer interfaces to give users a reliable end-to-end digital banking experience that ensures data security and identification.
5. The changing technological environment and the dynamic demands of consumers have made the process of modernization and development in financial technology a continuous one in order to keep up with rapid technological developments and to satisfy evolving customer demands and aspirations.
6. Digital channels, such as mobile apps and websites, are essential tools to reach new and existing customers by delivering innovative and engaging user experiences that will help the financial institutions to retain new customers and improve the satisfaction of existing customers.

References

1. Al-Hajj T. The impact of foreign banks operating in Palestine on the activities of Palestinian banks and its prospects. Bethlehem University Journal; c2004. p. 85-100.
2. Benjamin VM. The impact of banking information technology on improving the quality of services in commercial banks. A field study of clients of a group of private commercial banks operating in Erbil Governorate, Faculty of Economic and Administrative Sciences, Near East University, Nicosia; c2023.

3. Alqama M. The role of financial technology in supporting the financial services and knowledge sector. Al-Ijtihad Journal of Legal and Economic Studies, 2018, 7(3).
4. Ali MFS. Financial digital transformation as a mechanism for achieving sustainable development in Egypt. Research presented at the 24th annual conference Managing Digital Transformation to Achieve Egypt's Vision 2030, Ain Shams University, Cairo, Egypt; c2019.
5. Kouachi J, Jabali D. The impact of applying financial technology on the quality of banking services in commercial banks. A memorandum submitted to complete the requirements for obtaining an academic master's degree, Larbi Tebesi University, Faculty of Economic Sciences; c2020.
6. Mahmoud Ahmed Abdel Rahman Y, Rajab Siddiq Hashem M, Mohammed. The development of the financial performance of the banking system and its impact on Egyptian economic growth. Journal of Politics and Economics. 2022;14(13):1-33.
7. Publications of the Syrian Virtual University. Banking Services. Available for download from the University Encyclopedia via; c2018 the following link: https://pedia.svuonline.org/.
8. Narain A. Two Faces of Change: New Financial Technology Holds Promising Technology but Hidden Risks. Journal of Finance and Development, 2016, 53(3).
9. Arner DW, Ahmed SM, Gazi S. Building Regulatory and Supervisory Technology Ecosystems: For Asia's Financial Stability and Sustainable Development. University of Hong Kong Faculty of Law Research Paper, 2022, 51.
10. Dahlberg T, Mallat N, Ondrus J, Zmijewska A. Past, present and future of mobile payments research: A literature review. Electronic Commerce Research and Applications. 2008;7(2):165-181.
11. Demirgüç-Kunt A, Klapper L, Singer D, Ansar S, Hess J. The Global Findex Database 2017: Measuring financial inclusion and opportunities to expand access to and use of financial services. The World Bank Economic Review. 2020;34(1):S2-S8.
12. Gaweesh KMM, Bassiony HEM, Abdallah MAH. The Risks of Using Digital Currencies on Economic Growth in Some Asian Countries. Journal of the Advances in Agricultural Researches. 2023;28(3):693-701.
13. Humphrey DB, Berger AN. Market failure and resource use: Economic incentives to use different payment instruments. In The US payment system: Efficiency, risk and the role of the Federal Reserve: Proceedings of a symposium on the US payment system sponsored by the Federal Reserve Bank of Richmond. Dordrecht: Springer Netherlands; c1990. p. 45-86.
14. Jenik I, Lyman T, Nava A. Crowdfunding and financial inclusion. CGAP (Consultative Group to Assist the Poor) working paper; c2017. p. 41.
15. Lemoine F, Unal D. China's foreign trade: A new normal. China & World Economy. 2017;25(2):1-21.
16. Liorca M. Les banques aux prizes avec les fintech. (L.e. politique, Éd.); c2017.
17. Moro-Visconti R, Cruz Rambaud S, López Pascual J. Sustainability in Fin Techs: An explanation through business model scalability and market valuation. Sustainability. 2020;12(24):10316.
18. Rawwash H, Masad F, Enaizan O, Eneizan B, Adaileh M, Saleh A, *et al*. Factors affecting Jordanian electronic banking services. Management Science Letters, 2020, 10(4).
19. Sun N, Morris JG, Xu J, Zhu X, Xie M. iCARE: A framework for big data-based banking customer analytics. IBM Journal of Research and Development. 2014;58(5/6):4-1.
20. Tremblay DG, Fontan JM, Klein JL, Rousseau S. Territorial progress and innovation: One of the largest in the Montreal region. Revue d'économie régionale et urbaine. 2003;(5):835-852.