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FINANCIAL TECHNOLOGY IN IRAQ: OBSTACLES AND REQUIREMENTS, REGARDING TO SELECTED INTERNATIONAL EXPERIENCES

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A B S T R A C T KE Y W O R D S

Recently, the role of financial technologies has been growing in providing financial services and increasing the levels of financial inclusion and the total investment in this sector has increased. These technologies include many advanced solutions and innovations in the financial field that contribute to overcoming the challenges facing the expansion of the provision of financial services.

These technologies are in line with the rapid development in commercial exchanges and the massive and rapid developments in the emergence and development of markets and the volume of inter-exchange. The research aims to clarify the most important obstacles and challenges facing financial technology in Iraq and to compare the reality of these technologies with some Arab countries. The research came out with a set of conclusions, the most important of which are: Financial technology has become an economic necessity to keep pace with other economic developments, especially after the spread of electronic transactions significantly as a result of the development of innovations and applications on the mobile phone that perform financial purposes. Financial technology and the shift towards financial digitization are factors in the development of systems and one of the foundations for keeping pace with global developments in the financial field.

The research also recommended a set of recommendations, the most important of which is working to develop the infrastructure necessary for the development of financial technology, providing broad institutional support through the establishment of incubators and accelerators to help increase the emerging company in the field of financial technology.

Financial technology, financial innovations.

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Introduction

New technologies play an increasingly important role in the financial services sector in facing important challenges. The information and communication technology revolution has made its presence felt in providing innovative financial services, the widespread and rapid spread of computer technologies related to Internet services has led to the creation of financial services that keep pace with developments in all financial services facilities. Financial technology is one of these innovations that aim to improve the quality of financial services. It works to reshape financial services (from payment systems to insurance services) based on the use of technology to improve financial activities by providing banking services and financial transactions over the phone and providing advice upon request.

Research problem: Financial technology is an important reality to keep pace with global financial developments. Iraq does not have the foundations and rules for developing the use of financial technology in banking and commercial currencies end that Iraq must keep pace with these developments through the possibility of providing the requirements for that.

Research importance: The importance of the research stems from the fact that financial technology has become a reality that is used daily and is spreading and increasing, as it is linked to technical development, information, and communication, which has become an important reality today. It is involved in many financial transactions (banking and non-banking) via the phone or electronic applications associated with it. Therefore, this research comes to identify the most important developments in the field of financial innovations that this sector enters. In addition to reviewing the most important obstacles that stand in the way of the development and spread of financial technology in Iraq.

Research hypothesis: The research stems from the hypothesis that financial technology is an economic necessity for developing the financial system in Iraq and keeping abreast of developments in the global financial system. Iraq possesses the ingredients and qualifications that enable it to shift towards digitization in financial transactions, and work must be done to adopt the legal and technical mechanisms and the necessary infrastructure for that.

Research objectives: The research aims to:

- 1- Access to pioneering Arab experiences in the field of financial technology.
- 2- Examine the reality of financial technology in Iraq.
- 3- Explaining the most important obstacles and requirements for the success and spread of financial technology in Iraq.

1. Financial Technology: a conceptual framework

1.1- Fintech

The origin of word (FinTech) is derived from the root of the two words (Financial Technology), which means the use of computer programs or other technologies to support financial and banking operations and services and to innovate new services (Rau and Röglinger, 2017,2). Fintech is an innovation that aims to create services that compete with traditional services in their style (Lin, 2015, 643). Based on the use of technology to improve financial activities (Schueffel, 2018, 3), financial and banking services

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through smartphones and tablets in all financial and banking operations. More specifically, working to innovate and improve the quality of financial services by proposing technical solutions according to different business situations (Leong, 2018, 78), the use of cryptocurrencies in dealing and making them available to the public. Many companies are working on modernizing technologies to enhance the financial services provided by traditional companies and transform them into technology-based companies (Arner et al, 2015, 47). Thus, the term technology has gained great importance for researchers, so it is necessary to know what financial matters can be managed through technology. The idea of ATMs was a revolutionary idea at the time and other services developed telephone systems on special computers with modems to access banking applications, With the expansion of the Internet in the 1990s, banks developed outlets for online banking services for customers, in turn, MasterCard introduced the latest technology for online purchases (Nikkel, 2020,). At the same time, FinTech is growing rapidly, competing with different industries in producing services that are conducive to current developments, To give the ease of transferring services to consumers very quickly, As is the case in social networking programs and other programs that provide online services, such as (Amazon Wulan, 2017, (337).

