

**Technology of financial and technical information and its contribution to improving
the financial inclusion of the Iraqi banking sector for the period from
(2012-2018)**

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Abstract

Financial inclusion is of importance in the economic community, and its importance in achieving development and addressing poverty, Iraq seeks to promote financial services as needed in order to reach the goals of financial inclusion, and with the rapid and tremendous development of technology and the emergence of many innovative services that have contributed to the management and organization of financial sector operations Facilitating access to financial services, technology has taken an increasing role in accelerating financial inclusion.

Therefore, this study aims to know and demonstrate the extent of the contribution of financial and technical information technology to enhancing financial inclusion by addressing the concept of financial technology, its characteristics and components.

Key words: Financial Information Technology, Financial inclusion

first: Research methodology and some previous studies

1- research problem:

It is represented by the following question:

1-A statement as to whether there is an impact of the technology of financial and technical information on the Iraqi banking system.

2-The extent of the contribution of financial and technical information technology to the development of the banking sector mechanism.

2-Research objectives:

The research aims to achieve the following:

1-Identify the implications of financial and technical information technology on financial inclusion.

2-Study the mechanisms, tools and modern technologies in the field of increasing banking services through expanding financial inclusion.

3-Knowing the reality of the financial and technical information technology infrastructure in Iraqi banks and identifying the obstacles and challenges facing the electronic banking environment.

3- The importance of research:

Its importance is as follows:

1-The importance of financial and technical information technology and its contribution to developing the mechanism of action of the Iraqi banking sector and increasing banking services.

2-Shedding light on its importance as a reliable resource for the banking sector, standing up to competition and enhancing performance efficiency.

4- the research hypothesis:

The research hypothesis is centered on the fact that the use of financial and technical information technology leads to the development of the mechanism of work in the Iraqi banking sector through the expansion of financial inclusion indicators.

5- Research methodology:

In his study, the researcher adopted the descriptive analytical method by studying the theoretical side, and analyzing data and indicators of financial inclusion available in this field.

Introduction

Financial and technical information technology is one of the most important forms of scientific developments that occurred in the late twentieth century, as it was the basic starting point for the future of banking institutions, as Iraqi banks had to keep pace with the developments taking place, and to be consistent in providing services to society, but Iraq went through various stages and factors. Some of them are economic, political and environmental, which made it late, as these factors had a severe impact on the Iraqi banking sector represented by the slow electronic dealings in Iraqi banks, as the application of technology and financial techniques in the banking sector was around the year 2008, so the research included three approaches, the first approach, research methodology and previous studies, As for the second curriculum, it included the theoretical aspect, which was represented by financial and technical information technology, and financial inclusion, while the third topic focused on the applied side of the research.

The second topic: the theoretical side

First: modern financial and technical information technology

A- Its concept

The word technology is one of the terms that encounters a lot of interpretation and confusion, as some use it as a synonym for technology (technologie). While some see a clear difference between them, as the origin of the technology goes back to the Greek as it consists of two syllables: (techno, meaning industrial operation, and the second (logie), which means science, so it is in one word called industrial operating science (Muhammad Al-Sayrafi, 2009, p.13). Who knows financial technology as the tools and techniques used by information systems to implement computer activities of various kinds, including the physical components of the computer, as it includes computer programs such as operating systems, software applications, and storage technology (Saad Ghaleb Yassin, 2009: p. 44). It is the use of modern technologies that provide a competitive advantage for institutions and companies in the field of competition in the market, and the delivery of information, storing and processing it for the purpose of making rational decisions. (Atallah Ahmad Sweilam Al-Husban, 2009: p.16).

The provision and processing of information to the user, as this new science includes techniques related to computer programs and devices used for processing.

(Meihami.B,Varmaghani.Zetmeihami,2014,p831)

Through the previous definitions, we can define financial and technical information technology as innovations that seek to compete with traditional financial methods in providing financial services, as it is considered an emerging industry and uses technology to improve activities in the field of finance, and an example of this technology is the use of smart phones in banking and investment services Via mobile phone.

Characteristics of modern financial and technical information technology

Financial and technical information technology has several characteristics (Aziza Abdul Rahman Al-Atbi, 2010: p. 21), including:

1-Reducing time: Technology makes all places electronically contiguous.

2-Downsizing: The storage methods that accommodate them allow for an enormous volume of stored information that can be easily accessed.

3-Sharing intellectual tasks with the machine: interaction and dialogue occur between the researcher and the system.

4-Low cost and speed at the same time: this is the pace of development of financial information technology products.

5-Global and global: It is the environment in which technology is active, as information takes complex and different paths that are spread across the world, as it allows capital to flow electronically easily in commercial transactions that are driven by information capital as it is allowed to overcome the barrier of place and move across international borders.

