

## ELECTRONIC DEVELOPMENTS AND THEIR IMPACT ON BANKING

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### ABSTRACT

The rapid technological developments in the fields of information technology, the Internet and communication networks have led to a qualitative leap in all aspects of life and all business sectors, especially the service sector, which represents the axis of providing the banking sector in which the country's economy and its institutions are essentially presented, this sector that keeps pace with everything new in a distinctive and modern package of services that intersect and meet with their desires and expectations, especially in the case of strong and sustainable competition between banks, which contributes to the development of the work of the banking sector as a whole.

**Keywords:** Technology, Erbil Governorate, banking, commercial, electronic services

### 1. Introduction

#### 1.1 Study problem:

The revolution of communications and informatics at the present time, has made radical changes in the nature of work in the effectiveness of the banking and financial sectors, this sector is developed and affected quickly and responds to new and external influences to the work of huge banking groups, returning to the classic role in banks that were founded on the demand for deposits and giving bank credit, went with an aspiring perspective to give all banking and financial services in a sophisticated and multiple way, since it depends on what technology has produced and a coup Information from several methods and the use of modern and advanced means worked to dispense with information technology. The lack of cultural technological and financial awareness of some individuals, especially the poor, stands as an obstacle to their access to banking services provided by commercial banks, and therefore we can study the problem and identify it from some of the following main questions (Can banking technologies have an impact on the quality of banking services?) The following questions are branched from it:

1. Is there a significant correlation between banking technologies and improving the quality of banking service?
2. Is there an associative moral impact of banking technologies and the quality of banking services?

#### 2.1 Importance of the study:

Banking technologies are of particular importance to modern banks, as environmental difficulty, great competition, and the evolving change and speed in customer requests and desires have prompted organizations to improve their banking technologies to meet their ambitions to compete and survive. The importance of the existing study stems from the fact that it went to two main variables: banking technologies, and the quality of banking service, these are considered the two variables have a significant impact on providing the best possible banking services. Which increases the ability of these banks to attract the largest gathering of many customers, in order to make the best returns achieved, the importance of the study is reflected in the following

1. Know the impact of technological advances in improving the delivery of banking services
2. The extent to which banking technologies contribute to the quality of banking services
1. The availability of the infrastructure required to provide electronic banking services

### 3.1 Study Methodology:

The study relied on the descriptive and analytical approaches as a method in addressing the subject, due to their appropriateness in researching societal factors, created data on the existence of phenomenological variables that brought out the causes and results of their analyzers, the study went to the reasons for the effects that appeared on them, which came out with the results and recommendations of the conclusions.

## 2. The emergence of electronic banks:

The practical revolution and rapid development in the field of electronics, automated accounts and computers during the current century have led to a qualitative leap in the field of banking, which led to allowing bank customers to conduct banking operations with modern mechanisms, keeping pace with the development in the field of information technology and the continuous development in the field of banking technology.

The emergence of electronic banks dates back to the beginning of the eighties, with the emergence of electronic cash, either the use of cards was at the beginning of the last century in France in the form of cardboard cards, used in the public phone, and metal cards used at the level of mail in the United States of America, and in (1958) issued (American Express) the first plastic card spread widely, and then eight banks issued a card (American Bank) in (1968) to turn into a visa network In the same year, the Blue Card was issued by six French banks, and in 1968, France Telecom provided public telephones with memory card readers (Carte Memoire) to become in (1992) all bank cards (Carte Puce) cards carrying personal data of the holder, and during the mid-seventies the first electronic bank appeared in the United States of America, **A distinction can be made between two types of banks, both of which use electronic exchange technology (Zaidi, 2013, 3):**

1. **Virtual banks (Internet banks):** Generate profits up to six times that of a regular bank.
2. **Terrestrial banks:** It means banks that provide traditional services and electronic banking services, and **the reason for the spread of electronic banks was:**

1. The importance and role of mediation due to the increasing movement of cash and financial flows in financial trades.
2. The development of communication technology such as (website).