It will also be more attractive and influence the consumer, as these industries have grown exponentially in recent years. Fintech was applied by financial service providers on international stock exchanges, which were determined by institutions specialized in the market and through legal frameworks established by the financial supervision authority, In addition to providing ways to ensure that customers receive services in online trading platforms (Micu, 2016, 483).

1.2- The financial technology revolution

Despite its late start, FinTech is gaining traction in some countries in the Middle East and North Africa (IMF, 2017) and is also emerging early in the Caucasus and Central Asia. Financial technology emerged in both regions to enhance financial inclusion (Senyo & Osabutey, 2020, 612), diversify economic activity, and inclusive growth through the financial innovations it provides as this helps to provide financial services to a large segment of the population that deals with the banking system (Palmié et al. al., 2020, 492) It facilitates the availability of alternative financing sources for small and medium enterprises. FinTech can also make a significant contribution to economic stability by using technology to ensure compliance with regulations and manage risks. Electronic payment methods can also increase the efficiency of government operations. Further reforms are needed to fill in the gaps in regulatory frameworks (Walaza et al., 2014), consumer protection and information security, and for business background development, ICT creation, and financial awareness (Dhanavandan et al., 2012, 371), and the spread of global investment in financial technology in the past five years. Forecasts indicate that it will continue to rise strongly, the value of investments in financial technology increased more than tenfold from 2008 to 2014, although the integration of organizations operating in the financial technology sector in the United States led to a decline in global investment in 2016. Development continued in other regions, along with the Middle East and North Africa region, and prognosis showed a strong positive jump again in the first half of 2017 (KPMG, 2018; Truong, 2016,754).

2. International experiences in financial technology

Developed and developing countries alike paid attention to recent financial developments and innovations, Because of their active role in economic life and banking transactions.

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The following are examples of Arab countries that have adopted the development of financial technology, creating the appropriate environment for investments in this sector, and supporting incubators and emerging companies in the financial sector and financial innovations.

2.1- The development of financial technology in Egypt for the period 2017-2021

Financial technology in Egypt has witnessed great developments in the past few years. Egypt has become a home for financial technology, which encourages new government regulation and stimulates companies to contribute to shaping a better environment for financial technology in Egypt. Egypt has witnessed the launch of various financial technology incentives and investment capital funds that focus on financial technology and various government initiatives in an attempt to address the various financial challenges facing individuals and companies in Egypt. The government has taken various initiatives to encourage financial technology in the country, including launching the Fintech Egypt platform and converting the historic Central Bank of Egypt building into a financial technology center. The Egyptian government has also introduced a (Regulatory Sandbox) in the FinTech field to allow startups and founders to test their FinTech ideas in a controlled environment (Information and Decision Support Center, 2020, 1-2).

The following are the most important developments in the field of financial technology.

2.2- The development of the electronic card in Egypt for the period 2017-2021

We can see through Figure (1) a growth process in the field of electronic payment cards in the State of Egypt over the last five years, which indicates that there is interest and interaction by individuals in acquiring this banking service and benefiting from it in settling payments instead of relying on cash currencies. Consequently, financial technology has become a growing space in the desires of individuals to benefit from it, and this matter is of course beneficial to the local economy by benefiting from the local currency in financing medium-term investment projects, which enhances economic growth and thus is reflected in banking performance. The number of cards issued, according to the Central Bank of Egypt report, has reached more than 52 million cards, and this number is likely to grow in the year 2022.

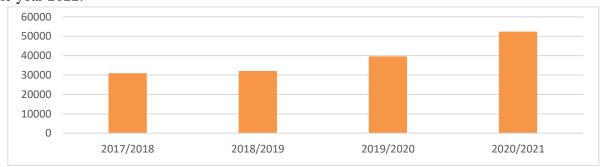


Figure (1) Evolution of the number of electronic payment cards (in millions)

Source: Central Bank of Egypt, Financial Stability Report 2020, Arab Republic of Egypt, pg. 67.

