

The reality of financial technology in Arab countries and the challenges they face

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Abstract:

Financial technology is one of the modern concepts that witnessed a great development after the financial crisis that hit the financial sector in 2008. This concept is closely related to information and communication technology, through which innovative mechanisms are developed that contribute to improving the systems and operations of the financial and banking services sector. Providing financial services in many Arab countries under what it offers promising solutions that enable financially underserved groups, especially youth, women, small and medium enterprises, and remote areas, through smooth access and affordable costs to those financial services.

The research aims to know the reality of financial technology in Arab countries and the challenges facing its application

In order to reach the objectives of the research, the researcher used the descriptive analytical approach to study and analyze relevant indicators based on the sources and information available in this regard by official and academic authorities.

The researcher concluded that the application of financial technology in Arab countries is still below the required level due to the many challenges facing these countries in applying it.

Introduction

The industries of modern financial technologies have accelerated in recent years, due to the fact that these technologies provide digital financial services with less effort and costs than they used to be, in addition to the fact that these technologies were designed in a manner commensurate with all the needs of the different segments of society, so all countries, including the Arab countries, directed a way Especially to improve financial technology and provide support in pursuit of digital financial transformation and to enhance financial inclusion and stability.

Search target: The research aims to

- 1- Studying and analyzing the reality of financial technology in the Arab countries in terms of investments directed towards the financial sector and the number of companies working in the field of financial technology.
- 2- Knowledge of the most important challenges facing the development of financial technology in Arab countries.

Research problem:

The research problem revolves around the intellectual controversy of the reality of financial technology and the possibility of raising the level of its application in the Arab countries in light of the rapid developments of financial technology in the world and the challenges facing its application in these countries. The research problem can be explained by raising the following question:

Is the application of financial technology in the Arab countries at the level that is in line with the development taking place in this sector worldwide? What are the main challenges facing these countries in adopting this type of technology?

Research hypothesis:

The research stems from the hypothesis that ((The Arab countries, despite their tendency towards developing their financial sector by adopting financial technology products to improve the quality of financial services provided and facilitate access to them, they are still below the required level, as a result of the presence of many challenges facing their application in this field. the countries))

First: concept technology Finance And its importance

1- The concept of financial technology: Concept technology Finance From concepts modern that lusted developed big after the crisis Finance that hit sector financial in a general 2008 is associated This Concept Engagement close to technology the information and communication, where represent mechanisms innovative to improve systems and operations section Services Finance banking advanced Such as services paying off e and convert funds and facilitate operations borrow and savings gesticulate contribute By submission products innovative supports beneficiaries From Services Finance (companies and owners Business And for individuals) to manage their operations Finance And in a way better Especially post spread Use phones smart And the internet in a form Increasing (Harfoush Saida, 2019, 724).

And he has received several definitions Concerning This Concept He knew her institute research digital in a Capital polish Dublin that it is phrase About "inventions and innovations technological modern in a area section Finance, include programs digital that used in a Processes Finance to banks which Includes transactions With customers and services Finance Such as Conversion funds and switch currencies and account Pedigree the benefits and earnings projected for investments And change that From Processes Banking (Ayyash Zuhair, 2021, 306), And you know her A committee Basel controlled banking On that it any technology or innovation Financial Produce about him Model Business or proces or Producer new for him Effect On markets and institutions Finance.

It was also defined as the stock of knowledge that allows the introduction of new and improved knowledge or insurance mechanisms, equipment, processes, and services (Zawaweed Al-Zahawi, 2018, 64).

And we get rid of it in a that technology she All invention or innovation He depends On technology From okay development sector financial and improve quality Services and facilitate Access to her and reduction its costs

2- The importance of financial technology:

and lay Importance technology Finance with her ability real On change Services Finance and make it Faster And cheaper and more Safe and transparency and availability slide big From population that No deal With the device banker From Side, And from Side other the Speed Development in a services technology Finance and companies emerging lead to to me Solutions Finance innovative that simulate What its progress sectors banking And you do Simplify Processes Banking (Tabinah Khairiah, Aliush Ibtisam, 2018, 39).

And summed up Importance innovations technology Finance With what Come:

A- covering a group big From Services Finance Such as operations the transfer collective and solutions paying off Through the phone and transitions Finance international, and tools Administration conservative investment by the internet which I failed sinks traditional About submit it for a number big From Clients.

B- Working On change structure Services Finance in a form general, and methodology and mechanisms Submit Banking services for customers in a form private Than makes it Faster And cheaper and more Our mother and transparency.

3-help in a to improve Quality and quality Services Finance Introduction and made available in a any Place so Complete concentration On Assess Services Finance and delivered for customers and more opportunities sale Through the border and points Connection multiple channels to consume That Services.

4-contribute in a investigation feature competitive for institutions Finance and companies emerging in a area technology Finance The more She was this is institutions More progress From side technological increased its ability On The competition in both levels regional and international (Abdul Reza Mustafa, 2020, 153).