### 1.2 The concept of electronic banks:

For the purpose of clarifying the concept of the bank in an appropriate manner, it will be addressed from three aspects, namely the linguistic aspect, the legal aspect, the functional aspect, and then the concept of electronic banks will be addressed.

**The concept of the bank linguistically: The origin of the word (bank)** in the Arabic language is derived from (exchange) any preference of the dirham on the dirham and the dinar on the dinar because each of them is disbursed from the value of its owner, and exchange: selling gold with silver and it is from that because it goes away from the essence to the essence. The word (bank) is sometimes used as a synonym for the word (bank), knowing that the word (bank) is an English word (bank) and is mainly derived from the Italian word Banco)) which means table or table, as money changers in the Italian region of Lombardy used these tables or tables while practicing the profession of banking (Al-Azzawi, 2012, 5).

**The concept of the bank from a legal point of view:** The definition of a bank legally varies according to the laws and regulations governing the work of banks from one country to another, in Iraq, **the Iraqi legislator defined a bank** as "every natural or legal person who holds a license or permit to conduct banking business under the Iraqi Banking Law of (2004), including government companies that were established in accordance with the Iraqi Companies Law No. 22 of (1997), as amended.

**Kaif defined electronic banking** as electronic outlets that provide various banking services without interruption and without human labor (Kaif, 2012, 113).

**Has defined (Masada Wi) electronic banks as Internet banks or web banks**, despite their relationship with the personal computer, they did not take all their features, and their content from the concept of the personal computer bank advanced reference to it The software that runs the electronic bank is not present in the customer's computer system and the benefit of that is great, the bank or software provider is not obliged to send, new and advanced versions of software to the customer (Masada Wi, 2008, 227).

**Al-Ashrafi defined electronic banks** as those banks that provide their services electronically remotely through the bank's internal information network, where there is general agreement that electronic banks achieve many advantages for both banks and customers (Al-Serafim, 2007, 67).

**Zaidi defined electronic banks as virtual banks that have websites on the Internet to provide the same services as the bank's website of** withdrawal, payment and transfer without the customer moving to it, as it facilitates customers to access the bank's website directly with a public subscription via the Internet and conduct various transactions on the basis that the bank provides the customer's personal computer with a personal software package for a fee or free of charge, such as the Microsoft Money package. 2016, 9).

**Mohammed defined electronic banking as focusing the concept of electronic banking on the relationship between the customer and the bank electronically and how to manage his**

accounts or complete his financial transactions related to the bank through the home, office or street anywhere and at any time, so he sees financial services at all times and everywhere (Mohammed, 2015, 138).

The researcher sees a **comprehensive concept of electronic banks**: Electronic banks is to conduct banking operations electronically, which is the Internet, one of the most important forms, and thus they are virtual banks that create websites on the Internet to provide the same services as the bank's website at the lowest cost and at a specific time.

## **2.2 Types of electronic banks:**

Due to the existence of the Internet, its spread, the increase of its users, and the tremendous development of computer and communication technologies, which allows a comprehensive exchange of information within the policy, communication plans, data sequence and the concept of information via the Internet, and This has been called the spread of the Internet in the field of e-commerce activities within electronic banks, which have several classifications, as follows:

### **1. Electronic banking through the personal computer:**

These operations are carried out via the Internet through the personal computer, as the bank provides its customers with special programs that allow them to conduct secure electronic financial operations and transactions, as well as view their accounts and obtain private and important information, as well as know the number of withdrawals from their personal debit cards, as electronic banking through the personal computer is a form of Internet banking services that Enables customers to. Execution of Egyptian transactions In it through a computer via the server (Modem), and in most. Sir offers Through a personal computer Present The bank provides the customer with a measurement and financial program that allows him to conduct his financial transactions from the computer at his home (Zaidi, 2016, 5-6).

