



T.C.

CANKIRI KARATEKIN UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

BUSINESS ADMINISTRATION DEPARTMENT

**THE IMPACT OF ELECTRONIC BANKING ON
CUSTOMER SATISFACTION IN IRAQ**

Esam Hussein Sarhan SARHAN

MASTER'S THESIS

Thesis Advisor

Assoc. Prof. Dr. Bilgehan TEKIN

February - 2023

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SCIENTIFIC ETHICS STATEMENT

What was written as a master's thesis *THE IMPACT OF ELECTRONIC BANKING ON CUSTOMER SATISFACTION IN IRAQ* is based on scientific ethics and academic rules meticulously including the process from the proposal stage to the conclusion of the study. All the information in the thesis, what I have obtained within the framework of tradition, what I have prepared in accordance with the thesis writing rules. I have cited every source I have used, directly or indirectly, in this work. The works I have benefited from are those shown in the bibliography.

I declare.

06/ 02 / 2023

Esam Hussein Sarhan SARHAN

THESIS ACCEPTANCE AND APPROVAL

ÇANKIRI KARATEKİN UNIVERSITY

TO THE DIRECTORATE OF THE INSTITUTE OF SOCIAL SCIENCES

This study titled The Impact Of Electronic Banking On Customer Satisfaction In Iraq prepared by Esam Hussein Sarhan SARHAN was found successful unanimously as a result of the thesis defense held on 6.2.2023 and was accepted as a Master's thesis in the Department of Business Administration by our jury.

THESIS JURY MEMBERS (Title, Name and Surname)

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Member : Assoc. Prof. Dr. Serkan TERZİ	Signature:
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APPROVAL

This Thesis has been accepted by the jury determined in the session of Çankırı Karatekin University Social Sciences Institute Administrative Board, dated/....../ 2022 and numbered

Prof. Dr. Coşkun POLAT

Director of the Institution

PREFACE

This thesis “THE IMPACT OF ELECTRONIC BANKING ON CUSTOMER SATISFACTION IN IRAQ” was written on the basis of customer satisfaction literature. It has been written to fulfill the graduation requirements of the Master Degree in business administration. The master program was conducted at the institute of social science, which is part of Cankiri Karatekin University.

/ / 2022

Esam Hussein Sarhan Sarhan

ABSTRACT

Thesis Title : The Impact of Electronic Banking on Customer Satisfaction in Iraq
Author of the Thesis: Esam Hussein Sarhan Sarhan
Supervisor : Assoc. Prof. Bilgehan Tekin
Department : Business Administration
Type of Thesis : Master's
Acceptance Date : 06/02/2023

The electronic services and technologies has been changing very fast. Banks services, specifically, the electronic banking (EB) are strongly related to these type of technologies. Recently, banks are providing different electronic services to their customers to achieve higher level of their satisfaction (CS). This study tests the effects of EB on CS in Iraqi Banks. The study is importance since it can help decision makers of Iraqi banks to understand the concepts EB and CS. It can also help them developing the EB in these banks to meet their customers' needs. This study was applied on eight banks in Iraq. These banks are working under high competition market, and concerning with satisfying their customers' needs. The population of the study was 700 employees. A random sample method was used to draw a sample, and the sample size used was 262. The questionnaire was used to collect data. Using SSPS 17.0 software, all the necessary statistical tests and analyses were performed. The results of this study showed that, in general, EB has a statistically positive and significant effect on the CS of Iraqi banks. The study concludes that EB in the sample banks in Iraq can enhance their CS. The study concludes that these results support the study hypotheses, and in line with the literature. The study suggests that the banks should keep applying strategies and programs to improve their EB, which by the end increases their CS.

Keywords: Banks, Satisfaction, Iraq

TURKISH ABSTRACT

Thesis Title : Irak'ta Elektronik Bankacılığın Müşteri Memnuniyetine Etkisi
Etkisi Author : Esam Hussein Sarhan SARHAN
Supervisor : Assoc. Prof. Dr. Bilgehan TEKİN
Department : İşletme
Thesis Type : Yüksek Lisans
Date : 06/02/2023

Elektronik hizmetler ve teknolojiler çok hızlı değişmektedir. Banka hizmetleri, özellikle elektronik bankacılık (EB), bu tür teknolojilerle güçlü bir şekilde ilişkilidir. Son zamanlarda bankalar müşterilerine daha yüksek memnuniyet düzeyine (CS) ulaşmak için farklı elektronik hizmetler sunmaktadır. Bu çalışma, Irak Bankalarında EB'nin CS üzerindeki etkilerini test etmektedir. Çalışma, Irak bankalarının karar vericilerinin EB ve CS kavramlarını anlamalarına yardımcı olabileceği için önemlidir. Ayrıca, müşterilerinin ihtiyaçlarını karşılamak için bu bankalarda EB'yi geliştirmelerine yardımcı olabilir. Bu çalışma Irak'ta sekiz banka üzerinde uygulanmıştır. Bu bankalar, yüksek rekabet piyasası altında çalışmakta ve müşterilerinin ihtiyaçlarını karşılamakla ilgilenmektedir. Araştırmanın evreni 700 çalışandı. Örneklem çekmek için rastgele örneklem yöntemi kullanılmış ve örneklem büyüklüğü 262'dir. Veri toplamak için anket kullanılmıştır. SPSS 17.0 yazılımı kullanılarak gerekli tüm istatistiksel testler ve analizler yapıldı. Bu çalışmanın sonuçları, genel olarak EB'nin Irak bankalarının CS'si üzerinde istatistiksel olarak olumlu ve anlamlı bir etkiye sahip olduğunu göstermiştir. Çalışma, Irak'taki örnek bankalardaki EB'nin CS'lerini geliştirebileceği sonucuna varıyor. Çalışma, bu sonuçların çalışma hipotezlerini desteklediği ve literatürle uyumlu olduğu sonucuna varmıştır. Çalışma, bankaların EB'lerini iyileştirmek için stratejiler ve programlar uygulamaya devam etmeleri gerektiğini ve bunun da sonunda CS'lerini artırmasını önermektedir.

Anahtar Kelimeler: Bankalar, Memnuniyet, Irak

ABBREVIATIONS

EB	Electronic Banking
CS	Customer satisfaction
APP	Appendix
LRM	Linear Regression Model



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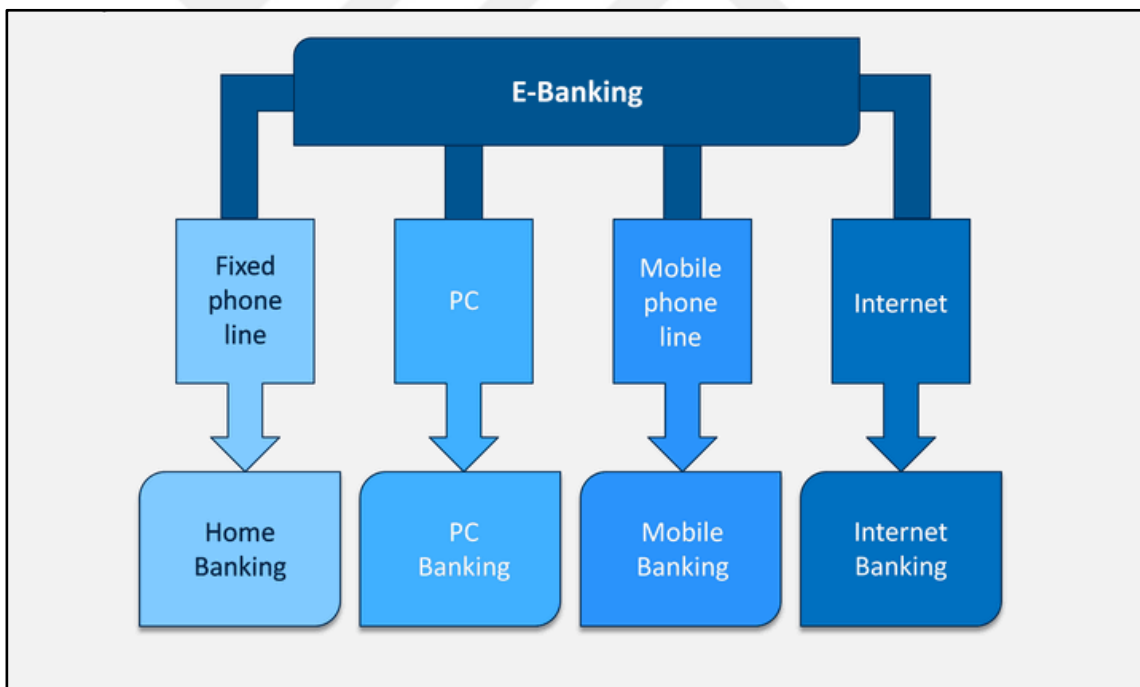
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1. INTRODUCTION

1.1. An Overview

Today's technology is witnessing rapid changes and developments in different industries. One of the most common technologies that has changed very fast is the electronic services. Banks services have depended extremely on these electronic services (Electronic Banking). Most banks around the world are now providing electronic services that are shown in figure (1.1) to their customers. Their main goal is to achieve higher level of customer satisfaction. Based on that, it is important to understand the new advantages of electronic banking in terms of convenience and security (Akhisar et al., 2015).

Figure 1. 1: The most common electronic banking services.



Source: Sketch bubble, (2021 11 November).

Electronic banking has many applications or services, which have many advantages as shown in figure (1.2). The Electronic Funds Transfer is the most common example of electronic banking (EFT). The EFT refers to the electronic transfer of funds from one account to another (Colton, 2013).

With the growing use of electronic banking services, it is projected that everyone will be able to transfer payments online. Electronic is also used by businesses locally and internationally. That can help increase the countries' ability to trade and share businesses (Misal, 2013).

Figure 1. 2: The advantages of electronic banking.



Source: Dreams time, (2021 24 November).

Most commercial banks strive to provide the best services to their customers by keeping pace with modern and secure technical developments. That can allow the bank's customers to maximize their benefit from using these electronic banking services. Customers can simply use these services via the internet through private computer or smartphone. In addition, they can use these services from anywhere in the world (Daniela et al., 2010).

Customers can use electronic banking to execute their financial transactions without having to visit a bank branch. Customers can move funds between their accounts and request a statement of account. They can also check the amount and make requests, such as a checkbook request. All of these services are performed in an easy and clear manner, and with highest level of security. It is important to indicate that the majority of banks and costumers prefer using the electronic banking. The reason for that is banks have long tended to find simple and safe ways to obtain cash without resorting to carrying cash.

The idea behind that is cash may be subject to theft. Banks do electronic services using electronic cards, ATMs, and different other tools. That contributed greatly to the customers' satisfaction. Most banks put ATMs in public places, so that it has become easy to obtain cash from them even if it is not affiliated with the customers' bank. Most Bank have provided their institutional and corporate customers with a comprehensive automated system. This system can allows them managing their regular payments electronically. In addition, ensures full control over the various electronic payments such as employee salaries and supplier invoices. It can also help managing the process of collecting receivables from any other parties (AlHaliq, and AlMuhirat, 2016).

This system constitutes a direct, secure, and integrated link between the costumers and the banks. It is compatible with various management and accounting systems. This system ensures greater speed and ease in salary payments and other recurring payments. In addition, it simplify the tasks of settling accounts by issuing statements of accounts for various transactions.

The majority of banks strive to give their customers with convenience services. They do so currently by offering them internet-based electronic banking services. Customers no longer need to visit a bank branch because the majority of banking services have gone electronic. Some banks have recently begun to function solely through the internet, without having a physical location. Due of the widespread availability of WI-FI and 4G networks, they communicate with their customers by phone or email. As a result, the costs connected with the presence of physical branches of these banks have been reduced (Driga and Isac, 2014).

They also give you access to other banks' ATMs, retail outlets, and a variety of other services. Online banking is quick and easy to use, and it allows clients to keep track of their accounts on a frequent basis. As previously stated, the primary purpose of providing electronic banking is to increase customer happiness. As a result, it is critical to comprehend the concept of client satisfaction. This may make it easier to provide better services.

The customers' satisfaction is an indicator that used to measure how satisfied the customers are with specific service or product. It gives the organizations the ability to assess the quality of their services and products, and clarify their strengths and weaknesses. The customer satisfaction measurement can help identifying the advantages and disadvantages of the business. That can lead to adjust the business operation system accordingly to rebuild the business objectives (Oliver, 2010).

The word "customer satisfaction" has recently gained popularity. This is linked to a growth in the number of businesses operating in the same industry. Furthermore, with the growth of international and worldwide markets, as well as the size of commodities and services offered. This necessitates that each organization keep track of its clientele as the most crucial aspect and ultimate aim.

1.2. The Study Topic

The reason for this study is the significant change in the services supplied by Iraqi banks. This research contributes to the body of knowledge on the relationship between electronic services and customer satisfaction. It focuses mostly on Iraqi banks' computerized services. It also looks at how these services affect customer satisfaction in Iraq. The overall goal of this research is to look into the link between electronic banking and consumer satisfaction in Iraq. It also aspires to provide statistical analysis methods for assessing the impact of electronic banking on customer satisfaction.

1.3. The Study Problem

According to the Ministry of Planning in Iraq, privatization of public banks was part of the recent Iraq economic reform. As a result, most of the big banks were privatized. When these banks started working as private institutes, they face many problems.

These problems are related to the changes in operation systems and market conditions. These problems can be more complicated with the global competition and lack of experiences. In addition, the banks had to provide electronic banking services, which are so sensitive to specific requirements and conditions related to security and safety. According to all of that, adopting the electronic banking can be a very hard process, and can be affected by many factors. One of the main goals of these banks is to reach high customer satisfaction. The literature lacks studies that test the impact of online banking on customer satisfaction in Iraq.

1.4. The Purpose, Importance, and Contribution of the Study

The purpose of the study is to empirically test the effect of electronic banking on customer satisfaction in Iraq. The importance of the study can be seen through its results. The results of this thesis can benefit the banks and the society of Iraq. The study can help the banks by showing the role of the existing electronic banking services in their customer satisfaction. That can help the managers of these banks to identify the strengths and weaknesses of these services. Then, they can improve them to be as required, and to achieve their goals. The results of this thesis can also benefit the society in Iraq since these banks are the main banking services providers in Iraq.