2.3- Electronic wallets in a bank for the period 2017-2021

Figure (2) indicates the size of the electronic wallets used by individuals, which are used in settling various cash payments, as well as making financial transfers between individual accounts in these wallets, which are applied through smartphones. Therefore, it is also one of the innovations of

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technology that provided the advantage of the possibility of purchasing and transferring in any location without the need to carry money and at any time the owner of the wallet wants. One million wallets, according to the Central Bank of Egypt report, with a growth rate of 26% compared to 2020.

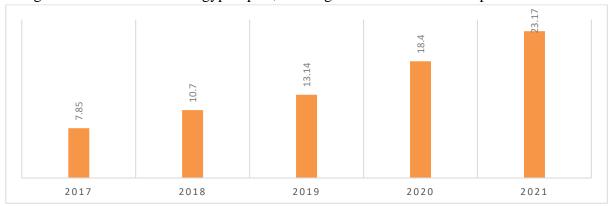


Figure (2) E-wallets in Egypt (in millions) Source: Central Bank of Egypt, Financial Stability Report 2020, Arab Republic of Egypt, pg. 67

3. The development of financial technology in the State of Kuwait for the period 2017-2021

Local banks in Kuwait started providing digital banking services in 1998, and their spread increased since the middle of the first decade of this century.

The Corona pandemic led to an increase in the local demand for electronic banking services, and the Central Bank of Kuwait is a strong supporter of the move towards digital transformation through the initiatives it launched, including:" Experimental digital environment for modern financial technologies, Kuwait National Payment System, Digital Framework for (Know Your Customer) Procedure". Moreover, within the framework of the Central Bank of Kuwait's efforts to stimulate innovation and provide the best services to customers, a digital banking framework has been developed to organize and facilitate digital banking services.

This new framework allows for the establishment of stand-alone digital banks according to three models, which are as follows (Central Bank of Kuwait, 94-92, 2021):

- Digital banking unit: It is a digital banking business unit within an existing bank with which it shares the balance sheet, but under a different brand, and these units or digital windows are physically present locally. It is part of two initiatives, one of which targets the youth segment, and the other targets individuals who do not deal with banks.
- Banking as a service: It is a partnership (between a licensed bank and other participants) in the digital field, and it is like an agreement for outsourcing whereby the other party provides banking services to customers through the bank without the need to enter into lengthy and costly procedures, to obtain a license to open a bank, Customers benefit from this type of bank by obtaining innovative financial services at lower costs.
- A digital and independent bank: This point is a new addition to the local banking sector, as a fully independent digital bank was established without the need for a traditional entity before it. An independent digital bank usually operates under a general bank license and provides complete digital services that are mostly based on cloud systems.

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3.1- Paper and electronic transactions and electronic payments in Kuwait

Figure (3), shows two forms, the first figure refers to the comparison between paper transactions and electronic transactions, as it is clear that there is a big difference in the volume of electronic transactions compared to paper transactions over the five years. This indicates that Kuwait is moving towards a complete shift towards electronic dealing in all payment, purchase, and transfer operations, not promoting paper handling.

As the Central Bank of Kuwait report indicates that the year 2021 witnessed a significant increase in the available electronic payment methods, while the number of bank branches remained unchanged. This increase in electronic payment processes considered consumers' preference to use these immediate and easy means of payment processes, which indicates the process of digital transformation soon in general by consumers. Thus, expanding digital automation operations and transforming all bank transactions into electronic transactions, with the help of financial technology.

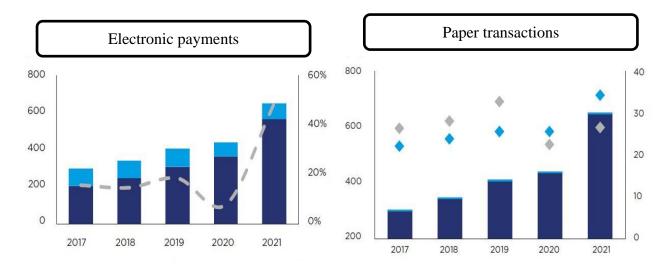


Figure (3) Paper transactions compared to electronic payments

Source: Financial Stability Report, Central Bank of Kuwait, Kuwait, 2021, p. 88.

