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THE ROLE OF FINANCIAL TECHNOLOGY IN IMPROVING THE PERFORMANCE OF GOVERNMENT SERVICES IN JORDAN

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ABSTRACT

This study aimed to show the role of financial technology in improving the electronic services of the government in Jordan, and the researcher used the descriptive analytical approach to achieve the objectives of the study, either the study tool was a questionnaire distributed over 19 items, and the study sample consisted of 232 people, 132 males and 100 females.

The results of the study suggest that financial technology improves the quality of services provided by e-government in Jordan due to its ease, time saving and high security compared to traditional methods.

Keywords: Fintech, e-government, services.

INTRODUCTION

The financial sector is witnessing a lot of developments related to financial and banking services. Financial technology in its various fields is the latest stage of development for the financial services sector. It combines the latest technologies and uses them in the financial sector, resulting in the provision of financial services in a new way characterized by flexibility, speed and low cost. In this field, financial companies appeared that provide various financial and banking services that depend on modern technology. Consequently, these companies have become a strong competitor in the services provided by banks, and it is expected that the global financial technology market will approach $ 310 billion by the end of 2022. This represents a total growth rate of 24.8% annually between the period 2018 and 2020(Abbas 2021).

Modern financial technology and its development has made there an urgent need for an increasing shift towards digital payments in the government sector. Since the opening of new electronic channels and mobile devices has helped in the possibility of further spread and transformation in the field of digital payments, and accordingly, the Ministry of Digital Economy and Entrepreneurship, in cooperation with the competent authorities of the Central Bank of Jordan and the Ministry of Finance, seeks to digitize all government payments, taking into account Electronic payment channels are available for all Jordanians and non-Jordanians to pay government service fees, as the first stage aims to replace cash payment by electronic means when visiting government institutions to request a transaction(Jordanian Ministry of Digital Economy,2023).

In this study, we will talk about the role of financial technology in improving the quality of government services, especially since most of the services provided by the government to citizens in Jordan have shifted from traditional to digital methods.

THE STUDY PROBLEM

The problem of the study revolves around the ambiguity surrounding financial technology and its role in improving government services. Does the Jordanian legislator deal with the types of

financial technology in payment for government transactions in all their aspects and the challenges they face? This raises several questions, the most important of which are:

1) To what extent does the Jordanian government apply the rules of financial technology in completing electronic transactions?
2) Do financial technologies save time and effort when used to complete electronic transactions?
3) To what extent is the Jordanian citizen aware of using financial technology when completing his electronic transaction?

Importance of studying:

The importance of the study lies in revealing the main points in the dimensions of financial technology and its impact on improving the quality of government services, and this study is the first of its kind in this aspect, and thus enriching the scientific library with such studies, especially since previous studies are rare in this aspect.

Objectives of the study:

This study aims to identify what financial technology is, and its role in improving the quality of government services in the Hashemite Kingdom of Jordan. This study also aims to know what electronic services are provided by the Jordanian government to citizens in all sectors.

First: The concept of financial technology and its uses:

Financial Technology FinTech is defined as those financial services and products that rely on technology to improve the quality of traditional financial services. This technology is faster, cheaper, easier, and more users can access it (Wahiba, Ashwaq, 2018). This term was coined to describe the intersection between the fields of finance and technology, it refers to the technical innovation that is applied in the financial services sector. It can also be conceptually defined as a new type of financial service based on information technology and financial technology. Fintech refers to new solutions that gradually emerge and revolutionize innovation for applications, processes, products, and business models in the financial services industry(Koffi, 2016) Fintech is also defined as a group of companies that provide or facilitate financial services using modern technology, so that financial products and services that are more user-friendly and less expensive to provide are developed.

In addition to this, the practical definition of financial technology approved by the (Financial Stability Board) which refers to technically enabled financial innovation, which can result in new business models, applications, processes, and products with a material impact related to financial markets and institutions. The adoption of financial technology leads to many economic advantages, the most important of which are: enhancing financial inclusion and inclusion, improving financial services, and achieving gains in the economic efficiency of those services. This innovation involves transforming all aspects of delivering the core functions of the financial sector such as settlement of payments, facilitation of borrowing and savings, risk sharing, and capital allocation. Moreover, this process can lead to profound changes in the structure of financial institutions and markets(Rodolfo Maino, & et.al, 2019).

Jordan Center for Financial Technology in Jordan:

The Central Bank of Jordan and the Jordan Payment and Clearing Systems Company (JOPAC) launched the Jordanian Center for Financial Technology "Join FinCube" and the regulatory laboratory, during the activities of the ICT Forum for the Middle East and North Africa.