Components of financial and technical information technology

1-The human elemen

Almost all of the specialists in the field of information technology agreed on the importance of the human element in managing and operating the system because it outweighs the importance of material requirements to the point that most of the system failures are caused by the failure of the human element (Al-Sudani, 2014: 45). As the human elements represent all human cadres of officials, managers, heads of departments and people who use their energies and employ them with the aim of investing in the potential capabilities that they do to implement the required work using technology (Al Murad, 2013: 20).

In another definition, they are the workers who use the system, including accountants, engineers, sales representatives and managers, that is, the workers who operate, adjust and prepare the system, and they are designers and analysts for those systems and programmers, in addition to those working in administrative and specialized functions in managing information technology (Abdel-Wahab, 2005: 8).

2-Computer, software and database

A computer is defined as a group of electronic units that receive data, process it, and then store it.

As for software, it is defined as a link between the computer and its devices, meaning that it is a series of instructions that inform the computer about how to perform a specific task.

As for the database, it serves as a store for all the data of interest to the users of the information system (Muhammad Al-Sayrafi, 2009: p. 32)

3-Communications and networks

They are defined as joint processes that help understanding between two individuals or between individuals or groups aimed at reaching a common understanding (2003: 24, Geroge, Gones). Or it is the process that is concerned with the transfer or exchange of ideas and feelings between the parties to the communication process, and this leads to the achievement of the goals, or as some describe them, the process through which individuals try to build common meanings through messages that symbolize a specific symbol. As for communications, it is defined as the use of software technology and networks of all kinds, through which information and ideas are transferred and exchanged between the parties to the communication process in a way that leads to the achievement of its goals. In other words, it is the process through which individuals seek to form common meanings through symbolic messages (Al-Azzawi, 2009: 20).

Second: financial inclusion

First: the concept of financial inclusion:

The Group of Twenty (G20) defined financial inclusion as the measures taken by the regulatory bodies to promote and reach all segments of society, including marginalized and affordable groups, for services and products that suit their needs and provided to them in a transparent and fair manner and at low costs (Mock Shanbi, Belkhadr Al-Eid, Research Journal, Issue 2, 2018 106), and the growing international interest in financial inclusion, represented by the commitment of various states and governments to achieve financial inclusion, by implementing policies aimed at facilitating and enhancing the access of all segments of society to financial services that enable them to use them properly (Abdullah et al., 2016: 18). Financial inclusion is defined as providing financial and banking services in a timely manner and at low cost to low-income and disadvantaged segments of society (Abu Daih, 2018: 18), and banking services are considered in their nature a public service, and it is imperative that the main objective of the public policy is to provide basic financial services and means Payment of all residents without discrimination (Noreen, 2015: 5).

Second: The objectives of financial inclusion:

Financial inclusion has several goals, the most prominent of which is the following (Abu Daih, 2016: 22).

1-Financial inclusion improves by enhancing the access of all segments of society to financial and banking services.

2-Facilitate access to sources of financing, the aim of which is to improve the living conditions of citizens, especially the poor.

3-Financial inclusion helps boost entrepreneurship and economic growth.

4-Financial inclusion enables very small companies to invest, expand and grow.

5-Financial inclusion helps reduce poverty levels and achieve social welfare.

6-It helps people to raise awareness and educate consumers of financial services and products, which deepens their knowledge of their rights and duties, in order to protect their rights and interests.

7-It improves the increase of the financial capabilities of the target groups in the society through the development of financial and banking culture among the youth and the unemployed.

Third: Indicators for measuring financial inclusion:

The leaders of the Group of Twenty (G20) agreed with the recommendation of the Global Partnership on a set of indicators that measured three main and important dimensions of financial inclusion (Abu Daih, 2016: 33).

1-Obtaining financial services .

2-Using financial services .

3-Quality of financial services .

The weakness of financial inclusion indicators has negative and dangerous implications for the efficiency of the economy and leads to a misallocation of resources and opportunities, which leads to the difficulty of achieving the goals of economic development, which may result from this weakness of excluding a large sector of society from effective participation in economic activity and continuing reliance on means Informal financing and transactions, and this leads to depriving the lower income classes of the legal and supervisory protection that dealers in the formal finance markets enjoy.

The third topic: indicators of financial inclusion in the Iraqi banking sector

Financial inclusion: This indicator is considered one of the indicators that reflect the role of the Central Bank of Iraq in developing the banking sector as it shows the size of the banking sector by analyzing some indicators to measure financial inclusion, including:

1-Index of banking penetration and banking density

The banking spread and banking density in Iraq is still below the required level, despite the Central Bank of Iraq encouraging banks to open branches for them all over Iraq, and this indicates the banking sector's need for more measures and work by the Iraqi Central Bank to suit the growing population of Iraq. Explain this through the table below.