As for the other form, which refers to the volume of electronic payment, it is very clear that it is much larger than the paper dealings resulting from cash withdrawals from ATMs, which have become traditional and non-modern services. Financial technology has promoted the provision of an electronic payment mechanism through accounts and electronic wallets without the need for plastic cards. The second figure shows that there has been a growth over the five years, up to the fifth year, which witnessed a growth of 49% compared to other years, and electronic dealings accounted for 34%, this is according to the Central Bank of Kuwait report.

3.2- The infrastructure for electronic payments in Kuwait

Figure (4) shows the nature of electronic transactions and the extent of the capacity of electronic points of sale compared to ATMs that represent paper transactions. We see that there is a significant growth in the point of sale side, and therefore we can say that there is a growing activity of financial technology in Kuwait over the five years (subject of the study). The report of the Central Bank of Kuwait indicates

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that transactions via the Internet recorded a growth in 2021, reaching 43% of the total non-cash transactions. The growth rate of points of sale during the five years was very large, which confirms the process of shifting towards cashless payment operations and their dominance.

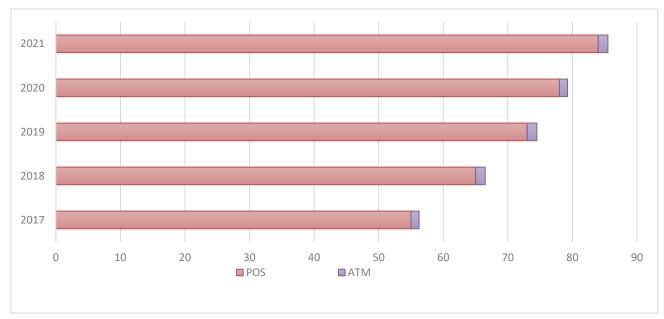


Figure (4) Electronic payments in Kuwait

Source: Financial Stability Report, Central Bank of Kuwait, Kuwait, 2021, p. 90.

3.3- Digital services in the State of Kuwait

Figure (5) shows the nature of the digital services provided in the State of Kuwait, as we notice the rapid growth in it over the five years, which confirms that there is a desire among the public of dealers to benefit from the digital services provided by banks or other financial institutions.

All this is to get rid of the traditional purchases that take place through paper money, as the Central Bank of Kuwait indicates that the countries of the Gulf Cooperation Council are accelerating to meet the basic requirements for the success of these services until the complete shift towards digitization in banking transactions.

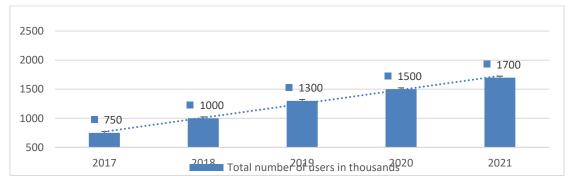


Figure (5) Digital Services in Kuwait

Source: Financial Stability Report, Central Bank of Kuwait, Kuwait, 2021, p. 92.

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4. The reality of financial technology in Iraq