Secondly Analyzing the reality of financial technology in: Arab countries

1- size investments for technology Finance in a Countries Arabic:

In light of the rapid technological development, the spread of information technology, and the large use of electronic media, the volume of Arab countries' interest in financial technology increased, and these countries differed among themselves in terms of the degree of their use of this technology, depending on the volume of investments directed to this sector, and this can be seen by following the table(1) and fig(1) which shows the volume of investment and the number of deals in emerging financial technology companies in the Arab countries, noting that the volume of investment has ranged between high and low during the period (2015 - 2019) as it rose from (18) million dollars in 2015, reaching its highest value during that period in 2017, amounting to about (122) million dollars, which reflects the development taking place in the incubating environment for these investments in many Arab countries and the good level of financial culture and a kind of political stability. Business incubators and investment companies have concentrated in the financial technology sector. As for in the two years (2018, 2019) Lost Witnessed investment in a technology Finance drop successively recorded in a general 2018 amount capacity (44) million dollar, And the (30) million dollars in 2019, and this Means that The last year has registered developed Negatively (-92) million dollars than it was in 2017, And it is worth Signal here to that Section the biggest From investment companies emerging in a area technology Finance It was direct Toward area paying off and transfers And he has reach Top Values for him in a general 2017 And it was Toward (62) million dollar, in a when reach Top investment in a area Administration fortunes Toward (11) million dollar for the year same This is due to the demand for better services at better prices. Magnitt, 2019, 20-21).

In the same context, it is noted that the UAE Arabic United I got it mattress The first in a size financing for companies emerging in a area technology Finance In 2020, by reached Toward (59%) followed by Egypt in the rate of (19%) total finance reach Toward (659) million dollar in a Area the East Middle and north Africa (Republic of Egypt (Surveyor Susana, 29, 2021), and the latter (Egypt) has witnessed a remarkable development in the volume of investments in the field of financial technology and the sectors feeding it, as the volume of its investments in this sector has increased

from(0.9)million dollars a year2017to reach(159)million dollars a year2021The number of deals concluded increased(3)deals in a year2017to arrive to(32)deal in a year2021With a growth rate of three times, in addition to the increase in the average investment volume for each of those deals to reach(5)One million dollars in 2021(300) thousand dollars in 2017, with a growth rate of(16)Weakness, and most of these investments were directed towards business owners' platforms(B2B marketplace)Then followed by payments and transfers, and then salaries and benefits, which indicates the development taking place in this field as a result of the policies taken by Egypt for the purpose of transitioning towards the digital economy. (The Central Bank, 2022, 16-22).

Schedule(1)The development in total investments and the number of deals in emerging financial technology companies in the Arab countries for the period(2015-2019)

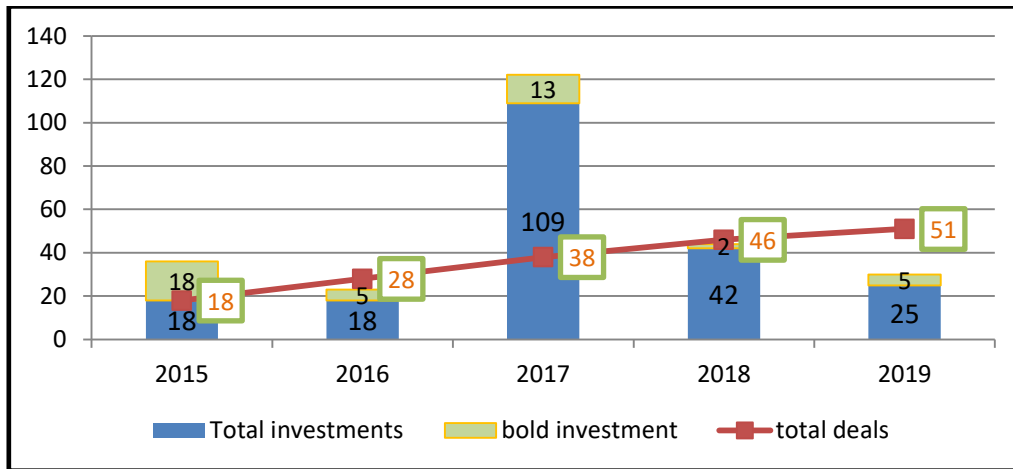
The number of deals	bold investment	actual investment	Total investments Million dollars	the years
18	18	18	36	2015
28	5	18	23	2016
38	13	109	122	2017
46	2	42	44	2018
51	5	25	30	2019

Source: Prepared by the researcher based on:MAGNiTT& Abu Dhabi Global Market, 2019

As for the Kingdom of Saudi Arabia, it also witnessed a remarkable increase in the number of venture capital investments in the financial technology sector, as it reached(16)Investment until August 2021, with a total value of(157,2) One million dollars, which is a huge increase compared to 2020, when all investments were in venture capital(7)Investments totaling approx(7,8)million dollars, and the investment in financial technologies has achieved between the years(2017, 2021)Compound annual growth exceeded(40 %)It is higher than the compound annual growth rate for the Middle East and North Africa region, which amounted to approx(28,6 %) During the same period, the field of payments occupies the largest share of these investments, at a rate of approx(93%)Of the total value of investment in venture capital, which includes all areas of payments, including POS services(pos)And electronic wallets and post-payment services, then followed by financing platforms (Saudi Bank, 2021, 14-17).

While financial technology investments in the United Arab Emirates witnessed a growth of about(64%)In 2020, it acquired(47 %)Fintech financing deals and(69 %)Of the total FinTech financing in the Middle East and North Africa, the value of the local FinTech market has reached a record high(2,5)billion dollars by 2022, and banking services, wealth management, remittances, and digital payments constitute an important segment of this sector in the UAE.