According to a statement from the Central Bank, the inauguration of the center comes; As a commitment on the part of the Bank and Jobac to achieve financial stability, develop financial infrastructure, and enhance digital financial inclusion in the Kingdom, and in response to the vision of economic modernization 2022 that was launched under royal directives.

The Governor of the Central Bank of Jordan and Chairman of the Board of Directors of the Jordan Payment and Clearing Systems Company (JOPAC), Dr. Adel Al-Sharkas, said that thanks to the launch of the Financial Technology Center, innovators will be able to move forward in formulating their ideas in the field of financial technology in one center that provides guidance, expert services, and testing in A real environment, obtaining advice from the regulatory authority, as well as receiving certificates after passing all requirements.

It is noteworthy that the Jordanian Center for Financial Technology is an incubator for innovations in the field of financial technology, providing participants in its programs with a range of services; It is represented by providing access to the digital financial infrastructure that enables them to test, verify and develop their innovations in the field of financial technology, in addition to access to expertise and advisory services in this field, and access to partnerships, financing and markets.

The center targets startups, financial institutions, university students and investors in Jordan and the MENA region who can benefit from developing financial technology products and solutions, and who contribute to building, enriching and expanding the Jordanian digital economy(Central Bank of Jordan,2022).

The electronic government:

Before proceeding with giving the concept of e-government, we have to introduce the traditional government as the basic base of the e-government model. It is defined as the organizational entity formed by states in order to manage the affairs of the country and take strategic decisions related to the political, economic and social future, as this administration covers the areas of planning. Economic, military and security strategy, national product development, educating citizens, preserving their health, improving their living conditions, managing crises, developing the country's relations with the outside world, and many other tasks. Hence, the definition of e-government is the use of information and communication technology to improve the performance of government services. In other words, it means changing the method of service performance from a method characterized by routine, bureaucracy, multiplicity and complexity of procedures to a method that relies on the use of information and communication technology to improve the performance of government services in order to provide them to the citizen in an easy way via the Internet, which saves a lot of effort and money for them, thus reducing the cost of service performance(egovconcepts,2023).

Illustration of electronic government

E-government objectives:

The Kingdom of Jordan attaches great importance to digital transformation, due to the great benefits it provides to the national economy. His Majesty King Abdullah II gave the e-government program the necessary attention when His Majesty took the initiative in 2001 to announce the program and assign the Ministry of Communications and Information Technology to implement it at that time, which is being implemented by the Ministry of Economy. The program is currently implementing digital transformation strategies to support the digital economy through the use of information and communication technology to provide integrated and reliable digital services that raise the efficiency of the government apparatus through partnership between the public and private sectors, and to provide smart digital channels such as the e-government portal and smart phone applications. Raising citizen awareness of digital services and promoting them, preparing an e-participation policy, and providing an advanced digital infrastructure that is easy to access and use by individuals and companies, which contributes to expanding opportunities and stimulates economic growth(Jordanian Ministry of Digital Economy,2023).

Electronic government services in Jordan:

The electronic government in Jordan adopts all electronic services for citizens, as the number of these services reached 413 services. According to the data received from the Jordanian Ministry of Digital Communications, the services are distributed among several governmental institutions, including: (Greater Amman Municipality, Lands and Survey Department, Customs Department, Civil Status, Public Institution Social Security, Ministry of Justice, Drivers and Vehicles Licensing Department, Ministry of Social Development, Ministry of Local Administration, Investment Authority, Ministry of Energy and Mineral Resources, Civil Service Bureau, National Aid Fund, Ministry of Tourism, General Intelligence Department, Chief Justice Department, Ministry of Interior, Department Income and Sales Tax, Ministry of

Industry, Companies Control Department, Ministry of Labor, Vocational Training Corporation, Jordan Nursing Council, and Ministry of Education). (Jordanian Ministry of Digital Economy,2023).

METHODOLOGY

The researcher used the descriptive approach that describes the phenomenon to be studied and the concepts and terminology related to this phenomenon. The researcher also used the analytical approach by using statistical methods and methods in analyzing the data related to the research, which will be obtained through the study tool.

The study sample:

The study sample is represented by people who have previously dealt in electronic services and the use of financial technology to complete these transactions, where the number of the study sample was 232 people distributed by sex to 132 males and 100 females. The following table represents the distribution of the study sample according to the gender variable.

Table 1 Distribution of the study sample according to the gender variable

variable	category	Repetition	percentage (%)
sex	Male	132	57
	Female	100	43
The Total		232	100

The previous table shows that the number of study participants is 232 people, divided into 57% males and 43% females.