As a result, increasing their services will increase Iraqi client happiness. This thesis makes a statistical contribution by estimating the influence of electronic banking services on customer satisfaction in Iraq. Any Iraqi bank can benefit from this strategy. A study that examines the influence of electronic banking on customer satisfaction in Iraq might be added to the literature.

1.5. Literature Review

Many researchers have investigated the relationship between electronic banking and costumers' satisfaction. This section reviews some of the studies related to that issue.

1. According to Huda et al. (2020), electronic banking is one of the most important aspects of a bank's operations that might help it thrive in the market. In Bangladesh, the study looked at the impact of electronic banking on service quality and consumer satisfaction.

The data was collected using a questionnaire and a sample of 379 client responses. They were chosen from a variety of Bangladeshi commercial banks. According to the findings, electronic banking has a considerable impact on both service quality and customer happiness.

2. According to Sulaiman et al. (2019), electronic banking has become one of the most important services provided by most Palestinian banks. In Palestine, the study looked at the impact of electronic banking on consumer satisfaction. Data was collected through a survey and through interviews. They targeted 347 Palestinian consumers from eight banks. Electronic banking has a favorable and significant impact on banking strategies and consumer happiness, according to the findings.
3. Kolodinsky et al. (2004) studied whether the United States of America is experiencing an electronic banking revolution. According to the report, millions of people in the United States use various sorts of electronic banking services. The survey predicted that in the near future, an increasing number of Americans would use these services. The study looked into the elements that influence the use of electronic banking in the United States. It looked at how these factors affected the adoption of three different types of electronic banking.

The data for the study came from the Federal Reserve Bank. The findings of the study revealed that the benefits, complexity, and hazards are all elements that could influence the adoption of electronic banking. Compatibility and observability are also factors in the adoption of electronic banking in the United State Furthermore, factors such as income, education, gender, and many others influence adoption. The findings also suggested that adoption could shift over time.

4. According to Gan et al. (2006), the majority of banks and financial institutions have transitioned to delivering electronic services. The study discovered that few studies on electronic banking services have been published. Gan et al. (2006) investigated customers' preferences for electronic and non-electronic banking. The study was carried out in New Zealand with data collected by a mail survey. A total of 1960 people received the survey. The study hypothesized that the decision to use electronic banking is influenced by a variety of factors.

Risk, price, age, gender, income, and other factors were all considered in the study. The data was analyzed using a logit regression model. It looked at whether people prefer electronic or non-electronic banking. The study's findings revealed that service quality, risk, and education had a major impact on customers' decision to use electronic or non-electronic banking services. In summary, the study demonstrated how banks develop and use innovative services to serve their consumers.

5. Siam (2006) looked into why banks offer electronic banking and how it affects bank profitability. The hazards and obstacles of providing electronic services were also recognized and discussed in the study. The information technology revolution has now become a global phenomena, according to the study. It now pervades every aspect of people's lives.

According to the report, adopting technology has become one of the most important determinants in corporate success. As a result, most banks have increased their investments in electronic banking in order to improve customer satisfaction. The research was conducted on a sample of Jordanian banks. The findings of the study revealed that electronic banking has a negative influence on bank profitability in Jordan in the short run.

6. Hill et al. (2017) investigated if customer happiness is an important determinant in how well a company performs. A survey was employed to gauge client satisfaction in the study. The survey was created to identify the error that was made when explaining the measurement's accuracy and reliability. The survey's design may also aid in identifying methods for attaining consumer satisfaction. According to the findings, client happiness is an important determinant in how well a corporation performs.
7. Cengiz (2010) showed that under the increased competitive environment, businesses must focus more on customers. The study showed that customer satisfaction is consider as one of the important approach for serving the development of customer-oriented environment. The study showed that the idea behind that is that the customer satisfaction can be the standard of excellent performance of businesses.

The study showed that, recently, most businesses' management are concerned more about finding new ways to satisfying customers.

The study results indicated that customer satisfaction had important role in getting competitive advantages. They also indicated that mixing the marketing with the expectations of customers could lead to customer loyalty and high profits.

8. Auta (2010) showed that the new global economy had lead most businesses to use the electronic banking. It showed that electronic banking had become a necessary part of businesses strategies and development. The study showed that electronic banking has many advantages. For example, it is convenience, flexibility, fast, efficient, and accessible.

Auta (2010) tested the effect of electronic banking on different economic activities in Nigeria. The study used questionnaire to collect data. The study applied different statistical tests to analyze the data. For example, it used (KMO) and Barlett's tests, and factor analysis to extract independent variables that are related to electronic banking. The study also provided a framework of the factors that are used to evaluate the understanding of electronic banking perception.

The results indicated that electronic banking could provide several advantages to banks in Nigerian. The results showed that customers agree that electronic banking could provide convenience, fast, and flexible services. The results shows that the customers in Nigerian have little knowledge about electronic banking provided by their local banks.

Auta (2010) recommended developing the necessary infrastructure that support the electronic banking. For example, developing the electricity, and the telecommunication requirements. These requirements should be provided, and be stable to ensure the efficient use of electronic banking applications

9. Komala and Kusnanan (2019) tested the effect of electronic banking on comfort, security, and customer satisfaction. The methods used to do the test was the descriptive analysis method. The study showed that comfort is very important issue

of electronic banking. That is because it help customers to deal with their banks easily. In addition, they do not need to visit the bank branches.

The study showed that electronic banking could help finishing banking transactions in fast way, which can increase the customer satisfaction. The results of the study indicated that electronic banking has positive and significant impact on customer satisfaction.

1.6. The Research Strategy

The remainder of the research is divided into four components, as stated below:

1. The theoretical underpinning of electronic banking is covered in Chapter one.
2. The customer satisfaction idea will be discussed in Chapter two.
3. The empirical study, which includes data, model, methods, and outcomes, will be covered in Chapter three.
4. The final paragraph.
5. The study's conclusions

2. ELECTRONIC BANKING

2.1. Overview

All businesses, including banks, struggle to keep up with technical advancements brought on by the Internet. Customers were able to execute financial transactions online as a result of this. Customers can execute basic financial operations without visiting bank offices using electronic banking or Internet banking services. Customers must have a device, an internet connection, and a bank card in order to do online banking (Yakubiv et al., 2019).

Transfers, bill payments, creating new accounts, and applying for a credit card are the most common electronic banking services provided by banks, as indicated in figure 2.1. Checks can also be paid or canceled, and the address of the consumer can be modified. In most banks, these services are provided without charge. Furthermore, because many electronic banking services are available 24 hours a day, seven days a week, convenience is a key element of online banking (El Talla., 2019).

Figure 2. 1: The electronic banking services.



Source: Ishan, (2022).

Many significant advancements in electronic banking services have resulted from technology advancements. The majority of banks strive to make their customers' lives easier by offering electronic banking services over the Internet. As a result, the bulk of banking services are now available online, eliminating the need for customers to visit a branch. Many banks operate entirely online, without having any physical locations. They communicate with their clients by phone or email (Rawwash et al., 2020).

The widespread availability of WI-FI networks is one of the most crucial factors in the development of electronic banking. This has helped cut the costs of having physical branches of these institutions. It also has ATMs from other banks, retail businesses, and a variety of other amenities. Online banking services are quick, efficient, and allow users to keep track of their accounts on a frequent basis. Clients can manage their stock and bond portfolios through them.

Managing investment portfolios is one of the most important aspects of electronic banking. Many investments that fit long-term financial goals can be selected and monitored via electronic banking. Portfolio management is well known for requiring understanding of strengths, weaknesses, opportunities, threats, and the capacity to balance them. As a result, most clients attempt to choose portfolio managers in order to optimize their expected return on investment (Rozhkova et al., 2020).

Some consumers may prefer to handle their investment portfolios on their own using Internet-based electronic banking services. To achieve the targeted returns, portfolio management necessitates the systematic purchase and selling of stocks and bonds. The goal is to make a profit, so assets must be dispersed in a combination of stocks, bonds, and cash in the form of certificates. People can use electronic banking to effectively manage their financial portfolios.

Deposit the availability of several online payment methods; electronic banking services offer a variety of online payment options. You can pay using a credit card or a debit card issued by a financial institution. There are several safe and effective alternative payment options to the debit card, which is a bank card known as a payment card. PayPal, Amazon Pay, Google Pay, and Apple Pay are just a few examples. Transfers

banking also allows for online payment, which operates similarly to a debit card (Hassan, 2020).

Another type of electronic payment is electronic checks, which are used to withdraw funds from a checking account. The electronic bill is another type of electronic payment. This payment technique involves sending money from one bank account to another. Electronic banking services are among the most significant financial services since they allow customers to learn about a variety of banking products.

They not only provide standard banking services to banks, but they also offer a variety of financial products. Saving money, managing a monthly budget, and borrowing money are just a few examples. These banks offer a wide range of financial products, including checking accounts and debit cards, so electronic banking services are not limited. Money market accounts, loans, and certificates of deposit are also available.

Customers can use electronic banking services to monitor their account balances with the bank. This allows them to keep track of their account and identify any issues that arise. Bank accounts can be accessed through the bank's website, mobile applications and tablets, and ATMs. Most banks offer account movement alerts that are sent through email or text message. All of them allow customers to move money between other accounts (Hassan, 2020).

The digital revolution has altered the future of banking services; banks now allow customers to transfer funds between multiple accounts. Customers can deposit funds and transfer funds across accounts, as well as track spending and profits. Using digital money management apps can help you save money and save costs.

2.2. Electronic Financial Services' Emergence and Evolution

Financial developments through electronic banking have resulted in the emergence of electronic services. The world of financial intermediation has undergone a qualitative revolution, regardless of the degree of modernity at the micro level. In recent years, this transition has altered the dimensions of the banks' strategies. This was a natural outcome of the revolution in new media, communication, and financial market and banking globalization (Schaechter, 2020).

Electronic banking began with the development of electronic cash, which integrated electronic cash with information technologies. The usage of credit cards rather for cash began in France, specifically with the use of a cotton card in the phone. The metal card was used to identify customers in the United States of America. However, it was essential to wait until the 1950s, when the globe was witnessing a change in these cards, to begin chevalier. Express American created a plastic card in 1958, which became popular worldwide in the 1960s (Rawwash et al., 2020).

The Bank America card was first produced in 1968 by a collaboration of eight prominent banks (which later turned into the world-famous Visa company). Six French banks were also authorized to issue the Blue Card in France. The electronic revolution occurred as a result of these developments. In affluent countries, magnetic channels have been created for electronic cards and many other forms of electronic banking. The cards have memory, and the information stored on them can be fragmented to facilitate payment transactions.

2.3. Electronic Banking Services Characteristics

The characteristics of electronic services are (Kirakosyan and Dănăiață, 2014):

- A. They are engaged in fierce competition in the supply of electronic banking services, especially as the quality of these services improves.
- B. They contribute to the rapid advancement of communications technology, computers, and information software.
- C. They are characterized by flexibility, which allows banks and financial institutions to broaden their circle of interacting with them. This can provide information security and integration with electronic banking services.
- D. They are characteristics by the ease of communication between inside and outside through the advanced technological communication network. That allows overcoming geographical and time obstacles in the completion of banking, commercial and financial transactions in general.

- E. They are remote services without a direct personal presence between the parties to the banking relationship. That is because; they are cross-border services that do not know geographical restrictions.
- F. They are part of reducing the operating costs plan of banks and the costs of completing retail operations locally and internationally.
- G. They are involved in increasing the efficiency of the banks' performance.
- H. They are involved in benefiting from the vast information, collected and stored on the global Internet. That leads to the facilitation and expansion of investments both at home and abroad.
- I. They are involved in banks plans to provided new means to advertise their services. For example, provide customers with information about their balances, pay bills, manage balances and transfer funds electronically.

2.4. Electronic Banking Services' Importance

2.4.1. At a Strategic Level, Electronic Financial Services are Critical

1. The strategic Importance: The developing of the bank's organizational structure and its relationship with financial institutions and markets represents the strategic importance of electronic banking (Siam, 2006).
2. Improving competitive advantages: Improving the bank's competitive position by using information and communication technology in investment and stock exchange activities.
3. Organizing payments: The agreement on deducting and paying the value of remittances ensures that payments are organized without any doubt about the possibility of paying on time.
3. Safety and security: Improving the relationship between customers and merchants since information is transferred among them in a way that reduces the time spent to secure communication between the two parties.

4. Achieving a business cycle in less time.
5. Possibility of applying systems related to suspended production.
6. Increasing the efficiency of production and commercial operations.
7. Possibility of gaining new clients and retaining existing clients.
8. Increasing the competitiveness: Increasing the competitiveness of the banks especially in the face of new institutions that have recently entered the market.
9. The possibility of creating integrated economic clusters that achieve a minimum amount of funds.
10. Providing information to investors, borrowers and distributors to improve and rationalize decisions

2.4.2. The Importance of EB Services at the Direct Practical Level

1. Facilitate work by reducing current administrative expenses: The electronic banking services can reduce the effort expended in dealing with documents and mail work. In addition, reducing the expenditure on document management. The costs includes the following (Al-Smadi, 2012):
 - The costs of using paper and postage.
 - Stock life costs.
 - The cost of computer operations.
 - The costs of cash flows for the bank.
 - Ensuring and confirming transactions costs.
 - Security parameters and errors costs.
2. Time saving by allows information to be transferred faster than it was previously.
3. Improving cash flow by increasing the completion of electronic money transfers, the reliability of cash flow, and the speed of cash flow.
4. Improving internal management by reducing paperwork and reducing the inconvenience of telephone ringing.

5. Reduce paperwork by reducing paper credits, traditional checks and other transactions.

2.5. The Quality of Electronic Banking Services

2.5.1. The Concept of Electronic Banking Services' Quality

The quality of electronic banking services is defined as a set of requirements that must be met using the Internet, and during the processes of electronic banking. It is also defined as the understanding or perception of the service from different points of view either before or after its presentation on the Internet. It can be understood as an evaluation of the efficiency and effectiveness of the market, purchase and delivery of products and online banking services. Studies showed that the quality of electronic banking services has significant effects on the use of these services (Alabsy, 2018).