Figure (1) Total investments and deals in emerging financial technology companies for the period (2015-2019) (millions of dollars)

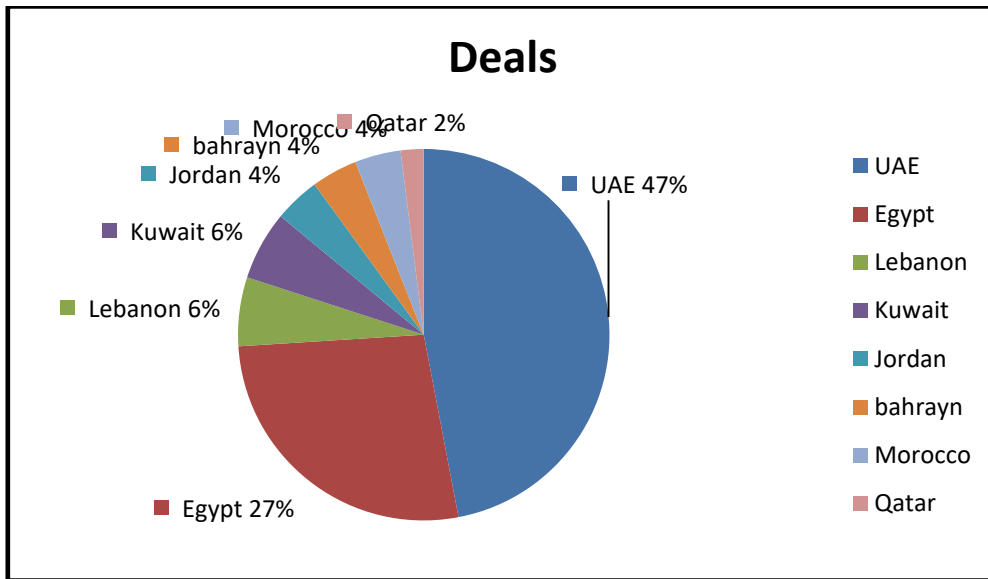


Source: prepared by the researcher based on: ((MAGNiTT & Abu Dhabi Global Market, 2019).

Either regarding number deals So we can notice Through the figure above it was seen increasing continuously during the period(2015 - 2019), so rose From (18) Deal in a general (2015) And she continued by increasing Even reached (51) Deal during general (2019).

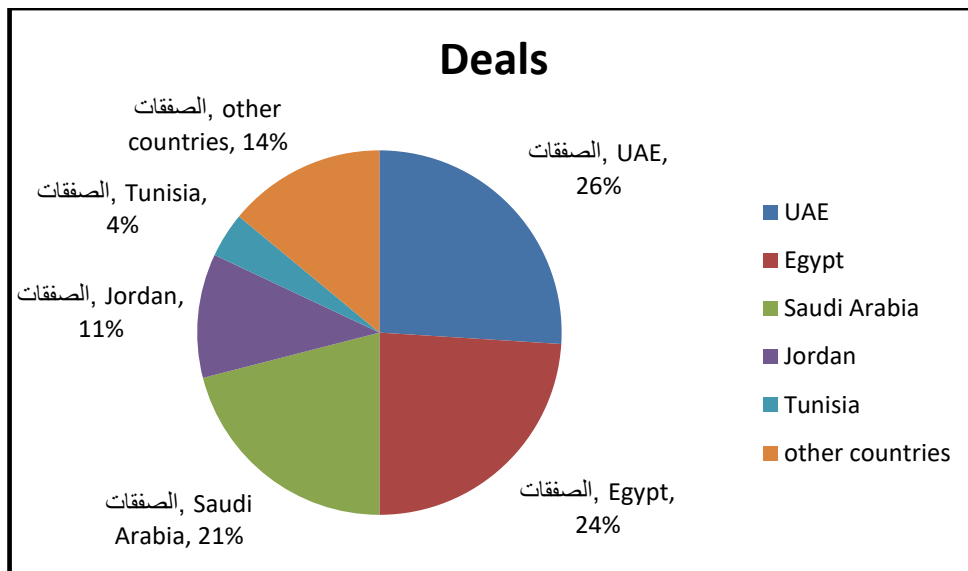
Also note that Country UAE Arabic United And a republic Egypt Arabic may be obsessed On most deals in a area technology Finance during general2019so obsessed On Percentage Reach around to me (74%) From deals technology finance, As for about for a state Lebanon may be obsessed On Percentage appreciate it (6 %) From That deals, As for Jordan and Morocco Lost obsessed All Of which On Percentage (4%) From That deals, And she came Country Diameter by rank Last so obsessed in a general2019On Percentage appreciate it (2%) From deals technology Finance, as shown in the figure(2).in a when obsessed Egypt on The ratio the biggest From deals in a general2020so reached its percentage Toward (25%) And followed by UAE Arabic United and kingdom Arabic Saudi Arabia, while the UAE accounted for 26% of financing deals(53%)Of the value of financing deals in 2021, Saudi Arabia ranked second(22,7%of the value of deals and ranked third in terms of the number of deals, which amounted to (21%)And Egypt ranked third in terms of the value of deals, amounting to(17.8%)And the second in the percentage of the number of transactions, which amounted to (24%), while Jordan ranked fourth and Tunisia ranked fifth in terms of the number of transactions, with rates amounting to (11%), (4%), respectively, and this resulted from several reasons, including the ease of doing business and government legislation to open the field For foreigners to own companies and work to enhance the entrepreneurial environment (Abul Fotouh Imad, 2021).