### **1. Phone Banking:**

Despite the novelty of the mobile banking system, it has been proven that it achieves profits for a bank that may reach 6 times the profits of the average bank, because this system uses information technology to improve the bank's relationships, and expand the scope of its dealings with customers by dealing with the personal data that the bank has about the customer in a smart way to market its services (Abdul Rahim, 2011, 38).

### **1. Internet Banks:**

Internet banks in their sense Talk is not just a branch of an existing bank that offers Services. Financial, but also a site Financial and commercial. Comprehensive administrative consultant for him, the presence of. Independent on the line, if. The inability of the bank itself to perform a service Of these, the solution would be to resort to Linked sites that are Contracted with her To carry out services. Through the same website as the bank (Doghouse, 2017, 114).

Online banking services are dealt with through a mechanism that includes a number of sequential steps, namely: (Zaidi, 2016, 6)

1. The customer visits the bank's website by entering the bank's address.
2. The customer answers a set of well-known questions in order to verify his identity, and in this step the personal transaction number is entered.
3. To work with the account inquiry service, the customer chooses the check called Account.
4. To obtain the transfer service, the customer chooses the name Cash Transfer.
5. **Atm:**

It is an electronic device whose mission is to do Some financial operations are Electronic, in which money is kept automatically and With a specific amount of currencies to facilitate cash withdrawals, this device carries a password that enables the customer to obtain some banking services, such as requesting a network book, in order to reduce effort and obtain these services even during non-official working hours.

Or is that now Lat that can be published in the Alv aries places, whether by wall or shape Independent and be Connected to the bank's computer network, the customer will Using a plastic card or smart card to get On the cheek. Various died (Mansouri and Abdul Malik, 2014, 27).

### 2.2.2 The importance of electronic banks:

Electronic transactions are one of the most important basic studies in the digital economy, and their importance is evident through the effective and significant impact of the bank's electronic business, as it settles its activities and financial services via the Internet, which achieves many benefits, the most important of which are the following (Qaboos, 2009, 6):

1. Sale. Expenses that. Borne by the bank, make the cost of establishing the bank's website via the bank Internet to compare with the cost of establishing a new branch of the bank and the required buildings, equipment and administrative efficiency, in addition to the marketing of the bank for a service from its location on the other Internet helps to have our advantage It enhances its competitive position and qualifies it to the level of commercial transactions Universality.
2. To guide international banks Towards the internet, and what it features Its competitive capabilities Small banks are required The need to rise to the level These challenges, accordingly the customers. Comparison of banking services To choose the most suitable and thus be. The internet is a strong competition factor in attracting customers.
3. Contribute. The Internet in introducing banks, and promotion For banking services. In a media manner, which contributes to improving the quality of banking services provided.
4. That seer Electronic roll performs to conduct the transaction between Banks, building Directly and provide more. Job and investment opportunities Which helps success and survival in the banking market.
1. Use a The Internet contributes to Enhancing intellectual capital and information technology development And take advantage of innovations. new ones that have an impact on the business of banks.