2.5.2. Quality-Control Methods for Electronic Banking Services

A group of researchers has identified two models for assessing the quality of electronic banking services. These methods depend mainly on a set of assessment indicators that can be adapted or modified according to the type of service studied. Several studies have also been conducted in order to verify the stability and credibility of each model in assessing quality (Jovovic, 2016). These models are:

1- The gap model:

The concept emerged in the 1980s as a result of research undertaken by (Berry, Zeithmal, and Parasurmen). According to this concept, quality assessment entails assessing the difference between consumers' expectations and their views of actual service performance. This model has five gaps, which are as follows (Tharanikaran, 2017):

- The first gap: is the gap between the expected service and management's perceptions of customers' expectations. It results from management's inability to know the customer's needs, desires, and expectations.
- The second gap: It is the gap between the management's perceptions of the customers' expectations and the determination of the accuracy of the

specifications related to the service. It results from the mismatch of these specifications with the management's awareness of the customers' expectations.

- The third gap: It is the gap between service performance and its specifications. If banks were able to set service specifications according to customers' expectations, there is a possibility of a deviation on delivery due to the skill level of those in charge of its performance.
- The fourth gap: It happens between service performance and external communication (the promoted service). It means that the promises given through the promotional communication do not match the actual performance of the service.
- The fifth gap: It is the sum of all the previous gaps, on the basis of which the quality of the performance of the bank as a whole is judged

2- The trend model:

This model first debuted in 1992, and it was based on a study by Tayler Cranin. Within this approach, the quality of electronic banking is a directed idea. This idea is related to customers' perceptions of the service's real performance. The trend model is based on dismissing the concept of a service quality gap. It is based on assessing the service's actual performance. In other words, it is solely concerned with the customer's own perceptions. Because the quality of the service is expressed as a series of trends, the client is assumed to be a factor (Pourmohammad et al., 2016).

The following ideas are included in the trend model as a tool for analyzing service quality in banks:

- The customer's perception of the bank's actual service quality is largely determined by the present performance of the service.
- Customer satisfaction is linked to the customer's assessment of service quality, which is based on previous bank dealings. In other words, appraisal is a long-term, cumulative process. The specific quality indicators (reliability,

responsiveness, empathy, safety, and tangibility) are a fundamental foundation for evaluating the level of banking service.

With the advent of the Internet and technological development, the quality of services has evolved from traditional to electronic. That leads to the tendency of many banks to display their services on Internet sites. This tendency has prompted many researchers to find measurement tools that are in line with this development. Examples of these measurements are on-line quality. It represents the online questionnaire (electronic questionnaire) that is provided to customers. The aim is to evaluate the quality of websites on the Internet according to its developments. The customers complete this questionnaire. In addition, the qualitative customer assessment is converted into quantitative measures considered useful for managing the decision-making process (Sindwani and Goel, 2012).

This method allows comparisons to make comparison between the e-commerce environment in the same field and over time. This method has been applied in many areas including university websites, auction sites, bookstores website. It is also considered a partial sequence of quality assessment of information and its spread in the commerce environment. This method has become a repetitive behavior that is accomplished and modified according to the variables of each field in e-commerce.

3. The SERVQUAL-E Model:

It is a conceptual model of service quality for electronic services based on the SERVQUAL traditional off-line service quality structure. It is based on exploratory study on modulation groups as well as two phases of experimental and analytical data. This approach generates seven service quality characteristics. Efficiency, dependability, success, secrecy, response, compensation, and open communication are among them (Bauer et al., 2005).

All of these traits are criteria that clients use to assess online services. The ability to respond to consumer questions about rapid performance, for example, is measured

by the reaction characteristic. Marketing managers can use the SERVQUAL-E as a framework to evaluate the quality of services in an electronic environment.

It can also be used to evaluate e-commerce in terms of interface integration, business process completion, and customer touch points across many channels. Telephone, fax, and e-mail, for example.

It can be applied as a means of guiding web designers and marketing professionals on a method of use in line with the basic conditions for integrating customer expectations. That can help achieving quality of service and usability in the design of the electronic wall perimeter. From the empirical information collected, two different and necessary modes for measuring the quality of electronic service were discovered (Gautam, 2012).

The first position (QUAL-S-E) includes four dimensions that have twenty-two adjectives: competence, loyalty, availability of order and privacy. The second situation (QUAL-RecS-E) is with clients who do not have a routine meeting with the site. It includes three dimensions that have eleven characteristics, namely: response, compensation and communication.

2.6. Electronic Banking Services

Technology is witnessing an unprecedented rapid development in online services. The management of banks' accounts and funds becomes more and more dependent by using electronic services. Therefore, it is important to understand the new advantages of these services in terms of convenience and security (Drigă and Isac, 2014).

Electronic banking, sometimes referred to as Electronic Funds Transfer (EFT), is the electronic transfer of funds from one account to another. Many studies have looked into the possibilities of leveraging financial technology to make digital payments. According to one analysis, the value of financial transactions in Africa and the Middle East's mobile payment market totaled \$1.47 billion in 2017.

With the increasing prevalence of electronic banking services, it is expected that people will encounter cases where it is preferable to pay or transfer funds electronically. Understanding how to use electronic banking benefits both customers and

organizations. Using these services will not only enhance the convenience, but also help in monitoring transfers and payments (Keivani et al., 2012).

The most common electronic banking services, which shown in figure 2.2, include three main aspects. They are ATMs, direct deposits, and debit card purchases.

1. Automated teller machine (ATM)

Most individuals are accustomed with using ATMs to withdraw and deposit money quickly and effortlessly. These devices allow you to withdraw money at virtually any moment. They can also be used to deposit funds and transfer funds between personal accounts. They offer 24-hour banking services with convenience, speed, and comfort. The ATMs operate on a secure system that follows the concepts of real-time systems. It's also connected to a computer network in a way that protects the rights of those involved in the banking procedure (Jegade, 2014).

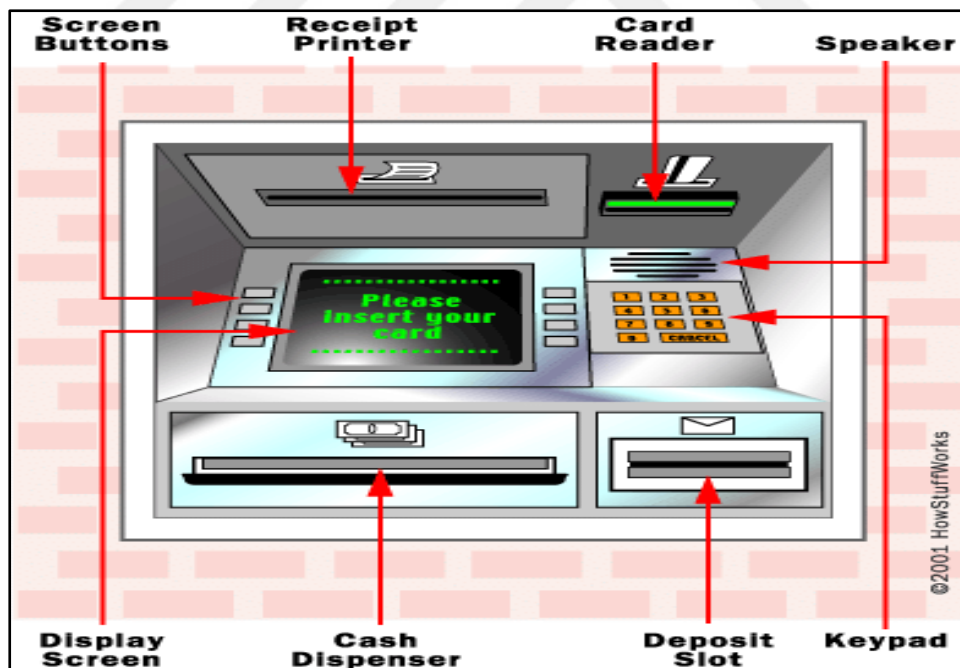
Figure 2.3 shows the three basic components of an ATM. The input units are the customer's tools for interacting with the machine. The card reader, keyboard, money deposit entry, screen buttons, and security systems from cameras and alarms are among them. The output units are the second component. They include an interactive screen, as well as a cash receiving port, a cash dispenser, and a tiny printer port. The processing units are the final component. The computer is in charge of operating the teller and connecting with the banking network.

Figure 2. 2: The most common electronic banking services.



Source: Justin, (2022).

Figure 2. 3: The ATM.



Source: Yazen, (2022).

The ATM is one of the services that banks provide to customers for the purposes of facilitating the work that they carry out and to facilitate their needs. The ATMs enable customers to obtain all the services they need at all times. For example, they

allow customers to withdraw money on all days of the week, even on holidays, weekends, and official and national occasions (Dilijonas et al., 2009).

The idea of the ATM started as a result of the need of customers to withdraw on public holidays and vacations. Through the ATM, the customers gets many advantages that facilitate their business. In addition, ATMs save customers time, effort, expenses and costs. Instead of standing for hours in the queues of banks, and waiting until the turn comes, the customers go to the ATMs to get what they need.

2. Direct deposit

Direct deposit is one of the most prominent advantages of electronic banking services. That is because it allows customers to confirm deposits and withdrawals from their accounts. For example, if customers receive regular salaries, their employers can deposit the salaries directly into their bank accounts (Meena, 2013).

The same applies to regular payments such as mortgage or insurance payments. As electronic banking allows paying the required expenses regularly and easily without any shortage of payments.

Direct deposit is an automatic approach of dealing with transactions. When receiving an immediate deposit, the payer issues an electronic fee that is mechanically transferred into the payee's checking account. There is no want for a physical check or for either to go to the financial institution for the cash to transfer. This technique has turn out to be very commonplace in current years. According to the American Payroll Association, about 94% of U.S. employees receiving their paychecks by direct deposit (Dilijonas et al., 2009).

Since direct deposit happens automatically, it is very easy and handy for the worker, who can count on their paycheck arriving on payday. It is also not pricey for the corporation, who does no longer need to spend cash to print and distribute. Direct deposit starts when the organization collecting the banking records of its personnel and providers. These banking records include bank accounts and financial institution routing. These banking records are part of the information that the employer accumulated from employee.

3. Debit card purchases

In many ways, debit card purchases are comparable to credit card transactions. Customers can use electronic banking to make debit card payments in person, online, or over the phone. A debit card is similar to a credit card in that funds are taken straight from the customer's associated account. Customers who use a debit card are limited to spending only what they have (Hernandez et al., 2017).

Customers can make comfortable and easy purchases online and in person by withdrawing cash directly from their bank accounts using a debit card. It's critical to emphasize that the money on the debit card is the customers' money, not a loan. Customers can also withdraw cash from ATMs using their debit cards. Debit cards also operate with cellular payment systems like Apple Pay and Google Pay. Customers may receive too many different electronic services as a result of this.

When it comes to making purchases, debit cards and credit cards are very similar. They do, however, differ significantly. Because debit cards draw money straight from consumers' bank accounts for purchases or ATM withdrawals, users must pay right away. Customers can use credit cards to pay for items later. Customers are effectively borrowing money from the credit card company. They could then pay the money back within the agreed-upon time frame.

4. Electronic money

The technological progress in the world were behind the birth of remote electronic transactions and commerce. The search for ways to settle those transactions led to the emergence of electronic payment methods. One of the modern payment options was electronic money. Electronic money is intangible money that is stored in a secure location on the hard disk of the customer's computer as electronic units. They are immediately exchangeable in purchase, sale, and transfer transactions (Fung et al., 2014).

Electronic money is a repository of monetary value, kept in digital form. It must be transferable, circulated, fulfilled, divisible, and withstand counterfeiting. It is an electronic stock of a monetary value on a technical means. It is commonly used to

make payments to undertakers other than those who issued it, without the need for a bank account when making the transaction. It is used as a portable prepaid tool.

- The electronic money is characterized by the following characteristics:
- The possibility of transferring the value to another party by transferring digital information. This reflects the possibility of using the digital money certificate several times.
- Transfer is done by global networks (the Internet) or wireless communication networks.
- Electronic cash is characterized by the ability to be divided, and this is for conducting small-value transactions.
- Money can be used at any time and anywhere.

5. Other electronic services

There are many other electronic banking services including (Akhisar, 2015):

- Phone and SMS banking
- Electronic alert
- Electronic Fund transfer
- Electronic point of sales
- Electronic investment estimates.

2.7. The Electronic Banking and Banking Performance

In the administrations of businesses in general, and banking in particular, technological investment is the most significant factor for success and future growth. The bulk of banking industries have been affected by global economic advancements in the sphere of technology. It has caused substantial reforms and radical alterations in the structure of their systems in this industry. Furthermore, in their methods for directing competition and keeping up with changes (Rozhkova et al., 2020).

The notion of banking services and their diversity has evolved, particularly as the old approach has failed to produce the expected objectives. Electronic banking services become a practical and realistic work in many banking units as a result of this. The advancement of technology has had an impact on all sectors today, including banking. They are seeing a change from conventional methods of working to electronic forms embodied in current items. For instance, electronic banking activities and the provision of a variety of services to customers via the Internet.

Electronic banking services are now widely regarded as one of the most crucial measures of the economic recovery. This is because the evolution of banks has increased their performance. It contributes to the improvement of banking services and a high level of client satisfaction. Any society's or country's progress and economic development are now judged by the efficiency of its banking system. The performance of these services determines the efficiency of the banking system (Nazaritehrani and Mashali, 2020).

The banking service has known new systems and means in light of today's widespread usage of technology systems in media and communication. This new system has aided banks in getting excellent results and treatment. The widespread usage of modern electronic payment methods was a good example of this. The banking system is regarded as the economic system's most important component. That is undergoing tremendous changes, as seen by the economy's opening to foreign markets and the liberalization of foreign commerce. As a result, the banking industry faced greater problems than other industries in adapting to technological advances and challenges.

2.8. The Electronic Banking and Customer Satisfaction

Technology has succeeded in making various aspects of contemporary societies' lives easier. It has also become a vital detail in upgrading the finest of services in well-known and E-Banking services, in particular. E-banking is defined as the exchange of records between clients and providers via electronic methods rather than face-to-face interaction (Uchechukwu and Stella, 2019).