4.1- The reality of modern banking techniques in Iraq

The Iraqi banking system differs from some neighboring Arab and developing countries such as Jordan, Lebanon, Kuwait...etc. The services of Iraqi banks do not rise to the level of ambitions, as most banks have been established or expanded after 2003. The number of branches of these banks is not compatible with the population in the country, Iraqi banks, whether governmental or private, mostly rely on traditional manual work such as paperwork in conducting their transactions until the beginning of 2017. It gradually began to introduce technology into its work, as it becomes clear to everyone that the Iraqi banking system is one of the weakest banking systems in the Middle East (Iluba & Phiri, 2021, 334). It is much lower than the banking systems of developed countries in terms of the technology used, the diversity of services, the number of customers, and the banking facilities provided to customers. contribution of Iraqi banks to support various economic commercial/industrial/agricultural, as they contribute very weakly and do not reach the minimum level of ambition (Gu & Luiss, 2021, 436). However, Iraqi banks need a fundamental improvement in terms of service quality (Kou et al., 2021, 512). The quality of services provided to customers is not sufficient to create value and achieve a competitive advantage over its competitors. Banks must be more innovative, fast, and dynamic. Without stressing the essentials, banks should be more strategic in their decision-making, and develop better approaches to communicating with customers through information technology. According to (Pant Joshi, 2011, 322), the Internet has become an integral part of human life, as its use has positively promoted the adoption of various banking solutions such as Internet banking (Liu et al., 2021, 467). Iraqi banks sought to join the innovations and comply with the requirements of the Central Bank as the regulator of the banking sector. It updated the electronic payment instructions via mobile phone intending to organize and manage the business of payment services by phone. The Iraqi environment wanted to adopt banking technology through social networks. Banks are competing with each other through electronic banking services provided in the banking sector, customers are becoming smarter, and their preferences are changing day by day. This changing preference of customers makes it difficult for them to accept mediocre services rather than demand excellent services. Customers are the main determinants of what will happen to service providers, which is why they are referred to as the king of the market. In this regard, banks seek to retain their customers by providing them with excellent services for achieving customer retention and loyalty (Mukherjee, 2021, 595). Information technology has become essential for business survival in the current era. However, banking technology has been recognized as one of the most important innovations in the banking industry and is developing at a rapid pace. By reshaping the banking industry by reducing costs, improving the quality of financial services, and creating a more diversified and stable financial landscape (Salman, 2020, 436). Banking technology eliminates traditional intermediaries while providing financial services (Thakor, 2020, 284). Recent global trends and the need for faster and costeffective access to banking services are the ultimate motivation for this research. Moreover, developments in global trends have had an important and decisive impact on the global banking sector in recent years. Banks face a challenge in terms of finding appropriate investments in banking technology to increase their competitive strength and meet the demand of new customers in different countries. It has become very difficult for businesses to thrive without information technology and it has become possible for managers to select relevant information without wasting time (Hashem, 2021, 712). Despite the state's approach to digital payment methods and the replacement of digital payment

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cards instead of cash payment, Iraq still has a long way to go, and in this regard. We study this research in depth and define the environment and infrastructure of the banking system in Iraq, as it aims to adopt banking technology for the transformation of traditional banking in Iraq into a modern system. This can significantly improve the quality of banking services and help achieve and promote the idea of proper financial inclusion, offering a competitive advantage. Thus, we can enable these sectors to compete with other advanced sectors.

4.2- Automated teller machines:

Figure (6) shows the number of ATMs in some countries of the Arab world, so we notice that there is a clear discrepancy between the Arab Gulf countries and other countries. This matter is due to the number of machines used in these countries, which confirms that individuals in the Gulf countries prefer electronic means to traditional means in settling payments, and we note that Iraq is among the last countries in the above figure. The Central Bank indicated that Iraqi banks should seek to increase the number of machines to enable individuals to use this technology and benefit from financial technology with its various inventions. Increasing the number of machines contributes to increasing financial inclusion.

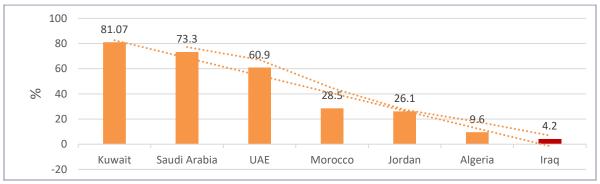


Figure (6) Automated teller machines per 100,000 adults in 2019-2020

Source: World Bank, available at

https://data.albankaldawli.org/indicator/FB.ATM.TOTL.P5?view=cha

4.3- Electronic payment services

Figure (7) indicates the prevalence of electronic payment services in Iraq to the population. Each electronic payment device corresponds to 100,000 people, as we note that the number of ATMs is still low. The reason for this is due to the adoption of cash dealing in purchases and the preference of individuals for direct cash dealing, the Central Bank of Iraq indicates the reason for this decline to the weak banking culture among the customers because there is fear on the part of individuals in dealing with this service. The Iraqi banking system did not encourage commercial centers to open accounts so that individuals could buy from these centers through plastic cards, adding to the weakness of the spread of ATMs in various places and their presence in banks only, which makes it difficult for individuals to access the machines for cash withdrawal. However, what we notice is that there is an increase in POC devices, i.e. electronic payment service devices, and this is a good sign, meaning that there is a tendency by individuals to accept these services and benefit from them in purchases, whether internal or external.