Figure (2) FinTech transactions by country in the Arab countries for the year 2019.(%)



Source: Prepared by the researcher based on: Financial Technology Projects Report in the Middle East and North Africa(MAGNiTT & Abu Dhabi Global Market, 2019, p.20-21.

the shape(3)deals technology Finance according Country in a Countries Arabic For the year2021 (%)



Source:From Preparation researcher based on to me:a report Projects technology Finance in a the East middle and north Africa (MAGNiTT & Abu Dhabi Global Market, 2021).

2- Indicators of the use of financial technology in the Arab countries:There are many indicators that indicate the use of technology. We will discuss some of them as follows:

A- The number of companies specialized in financial technology and their geographical distribution:

The expansion of financial technology markets and the increase in the volume of investments directed towards this sector in the Arab countries has led to an increase in the number of emerging companies operating in this field that seek to revolutionize the field of finance and how individuals and companies use their money and manage it, by addressing financial problems and needs using innovative solutions. (Belkadi Shaima, 2021, 38).

The evolution of the number of these companies can be followed through the table(2)As it turns out that the number of these companies has increased from(54)Inc. in 2010 to become(408)A startup in the Arab countries during the year 2021, and the UAE, Egypt and Saudi Arabia occupy the first ranks in terms of the number of companies, as the UAE is home to about a third of emerging companies in the field of financial technology in the Middle East, according to a report by the American economic agency Bloomberg, and this was supported by a report by Mordor For market research that indicates there(144)A financial technology company in the UAE, by 2022This is caused by owning it environment sitter To develop sectors (Fintech)(Al-Haddad Salma, 2022).

While Egypt is among the four largest African countries and the second at the level of Arab countries in the field of financial technology in terms of the number of emerging companies in the field of financial technology and the sectors feeding it, as the number of its companies increased from two companies in 2014 to reach(112)A company in 2021 (Egypt, Central Bank, 2022, 22).

As for Saudi Arabia, the number of financial technology companies increased from(10)companies in 2018 to hit(82)Company with a growth rate of about(35%)For the year 2020 which was reported(60)Company (Saudi Arabia, Central Bank, previous source).

Schedule(2)The development in the number of financial technology companies in the Arab countriesduring the duration(2010 - 2021)

annual growth %	Number of companies	the years
–	54	2010
12.9	62	2011
32.2	82	2012
32.9	109	2013
34.8	147	2014
17.0	172	2015
25	215	2016
27.1	272	2017
25.4	341	2018
8.8	371	2019
3.2	383	2020
6.5	408 (*)	2021

Source: Muhammad Amin Zaikh, Muhammad Yunus, The Role of Financial Technology in Promoting Financial Inclusion in the Arab World - The Experience of the Kingdom of Saudi Arabia, Scientific Research Notebooks Journal, Volume (10), Issue (1), 2022, p. 753.

(*) The number of companies taken from the Financial Stability Report in the Arab Countries, 2022, p. 189.

Start-up companies specialized in the field of financial technology have spread in more than twelve Arab countries, and as we mentioned earlier, most of them were in the United Arab Emirates, Egypt, Saudi Arabia, Lebanon and Jordan, and we will discuss the most important of these companies as follows:

1- Fawry Company:This company was established in 2008 in the State of Egypt by Raya Holding Company, the Technology Support Fund, the Arab African Bank and the Bank of Alexandria, and this company began its work by providing five thousand service points and then expanded rapidly to provide(65 thousand points of service)spread over more than(300)city until it reached(15 million customers)Among the services provided by cash management, mobile phone and technical payment services.

2- Payment companies:Payments Company was established in 2011 in Jordan by Oasis Company, in the middle of a contract that was signed to establish the electronic bills website for paying electricity bills, as well as establishing a specialized portal to provide payment services. This company has worked with more than fifty companies to export invoices, and its system has been linked to a group of Jordanian banks. In 2016, the company processed(4000)The process of paying daily bills, thus increasing the value of the bills paid through it(100)million US dollars.

3- The payment company Ideal: This company has concluded a partnership contract between(payments and ideal)And among the largest insurance company in Iraq(Belgian financial services company)This company specialized in providing financial services via mobile phone through the establishment of the electronic spectrum wallet application, as this company sought to develop its work to increase its customers who do not have a bank account by providing solutions that allow customers to receive their salaries through that application, in addition to sending and receiving money in Any time in addition to instant payment services (Harith Ibrahim, 2019, 9-10).

4- Company (pay Tabs):This company was established in the State of Bahrain in 2014 and works to provide electronic solutions in the processing of electronic payments, meaning that these companies are a payment gateway through which merchants can conduct business, as it enables merchants to quickly deposit into their accounts, in addition to that It has an important advantage which is acceptance(168)Currency and it got the best payment gateway and turnover in 2014(20)Million dollars.

5- Company (Liwwa):This company is considered as a peer-to-peer lending platform and was established in the State of Jordan in 2013.

As the company provides simple financing to medium and small enterprises through the digital lending market, as it works to link companies that need capital with lenders, and this company is a very important platform in the world and the reason is that it is compatible with Islamic law.

6- Company (Aqeed Technology):This company specializes in insurance technology, whether for institutions or individuals, and was established in 2017 in the United Arab Emirates, and its transactions amounted to more than (18) million dollars at the beginning of the year 2018 (Bin Fadda, Wissam, and others, 2020, 122).

7- CASHU Company: This company is a company specialized in electronic payment services through the international network (internet). Founded in 2002, it is also one of the largest specialized companies in the Middle East region, as it supplies more than 2.3 million users at that time for its services, which included easy payment solutions for online shopping, and the number of its points of sale (75) One thousand points, through which shopping is carried out by filling out balance recharge cards to purchase products from various sites for sale around the world.