Most sophisticated countries' banking industries pioneered the use of e-services and have been actively involved in their improvement. The goal was to strive to fulfill the constantly changing demands and lives of today's clients. The financial system has seen significant growth, particularly in terms of digital services. Bank clients' use of E-Banking services has increased by roughly 25% to 30% in the last few years. In fact, banks are deliberately utilizing advances in E-Banking offerings to retain and recruit consumers. As a result, they are investing heavily in enforcing the today's E-Banking practices in order to maintain and enhance their competitive advantage (El Talla et al., 2019).

2.9. The Parties and Structure of Electronic Banking Services

Progress in the realm of communications and information technology has aided in the development of banking facility management services. Furthermore, the advent of a new type of service known as electronic financial services. As a result, the banking service has improved and become more effective. Understanding the parties and structure of electronic banking is crucial (Daka and Phiri, 2019).

2.9.1. Electronic Banking Services Parties and Infrastructure Internet Banking

The operations of electronic banking services in this era have been characterized by reliance on technology in order to develop the provision of banking service. In addition, to raise the efficiency of its performance. To achieve this, banks had to rely in this regard on qualified parties and special infrastructure for electronic banking services. Electronic banks are considered as an electronic institution built in completely or in part to carry out these services. Providing such services includes several parties, which are (Chedrawi et al., 2019):

1. Conventional banks

This type of banks is embodied in the traditional public banks, which have not yet crossed the threshold of electronic banks. They have an information site where the site gives information such as the nature of the services provided, the interest rate, and the prices of the services provided. In addition, information about the total agencies affiliated with the bank.

2. Dual-activity banks

They are the banks that offer services in a dual form. A traditional form and an electronic form, and this form of banks aims to conquer new markets as a result of offering both services together.

3. Virtual banks

They are banks that take the default form and do not have any banking agency. In this case, there are two types of banks. The first type is the so-called Star Bank, which offers services that are identical to the traditional services via the Internet. The second type is matching traditional services. As for the second type, which is so-called external dealers' bank. It means, the establishment of electronic agencies on the Internet outside the country in order to reduce the costs of establishing an effective agency.

4. New entrants to the financial world

Insurance companies and distribution companies represent this party in particular. They are looking for intensive diversification of their activities in order to increase profitability. However, this category is currently satisfied with specific services such as savings accounts and consumption loans.

2.9.2. Infrastructure of Electronic Banking Services

The performance of electronic banking services in the field of bank management requires a set of basic infrastructure, which are shown in figure 2.4. That can ensure their proper functioning and ensure the safety of their activities. The infrastructure appears in the following (Bultum, 2014):

A. The technical infrastructure

The technical infrastructure is at the forefront of the electronic service requirements. The technical infrastructure for electronic banking services is represented in the means of communications and information technology. These

infrastructures are the main requirement to ensure successful electronic services as well as to ensure the security and protection of informational data, and these infrastructures. It represents the most important challenge facing the electronic banking business.

This infrastructure is the most important mainstay of electronic banking in the information age.

B. Modern technology for banking operations

The intervention of the role of banking technology in achieving the promotion and development of the means of providing banking services has exacerbated.

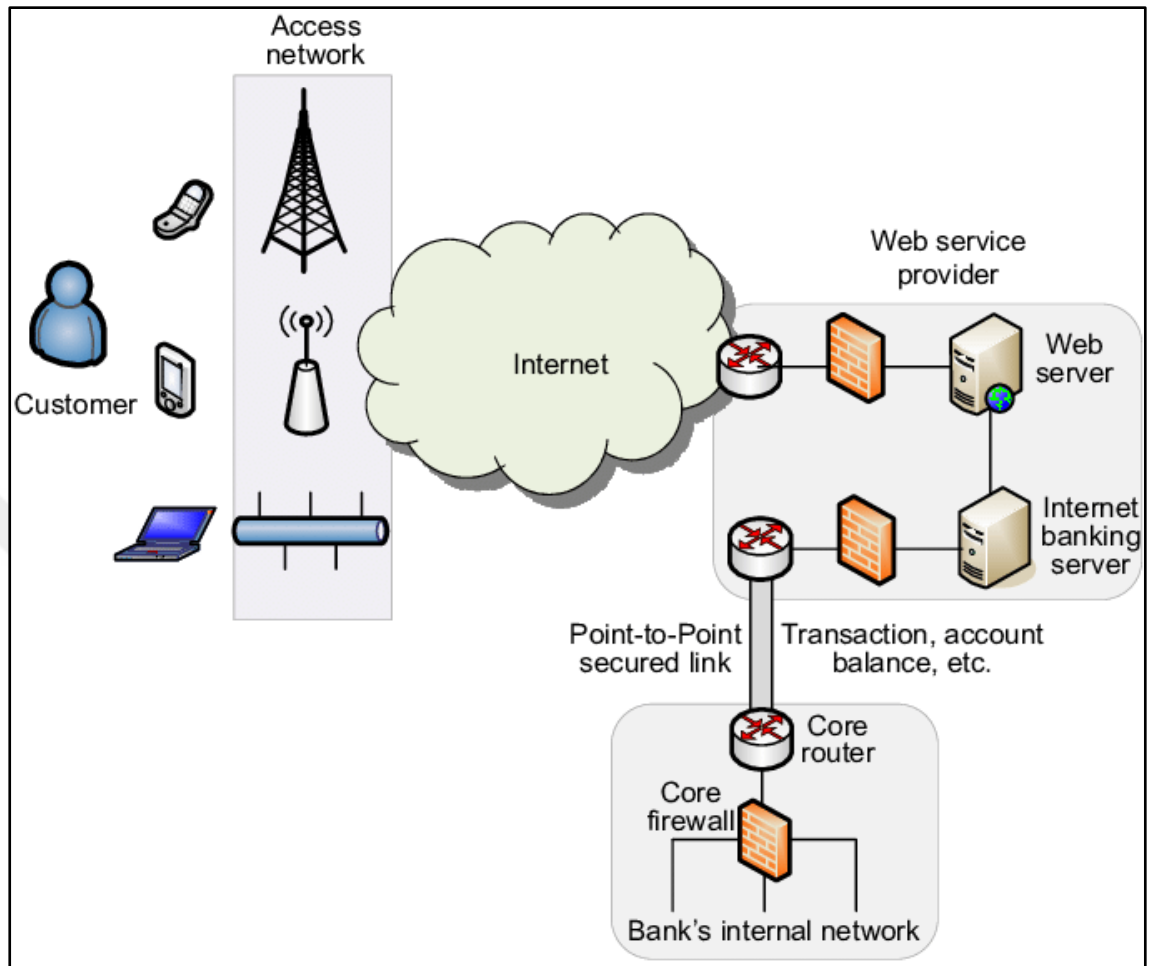
It is in line with the accelerating pace of the banking industry in the twenty-first century (Yang et al., 2009).

C. The human qualifications capable of achieving electronic banking services

Building a high, strong, and integrated information technology infrastructure requires building a knowledgeable and efficient human base. That human base must be with appropriate qualifications (Angelakopoulos et al., 2011).

The must be capable of using information technology, software, equipment and communications. The aim is to ensure that employees carry out their responsibilities in a homogeneous manner. In addition, to improve operations activities and productivity and enhance their outputs.

Figure 2. 4: Infrastructure of electronic banking services.



Source: Salekul, (2022)

D. Societal awareness and culture of electronic banking operations

Electronic services culture and knowledge play an essential role in their expansion and development. Particularly among business entities and the manufacturing sector. The quantity and quality of education in any country is a critical factor in the development of culture and Internet use (Nagamani and Nandhini, 2015).

In the absence of such a culture, the problem of mistrust in interacting with electronic means would arise. It can also put the banking technology structure at risk, as well as the risks of connecting to the Internet.

3. CUSTOMER SATISFACTION

3.1. Overview

The first customer complaint recorded in human history dates back to 1750. It was the text of the clay tablet shows that the customer is not satisfied due to poor product quality, late delivery, and seller not meeting the deadline. 3000 years after this complaint, Marshall Field pointed out in 1852 in his famous sentence “customer is always right” that that companies should act responsibly and intelligently towards their customers (Basari and Shamsudin, 2020).

Today, concepts such as customer satisfaction, customer loyalty, customer experience management, and customer success have become an integral part of organizations. The implementation of these concepts must be based on the three pillars of technology, process and people. That can lead the organization ultimately to ensure the existence of satisfied, loyal and successful customers.

One of the most well-known current commercial notions is that of client happiness. In general, customer satisfaction entails meeting customers' wants and requirements, as well as responding to all of their inquiries. It also entails meeting clients' needs in a timely manner and in accordance with their specifications. Customer satisfaction refers to meeting a customer's needs within certain parameters. Furthermore, in a way that ensures the continuation of their transactions with them and leads to increased sales (Hamzah and Shamsudin, 2004).

Customer satisfaction may result in higher material earnings. Customer satisfaction is also described as the efforts done by various businesses to acquire the satisfaction of their customers in various ways. For instance, offering productive items or crucial services in accordance with the suitable standards for the requirements and needs of clients. Furthermore, preventing competitors from acquiring them. Another example is providing things at reasonable costs with acceptable quality, delivered on time and without delay at the periods mentioned. The customer satisfaction is one of the marketing concepts that measure the extent to which products match the expectations of consumers (Zhong and Moon, (2020).

It has some dimensions as shown in figure (3.1). Specifically, it measure whether the products and services meet the consumers' expectations of in terms of price, and quantity. Furthermore, in terms of market receipt and distribution dates. This is accomplished through a set of administrative and marketing procedures that assure balanced performance. The balanced performance aids in the organization's profitability and customer satisfaction.

It is critical to note that customer pleasure is inextricably linked to product and service excellence. There is no doubt that client contentment and a positive sensation of satisfaction are critical. It is linked to the customer's ability to maintain consistency when dealing with businesses. It continues to be a market benefit in terms of product sales and marketing profitability. Through consumer praise and contentment, it aids in growing the number of customers (Samudro et al., 2020).

Figure 3. 1: The dimensions of customer satisfaction.



Source: Nazari et al., (2014).

According to the UKCSI Customer Satisfaction Index, it was found that the important aspect of customer satisfaction lies in the professionalism of the banks' staff. In addition, the handling of complaints, and the quality and efficiency of electronic banking services. These considerations may appear in many situations. For example, assume a problem occurred, which is related to the implementation of a banking operation through the bank's website (Pakurár et al., 2019).

In this case, the customers see the professional method by the employees in the bank in dealing with the problem. The customers see how the employees address the complaint in terms of communication with them. The customers also see the work by the concerned department follow up on the customer's request from the time it is executed until its closure. The customers also see how the bank handles the whole situation. All of these aspects may lead to the customer's satisfaction with the bank.

3.2. Customer Satisfaction's Importance

In the realm of marketing, the word "customer satisfaction" is employed. It's a metric for determining how well a company's products meet or exceed customer expectations. This word is now more widely used than ever before. This is owing to the intense competition among institutions in the same field. Furthermore, markets are spreading and crossing geographical boundaries (Yussoff and Nayan, 2004). (2020).

Customer satisfaction is critical since it serves as a measurement mechanism for stakeholders to enhance their products. Because it examines strengths and shortcomings in performance, it doubles the success rate. As a result, acceptable approaches are developed and renewed. Customer happiness is critical for the following reasons (Kasemsap, 2017):

- A. It is a sign of a customer's willingness to buy and their brand loyalty: happy customers are more likely to buy again. To determine the level of pleasure, the ideal technique is to use a scale of 1 to 10.
- B. It is a differentiator: Customer happiness varies from one company to the next. It is a distinguishing feature that separates businesses. For instance, two companies may offer the same product, yet a client may prefer one over the other. The

answer is a favorable recommendation, but the crucial question is where this positive recommendation begins. It all starts with a group of happy customers who become effective ambassadors.

- C. It reduces the percentage of losing customers: Price is not the main reason for losing customers. When the percentage of satisfaction is measured, then the company improves the quality of the product. Thus, reduces the percentage of its customers moving to competing brands.
- D. It steadily improves revenue: Studies show that a totally satisfied client generates 2.6 times more revenue than an initially satisfied customer, and 14 times more than a dissatisfied customer.
- E. It minimizes negative publicity: A disgruntled customer will generate negative publicity. This will have a significant impact on the customer's environment. Every dissatisfied consumer, for example, tells others about their negative experience with the organization.
- F. It aids in customer retention, which is less expensive than acquiring new customers are.

3.3. Measuring Customer Satisfaction

Customer happiness can be measured in a variety of ways and systems. There are common key elements that concentrate vital components regardless of whether system is used. Perceived quality, matching customer expectations, customer loyalty, contentment, and intent to buy again are all factors to consider. It's critical to have a starting point that is the bare minimum. Opinion surveys can be used to determine this line or scale, and special mathematical procedures can be used to calculate it. The initial stage is to gather information (measurements). The next stage is to evaluate the data so that authorized standards may be created. Then start with the bottom line, which is the absolute minimum (Cengiz (2010)).

There are numerous approaches for gathering data to determine customer satisfaction levels. Survey research, interviews, and opinion polls can all be used to gather data (Angelova and Zekiri, 2010).

The procedure normally begins with identifying the survey's size and scope, as well as the appropriate data collection methods. The frequency with which opinion polls are conducted should be sufficient to provide information to the company without bothering customers. The key performance indicators are compared to the established objectives. Dealing with goals can sometimes sabotage customer satisfaction evaluation.

This is because the bulk of them are concerned with monitoring performance and comparing it to the company's objectives. This follow-up, however, is insufficient because it is vital to understand and manage the factors that contributed to and led to these outcomes. Analyzing the data is a crucial step in determining consumer satisfaction. There are various methods for interpreting the data, but the most essential thing is to understand how to use them to your advantage.

Customers' pleasure can also be measured by paying attention to what they don't say. When it comes to what they like and don't like, buyers focus on a narrow aspect. As a result, developing skills and procedures that enable the organization to monitor clients in order to understand their genuine demands is critical (Ngo, 2015).

3.4. Enhancing Customer Satisfaction

Some important strategies may lead the companies to achieve high customer satisfaction, which are:

A. Treat the customer as manager:

The customer is the one who pays all of the company's employees' salaries. If there is no one to buy from, there will be no money (Anil and Satish, 2019).