Table 2 Distribution of the study sample according to the age variable

variable	category	Repetition	percentage (%)
Age	25 years or less	49	21
	26-35 years	53	23
	36-45 years	66	29
	46-55 years	38	16
	56 years and over	26	11
The Total		232	100

Table 2 shows that 21% of the study sample are those whose age ranges from less than 25 years, and that 23% are those whose age ranges between 26-35 years. The results also showed that 29% of the study sample are those whose age ranges between 36-45 years, and the rate of 16% for those between the ages of 46-55 years, and finally the percentage of those over the age of 56 years reached 11%.

Table 3 Distribution of the study sample according to the educational qualification variable

variable	category	Repetition	percentage (%)
Qualification	Less than secondary	27	12
	Diploma	37	16
	Bachelor's	66	28
	Master's	55	24
	PhD	47	20
The Total		232	100

The previous table also shows that the percentage was 12% for holders of a general secondary certificate or less, and that the percentage was 16% for holders of a diploma certificate, and the bachelor's degree was the highest percentage, reaching 28%, and that 24% of the study sample had a master's degree, and finally the percentage was 20% for the degree PhD.

Table 4 Distribution of the study sample according to the variable of the extent of using government e-services

variable	category	Repetition	percentage (%)
Extent of use of government e-services	Scarcely	20	9
	sometimes	40	17
	middle	65	28
	mostly	55	24
	always	52	22
The Total		232	100

According to the previous table, the highest percentage was 28%, which represents that the use of electronic government services is at an average rate, while the lowest percentage was 9%, who rarely use government services.

Table 5 Distribution of the study sample according to the most frequently used banking services variable

variable	category	Repetition	percentage (%)
The most used banking services	Phone	77	33
	Visa Card	43	19
	eFAWATEERcom	112	48
The Total		232	100

The previous table shows that most of the study sample use a website eFAWATEERcom to pay for government e-services, and some of the sample use the phone to conduct electronic transactions related to donations, and the last percentage was for those who use a visa card.

Study tool:

To achieve the objectives of the current study, a measurement tool was developed that illustrates the role of financial technology in improving the performance of government services from the point of view of citizens. The tool consists of (3) fields: the first field is ease of use and

consists of 7 paragraphs, the second field is time saving and consists of 6 paragraphs, and finally the safety field consists of 6 paragraphs and the number of paragraphs of the questionnaire in general reached 19 paragraphs.

The five-point Likert scale was used, as it was divided into five levels as follows: Very large, given a score of (5), large, given a score of (4), medium, given a score of (3), little, and given a score of (2), a little. Very much, and a score of (1) was given for answering those paragraphs.

Study results by fields:

In this aspect, we will present the results of the statistical analysis of the response of the study sample, by presenting the primary statistical indicators of their answers, the arithmetic averages, and the standard deviations of the fields of the study tool.

Table 6: Arithmetic means, standard deviations, and ease of use of FinTech techniques

N	Ease of use	SMA	SD	The calculated t value	Sig*	RIP	Level
1	Fintech is easy to use	**6.422**	**.9940**	**37.090**	**0.000**	**1**	**High**
2	The use of financial technology helps me to accomplish all tasks	**6.198**	**1.118**	**29.942**	**0.000**	**6**	**High**
3	E-government provides immediate assistance to facilitate operations	**6.314**	**1.036**	**34.024**	**0.000**	**2**	**High**
4	I can obtain information through the use of financial technology	**6.310**	**.9480**	**37.116**	**0.000**	**3**	**High**
5	It is easy to register and log in to the government portal	**6.224**	**1.011**	**33.492**	**0.000**	**5**	**High**
6	Online services provide quick help to solve problems	**6.099**	**1.025**	**21.192**	**0.000**	**7**	**High**
7	The language of dealing is clear	**6.284**	**.9190**	**37.850**	**0.000**	**4**	**High**
SMA&SD For ease of use		**6.264**	**0.787**	**43.812**	**0.000**	**-**	**High**

The tabular value of (t) at the level (α≤0.05)(1.651)

Table 6 shows the answers of the study sample to the statements related to ease of use. Where the arithmetic averages for ease of use in general ranged between (6.099 - 6.422), with a total

average of (6.264) on the five-point scale, which indicates a high level of ease of use of financial technology in e-government services.

In the first place came the paragraph "The use of financial technology is easy" with an arithmetic mean of (6.422), which is higher than the general arithmetic mean of (6.264), and a standard deviation of (0.994), while the paragraph "Providing services with quick help to guide customers to solve problems" ranked seventh. The latter has an arithmetic mean of (6.099), which is lower than the total arithmetic mean of (6.264) and a standard deviation of (1.025). The table also indicates convergence in the values of the arithmetic averages. In general, it is clear that the level of ease of use of financial technology in e-government services from the point of view of the study sample was high.