8- Company (Beam Wallt): This company was established in 2012 and its headquarters was in the United Arab Emirates. This company provides customers with a new experience, which is the current shopping of banknotes by linking Alaa bank accounts and credit cards belonging to them with its own application, and dealing with it via the mobile phone and the customer's electronic account. The number of subscribers (three hundred fifty) A customer and (3000) A store in the UAE, and this company signed a contract with MasterCard in late 2014 to expand its usage base.

9- (Beit Oasis): This company is the first emerging company in the countries of the Gulf Cooperation Council region that provides encrypted digital currency services. This company allows individuals to buy bitcoin and send it around the world even if the individual does not have any bank account. This company uses digital signature technology for the purpose of providing security services at a high level, which ensures the maintenance of customer confidence in dealing with it.

10- (Zoomal platform): This platform was established in the State of Lebanon in the year 2012 by a group of Arab contributors who are interested in encouraging Arab projects and ideas by providing the necessary loans for them. The platform provides loans and support for new ideas, not putting them into practice. This platform has been able to transform more than 3 million US dollars to more than 140 projects (Bin Fadda Wissam, previous source).

B: Modern financial technologies index (general) in some Arab countries: This indicator aims to demonstrate the efforts made by the Arab countries in developing the modern financial technology industry, and contributes to crystallizing a vision for this industry and how to support the incubating environment for it by shedding light on the challenges facing the development of this industry in the Arab countries and taking advantage of the opportunities and possibilities available to it. This helps in drawing up appropriate national policies that improve opportunities for the growth and employment of financial technologies and improve the environment for digital financial services. This indicator consists of six main axes that represent the dimensions of the environment that support modern financial technologies and include (policies and legislation, the demand side, availability of financing, financial infrastructure, talent development to support innovation, cooperation and companies). Arab countries in drawing up their policies, and it is an effective tool for identifying areas that suffer from weakness and need to make more efforts to raise the level of their achievement.

Table (2) The general indicator and the six main indicators

general index %	Cooperation and companies %	financial infrastructure %	talent development %	Funding availability %	demand side %	Policies and legislation %	The state
0.31	0.11	0.39	0.17	0.07	0.34	0.55	Jordan
0.41	0.34	0.47	0.67	0.31	0.35	0.31	Lebanon
0.33	0.31	0.48	0.74	0.00	0.53	0.10	Morocco,
0.60	0.54	0.51	0.71	0.31	0.47	0.71	Tunisia
0.640	0.678	0.739	0.658	0.246	0.631	0.758	Bahrain
0.369	0.375	0.338	0.417	0.103	0.227	0.591	Kuwait
0.410	0.366	0.336	0.629	0.100	0.474	0.505	Palestine
0.52	0.63	0.31	0.90	0.14	0.70	0.60	Egypt
0.65	0.70	0.64	0.80	0.32	0.70	0.73	Saudi
0.35	0.63	0.34	0.37	0.20	0.39	0.51	Diameter
0.31	0.33	0.44	0.08	0.04	0.41	0.44	Oman
0.75	0.91	0.73	0.81	0.50	0.81	0.75	UAE
0.091	0.00	0.109	0.208	0.00	0.172	0.065	Sudan
0.14	0.0	0.24	0.0	0.0	0.27	0.22	Iraq
0.195	0.267	0.232	0.292	0.00	0.096	0.239	To whom
0.43	0.49	0.39	0.50	0.18	0.44	0.44	average

Source: Nouran Youssef, Index of Modern Financial Technologies in the Arab Countries (Finx Ar) (Methodology and Results), Arab Monetary Fund, 2021, p6.

Through Table (2), we notice that the average value of the general indicator has reached(0.43)Accompanied by the two indices of talent development and the cooperation and companies index, as they came in percentages of(0.50%)And the(0.49%)Respectively, while the results highlighted the urgent need to give more attention to the axis of providing financing, which recorded a ratio of(0.19%) And the financial infrastructure axis, which reached (0.39%), which needs more attention.

As for the arrangement of the Arab countries in this indicator, it is possible, by tracking the data of the aforementioned table, to note that the UAE ranked first among the Arab countries in the general index, with a percentage of(0.75%)This is thanks to the multiple efforts in supporting and enhancing the areas of modern financial technology activities, as well as the launch of many different initiatives that supported the activation of one of the financial technologies and the provision of requirements that lead to improving the degree of digital financial transformation, as well as the role of promoting awareness and financial education and providing appropriate funding to support innovation. Whether at the level of the state or the relevant parties, we also note that the Kingdom of Saudi Arabia came in second place after the United Arab Emirates, as the general index was recorded in it(0.65%)The Kingdom of Saudi Arabia has benefited from its acquisition of the second position at the level of the main indicators for the axes of talent development, policies and legislation, as a result of the various initiatives and policies sponsored by the authority in providing assistance to technical centers to support digital financial solutions, as well as the role of financial education and support for programs that It would contribute to spreading awareness, and facilitating the access of medium and small projects to financing was

an important reason for the increase in the general index percentage, while Bahrain ranked third at the level of the Arab countries under study in the main indicators, with a rate of (0.64%), and this is a result of its acquisition of the first position. In the axes of policies and legislation and the axis of talent development, cooperation and companies, which indicates its success in producing comprehensive policies to build a supportive environment for the development of the modern financial technologies industry at the national level, as well as creating a comprehensive legislative and regulatory infrastructure for the various activities.