Table No (1)

Index of banking penetration and banking density in Iraq for the period (2014-2018)

Banking (4) spread	Banking density (3)	Growth rate	Number of bank branches (2)	population (1) (Thousand people)	the years
2.33	42.86	*	840	36,004	2014
2.31	43.24	2.58	854	36,933	2015
2.29	43.74	2.57	866	37,883	2016
2.27	44.05	-1.96	843	37,140	2017
2.26	44.16	2.85	865	38,200	2018

Source: Prepared by the researcher based on the annual report of the financial stability of the Central Bank of Iraq.

1-is a baseline year 2014.

2-Banking density = population / number of branches .

3-Banking spread = number of branches / population * 100 .

4-Growth rate = current year - previous year / previous year * 100.

It is evident from Table No. (1) that banking prevalence and banking density continue to decline in Iraq despite the slight increase and has not changed much in the past years. This decrease generally reflects the lack of sufficient number of bank branches compared to the increase in the population, which is increasing continuously. Annually, in 2018, the banking density increased slightly, reaching (44.16) after it was in (2017) (44.05), and this was accompanied by a slight or slight decrease in banking penetration, as it was in (2017) (2.27) and became (2.26) in 2018. This slight change in the two years above, despite the increase in the number of branches, came as a result of the large increase in the population of Iraq, meaning that Iraq needs more banking branches in order for banking services to reach the largest possible number of the population, and based on this indicator, banking services are more widespread. When this percentage increases. As for the index of banking density, which was measured by the number of population (one thousand people) for each branch, it also did not change much in Iraq for the period (from 2014 to 2018), it remained conservative at the rate of more than (30) thousand people per branch.

2-The spread of electronic payment services (ATM)

The Central Bank of Iraq is working on the spread of electronic payment services widely, and working to transfer financial transactions from dealing in cash to the use of electronic payment tools, and getting rid of dealing in cash gradually.

Table No. (2) shows the development of electronic services activity in the Iraqi banking system represented by electronic cards.

Table No. (2)

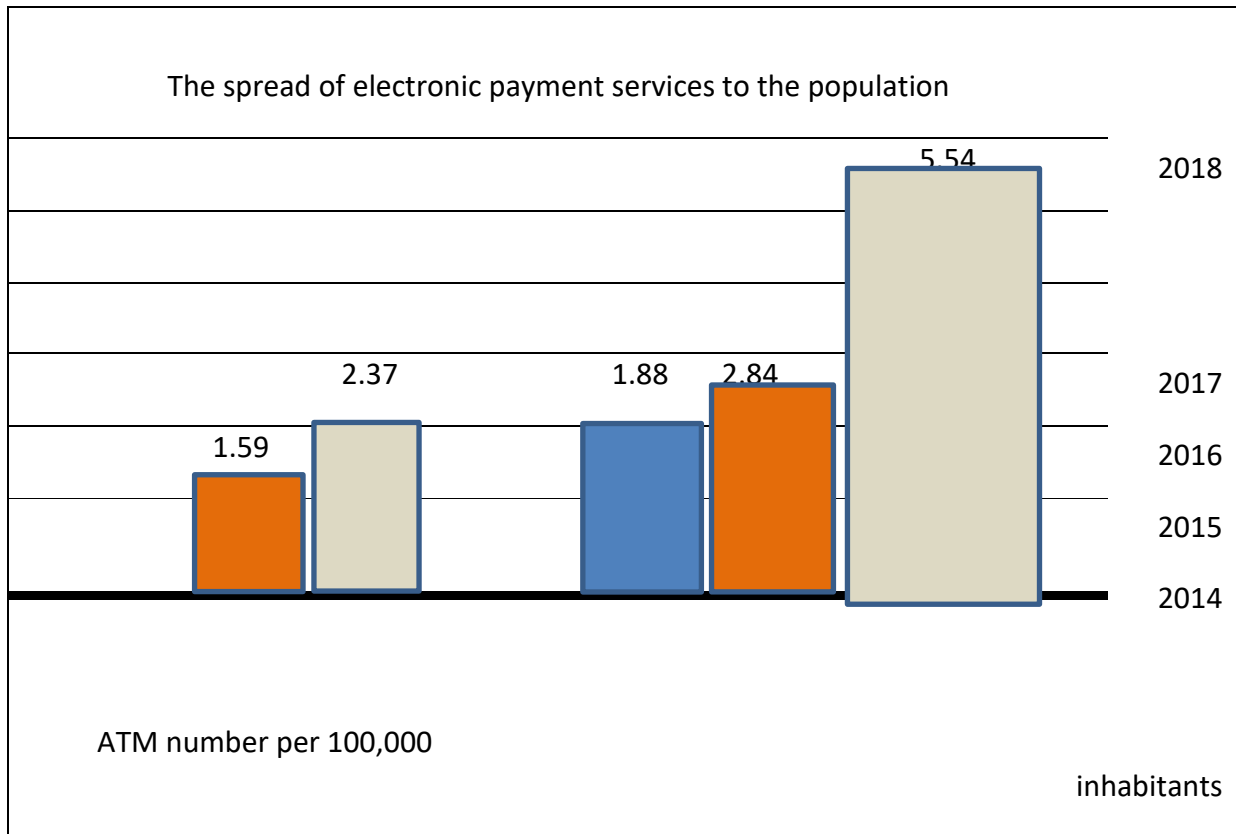
Banking spread of automated teller machines in Iraq for the period (2014-2018)