Table 7: Arithmetic means, standard deviations, and time savings

N	Ease of use	SMA	SD	The calculated t value	Sig*	RIP	Level
8	The use of financial technology in completing transactions saves time	**6.383**	**0.884**	**41.032**	**0.000**	**1**	**High**
9	Electronic services are obtained without delay	**6.116**	**0.980**	**32.893**	**0.000**	**2**	**High**
10	Inquiries are answered in a short time	**6.021**	**0.986**	**31.207**	**0.000**	**6**	**High**
11	The citizen can obtain the service from the first time	**6.060**	**1.055**	**29.744**	**0.000**	**5**	**High**
12	There is an immediate response to the customer's request	**6.064**	**1.036**	**30.349**	**0.000**	**3**	**High**
13	The loading speed of the government e-services website	**6.064**	**1.036**	**30.349**	**0.000**	**3**	**High**
SMA&SD to save time		**6.118**	**0.834**	**38.687**	**0.000**	**-**	**High**

The tabular value of (t) at the level (α≤0.05)(1.651).

Table 7 also shows the answers of the study sample to the statements related to saving time, as the arithmetic averages for saving time in general ranged between (6.021 - 6.383), with a total average of (6.118) on the five-point scale, which indicates a high level of saving time when using financial technology in e-government services. .

The use of the online electronic service in completing financial transactions saves time with an arithmetic average of (6.383), which is higher than the general arithmetic mean of (6.118), and a standard deviation of (0.884), while the paragraph "Inquiries are answered in a short time" ranked sixth. The latter has an arithmetic mean of (6.021), which is lower than the total arithmetic mean of (6.118) and a standard deviation of (0.986). The table also indicates the convergence of the mean values. In general, it turns out that the level of saving time when using financial technology in electronic government services, from the point of view of the study sample, was high.

Table 8: Means, Standard Deviations, and Safety Level

N	Ease of use	SMA	SD	The calculated t value	Sig*	RIP	Level
14	I feel safe when dealing with financial technology	**6.224**	**1.077**	**31.431**	**0.000**	**1**	**High**
15	The use of financial technology provides a permanent connection with the bank	**6.142**	**1.061**	**30.738**	**0.000**	**5**	**High**
16	I feel comfortable providing my personal information online	**6.107**	**1.065**	**31.128**	**0.000**	**6**	**High**
17	Electronic government services provide high protection for my financial information	**6.185**	**1.029**	**32.319**	**0.000**	**2**	**High**
18	I feel comfortable while conducting transactions through financial technology	**6.163**	**1.001**	**32.903**	**0.000**	**4**	**High**
19	Financial technology is safe in completing banking transactions	**6.168**	**0.972**	**33.959**	**0.000**	**3**	**High**
	SMA&SD to Safety Level	**6.165**	**0.815**	**40.421**	**0.000**	-	**High**

The tabular value of (t) at the level (α≤0.05)(1.651).

Table 8 also shows the answers of the study sample to the statements related to security. Where the arithmetic means of safety in general ranged between (6.107 - 6.224), with a total average of (6.165) on the five-point scale, which indicates a high level of safety in the use of financial technology in electronic government services. The paragraph "I feel safe when dealing with financial technology" ranked first, with an arithmetic mean of (6.224), which is higher than the general arithmetic mean of (6.165), and a standard deviation of (1.077), while the paragraph "I feel comfortable when providing my personal information via the Internet" came in first place. ranked sixth and last, with an arithmetic mean of (6.107), which is lower than the total arithmetic mean of (6.165) and a standard deviation of (1.065). The table also indicates the

convergence in the values of the arithmetic averages. In general, it appears that the level of safety in the use of financial technology in electronic government services from the point of view of a sample of a study was high.

DISCUSS THE RESULTS

- The level of ease of use of financial technology from the point of view of the study sample was high, as the arithmetic averages for ease of use of financial technology in electronic government services ranged between (6.099 - 6.422), with an overall average of (6.264).
- The level of saving time when using financial technology in electronic government services from the point of view of the study sample was high, as the arithmetic mean for saving time ranged between (6.021 - 6.383) with an overall average of (6.118).
- The level of safety when using financial technology in electronic government services from the point of view of the study sample was high, as the arithmetic means of safety ranged between (6.107 - 6.224), with a total average of (6.165).

CONCLUSION

Through this study, it is clear that the use of financial technology in government electronic services in Jordan was high and that it improves the quality of government services through ease of use, saving time, and the security that citizens feel as a result of using financial technology.

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