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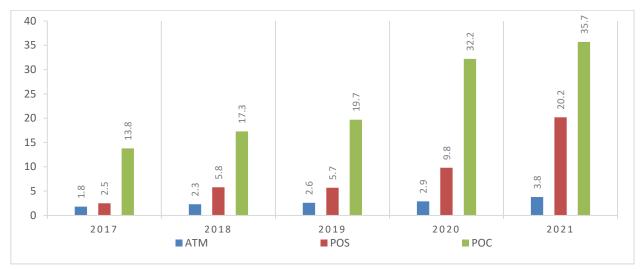


Figure (7) the prevalence of electronic payment services for the population of Iraq Source: Central Bank of Iraq, Financial Stability Report for the year 2021, p. 147.

4.4- Amounts transferred from mobile payment companies

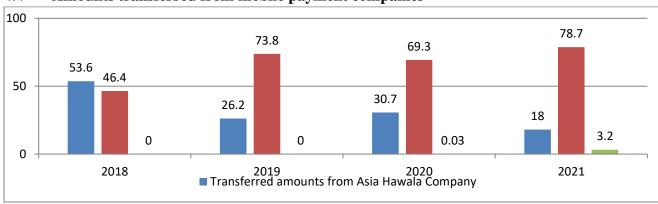


Figure (8) Percentage of amounts transferred from mobile payment companies Source: Central Bank of Iraq, Financial Stability Report for the year 2021, p. 149.

Figure (8) indicates the percentage of the amounts transferred through the electronic wallets of the telecom companies operating in Iraq, which are called (Zain Cash, Asia Hawala). Which enables its users to transfer funds between other wallets to other subscribers and the possibility of paying financial dues to individuals arising from electronic purchases. These wallets also allow the deposit and withdrawal of funds between different wallets, but the transfer process is limited within the country and does not exceed outside it. These companies are preparing to make the limits of this service reach outside the borders of Iraq in the 2023 plan. According to the report of the Central Bank of Iraq, it indicates the control of Zain in financial transfer operations and the preparation of money portfolios, compared to Asiacell. It noted that these portfolios have been growing continuously over the past four years, which indicates that there is a need and desire for this service by individuals and that it meets their need for purchases and financial transfers. It also strengthens the banking system on the other hand, and this is one of the innovations of financial technology. Table (1) shows a comparison between the research sample countries to show the size of the digital divide in banking transactions and the use of financial technology in the financial transactions of individuals and banks.

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Table (1) the volume of services provided by the countries under study for the period (2017-2020)

Type of service by country	Egypt				
Time period	2021	2020	2019	2018	2017
The electronic card	52366	39609	32077	30362	-
E-wallets	23.17	18.4	13.14	10.7	7.85
	Kuwait				
ATMs	1.5	1.25	1.5	1.5	1.25
Point of sale devices	84	78	73	65	55
digital services	1700	1500	1300	1000	750
	Iraq				
POC	33.5	29.5	26.6	15.1	11.7
POS	19	8.9	5.1	5	2.1
ATM	33.5	29.5	26.6	15.1	11.7
Zain Cash	78.7	69.3	73.8	46.4	-
Asia hawala	18	30.7	26.2	53.6	-

Source: Prepared by the researchers based on the annual releases issued by the central banks of the countries in question.

We note from the above table, which shows the volume of services provided by the countries under study for the period (2017-2020):

Electronic financial services in the State of Egypt are increasing and growing, this indicates that there is a development because of the plan developed by the Central Bank of Egypt. There is also a high demand among citizens to use electronic wallets and electronic cards. They are enhanced steps to shift towards digital transactions.