### 3.2.2 Advantages of electronic banks:

1. **Access to a wider base of customers:** Electronic banks are characterized by their ability to reach a wide base of customers without being restricted to a specific place or time, and allow them to request the service at any time and throughout the week, which provides comfort to the customer, in addition to the confidentiality of transactions that distinguish these banks increases customer confidence in them (Rady, 2001, 31).
2. **Providing complete and new banking services:** Electronic banks provide all traditional banking services, along with more advanced services via the Internet that distinguish them from traditional performance, such as (Mansouri and Abdel Malik, 2014, 63):
  1. A simple form of electronic newsletter, advertising for banking services.
  2. Providing customers with the method of verifying their balances with the bank.
  3. Provide the method of payment of customers for the bills drawn on them electronically.
  4. How to manage portfolios (stocks and bonds) for clients.
  5. How to transfer money between different customer accounts.
6. **Cost reduction:** One of the most important features of electronic banks is that the costs of providing the service are low compared to regular banks, and therefore reducing the cost, and improving its quality are factors that attract the customer, in an estimated study of the cost of services provided through different channels, it was found that the cost of providing a service through the bank's branch reaches 295 units, while it is less than if it is provided through the Internet at a cost of 4 units and reaches one cost through the ATM (Al-Ani, 2007 , 178).
7. **Increasing the efficiency of electronic banks: With the expansion of the Internet, and the speed of completion of business than traditional banks,** it has become easier for the customer to contact the bank, via the Internet, which performs the procedures that end in small parts of one minute with correct performance and high efficiency than if the customer moved to the bank's headquarters personally and met one of his employees who are usually busy with him (Taher and Jumia, 2016, 28).
  1. **Card services:** Electronic banks provide distinguished services, for businessmen and customers with a prestigious level, such as Samba Diamond and Gold services provided to a specific category of customers in the form of credit cards and a special discount, and these cards include the Sony card, which includes free services around the clock with a special number, business centers service, exemption from banking fees and commissions, in addition to many other special services (Qandil, 2004 ,88).

#### 4.2.2 Risks of electronic banks:

With the development of industry Banking. Banking has become, Risky diversification of activities, increased reliance on technology Financial services, emancipation of limitations and factors Many others, became business carried out by banks They are complex and to a degree It has never been seen before, but this is a reflection of what it produces The current economy of increasing rates Change in life Economic and high rates. Interdependence between sector units In addition to the overlap between the economic sectors, banks face a fate beset by sudden challenges sometimes that arise whenever they are renewed The needs of the Economists have changed their habits and whenever. The intertwining of different sectors is

growing on, both domestically and internationally, and is known. About the banking sector that it is more integrated and frictional than others, and this also makes it more vulnerable than others to risks. It should be noted, pointed out that electronic banks are characterized by arrangement For risks different from imitation banks In terms of importance, so that operational risks account for a large share in the total amount of risk of the institution, **and the following is a brief presentation of the risks to which banks are exposed from electronic banking:**

1. **Operational risk: losses due** to poor adaptation or poor procedures, losses due to worker negligence or weak internal systems, or losses due to external events. In the content of the European Directive on the adequacy of the bank's capital, the definition of operational risk also includes legal risks except for strategy and goodwill risks, while the Basel Committee excludes strategic risks only in its definition of this category. (Wadi, 2008, 11).
2. **Reputational risk:** The possibility of a decrease in the bank's revenue or customer base (market share) as a result of negative rumors circulating about the bank and its activities, or as a result of facts showing that the bank is not doing it or all its business efficiently. (Mansouri and Abdel Malik, 2014, 69).
1. **Legal risks: The business of electronic banking contains a high degree of legal risks for banks, and** you find that the most prominent idea currently being put forward is that electronic banks can contribute to the process of money laundering and terrorist financing, and all this is due to the confidentiality provided by technology to customers, which necessitated thinking about the development of a legal and legislative framework that fights illegal transactions of electronic banking means, as well as international coordination and integration to clamp down on illegal use and the establishment of a special agency for monitoring (Al-Ani, 2007, 151).
1. **Other risks:** Similar to traditional banks, electronic banks are also exposed to credit risk, liquidity risk and market risk resulting from conducting electronic banking transactions, which vary in degree depending on the type of business, such as: recovery risk under credit risk, exchange rate fluctuations in international e-commerce, under market risk, risk of incompatibility of calculated assets and liabilities of electronic banking, under liquidity risk, and risks arising from the assumption of purchases Bad leads to incorrect decision-making or implementation of guidelines and failure to adapt to new changes in the banking environment in the context of strategic risk (Khalil and Tibia, 2009, 6-7).

#### **5.2.2 Functions of electronic banks:**

Electronic banks have many functions, and they can be summarized as follows (Qaboos, 2009, 3-4):

1. **Electronic money transfer: Electronic banks work** within the international information network, by participating in the network of electronic trading computers for a set of accounting entries that take place between the creditor and the debtor in various banks The electronic money transfer system aims to facilitate, accelerate and settle payments between banks, and this results in providing better services to customers, through this banking process

Banks have a competitive advantage in global markets through electronic work that allows banks to settle immediately for funds through their current accounts in central banks.