Yemen, Iraq and Sudan come in the late ranks in the general index of modern financial technologies, with a rate of (0.195%), (0.142%), and (0.091%), respectively. And the development of talents, cooperation and companies, and the weakness of the financial infrastructure, as these countries obtained weak rates in these axes compared to the rest of the Arab countries participating in the application of this indicator, and despite this great disparity in the percentages of the general index between the mentioned Arab countries, it is noted that there are efforts Significant efforts are being made by it to enhance the axes of the general index, starting from policies and legislation, passing through the axis of the demand side, the axis of providing financing, developing talents and financial infrastructure, and ending with the axis of cooperation and companies. These efforts made by countries with their various authorities and policies are only evidence of their endeavor to develop the reality of financial technology in them.

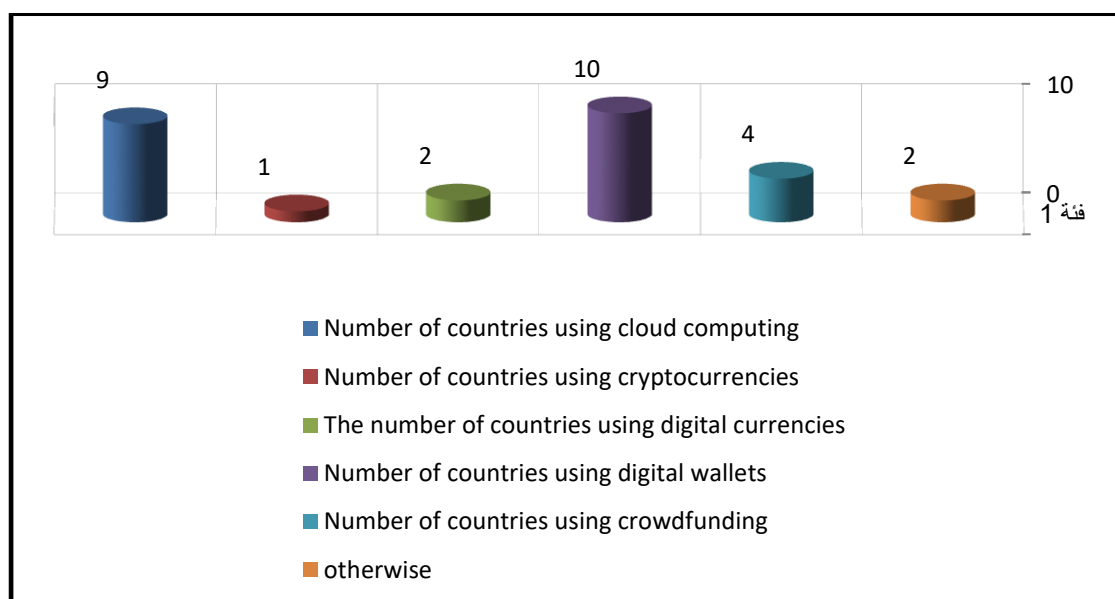
3- Financial technology techniques used in Arab countries

In the wake of the rapid changes taking place in the global financial sector and the emergence of new financial innovations, and the Arab countries realizing the importance of using modern financial technologies in the financial and banking sector, interest in using these technologies has increased in the Arab countries, especially with the significant growth witnessed by these technologies and related services. In this regard, we find that most of the modern financial technology techniques in the Arab countries have specialized in the field of payment and transfers, for example, we find that(85%)Of the financial technology companies in the United Arab Emirates working in the field of payments and remittances of immigrants representing more than(90%)of the UAE population has reached approx(44.5)million dollars in the United Arab Emirates, and that about(75%)Of the total transfers, it is transferred through various money transfer companies, and the remaining quarter is transferred through banks.

In a survey conducted by the Arab Monetary Fund in 2019 that included fourteen Arab countries to reveal the technologies used by these countries, it was found that most Arab countries have three digital technologies, and that the most common of these technologies are (cloud computing and digital wallets) and the interest in these technologies was Coinciding with the efforts made by banks to change the infrastructure to keep pace with the development of financial technologies, as well as the ability of cloud computing to provide the tools that companies need in order to develop financial applications and provide new solutions as quickly as possible. As shown by the questionnaire there is(12)An Arab country that uses at least one financial technology. As for the model of transferring financial assets, which includes (cryptocurrencies and digital currencies), it is considered one of the new technologies that have not been applied in most Arab countries (Latrash Thahabia, Hira Somaya, 2020, 100), as shown through The questionnaire showed that there are countries that have not applied any digital technology, such as the two countries (Palestine and Libya), and the State of Bahrain is the only country that has proven five technologies

out of the six technologies listed in Figure (3). It is also evident from this figure that (10) Arab countries have implemented digital wallets and (9) countries have applied cloud computing. As for crowdfunding technology, it has only been applied in (4) countries, while three countries have applied the financial assets model (the blockchain chain). And only two countries applied digital currencies and only one country applied encrypted currencies, and that the United Arab Emirates used four out of six technologies with the exception of encrypted currencies and digital currencies, and each of (Egypt, Tunisia and Lebanon) only applied one technology only.

Figure (3) Modern financial technologies used in the Arab countries 2019



Source: Prepared by the researcher based on: Arab Monetary Fund, Arab Financial Stability Report, 2019.