B. Focus on measuring customer satisfaction:

According to studies, 91 percent of dissatisfied clients are lost for good. That is, those clients will never buy anything in their lives. As a result, assessing customer satisfaction will aid in reducing the amount of unhappy consumers.

C. Strengthening brand loyalty:

Clients' contentment appear to be insignificant in comparison to loyalty. Loyalty refers to a long-term relationship between a corporation and its customers.

D. Avoiding common mistakes:

According to studies, most successful businesses lose 9% of their clients to competitors each year. The reason for this is that large-scale mistakes are common. These errors include dismissing customer feedback, treating customer feedback as a personal concern, and depending on long and dull opinion polls (Khan and Ghouri, 2018).

E. Getting information the right way:

Customer satisfaction rates are best determined through opinion polls. Companies must, however, select a technique that is appropriate for their products, target audience, and survey objective (Debnath, 2008). (2019).

F. Using E-mail, which is still the best:

Despite social media's dominance, email remains the most effective channel for growing income, increasing sales, and increasing customer happiness.

G. Exploitation of communication sites:

Customers use the company's pages to lodge complaints, raise concerns, and post reviews. It's critical to follow up on anything written, whether positive or bad. It's also important to keep track of how often a product is mentioned, whether directly or indirectly. In addition to talking directly with consumers, answering their questions can be used as an extra support channel.

3.5. Customer Satisfaction Affecting Factors

The process of customer satisfaction is achieved by providing excellent service to the customer. For example, providing after-sales service, and providing a high quality product. In addition, by knowing the customers' needs and desires. That lies under the company's job by satisfying needs and desires to ensure customer loyalty. The credibility, low prices, and discharge offers give the customer the goods, which their rotation speed is high (Khan et al., 2015).

The customer must have all the company's products, and that shows the representative's strength in determining the quantities that must be given to the customers. Many factors or principles may affect customer satisfaction, and the following are the most common of them:

1. Quality is a result, not a chance:

It is pointless to try to sell a company's products or services if they are inferior. Customers may fall into the trap only once, but they will tell others about it and warn others about it. The marketing efforts of the companies will then be worthless. Before offering a product or service, businesses must rate it (Hanif et al., 2010).

2. Distinguish from others:

There are frequently multiple enterprises selling the same product or service in any market. This means that customers will be presented with numerous possibilities. "What makes the consumer prefer certain offer out of many options?" is a useful question to address at this point. The answer is what sets a business apart in terms of its products.

3. Ease of communication:

Effective communication tools, such as a website and contact information, are required for businesses. They will lose a lot if they do not have these instruments. The Internet has made information more accessible, and customers want to know that they can contact companies to get answers to their questions. Furthermore, to learn more about the items or services offered. Customers will seek out a rival who provides this function due to a lack of direct communication with them (Sabir et al., 2014).

4. The right price:

Customers will undoubtedly question whether the goods or service they received was worth the price they paid after receiving it. The response to this question has an impact on customers' trust in businesses. To put it another way, shoppers want to feel like they got a good deal (Khan et al., 2015).

5. The appearance of the place:

The company's outward look influences a portion of the customer's opinion of the company. They examine the decor and the company's website, for example. Customers can see the quality of the company they are dealing with by looking at these. Customers will lose faith in a company if it is unable to give the appropriate location (Rahman, 2014).

6. The waiting game:

Customers will not consider waiting for a long time to obtain a product or service. Waiting for a long period will not be pleasant, and they will not want to repeat the experience (Sabir et al., 2014)..

7- Transparency in defining responsibilities:

Hiding the facts or the boundaries of a company's responsibilities in a client relationship will cause genuine problems in the future for the client. They will believe they have been duped, which will undermine the company's credibility (Wilson and Christella, 2019).

8. Good Reputation:

Customer happiness and loyalty are heavily dependent on establishing a positive reputation. Customers are the ones most capable of enhancing the company's reputation. Exceeding consumers' expectations can be a powerful motivator for them to speak well in front of others. This will have a good impact on the company's image (Khan et al., 2015).

9. The latest technological means:

This feature entails not only constructing a unique web page, but also attempting to employ the most up-to-date methods in deals. This provides them the impression that they are working with a reputable and significant corporation. This component is critical for medium and small businesses to appear large (Asad et al., 2016).

10. You are in safe hands.

The brand or logo that the company has chosen is used to send this message to the customers. This statement alleviates the customer's fears and boosts their trust when working with the organization.

3.6. Determinants of Customer Satisfaction and Dissatisfaction

Analyzing the determinants of satisfaction is an important part of studying the customer satisfaction behavior. The customer satisfaction is determined within a domain with three basic dimensions, which are expectations, actual performance, and conformity or non-conformity (Morgeson et al., 2011).

The expectations express the performance that the customers expects or aspires to obtain through a particular product or service. It is expressed in the expected value before implementing the decision to receive the service. Many aspects of the customer's expectation of the service can be identified. For example, the expectations of service characteristics (expected quality), the expectations of social benefits or costs, and the forecast of service costs. It is worth noting when the customers make expectations based on the experience of the service that arises from previous use of it. In addition, through contact with others customers, and through the information they obtains from the promises made by the bank through promotional means.

The second dimension of the customer satisfaction determinants is the perceived performance. The perceived performance expresses the level of performance that the customers actually obtain as a result of their use of the product or service. The primary importance of perceived performance lies in that it is considered a reference to determine the extent to which the expectations formed by the customers. The expectations are formed regarding the service that was chosen from among the sum of alternatives. The perception is among the criteria adopted in the theory of comparison measures to measure satisfaction (Nandan, 2010).

The third dimension is matching, which refers to the process of determining the gap between the customer's expectations and the actual performance received after obtaining the service. The satisfaction factor is attained when actual or perceived performance exceeds or equals the customer's expectations, and vice versa (Li et al., 2013).

3.7. The Customer Satisfaction Outcomes and Improvement Tools

Satisfaction expresses the behavior and practice shown by the customers towards the products and services. It creates a set of behaviors and relationships that the companies always seek to build with customers. The companies try to direct these relationships in a positive direction. They do that by relying on a set of means that allow maximizing satisfaction, and thus increasing their profitability (Wang et al., 2016).

3.7.1. The Satisfaction Outcomes

The customer satisfaction can result in some behaviors. The satisfied customers show a set of responses that translate their condition and the level of satisfaction they achieved from acquiring the service, and these behaviors are (Thusyanthy and Tharanikaran, (2017):

A. Repeated buying behavior:

The effect of satisfaction on repeat purchase is greater than the effect of quality. That is because the perception of high quality does not necessarily lead to repeat purchase if this quality does not lead to achieving a certain level of satisfaction. This last relationship is not considered definitive, because quality is not the only guarantee of customer satisfaction.

B. Positive mouth-to-ear contact:

The behavior of speaking positively about a product or service is one of the most important positive behaviors resulting from satisfaction. It means that the customers store the feeling and positive impression resulting from their consumer experience in their memory to transmit it to the individuals around them. This type of communication constitutes a free and highly effective media in attracting customers.

C. Loyalty:

What distinguishes the state of loyalty is the presence of a kind of connection and attachment that arises between the customer and the company. The satisfied customer is willing to be loyal to the company they deal with based on a state of psychological comfort towards the service they chose voluntarily.

3.7.2 The Customer Satisfaction Improvement Tools

The companies do not only seek to satisfy their customers, but rather they are in constant search for ways that would enable them to improve levels of satisfaction. In addition, answer and address cases of dissatisfaction by relying on a variety of means. For example, the transition from a state of dissatisfaction to a state of satisfaction. In the field of services, the state of dissatisfaction is generated from a set of gaps. These gaps are the result of the differences between expectations and actual performance. That gap must be reduced to return to the state of satisfaction. This depends on the companies' ability to discover the gaps generated between expectations and performance and the possibility of reducing them (Gonzalez, 2019).

Follow up of the client is another tool of customer satisfaction. Following up on the customers and maintaining contact between them and the company aims to build a strong relationship. This relationship can be developed in the form of personal and individual relationships, given that each customer has its own peculiarities. Improving the perceived quality is another tool of improving high quality products. It was mentioned that perceived quality is one of the precursors of satisfaction. It evaluates by the customer as an important aspect of their performance, achieving part of its level of satisfaction.

3.8. Measuring the Degree of Customer Satisfaction

Measuring customer satisfaction is not the same as measuring an organization's performance. For example, while the quality of products and services may be satisfactory, client satisfaction may not be (Cengiz, 2010). As indicated in figure (3.2), there are four stages or degrees of customer satisfaction. These are the levels:

- At the most basic level, meet client expectations.

- Meet or exceed client expectations.
- Make the consumer happy.
- The highest level is to astound the buyer.

In general, one of three main methods can measure the degree of customer satisfaction. These methods are indirect measurements, qualitative measurements, and quantitative measurements.

3.8.1. Indirect Measurements

These measurements are not related to analyzing the behavior of satisfaction or dissatisfaction with the customer. However, they are related to the study and analysis of the elements related to the organization's activity. This activity is usually affected by the outcomes whether in cases of satisfaction or dissatisfaction with the customer (Su, 2004). These elements are:

1. Market share:

The market share is determined based on the number of clients. The market share is expressed as the increase in the number of organizations' clients. Therefore, the loss of a client necessarily means the loss of part of the market share. The degree of customer satisfaction can be known from the fact that the increase in the market share of the organization. In other words, the increase in the number of customers of an organization explains that the customers are satisfied with its services provided.

2. Customer retention or loss rate:

The retaining customers means their continuation in dealing with the organization. Specifically, moving from focusing on the effect of satisfaction in building loyalty to the extent to which the customers' loyalty expresses the level of their satisfaction. It is assumed that the loyal customer remains loyal to the organization. That can happen when the organization's performance achieves the level of satisfaction that guarantees customer loyalty (Klaus and Maklan, 2013).

The organization finds in the loyalty of its customers sufficient evidence of their high level of satisfaction. However, this assumption remains relative and varies from one field to another. In fact, the satisfied customer is not necessarily a loyal customer. Therefore, the loss of customers will not always reflect their low level of satisfaction.

Figure 3. 2: The levels of customer satisfaction.



Source: Voice of the customer, (2022).

3. Repeatedly receiving the same services:

This scale refers to calculating the average purchase for a group of customers. The higher the average, the higher the levels of satisfaction and vice versa. However, this scale may have kind of shortcoming and lack of significance. The defect that makes this shortcoming is that the average is affected by the outliers' values. The abnormality is balanced between the number of purchases that are too high and too low, and it becomes unrepresentative (Arbore and Busacca, 2009).

3.8.2. Qualitative Measurements

The indirect measurements were not related to the study of the client's behavior. They were based on estimates of variables that do not explain the reality of the state of satisfaction or dissatisfaction. Therefore, it is important to get closer to the clients and analyzing their behavior directly to know the incentives or obstacles to their satisfaction. The qualitative measurements have become an important tools of identifying the level of customer satisfaction. Examples of these measurements are the following (Olsen et al., 2014):

1. Customer complaint management:

The complaint is one of the special answers to the state of dissatisfaction. It expressing dissatisfaction with the poor performance of the service. The process of handling the customers' complaint is based on listening to them. In addition, achieving contact for a certain period or permanent contact. For example, the organization calls the customers and conducts a direct dialogue with them.

2. Research of missing customers:

The organization seeks through these researches to achieve two important objectives. The first one is identifying and knowing the differentiating factors of the customer. The second one is identifying the reasons for some customers' interruption from dealing with it. The second objective is the main motive for conducting research on missing clients. The organization conducts interviews with some clients who have transferred to other organization. The do that to conduct a dialogue and listen to the clients' answer regarding the reasons that prompted them to switch. This aim is to know the actions that can be taken (Hill and Alexander, 2017).

The actions means what must be done in order to overcome the problems posed by the clients who were involved in the study.

3. Exploratory research:

This type of qualitative research is considered a necessary prelude to carrying out quantitative research. The organization that wants to measure the satisfaction of its customers must first determine what it will measure (Grigoroudis and Siskos, 2002).

This is what is recognized by conducting an exploratory study. Thus, the exact identification of the research problem, hypotheses and study elements.

3.8.3. Quantitative Measurements

The qualitative study allows providing information, but it is not sufficient in some cases. It allows the organization to understand a certain phenomenon or behavior issued by the customer. For example, understanding the reasons for satisfaction and the reasons for dissatisfaction. This information is usually collected from an interview with customers, but it may be inaccurate and taken from unrepresentative sample of the community. It gives the organization the ability to respond, but building strategy requires knowing the quantification of data related to behaviors and beliefs (He et al., 2011).

The quantitative measurements go through the following stages (Rossomme, 2003; Fan and Jiang, 2012):

1. Determine the objectives of the measurements: The objectives of the quantitative measurements can be summarized as follows:
 - Measuring the importance of each satisfaction factor.
 - Measuring the level of satisfaction with the organization's performance related to the most important factors.
 - Measuring the sample's overall satisfaction with the organization's performance.
 - Knowing the most important factors in raising the level of satisfaction, and comparing them to the organization's performance level.
2. Selection of the sample: The sample of the quantitative measurements must be accurate and representative. The sample is selected according to the following steps:
 - Determining the scope of the study, which includes the time and place frame.
 - Determining the population of the study, which means the population from which the sample will be drawn.
 - Determining the methods of inspection or withdrawal

- Determining sample size:

After performing the drawing process, the required sample size comes. It is important to indicate that the following must be taken into account in determining the sample size:

- The cost of sampling, which is directly proportional to the size of the sample.
- The time available for conducting the study.
- The approved survey form (interview, telephone, administrative questionnaire).
- The work carried out based on the results and their importance. Since more important and strategic decisions required a high level of accuracy, a larger sample size is required.

3. Methods of investigation: Some issues must be determined before preparing the questionnaire for the quantitative study. For example, the methods in which the elements of the sample will be surveyed. The type of questions that will be included in the questionnaire. The methods of formulating them. Their number must be commensurate with the method of the survey. There are three basic methods of investigation, which are the individual interviews, the telephone survey, and the administrative questionnaire (Liang et al., 2021).