2. **Card service:** Electronic banks provide distinguished services to customers, with a prestigious level, such as Visa and MasterCard global services, as there are several companies that serve electronic payment cards, the most famous of which are Visa and Mastercard, which grant licenses to banks around the world to issue cards, and these cards are issued by banks within certain methods and systems, including prepaid and post-payment.
3. **Direct banking system with the customer:** A group of major international banks have begun to apply direct banking systems with customers from the computer located at home or office, and through this service the customer can be able to carry out routine operations such as transferring money from one account to another.
1. **Home phone:** This service was established with the development of banking services in the world, and this service, i.e., phone banking, leads to avoiding customer queues in inquiring about some banking services and this service lasts 24 hours a day.
1. **Electronic clearing:** Banker Automated Clearing Services was established in (1960), through which money is transferred from customer accounts to the accounts of other persons or bodies in any branch and to any bank in another country, such as paying monthly salaries from the employer's account to the employees' account or paying monthly pensions from the account of the Insurance and Pensions Authority to the beneficiaries, or paying periodic obligations from the customer's account to the Electricity, Gas Authority, Bank payments are also settled through the Real Time Settlement System (RTGS) within the electronic clearing services, and this system allows in a secure electronic way to transfer and transfer amounts of money from one bank account to another easily, where payments are made on the same day and at the same value of the day without cancellation or delay (Mansouri and Abdel Malik, 2014, 55).

### 3.2 Types of electronic banks:

The development of information technology and the use of modern means of communication paved the way for the emergence of remote banking services to meet the needs of the bank's customers, these services are carried out through the transfer of information and display through BIA stations Nat or device. Private reception or on a screen Regular or color TV and even through a network World phones Friendly at the request of the customer and in exchange for a special subscription sometimes, according to global studies on the identification of the American and European supervisory bodies, and therefore **there are three basic types of electronic banking website on the Internet, which are (Zaidi, 2016, 10):**

#### 1. Informational Site:

It is the basic level of electric banks Intention, or what can be called a sound Minimum electrician activity The banker, through which the bank provides information Matt for his programs, products and banking services, and this includes two types of information sites,



namely (Wadi, 2008, 10):

1. Basic information sites that provide the level of information about the products and services of banks provided to its customers.
1. Electronic information sites, which enable customers to view general information from the concerned financial institutions and the services they provide.

### 1. **Contact Location:**

Allows The site is in some kind of. Exchange Communication between the bank and its customers, such as mail Electronic. And fill out applications or forms on the line or amend. Restrictions information and calculations (Abdel Hamid, 2010, 297).

### 2. **Location Transactions:**

It can be practiced through it The bank carries out its activities in an electronic environment, and the customer can carry out most of his transactions electronically paying the value of. Incoming invoices cash flows, and all procedure Information services, whether inside or outside the bank (Hourie, 2013, 13).

Reviewing the reality of electronic work, we find that the majority of banks in the world have in one way or another information pages restricted by promotional materials, and most pages tend to provide means of interactive communication with customers used, as these sites mean that the customer can conduct the banking service remotely and online, and perhaps for this reason we stick to the proverb that we will explain later that electronic banks are the ones that fall within the scope of the third type of advanced types. (Hourie, 2013, 14).

#### 1.3.2 Requirements for electronic banks:

**For the success of electronic banks in the practice of banking, there must be requirements for these banks, which are as follows:**

### 1. **Technical Infrastructure:**

Prepare the structure. Technical infrastructure is at the forefront of electronic banking requirements, and In general, any technical and infrastructure projects Technology for electronic banking is not and cannot be n Isolated from the infrastructure and technology Information for any country, so that Electronic banking lives in an environment E-business and Trade Electronic and the main requirement to ensure electronic business Successful as well as ensuring a safe and smooth entry into the information age, and the integrity of the communication market policy, specifically the price policy for Internet connectivity services and its durability, so that the network and its business do not live without increasing the number of subscribers who are hindered by the cost and quality of communication and these elements represent the most important challenge to the electronic banking business (Masada Wi, 2008, 232).