In Kuwait, the indicative indicators shown in the table are also increasing, especially in digital services. It also noted that there is an increase in the number of automated teller machines and electronic points of sale, which enhances the use of electronic money and electronic banking transactions.

Also in Iraq, it noted from the table that there is a noticeable increase in the indicators mentioned in it, especially after the initiative of communication companies (Zain, Asia) to establish financial portfolios and electronic transfer mechanisms. Which facilitated electronic financial transactions and electronic payments.

5. Obstacles and requirements for financial technology applications in Iraq

Almost all Arab countries share a set of obstacles and challenges in the use of financial technology in the Arab world. Among the most prominent challenges and obstacles that impede the spread and expansion of emerging companies in the field of technology in the Arab world in general are: (Al-Yafei, https://fatora.io/blog/electronic-payment-in-iraq/):

- The poor business environment and the restrictions that are still imposed on the entry of foreign entities into the local markets. It limits the access of existing global financial technology companies to these markets.
- The difficulty of gaining customer trust due to fear of fraud in the absence of adequate consumer protection frameworks in the field of financial services and no data privacy laws. In addition to the

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absence of legislation on cybercrime and information security except in seven countries in the region (Egypt, Algeria, Morocco, Qatar, Tunisia, and the United Arab Emirates).

- The low quality of Internet service and mobile phones and their prices, despite the high penetration rates of information and communication technology in recent years. The Middle East and North Africa region witnessed the second highest rates of Internet penetration in the world between 2014-2018, at a rate of 21%. Despite this widespread in the Arab world, its quality varies from one country to another, and this is what led to a difference in the speed of the spread of financial technology in some Arab countries.
- The weakness of the competitiveness of emerging companies in the field of financial technology if they do not adopt a business model based on cooperation with traditional banks. As a result of customers' trust and loyalty to the latter, the failure rate of startups in financial technology in the Middle East and North Africa region reached 28%.
- Institutional support is still limited, as a few Arab countries have established incubators (Egypt, Lebanon, United Arab Emirates) to help increase startups or establishing Regulatory Labs (Abu Dhabi, Bahrain, and Saudi Arabia) that allow FinTech companies and traditional institutions to test innovations in the real world.
- The laws imposed on financial technology have hindered the development of this field in the Arab world, due to the strictness of laws and the absence of the state's will to develop this field. On the other hand, it was able to improve the legal framework for the use of financial technology in the United Arab Emirates

These constraints are themselves reflected in the environment of the Iraqi economy, as the matter is not much different in Iraq. As the electronic payment system in Iraq is lagging behind the same system in the Gulf countries, for example, because Iraq does not possess advanced technology in the field of the Internet and communications, in addition to the fact that the Iraqi economy is still suffering from difficult crises that prevent it from progressing. The electronic payment services in Iraq are still weak and timid, given the capabilities and qualifications available in the country. However, the Iraqi government has sought through several policies to reduce dealing in securities and gradually shift to a digital payment system for money. Statistics from the Central Bank of Iraq indicate that the number of electronic payment companies in Iraq reached 16 companies in 2022, Statistics also indicate that these digital services are used by about 6 million Iraqi employees and retirees. There are significant structural, institutional, and policy obstacles facing the growth of financial technology in Iraq: (Regional Economic Outlook, 2-4, 2017) (Al-Yafei, https://fatora.io/blog/electronic-payment-in-iraq/):

- Poor business environment In general, there were only four countries (Armenia, Georgia, Kazakhstan, and the United Arab Emirates) in the top quartile in the Doing Business index prepared by the World Bank, Restrictions on market entry for foreign entities continue to limit the possibility of existing global financial technology companies entering the market.
- The scarcity of private equity and venture capital, which underpinned the growth of financial technology in advanced economies.
- •Legal uncertainty due to regulatory gaps hinders the growth of this sector, as well as the lack of electronic security, as there are no consumer protection frameworks in the field of financial services, nor data privacy laws, the prudential regulations not tailored to the characteristics of financial technology. Iraq is considered one of the countries in which there is insufficient electronic security, it suffers from a clear security and information breach. Therefore, the data of Iraqi customers in banks is highly vulnerable to theft, as happened in 2017 because of the hacking of an Iraqi telecommunications company.