4. Preparation of the questionnaire: The step refers to listing the questions included in the questionnaire. The following principles must be taken into account in the drafting process (Froehle and Roth, 2004):

- The questions must be understandable and free of any complexity.
- Avoid double questions, as each question must have an independent answer.
- Avoid bias in asking questions.
- Avoid directing the respondent to a specific answer.
- The ability of the question to achieve its objective.
- The respondent possesses the information necessary for the answer.

5. Data collection: After conducting interviews, telephone calls, or collecting distributed questionnaires, a certain amount of raw information has obtained. It needs to be organized and statistically processed in order to be used as a ready-made material for decision-making.
6. Data analysis and presentation: The data is analyzed is based on the nature of the answer. If it is qualitative, it needs content analysis and a good understanding of the answer. If the answers are quantitative, we rely on statistical methods. The analysis includes several levels, which are (Kenett and Salini, 2011):
- Measuring of importance and priority to the customer.
 - Measuring the average importance for each element separately.
 - Identifying the satisfaction measures, and satisfaction levels for each component.
 - Measuring the overall satisfaction of the customer with the performance of the organization.
 - Measuring the total satisfaction of the studied sample with the performance of the organization.
 - Comparing the importance of each element to the organization's performance.

3.9. Customer Satisfaction Measurement Standards

Customers' mental perceptions of the business, product, or service are reflected in satisfaction. This emotion represents their views on the institution, product, or service. Customer satisfaction standards fluctuate from one institution to the next and depending on the area in question. It is mirrored in the product field by product quality, product longevity, product design, product usability, and product performance (Kenett et al., 2011).

It is mirrored in the sphere of delivery through prompt and quick delivery. It is evident in the availability of staff and delegates in the field of personnel and services.

Furthermore, it is by staff and delegate expertise, as well as the speed with which problems are solved and grievances are handled.

Furthermore, by the speed with which queries are answered, after-sales services, and employee and delegate professionalism. It is reflected in the sphere of price by a competitive price and parity between the product's value and the price paid. It is mirrored in the realm of regulation by the ease of communication, doing business, and transparency.

3.10. Disadvantages of Traditional Customer Satisfaction Measurement Methods

Traditional customer satisfaction measurement methods have some shortcomings and weaknesses including (Grnholdt and Martensen, 2005):

1. Most questionnaires are very long and waste customer time. In addition, they complicating the data analysis as well. For example, filled out a paper form with 20-30 questions next to the store box.
2. It appears that these surveys are more intended to produce a report than to learn and change employee behavior in order to achieve customer loyalty.
3. Most customer satisfaction surveys are without names. As a result, the customer cannot be traced and the feedback loop closed with each individual customer.
4. Questionnaire's questions are not designed with the aim of interacting with the customers and in their language.
5. The response rate to customer satisfaction surveys is low, and therefore its results cannot be relied upon.
6. The results are sometimes manipulated, such as a store branch or a customer support specialist asking the customer to give him a high score.
7. It is conducted once a year and cannot reflect actual customer feedback.

3.11. The Strategies for Building Better Relationships with Customers

Some of the main strategies, which are shown in figure (3.3), are used to build better relationships with clients and achieve the customer satisfaction are as follows (Javed and Cheema, 2017):

A. Focusing on Employee:

All employees from the lowest to the highest level must integrate their activities to achieve the highest degree of customer satisfaction. Therefore, the organization must adopt good plans, strategies to encourage employee towards achieve the goal of customer satisfaction.

Figure 3. 3: Strategies for building customers satisfaction.



Source: Customer Service (2022).

B. The operation system

A process must be derived from the customers' point of view to reach complete customer satisfaction. Based on that the operation systems of organization should be

in line with towards satisfying the customers. It must also be updated based on the changes in customers' needs and desires.

C. Product and Service

The product or service offered must constantly provide benefit for customers. The customer expectations must also be kept in mind (Lian and Yoong, 2017).

The organizations must monitor their products and services. That can help them actually meet their customers' needs and desires. This strategy is important in achieving the customer satisfaction

D. Integrated work system:

The organization should successfully integrates all people into the product and service process. In addition, they should manage them to achieve complete customer satisfaction.

E. Customer analysis:

Current and future customers are periodically analyzed regarding to their purchasing behavior, and taste and preferences. In addition, on their satisfaction level, and where they are on the loyalty ladder. For customer and competitor analysis, the organization may rely on an outside agency for unbiased information (Brown, 2016).

F. Cost analysis:

The organization should try to carry out the process of cost reduction continuously. That can be done through adopting value analysis and value engineering without compromising on quality. The company should provide quality products and services at discounted prices to customers. This will avoid diverting customers to competitors' products and services.

G. Focusing on performance:

Each product in the product and service supply chain must be regularly monitored and corrective measures taken. This should happen on a regular basis. An impartial committee of well-trained members should also be formed to assess performance and initiate corrective actions (Yulisetiari, 2016).

H. Training on supply chain personnel:

Each link in the supply chain is critical. The company should take the initiative to give cutting-edge training in all sectors of the supply chain. Customer service, communication, complaint management, and other topics will be covered in training.

I. Relationship-based pricing schemes

Customers who make a repeat purchase of a company's product or service will be charged a lower price than others. For example, hotels, airlines, nursing homes usually adopt this strategy. This method will induce customers to continually purchase from or avail the service from the same organization. This relationship with customers will emerge and continue, and lead to customer satisfaction (Lin et al., 2016).

J. Participation in social activities:

An organization must come forward to identify itself, with all social events with the organization and customers concerned. That can help providing relief to the community suffering due to natural disasters, as an example. The organization must be active participation in providing social responsibility and sponsorship different events. They must help in holding the relationship with customers in high esteem and good practices.

4. THE EMPIRICAL ANALYSIS

4.1. Background

The relationship between electronic banking (EB) and customer satisfaction (CS) is tested in this chapter. This chapter tests the effect of electronic banking (EB) and customer satisfaction (CS) a group of Iraqi banks. The study is important since its results can show the degree that the EB influences the CS of these banks. The banks' managements can use these results to improve their operation systems. The study is applied on 10 of Iraqi banks that are located in the capital of Iraq (Baghdad). The banks were selected because they are big banks that have too many customers. They work under high competition market. Their main goal is to enhance their competitive advantages by increasing their customer satisfaction.

The banks started many strategies to reach that goal. Most importantly, they try hard dealing with challenges to raise the level of their customer satisfaction. The banks are both public and private, and have more than 25000 employees with different positions. The banks' characteristics are shown in table (4.1). The table shows information about the 10 banks, including their sizes, and ownership. The table also shows that all of these banks have applied strategies to improve their CS.

Table 4. 1: The characteristics of the companies.

The Bank's ID	Ownership	Size
1	Public	Big
2	Public	Big
3	Private	Big
4	Private	Big
5	Public	Big
6	Private	Big
7	Private	Big
8	Private	Big

Source: The Ministry of Finance is the Iraq.

4.2. The Model

The conceptual model represents the relationships between EB and CS as shown in figure (4.1). The figure shows that EB affects the CS, which is in line with the literature. That is, the literature indicates that EB could have positive and significant effect on CS. The figure shows that EB affects the CS in the banks. The model shows that EB dimension has seven scales. The figure shows that the CS dimension has six scales. (Jansen and Van Schaik, 2018); (Unyathanakorn and Rompho, 2014).

The number of items, the references, and the codes of the study dimensions are listed in table (4.2). According to the table, the EB dimension has 21 items and coded as EBi. The CS has 15 items, and coded as CSi.

Figure 4. 1: The conceptual model.

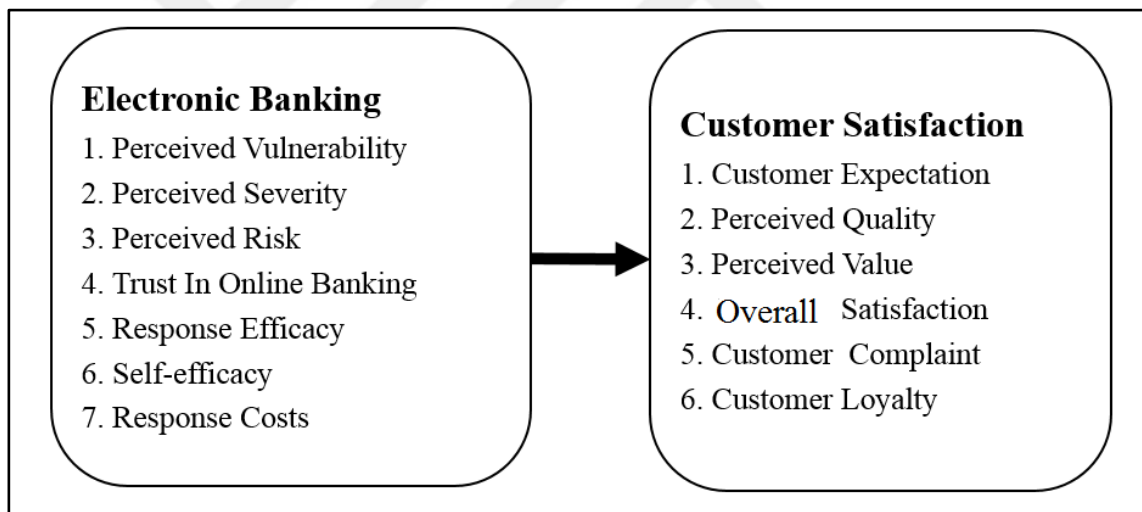


Table 4. 2: The study dimensions.

Dimensions	Number of Items	Code	The Sources
Electronic Banking	21	EB	(Jansen and Van Schaik, 2018)
Customer Satisfaction	15	CS	(Unyathanakorn and Rompho, 2014)

4.3. The Sample and Data

The sample of the study is drawn from the employees of the banks. These banks are located in Baghdad, the capital of Iraq. The population is about 700 employees. A random sample method was used to draw a sample. The sample size is the number of sample elements that must be drawn from the population to represent the community. The sample size is calculated for this study based on the Slovin's formula (Tejada and Punzalan, 2012).

$$n = N / (1 + Ne^2) \dots \dots \dots \text{Slovin's Equation.}$$

Where (n) is the sample size; (N) is the sample population; (e) is the confident level, which is 95%. Based on these givens, the sample size is 255.

The study data was collected using questionnaire method. The questionnaire was designed to collect data on the study dimensions (EB and CS). The data provides also demographic information about the respondents. The references of the questionnaire are shown in table (4.2) above. A copy of the questionnaire is in appendix A. The items of the questionnaire have five Likert scales. They are weighted as, 1: Strongly Disagree, 2: Disagree, 3: Normal, 4: Agree, 5: Strongly Agree. The items were coded as (EBi and CSi). The questionnaire sheets were sent to 400 employee of the eight banks. After cleaning the sheets, the final sample size used is 262.

4.4. The Results of the Study

This section presents all the statistical results of this study as in the following:

4.4.1. Demographic Information

Analyzing the data and report the results was done using the SPSS software version 23.0. The demographic information of the respondents is the first part of the results. The first part reports the information about gender as shown in table (4.3). The gender information indicates that the males represent 48% in the sample, and the female are 52%. The distribution seems to be balanced since the number of females in the sample is close to the number of males.

Table 4. 3: Gender information.

Item	Frequency	Percent %
Male	126	48 %
Female	136	52 %
Total	262	100 %

The information about the age of respondents is shown in table (4.4). The age information of the respondents was divided into four categories. The table shows that the categories (18-30 year) represents the lowest percentage (22%). The category (31-40 year) represents (28%). The age category (41-50 year) represents (23%). The age category (More than 50 year) represents (27%) which is the highest percentage. The age information indicates that the sample has majority of old age employees.

Table 4. 4: Age information.

Item	Frequency	Percent %
18-30	59	22 %
31-40	73	28 %
41-50	59	23 %
More than 50	71	27 %
Total	262	100 %

The education information of respondents is in table (4.5). The education information of the respondents was divided into five categories (1: high school (HS), 2: diploma, 3: bachelor (BA), 4: Masters, and 5: PhD). The number of participants with university degree (BA) is the highest (42%). The number of participants with high school (29%). The participants with graduate degrees (MA and PhD) represent around (8%), which is the lowest percentage. In general, the sample has good levels of participants' education, which can help getting good information and data.

The information about work position of the respondents is shown in table (4.6). The distribution of the participants according to their designation indicates that the majority of them are employees (60%). The number of employee is higher than the number of manager (40%). In general, it is good to have a sample with variety of participant who have different work position since it provides good data.

Table 4. 5: Education information.

Item	Frequency	Percent
HS	77	29 %
Diploma	68	26 %
BA	109	42 %
Master	5	2 %
PhD	3	1 %
Total	262	100 %

Table 4. 6: Work position.

Item	Frequency	Percent
Manager	104	40 %
Employee	158	60 %
Total	262	100 %

The work experiences are reported in table (4.7). The work experiences of the respondents were divided into four categories, which are (1-3 year), (4-10 years), (11-15 year), and (More than 15 year). The table shows that around 82% of participants have work experiences more than 3 years. That confirms the goodness of the sample in term of the work experiences.

Table 4. 7: Work experiences.

Item	Frequency	Percent
1-3 year	47	18 %
4-10 year	129	49 %
11-15 year	48	18 %
More than 15 year	38	15 %
Total	262	100 %

4.4.2. Descriptive Statistics

Analyzing the descriptive statistics of the study dimensions requires understanding some aspects. For example, understanding the central tendency, variability, and variable distribution, which are all quantified by the characteristic values. The mean, median, and mode are central tendency measures (Manikandan, 2011).

The means are used to specify the series' values. The mode measure is used to represent the value that occurs the most frequently in a data set. The median value is where the data set is divided into two equal parts

The standard deviation measures variability to assess the scattering of the series values. These measures indicate how far the series values deviate from the mean. The standard deviation will be used as a measure of variability in this study. Skewness and Kurtosis values are used as distribution measures. They depict the data set's distribution (Lee, 2015).

Skewness is the degree to which a data set's distribution deviates from symmetry. If the Skewness value is negative, the series is skewed to the left. Skewness denotes a data distribution that is skewed to the right. Kurtosis is the sharpness of the data set's distribution. This degree of sharpness is compared to the normal distribution's sharpness. The distribution is said to be flat if its kurtosis is greater than that of the normal distribution. If it is less, it is referred to as pointed. The Skewness and kurtosis values indicate whether or not the data distribution is normal. If the majority of these values fall within the range of +1.500 to -1.500, the distribution is considered as normal. (Kim and White, 2004). The characteristic values of the study dimensions (EB and CS) are shown in table (4.8).