The development of the use of financial technology in the Arab countries is noted as a result of the various governmental measures taken by the Arab countries, which were linked to the provision of financing support and the development of an attractive regulatory and legal framework for projects, business incubators and foreign investors, as well as work on the development of mobile payments and the widespread use of mobile phones, as the rate of mobile phone use was estimated at (100%) in all Arab countries for the year 2017, and the rate of smartphone use was (60%), and the expansion of the use and spread of the Internet in electronic payment services, as the rate of Internet penetration rose to (94%) in the Emirates, as applied Some countries, such as the Emirates, Bahrain, Saudi Arabia and Kuwait, are technical (5G) (by Tarsh Thahaba, previous source, 101).

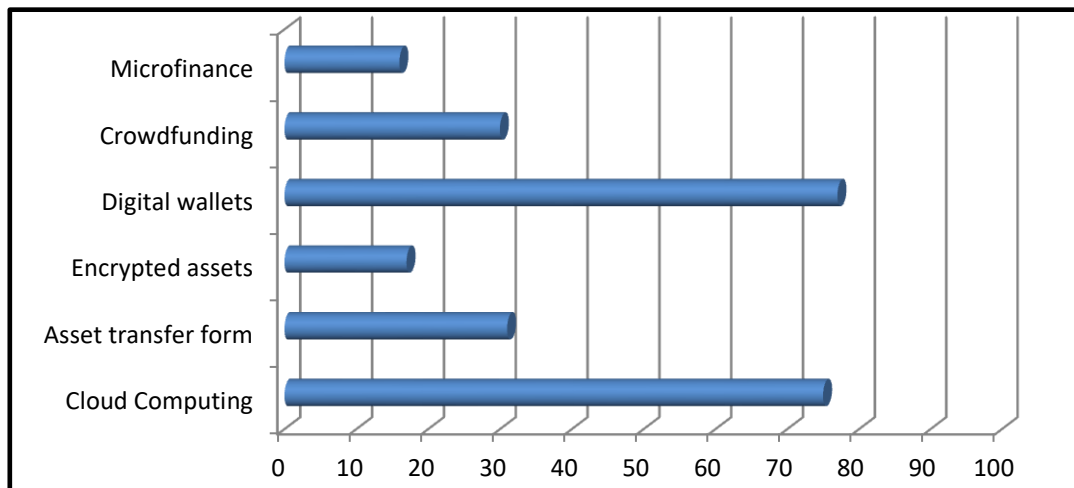
In the same context, the Arab Monetary Fund issued a set of principles and guidelines that were agreed upon by the Arab countries in 2019, to be basic pillars for strengthening the capabilities of Arab countries in the field of modern financial technologies and help those countries to build a supportive environment for these technologies through a set of policies. Which includes building national strategies for financial technologies and strengthening the legislative and supervisory framework in a way that does not restrict financial innovations, as well as stimulating governance, cooperation and partnership, whether at the level of financial institutions and

providers of solutions and services from financial technology companies or at the level of central banks and governments, in addition to providing capital and requirements that need It includes the special development in addition to the demand for modern financial technology products, in addition to the development of qualification and training capabilities.

And in general 2020 It was found that the electronic payment and remittance services sector was at the forefront of the sectors in which financial technology companies worked in all Arab countries, followed by crowdfunding, which spread in (5) countries out of (12) country included the report Prepared by the Arab Monetary Fund eUAE, Bahrain, Saudi Arabia, Tunisia and Lebanon, while spread Financial technology companies operating in the insurance sector in Saudi Arabia, Bahrain, Kuwait and Lebanon. Then Conservative domain ewho that It spreads in three Arab countries: the Emirates, Tunisia and the Sultanate of Oman (Arab Monetary Fund, 2021, 12).

As for T Report on financial stability in the Arab countries For the year (2022) He pointed out The Arab countries have advanced in The field of modern financial technologies, especially after a pandemic (Covid-19), as it accelerated digital transformation, similar to what is happening in countries of the world. According to the results of the questionnaire conducted by the Arab Monetary Fund in 2022 and figure (4), it became clear that cloud computing and digital wallets are among the most common and used technologies in the Arab countries due to the increase in demand for these services, in addition to the existence of legislation regulating their work. As for microfinance and assets, it was noted Its use is limited in the countries participating in the questionnaire compared to the rest of the technologies, as it was used in two out of (12) countries, due to the risks associated with this type of technology and the need for legislative systems that regulate its work (Survey Monetary Fund, 2012, 189).

Figure (3) Modern financial technologies used in Arab countries by 2021



Source: Prepared by the researcher based on: Arab Monetary Fund, Arab Financial Stability Report, 2022.

4- Motives for using financial technology in Arab countries and the challenges they face:

A- Motives for using financial technology in Arab countries:The use of this technology has many great advantages that can motivate individuals and companies to use it. They can be addressed as follows:

- The widespread financial exclusion due to the high cost of obtaining financial services, which prompted individuals to search for alternatives to traditional services and turn towards financial technology services to settle their payments and transfers. The spread of smart phones has contributed to the trend towards digital payments in the Arab countries.

- Lending to small and medium enterprises: The lack of funding for small and medium enterprises, which does not exceed a percentage(8%)Of the total volume of credit loans provided by Arab banks in the countries of the Arab world, and the difficulty of accessing the financial markets to mobilize the financing sources necessary for their activity, which encouraged people to turn to financial technology companies to obtain financing.

- Cross-border trade and remittances of workers abroad: Financial technology and innovative financial solutions linked to virtual currencies and digital ledgers contribute to providing mechanisms for cross-border payments that are characterized by high efficiency and increased transparency compared to traditional banks or money transfer companies that rely on bank correspondence.