Rate	Number of payment points (Qi Card)	growth rate	ATM number	Number of adults (thousand people)	the years
1.5	30000	-	337	21926	2014
2.6	30000	%72.10	580	22082	2015
2.9	30000	%13.79	660	22654	2016
1.3	30000	%26.75	335	23020	2017
2.8	50000	%12.99	575	23725	2018

Source: Prepared by the researcher based on the annual report of the financial stability of the Central Bank of Iraq.

*The banking prevalence rate for automatic teller machines .

Figure No. (3)



Source: Prepared by the researcher based on the annual statistical bulletin / Central Bank of Iraq.

The following figure represents the spread of electronic payment services to the population for the period (2014-2018).

The banking penetration rate of automatic withdrawal machines (ATM) decreased in 2014 to (337) due to the events of the terrorist organization ISIS in Mosul Governorate and some regions, with a decrease of (27.8%), then the number of devices increased in 2015 to (580) devices, i.e. a growth rate of 72% This led to an increase in the banking penetration rate to (2.6%), and the number of devices increased in 2016 to (660) devices, with a growth rate of (13.7%), and we also notice an increase in the number of ATMs in 2017 by (1.36) to an increase of (2.08). In 2018, but this percentage is still low and does not meet the desired goal.

With regard to the spread of electronic payment services to the population of Iraq per (100,000) people, it is also considered low despite its rise in 2018, as the ratio of the number of ATM to the population (100,000) people reached (2.37), but this prevalence is still in payment services.

The electronic system is very simple, and the reason is that most commercial markets deal with cash because this culture is not widespread, and that ATM is still limited to malls, commercial centers, some government departments and some bank branch headquarters, as there are no devices spread in public areas, and the reason is due to the security challenges. But with the continued improvement in security and the efforts of the Central Bank of Iraq to encourage banks to open the largest possible number of automatic teller machines, it is expected that this percentage will increase in the coming period.

Conclusions

1-Effective use of financial and technical information technology enables banks to reach customers in the country.

2- Financial inclusion encourages the Iraqi banking sector to expand its branches, increase the intensity of its activity, and improve its financial performance.

3-The number of ATMs is still weak and insignificant, and the number of adults in Iraq is disproportionate.

4-The low percentage of financial inclusion in Iraq is represented by the exclusion of a large number of members of society and its various institutions in general.

5-The financial information technology and modern technology had a clear impact on expanding the base of financial inclusion.

6-Financial inclusion rates in Iraq are still weak compared to other countries of the world.

7-Financial technology is characterized by being faster, cheaper, easier, and can be accessed by a larger number.

Recommendations

1-Improving the business climate in Iraq through economic reforms that improve the work environment to support domestic and foreign investment, to ensure stability in the financial system.

2-Developing the financial infrastructure that is strong and flexible for digitization, supporting the geographical spread of banks and financial institutions, and electronic payment and settlement systems and means.

3-Encouraging the Iraqi banking sector to increase the number of banking branches and improve the banking density, which is currently (30) thousand people per bank and make one bank for every eight thousand people to provide banking services to the largest number of society.

4-The necessity of training and qualifying workers to use modern financial technology and employ it in an optimal manner, which achieves the inclusion of different segments of society with banking services.

5-The Iraqi banking sector should focus on adopting a new philosophy that enables the bank to provide advanced financial services at low cost.

6-The necessity of making use of the modern experiences of international and international banks that have a long history in the financial inclusion of the various segments and benefit from them.

7-The need to modernize and develop Internet networks to provide financial and banking services to customers throughout the day and anywhere in the country.

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