Table 4. 8: The descriptive statistics.

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
EB	262	2.98	0.45	-0.15	-0.05
CS	262	2.95	0.54	0.01	0.67

The table indicates that the mean value of EB is (2.98), and the mean value of CS is (2.95), which are very close to each other. According to the table, all Skewness and Kurtosis values are within the range. Therefore, the distributions of all dimensions are normal.

4.4.3 Factor Analysis

It not sufficient to only perform and report the results of the factor analysis. It is critical to understand and interpret these results. It is critical to review some indicators that are related to this issue. The first indicator is the DLO Fit Value. It is the Kaiser-Meyer-Olkin (DLO) test, which determines whether the sample size is adequate for factor analysis. It is the first condition for the scales' suitability for factor analysis. A DLO value less than 0.50 indicates that the data are unsuitable for factor analysis. Although it is sufficient for the DLO value to be greater than 0.50, it is preferable to be greater (Shrestha, 2021).

The next indicator is the Bartlett Test of Sphericity. The Bartlett Test of Sphericity is the second requirement for the scales' suitability for factor analysis. It demonstrates whether or not the scales have a relationship. This relationship necessitates the significance of the Bartlett Test of Sphericity.

Another indicator is the Cronbach's Alpha for Reliability Test. Cronbach's Alpha is a measure of the internal consistency of scales and sub-dimensions. Cronbach's Alpha values range from to (0 to 1). When the value is close to one, the internal consistency of the scales improves. This means that the scales' dependability improves while it deteriorates in other ways. The scale's low Cronbach Alpha internal consistency coefficient indicates that it measures more than one feature at the same time (Ercan et al., 2007). Table 1 shows the interpretation of Cronbach's Alpha values (4.9).

Table 4. 9: The Cronbach's alpha ranges values.

Value Range	COMMENT
> 0,900	Perfect
> 0,800	Quite Well / Pretty Good
> 0,700	Good
> 0,600	Acceptable Upon Inquiry
≥ 0,500	Insufficient Acceptable Under Specific Circumstances
< 0,500	UnaccWQtable

Source: Ercan et al., (2007).

4.4.3.1. The Results of Factor Analysis

The results of factor analysis for EB dimension are shown in table (4.10). The results indicate that the seven factors were extracted from the items of this dimension with high factor loadings. The first factors are coded as shown in table (4.11). These factors will be the **independent variables**.

Table 4. 10: Factor analyses for EB.

Items	Factor Loading						
	1	2	3	4	5	6	7
EB8	0.82						
EB9	0.74						
EB7	0.71						
EB6		0.80					
EB4		0.77					
EB5		0.72					
EB20			0.82				
EB19			0.75				
EB21			0.74				
EB3				0.78			
EB2				0.75			
EB1				0.73			
EB15					0.77		
EB14					0.76		
EB13					0.63		
EB18						0.76	
EB17						0.73	
EB16						0.69	
EB11							0.84
EB12							0.79

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Table 4. 11: The factors of EB with their reliability.

Factor Code	Factor (Independent Variables)	Cronbach's Alpha
EBF1	Perceived Risk	0.66
EBF2	Perceived Severity	0.78
EBF3	Response Costs	0.63
EBF4	Perceived Vulnerability	0.81
EBF5	Response Efficacy	0.77
EBF6	Self-Efficacy	0.72
EBF7	Trust in Online Banking	0.83

The results of factor analysis for CS dimension are shown in table (4.12). The results indicate that the five factors were extracted from the items of this dimension with high factor loadings. The first factors are coded as shown in table (4.13). These factors will be the **dependent variables**.

Table 4. 12: Factor analyses for CS.

Items	Factor Loading				
	1	2	3	4	5
CS1	0.80				
CS2	0.76				
CS3	0.75				
CS5		0.82			
CS4		0.74			
CS6		0.69			
CS10			0.83		
CS11			0.82		
CS9			0.48		
CS8				0.86	
CS7				0.83	
CS15					0.84
CS14					0.82

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 4. 13: The factors of CS with their reliability.

Factor Code	Factor (Dependent Variables)	Cronbach's Alpha
CSF1	Customer Expectation	0.76
CSF2	Perceived Quality	0.73
CSF3	Overall Satisfaction	0.85
CSF4	Perceived Value	0.69
CSF5	Customer Loyalty	0.70

4.4.3.2. The Reliability Analysis

The results of reliability analysis are shown in the tables (4.11), (4.13), and (4.14). The table shows that the DLO – Fit and Cronbach Alpha values are good. Furthermore, total variance is well explained and acceptable for all dimensions. These findings indicate that the data is trustworthy and suitable for testing the study hypotheses.

Table 4. 14: The reliability analysis.

Variable	Kaiser-Meyer-Olkin	Bartlett's Test of Sphericity (Sig.)	Total Variance Explained	Cronbach's Alpha
EB	0.570	0.000	63.296	0.754
CS	0.589	0.000	60.951	0.726

4.5. Regression Analysis

Before stating the regression analysis, it is important to specify the hypotheses of the study that have to be tested. The study hypotheses are:

H₀: One or more of independent variables (EBFi) have no impacts on the all dependent variables (CSFi) of the banks.

H₁: The EBF1 (Perceived Risk) has significant impact on one or more of dependent variables.

H₂: The EBF2 (Perceived Severity) has significant impact on one or more of dependent variables.

H₃: The EBF3 (Response Costs) has significant impact on one or more of dependent variables.

H₄: The EBF4 (Perceived Vulnerability) has significant impact on one or more of dependent variables.

H₅: The EBF5 (Response Efficacy) has significant impact on one or more of dependent variables.

H₆: The EBF6 (Self-Efficacy) has significant impact on one or more of dependent variables.

H₇: The EBF7 (Trust in Online Banking) has significant impact on one or more of dependent variables.

Performing the regression analysis requires testing the correlation between the variables. These variables are the factors that emerged from the factor analyses, namely, **the dependent variables, and the independent variables**. The correlations between these variables are shown in table (4.15). The table shows that there are significant correlations between the variables. As a result, the regression analysis will include seven independent variable and five dependent variables. That is, there will be five regression models, one model for each dependent variable.

Table 4. 15: The correlation matrix.

Variable	CSF1	CSF2	CSF3	CSF4	CSF5
EBF1	0.00	-0.06	0.15*	0.72**	0.10
EBF2	0.10	0.83**	0.11	-0.04	0.06
EBF3	0.03	-0.02	0.06	0.03	0.92**
EBF4	0.80**	0.04	0.11	0.02	0.04
EBF5	0.08	0.02	-0.09	-0.15*	-0.02
EBF6	-0.07	0.02	0.013	0.03	0.02*
EBF7	0.17**	0.05	.71**	0.13*	0.06

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The regression analysis also requires that the variables have normal distribution. The test is run based on Kolmogorov – Smirnov test and Shapiro – Wilk Test. A 95% confidence interval were used to ensure that the distributions of the variables are normal (Hanusz and Tarasiska, 2015).

The significance of the variables must be less than 0.05 for the distribution to be normal. Table (4.16) shows the results of normality test

Table 4. 16: The tests of normality.

Item	Kolmogorov-Smirnova (sig.)	Shapiro-Wilk (Sig.)
EBF1	0.000	0.000
EBF2	0.000	0.000
EBF3	0.001	0.000
EBF4	0.000	0.000
EBF5	0.000	0.000
EBF6	0.000	0.000
EBF7	0.000	0.000
CSF1	0.000	0.000
CSF2	0.000	0.000
CSF3	0.000	0.000
CSF4	0.000	0.000
CSF5	0.000	0.000

The results in table (4.16) show the significance values of Kolmogorov – Smirnov / Shapiro – Wilk Tests. As mentioned before, if the values of Kolmogorov – Smirnov test and Shapiro – Wilk Test are significant at 95% level, the distribution of the data is normal. Since the table shows that all values of these two tests are significant at 95%, then, the data are normally distributed.

4.5.1. The Results of Regression Analysis

Five regression models are performed to test the study hypotheses as following:

4.5.1.1. The First Model (Customer Expectation is the Dependent Variable)

The first regression model includes CSF1 (Customer Expectation) as dependent variable and all independent variables. The results of ANOVA analysis (model 1) are shown in the table (4.17). The ANOVA. Using samples from each group, ANOVA analyzes the levels of variance within them. If there is a lot of variance within the data groups, the mean of a sample drawn from the data is more likely to be different (Kim, 2014).

Table 4. 17: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	213.93	7.00	30.56	69.67	.000 ^b
	Residual	111.42	254.00	0.44		
	Total	325.34	261.00			

a. Dependent Variable: CSF1

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

ANOVA takes sample size into account. That is, the larger the sample, the less likely outliers will be chosen at random. If the means of the samples are far apart, the means of the entire group are more likely to be as well. All of these factors are combined to produce the F value. The F value can be used to determine if the differences between groups are statistically significant. According to Table (4.17), the F test is statistically significant at 1% level of confidence (p-value <0.01), indicating that differences between groups are statistically significant.

The estimated coefficients of first regression model are shown in table (4.18). The significance (sig =p-value) of each independent variable that is expected to explain the dependent variable is checked. The (sig =p-value) of variables with a value of less than 0.05 explains the dependent variable significantly at 5% level of confidence. (Freund et al., 2006).

Table 4. 18: The coefficients of the regression model (1).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.34	0.28		1.24	0.22
	EBF1	0.00	0.04	0.00	-0.10	0.92
	EBF2	0.08	0.04	0.08	2.11	0.04
	EBF3	0.00	0.04	0.00	-0.02	0.99
	EBF4	0.82	0.04	0.80	21.25	0.00
	EBF5	0.01	0.04	0.01	0.24	0.81
	EBF6	-0.03	0.04	-0.03	-0.75	0.45
	EBF7	0.02	0.03	0.02	0.58	0.56

a. Dependent Variable: CSF1

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

The standardized beta coefficients are numbers in the coefficients table that show the contributions of the independent variables. When looking at these coefficients, it is seen that the EBF2 (Perceived Severity) has positive and significant impact on CSF1 (Customer Expectation ($\beta = 0.08$)). The EBF4 (Perceived Vulnerability) has positive and significant impact on CSF1 (Customer Expectation ($\beta = 0.80$)). The other variables have no impact on CSF1 (Customer Expectation). In this context, model (1) shows that the hypotheses H2 and H4 are accepted, and the other hypotheses are rejected.

$p_{\text{Perceived Severity}} = 0.04 < 0.05$  (Acceptance of H₂)
 $p_{\text{Perceived Vulnerability}} = 0.00 < 0.1$  (Acceptance of H₄)

It is also important to check the power of analysis (R^2 Interpretation). It is a statistic that indicates the goodness of fit of a model. In regression, the R^2 coefficient of determination is a statistical measure of how well the regression predictions match the actual data points. If the value of R^2 is (1) indicates that the regression predictions perfectly fit the data (Hair et al., 2011). Table (4.19) describes how to interpret the R^2 value. For example, the R^2 value of 0.521 shows that the explanatory power of the model is acceptable. The summary of model 1, which is shown in table (4.20), shows that R^2 value is 0.66, which indicates that the model power is close to be strong.

Table 4. 19: The interpretation of the R^2 value.

Comment	R^2 Value
Very Weak	$R^2 < 0,25$
Weak	$0,25 \leq R^2 < 0,50$
Moderate	$0,50 \leq R^2 < 0,75$
Substantial (Strong)	$R^2 > 0,75$

Source: (Hair et al., 2011).

Table 4. 20: The Model (1) Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.811	0.66	0.65	0.66

4.5.1.2. The Second Model (Perceived Quality is the Dependent Variable)

The second regression model includes CSF2 (Perceived Quality) as dependent variable and all independent variables. The results of ANOVA analysis (model 2) are shown in the table (4.21).

Table 4. 21: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	218.00	7.00	31.14	87.35	0.000 ^b
	Residual	90.56	254.00	0.36		
	Total	308.57	261.00			

a. Dependent Variable: CSF2

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

According to Table (4.21), the F test is statistically significant at 1% level of confidence (p-value <0.01), indicating that differences between groups are statistically significant. The estimated coefficients of second regression model are shown in table (4.22).

Table 4. 22: The coefficients of the regression model (2).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	0.73	0.25		2.95	0.00
	EBF1	-0.01	0.04	-0.01	-0.42	0.67
	EBF2	0.84	0.03	0.85	24.58	0.00
	EBF3	-0.09	0.03	-0.10	-2.79	0.01
	EBF4	0.03	0.03	0.03	0.97	0.33
	EBF5	-0.03	0.04	-0.03	-0.74	0.46
	EBF6	0.02	0.04	0.02	0.63	0.53
	EBF7	-0.04	0.03	-0.04	-1.21	0.23

a. Dependent Variable: CSF2

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

The standardized beta coefficients show that the EBF2 (Perceived Severity) has positive and significant impact on CSF2 (Perceived Quality ($\beta = 0.85$)). The EBF3 (Response Costs) has negative and significant impact on CSF2 (Perceived Quality ($\beta = -0.10$)). The other variables have no impact on Perceived Quality. In this context, model (2) shows that the hypotheses H2 and H3 are accepted, and the other hypotheses are rejected.

$p_{\text{Perceived Severity}} = 0.00 < 0.01$  (Acceptance of H₂)

$p_{\text{Response Costs}} = 0.01 < 0.1$  (Acceptance of H₃)

The summary of model 2, which is shown in table (4.23), shows that R² value is 0.71, which indicates that the model power is strong.

Table 4. 23: The Model (2) Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	0.841	0.71	0.70	0.60

4.5.1.3. The Third Model (Overall Satisfaction is the Dependent Variable)

The third regression model includes CSF3 (Overall Satisfaction) as dependent variable and all independent variables. The results of ANOVA analysis (model 3) are shown in the table (4.24).