### 1. **Modern technology for banking operations:**

This element takes precedence over many elements of the requirements of building banks and their excellence because efforts and waiting for others are incompatible with seizing opportunities for excellence (Zaidi, 2013, 13).

It is considered The Egyptian device In it is the most informed of changes, rapid developments. This is the result of the high severity Competition between its components that invokes Keep pace with this development, and expand In the use of trendy and increased tools The size of its investments in systems technologies information and communication technology. "In order for banks to be able to implement their activities and achieve their goals efficiently and effectively, they must develop their information systems appropriately so that Be able to achieve. The following characteristics" (Zaidi, 2013, 13):

1. Modernity and keeping pace with rapid developments, resulting from creativity Continuous technological in The field of technology and technology Information and its Banking.
2. Sufficiency and the ability to absorb Various needs and meet them.
3. Make sure From that of the applications of information technology systems All inclusive Banking operations.
4. Ease. Usage and speed In accomplishment Operations.
5. Ability to Achieve a high score. of accuracy and reliability in the information. that you offer.

#### 1. **Human cadres qualified for electronic banking:**

As availability Qualified and capable human cadres to perform new work It relies on modern technology It is one of the necessary conditions to ensure the transition to electronic banking, this requires the qualification and training of communication For cadres in different Technical, financial and marketing fields Consulting and management positions (Fahad, 2011, 10).

In addition, it requires the construction of a structure. High and strong underneath and Integrated Information Technology. Building a trained and specialized human base with specifications Suitable qualification capable of using technology. Information, software, equipment and communications, in order to ensure that employees carry out their responsibilities coherently. Improve the effectiveness and productivity of operations and enhance their outputs, taking into account the following (Taher & Jumia, 2016, 17):

1. Selecting individuals who are employed to work according to multiple criteria, including certification, experience, skills related to understanding modern technological methods, and ability to process information.
2. Qualifying and training the existing employees on all modern technological means in a way that enhances their ability and efficiency in completing their work.
3. Develop the necessary software on how to deal with customers and how to understand developments surrounding the market and competition.
4. Through software, monitor performance and try to improve it for the better, diagnose and address points of failure as quickly as possible.
5. Continuous training of employees on how to manage dialogue and deliberations in a way that helps enhance their capabilities.

1. Recourse Belote Experience and consulting offices International training in banking. on the latest use Banking systems.

## The end

## Conclusions

1. Banking technologies help significantly raise the quality of banking services in commercial banks
2. It was found that there is a statistically significant positive correlation between banking technologies by excluding them and the quality of banking services, because most cases of banking quality are confirmed to have a positive relationship with banking technologies.
1. There is a statistically significant positive impact between banking technologies and the quality of banking services at the macro level.
2. The main point in the quality of banking services is to help customers transfer and receive money from their accounts to other accounts in a short time and without resorting to the headquarters of their bank.

## Recommendations

1. Banks should pay attention to using more modern banking technologies to provide banking services to customers, because they play a wide role in the spread of banking services.
2. Paying wider attention to the quality of services provided by providing services of high quality acceptable to banks, with great interest in electronic knowledge at the same time due to its role and effectiveness in increasing the quality of electronic banking services.
3. Educating community members about the mechanism of using banking technology and opportunities to benefit from it through educational seminars, announcements, educational bulletins and external statements to their employees.
4. Open training courses on electronic banking services and how to use them and work to enhance the capabilities of employees in banks.
5. The government's interest in the use of electronic banking services by the public by providing security for customers' deposits with banks, as well as working to raise financial and banking awareness by the government to the public.

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