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- Restrictions on shipping and delivery services: In fact, there are no shipping companies or offices in Iraq that can absorb the huge amount of resources that could flow if the e-commerce system was activated. This is due to the restrictions imposed on the Iraqi economic system, which prevents many materials from entering the market.
- The "trust gap" and levels of financial awareness constitute major constraints for start-up companies in the field of financial technology.

The population's culture and experience with the advantages of electronic payment in Iraq are almost non-existent since Iraqis depend largely on traditional payment systems in all aspects of their lives. They also do not trust digital payment for fear of fraud and fraud that takes place through it, and it has been shown that trust is one of the main obstacles in addition to promotion and the educational level of the customer, The "trust gap" was also cited as one of the main drivers for increased cooperation on a larger scale between FinTech start-ups and banks.

- Weak qualifications and infrastructure: Iraq does not have a strong and suitable platform from which to spread e-commerce and transform into a digital economy in which securities disappear completely. In addition, the communication networks and the Internet are very weak and cannot withstand all the pressure that the digital payment system can impose.
- Broad institutional support is still limited. Very few countries have set up incubators and accelerators to help grow start-ups or create regulatory labs that allow traditional FinTech firms to test innovations in the real world.
- The penetration rates of information and communication technology have increased significantly in recent years, but the quality of Internet service and mobile phones and their prices are still obstacles to the adoption of financial technology. Internet service has reached all countries, including Iraq, but high-speed Internet service is limited and expensive, which stands as an obstacle to the widespread use of financial technology.

On the other hand, electronic attacks lead to (operational disruptions, financial losses, reputational damage, and systemic risks). It may become an impeding constraint unless work is done to strengthen the frameworks of information security. Although the electronic risk is not a case unique to financial technology, the expansion of connectivity through digital solutions has led to an increase in the access points of electronic hackers. In addition, although only a few cyber-attacks on financial institutions succeeded in the Middle East, North Africa, Afghanistan, Pakistan, the Caucasus, and Central Asia, reports indicate an increase in the number of attacks on banks in the region. With the rapid development and complexity of the nature of electronic crimes, at the same time, the preparations for confronting the electronic threat, in general, are still weak in many countries. Reports have indicated that there is no legislation on cybercrime and information security, except in some countries in the Middle East and North Africa.

6. Conclusions and Recommendations:

- 1- Financial technology has become an economic necessity to keep pace with other economic developments, especially after the widespread spread of electronic transactions, and as a result of the development of innovations and applications on the mobile phone that serve financial purposes.
- 2- The Arab countries have taken the development of their financial systems under the techniques of financial technology, and have made great strides in this field, by investing in this technology and providing the infrastructure to keep pace with financial developments.
- 3- Iraq has not achieved tangible development in the field of financial technology, and this is evident through the low indicators compared to the Arab countries and the world, as there is no capital willing to take risks and invest in this field. In addition to the lack of the necessary infrastructure for the development of this technology, making this technology ineffective in the daily financial transactions of the citizen.

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4- Weak banking culture among the masses of customers, because there is fear on the part of individuals in dealing with this service, and the Iraqi banking system did not encourage commercial centers to open accounts so that individuals could buy from these centers through plastic cards. In addition, the weakness of the spread of ATMs in various places and their presence in banks only, makes it difficult for individuals to access the machines for cash withdrawal.

Second: Recommendations

- 1- Work on developing the necessary infrastructure for the development of financial technology, and provide broad institutional support through the establishment of incubators and accelerators to help increase the emerging company in the field of financial technology.
- 2- Raising awareness levels in society to increase the demand for financial technology services, as the availability of trust and the reduction of uncertainty is one of the important factors for using financial technology as a payment channel, As well as the availability of channels to promote this type of service.
- 3- Work to develop legislation and legal regulations that facilitate the work of digital financial services, which must be balanced with monitoring and follow-up to reduce money laundering or illegal financing operations.

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