Availability of new products and services designed to meet the renewed needs of customers, in addition to giving customers an important advantage, which is the reduction in costs and the shortening of time.

Providing immediate payment opportunities that give customers more payment options, as well as using digital platforms to collect revenues while facilitating services and facilitating access to financing for individuals and owners of small and medium enterprises who suffer from a lack of financial services.

- The financial technology used by banks contributes to raising efficiency, maximizing risk management, enhancing compliance with regulations and rules, as well as achieving the highest growth and containing a large number of individuals.

- Experiences and needs have shown the great importance of electronic financial services, and the experience of the Corona pandemic was the best evidence of that, as the high demand for these services and the completion of remote transactions showed the importance of these services and their role in overcoming the crisis (Harfush Said, et al., 2019, 739).

B- Challenges facing the use of financial technology in Arab countriesIn the use of financial technology, Arab countries face many obstacles that pose a challenge to the use of these technologies, and perhaps the most prominent of these challenges are the following (Binya Khairi et al., 2018, 51-53):

The weakness facing the business environment in general. At the end of 2016, there was only the United Arab Emirates at the level of the Arab world in the first quarter of the Doing Business index prepared by the World Bank.

- The scarcity of private equity and venture capital on which the growth of financial technology in advanced economies was based. An example of this is that the value of all private equity and venture capital investments in the Middle East and North Africa in a state of stagnation was about \$1 billion, especially when prices fell. Oil, and these investments are still concentrated in the United Arab Emirates.

- Legal uncertainty: due to the existence of regulatory gaps that hinder the growth of this sector, although work is underway to develop regulatory frameworks for digital financial services, and work to develop many laws related to the issuance of electronic money in most countries, but progress has been limited in setting these rules

Regulatory examples include the absence of regulatory rules for portable electronic money except in a limited number of countries (Egypt, Morocco and Tunisia), and there are also no consumer protection frameworks in this area in many countries. On the financial services side, it is noted that there are no data privacy laws, and there are no precautionary regulatory rules in line with the characteristics of financial technology.

- The broader institutional support is still limited, as a limited number of countries have established incubators and accelerators such as Egypt, Lebanon and the United Arab Emirates to increase the creation of startup companies or establish regulatory laboratories that allow financial technology companies and traditional financial institutions to test innovations in the real environment.

Lack of trust and low levels of financial awareness are major constraints for startups in the field of financial technology, which requires efficient payments and the availability of trust to reduce uncertainty and transaction costs.

- The problem of electronic risks, as digital attacks lead to disruptions in operation, which leads to financial losses, damage to speed, and systemic risks that may become impeding restrictions unless work is done to strengthen the security frameworks for informatics.

- The challenges facing entrepreneurs represented by weak competitiveness and the lack of a business model based on traditional foundations, which leads to the lack of customer confidence and lack of knowledge about startups.

- The low quality of Internet service and mobile phones. Internet service has reached all Arab countries, but its penetration rate is still low in many countries, and high-speed Internet service is expensive, and the most countries that achieve high levels of progress are the Gulf Cooperation Council countries and Lebanon. Where the rates of Internet service and mobile phones rose higher than in other Arab countries, and the rate of Internet service penetration in Arab countries in 2018 was approximately(21%)Also, the quality of Internet service in Arab countries varies from one country to another, which has led to a difference in the speed of financial technology spread in some countries.

- The laws imposed on financial technology in Arab countries contribute to hindering the development of this field, although some countries have improved their legal frameworks for the use of financial technology, such as the Emirates, but some countries are completely absent due to the lack of desire of governments to develop this field.

Despite these challenges and difficulties faced by financial technology, some governments have worked to provide financial and non-financial support in an attempt to open and exploit the opportunities and potentials for the growth of companies specialized in the field of financial technology by harnessing open funds and government business incubators.

conclusions:

1- Financial technology is one of the modern concepts that has attracted the attention of many countries in the world, including the Arab world, because it offers tremendous opportunities for the development of financial services and the modernization and development of traditional services through their collection of innovations and inventions that facilitate access to financial services at the lowest cost and the least possible time. .

2- Weakness The obvious adopting innovations And the limited use of modern financial technologies led to me deprivation communities Arabic From Access to me Services Finance cutting edge and use it.

3- Some Arab countries have come a long way in adopting financial technology, including the UAE, Saudi Arabia and Egypt, due to their adoption of incentive policies in this regard, while Iraq, Yemen and Sudan are still among the lagging countries in this field due to the lack of funding, weak infrastructure, weak cooperation and companies.

4- There are many challenges Which leads to limited use of financial technology in the Arab countries, including low institutional support, electronic risks, weak competitiveness in the business environment, and low quality of the Internet...etc.

Recommendations:

1- In technology Finance with a picture General affected factors many that must From observed and strive to me developed to upgrade That technology Of which

- development mechanisms that managed individuals From Access to me Services Finance.
- Raise the level of financial education among the members of society in a way Proportional to With Progress technology Finance.

2- Work to strengthen partnerships and cooperation between Countries Arabic support financially And legislatively to be A starting point To develop technology Finance.

3- Corporate support emerging and cutting edge On Limit whether and save Environment appropriate to it to contribute in a development technology Finance and increasing the volume of investments directed towards the financial technology sector.

4- Work on developing and encouraging talents by establishing initiatives international It was be Competitions And events to accelerate technical whether On level The state the one or What between universities scattered in a Countries Arabic From okay Create and generate innovations Finance New.

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