Table 4. 24: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	137.92	7.00	19.70	38.30	0.000 ^b
	Residual	130.66	254.00	0.51		
	Total	268.58	261.00			

a. Dependent Variable: CSF3

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

According to Table (4.24), the F test is statistically significant at 1% level of confidence (p-value <0.01), indicating that differences between groups are statistically significant. The estimated coefficients of third regression model are shown in table (4.25). The standardized beta coefficients show that the EBF7 (Trust in Online Banking) has positive and significant impact on CSF3 (Overall Satisfaction ($\beta = 0.70$)). The other variables have no impact on Overall Satisfaction. In this context, model (3) shoes that the hypotheses H7 is accepted, and the other hypotheses are rejected.

$p_{\text{Trust in Online Banking}} = 0.00 < 0.01$  (Acceptance of H₇)

Table 4. 25: The coefficients of the regression model (3).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
3	(Constant)	1.30	0.30		4.36	0.00
	EBF1	0.05	0.04	0.05	1.21	0.23
	EBF2	0.03	0.04	0.03	0.77	0.44
	EBF3	0.02	0.04	0.02	0.41	0.68
	EBF4	-0.02	0.04	-0.02	-0.40	0.69
	EBF5	-0.06	0.04	-0.07	-1.49	0.14
	EBF6	-0.03	0.04	-0.03	-0.59	0.55
	EBF7	0.57	0.04	0.70	15.49	0.00

a. Dependent Variable: CSF3

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

The summary of model 3, which is shown in table (4.26), shows that R^2 value is 0.51, which indicates that the model power is moderate.

Table 4. 26: The Model (3) Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	0.717	0.51	0.50	0.72

4.5.1.4. The Fourth Model (Perceived Value is the Dependent Variable)

The fourth regression model includes CSF4 (Perceived Value) as dependent variable and all independent variables. The results of ANOVA analysis (model 4) are shown in the table (4.27).

Table 4. 27: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
4	Regression	307.54	7.00	43.93	197.77	0.000 ^b
	Residual	56.42	254.00	0.22		
	Total	363.96	261.00			

a. Dependent Variable: CSF4

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

According to table (4.27), the F test is statistically significant at 1% level of confidence (p-value <0.01). It indicates that differences between groups are statistically significant.

The estimated coefficients of fourth regression model are shown in table (4.28). The standardized beta coefficients show that the EBF1 (Perceived Risk) has positive and significant impact on CSF4 (Perceived Value ($\beta = 0.91$)). The other variables have no impact on Perceived Risk. In this context, model (4) shows that the hypotheses H1 is accepted, and the other hypotheses are rejected.

$p_{\text{Perceived Risk}} = 0.00 < 0.01$  (Acceptance of H₁)

Table 4. 28: The coefficients of the regression model (4).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	0.19	0.20		0.96	0.34
	EBF1	1.01	0.03	0.91	36.23	0.00
	EBF2	0.00	0.03	0.00	-0.11	0.91
	EBF3	-0.02	0.03	-0.02	-0.76	0.45
	EBF4	0.01	0.03	0.01	0.45	0.66
	EBF5	-0.04	0.03	-0.04	-1.56	0.12
	EBF6	-0.01	0.03	-0.01	-0.48	0.63
	EBF7	0.02	0.02	0.02	0.74	0.46

a. Dependent Variable: CSF4

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

The summary of model 4, which is shown in table (4.29), shows that R² value is 0.84, which indicates that the model power is strong.

Table 4. 29: The Model (4) Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	0.919	0.84	0.84	0.47

4.5.1.5. The Fifth Model (Customer Loyalty is the Dependent Variable)

The fifth regression model includes CSF5 (Customer Loyalty) as dependent variable and all independent variables. The results of ANOVA analysis (model 5) are shown in the table (4.30).

Table 4. 30: ANOVA (Analysis of Variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	322.25	7.00	46.04	208.87	0.000 ^b
	Residual	55.98	254.00	0.22		
	Total	378.23	261.00			

a. Dependent Variable: CSF5

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

According to table (4.30), the F test is statistically significant at 1% level of confidence (p-value <0.01). It indicates that differences between groups are statistically significant. The estimated coefficients of fifth regression model are shown in table (4.31). The standardized beta coefficients show that the EBF1 (Perceived Risk) has positive and significant impact on CSF5 (Customer Loyalty ($\beta = 0.05$)). The EBF3 (Response Costs) has positive and significant impact on CSF5 (Customer Loyalty ($\beta = 0.92$)). The other variables have no impact on Customer Loyalty. In this context, model (5) shows that the hypotheses H_1 and H_3 are accepted, and the other hypotheses are rejected.

$p_{\text{Perceived Risk}} = 0.04 < 0.05$  (Acceptance of H_1)

$p_{\text{Response Costs}} = 0.00 < 0.01$  (Acceptance of H_3)

Table 4. 31: The coefficients of the regression model (5).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
5	(Constant)	-0.12	0.20		-0.59	0.56
	EBF1	0.06	0.03	0.05	2.00	0.04
	EBF2	-0.03	0.03	-0.02	-1.01	0.31
	EBF3	0.99	0.03	0.92	37.84	0.00
	EBF4	0.01	0.03	0.01	0.48	0.63
	EBF5	0.00	0.03	0.00	-0.07	0.95
	EBF6	0.00	0.03	0.00	-0.05	0.96
	EBF7	0.00	0.02	0.00	0.18	0.86

a. Dependent Variable: CSF5

b. Predictors: (Constant), EBF1, EBF2, EBF3, EBF4, EBF5, EBF6, EBF7

The summary of model 4, which is shown in table (4.32). It shows that R^2 value is 0.85, which indicates that the model power is strong.

Table 4. 32: The Model (5) Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
5	0.923	0.85	0.85	0.47

4.5.2. The Results Discussion

The relationships between electronic banking (EB) and customer satisfaction (CS), is investigated in this study. This study tested the impacts of EB on CS in a sample of Iraqi banks. The results of this study showed that the sample is good in terms of having high number of participants with high level of education and work experiences. The sample has balanced percentage of male and female, which indicates no sex bias. The participants in the sample have a variety of work positions, which can provide high quality of data.

The data was collected from eight of banks in Iraq. The data of this study provided information on the study dimensions, which are (EB) and (CS). The results of this study showed that the data was reliable and good to use for testing the study hypotheses. The factor analysis is performed using principles component analysis. The results indicated that EB has seven component extracted from factor analysis, which is the independent variable. The results indicated that CS has five component extracted from factor analysis. These five components are the dependent variables. The factor loading for all extracted factors are high. The total variance explaining and other indicators showed that the factor analysis was in good fit.

The regression analysis showed that there are significant correlations between the study variables. That means, the study hypotheses are accepted. Specifically:

- The perceived severity has positive and significant impact on customer expectation. When perceived severity increases (the customers feel that EB's fraud is a serious problem), the customer expectation increases by (0.08 unit of measure).

- The perceived vulnerability has positive and significant impact on customer expectation. When perceived severity increases (the customers feel that they at risk for being victimized by online banking fraud), the customer expectation towards EB increases by (0.80 unit of measure).
- The perceived severity has positive and significant impact on perceived quality. When perceived severity increases (the customers feel that they at risk for being victimized by online banking fraud), the perceived quality of EB increases by (0.85 unit of measure).
- The response costs has negative and significant impact on perceived quality. When response costs increases (the customers must follow the uniform safety rules when using EB), the perceived quality of EB decreases by (0.10 unit of measure).
- The trust in online banking has positive and significant impact on overall satisfaction. When the trust in online banking increases (the customers' trust online banking), the customers' overall satisfaction increases by (0.70 unit of measure).
- The perceived risk has positive and significant impact on perceived value. When the perceived risk of online banking increases (the customers' feel of being victimized by online banking fraud), the customers' perceived value of EB increases by (0.91 unit of measure).
- The perceived risk has positive and significant impact on customer loyalty. When the perceived risk of online banking increases (the customers' feel of being victimized by online banking fraud), the customer loyalty increases by (0.05 unit of measure).
- The response costs has positive and significant impact on customer loyalty. When the Response Costs of online banking increases (the customers must follow the uniform safety rules when using EB), the customer loyalty increases by (0.92 unit of measure).

The results showed that the R^2 values of the models, which expresses the explanatory power of the independent variables for the dependent variable, were very high (around 0.8). The value of R^2 show that the explanatory power of the models are strong in general. In other words, EB explains the dependent variable of CS strongly.

Based on the literature, it expected that EB have positive effect on the CS. For example, John and Rotimi (2014) tested the effect of EB on the CS. They found that EB has a positive and significant effect of CS. Therefore, the result of this study is in line with the literature. The explanation to this result is that EB can provide fast, easy, cheep, and efficient banking services for customers. That can lead the customers to have positive feeling about EB, which by the end increases their satisfaction.

5. CONCLUSION

The technology in different field is witnessing huge changes and developments. The most common technologies that has been changing very fast is the electronic services. Banks services, specifically, the electronic banking (EB) are strongly related to these type of technologies. Recently, banks are providing different electronic services to their customers. They try to achieve higher level of their customer satisfaction (CS). In this context, it is important to understand the role of electronic banking in terms of the users' satisfaction. Banks strive to provide the best services to their customers by keeping pace with modern and secure technical developments. That can allow the bank's customers to maximize their benefit from using these electronic banking services.

For banks to achieve high level of CS, they must adopt strategies related to improving their EB. This study investigate the effects of EB on CS in Iraqi banks. Some of the Iraqi banks started using different strategies and programs to improve their EB to enhance their CS. Therefore, it is important to evaluate these strategies and programs.

The purpose of the study is to evaluate the effectiveness of these strategies and programs in a sample of Iraqi banks. Specifically, it tests the effects of EB on CS in Iraqi Banks. The importance of this study is that it can help decision makers of Iraqi banks to understand the concepts EB and CS. In addition, to understand the role of EB in their CS. It can also help them developing the EB in these banks to meet their customers' needs. The study contribution is that it could add to the literature an analytical method to test the effects EB on CS in Iraq. That can be used for future research that may apply on different banks in Iraq.

This study was applied on eight banks in Iraq. These banks are important since they have big share of banking industry in Iraq. These banks are working under high competition market, and concerning with satisfying their customers' needs. They have adopted different strategies to improve their EB. They try dealing with challenges to raise the level of their customers' satisfaction.

The population of the study was 700 employees. They were the banks' top managers, and employees who are working in different positions. A random sample method was used to draw a sample, and the sample size used was 262.

The questionnaire was used to collect data about EB and CS, and demographic information about the respondents. Using SPSS 17.0 software, all the necessary statistical tests and analyses were performed. The results of this study showed that, in general, EB has a statistically positive and significant effect on the CS of Iraqi banks.

The study concludes that EB in the sample banks in Iraq can enhance their CS. The study concludes that these results support the study hypotheses, and in line with the literature. The study suggests that the banks should keep applying strategies and programs to improve their EB. They may also add other methods to improve their EB, which by the end increase their CS.

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APPENDICES

Appendix A: The study's questionnaire.

PART 1: Background Information	
Gender	☐ Male ☐ ☐ Female
Age	☐ 21 - 30 ☐ 31 – 40 ☐ 41 – 50 ☐ More than 51
Highest academic level	☐ High school ☐ Diploma ☐ BA (4 years collage) ☐ Master Degree ☐ PhD Degree
Designation in the organization	☐ Manager ☐ ☐ Employee
Working Experience with this organization	☐ Less than 1 year ☐ 1-3 year ☐ 4-6 year ☐ 7-9 year ☐ 10-12 year ☐ 13-15 year ☐ More than 15 year

PART 2: Electronic Banking					
In this part, you have five options that represent the degree of your answer about the benefits of Electronic Banking. Please select only one option for each question.					
Question	Strongly disagree	Disagree	Normal	Agree	Strongly agree
A. Perceived vulnerability					
1 - I am at risk for being victimized by online banking fraud					
2 - It is likely that I will become victim of online banking fraud					
3 - It is possible that I will become victim of online banking fraud					

B. Perceived severity					
4 - I believe that online banking fraud is a severe problem					
5 - I believe that online banking fraud is a serious problem					
6 - I believe that online banking fraud is a significant problem					
C. Perceived risk					
7 - I am afraid of being victimized by online banking fraud					
8 - I believe it can rather easily happen that criminals steal money during online banking sessions					
9 - I am afraid that others can access my online bank account without my permission					
D. Trust in online banking					
10 - I trust online banking					
11 - I trust my bank					
12 - I trust the internet for banking transactions					
E. Response efficacy					
13 - The uniform safety rules help in preventing online banking fraud					
14 - Complying with the uniform safety rules is effective in preventing online banking fraud					
15 - If I follow the uniform safety rules, I am less likely to be victimized by online banking fraud					
F. Self-efficacy					
16 - I am able to comply with the uniform safety rules					
17 - The uniform safety rules are easy to follow					
18 - Following the uniform safety rules is convenient					
G. Response costs					
19 - Following the uniform safety rules is time-consuming					
20 - Complying with the uniform safety rules requires a lot of mental effort					
21 - Complying with the uniform safety rules would require starting a new habit					

PART 3: Customer Satisfaction					
In this part, you have five options that represent the degree of your answer about the Customer Satisfaction in your city, Please select only one option for each question.					
Question	Strongly disagree	Disagree	Normal	Agree	Strongly agree
A. Customer Expectation					
1 - How do you perceive the overall quality of the bank's online banking service?					
2 - How well do you expect the bank's online banking service to respond to your personal needs?					
3 - How often do you expect the bank's online banking service to have an error or defect in the service?					
B. Perceived Quality					
4 - Which level of quality did you think you receive from the overall service of online banking?					
5 - How well did the bank's online banking service respond to your personal needs?					
6 -How often did the bank's online banking service produce errors or defects?					
C. Perceived Value					
7 - When compared with the quality of the service that you received, do you think that the service fees or transaction fees for online banking is appropriate?					
8 -When compared with the cost, do you think that the quality of online banking service that you received is appropriate?					
D. Customer Satisfaction					
9 - Level of overall satisfaction with using the bank's online banking service.					
10 - Do you think that the overall service of online banking you received is better or worse than your expectation?					
11 - How does the level of service you received compare with what you expected from online banking?					
E. Customer Complaint					
12 - How many times have you ever officially complained or expressed dissatisfaction regarding the bank's online banking service?					
13 - How many times have you ever unofficially complained or expressed dissatisfaction regarding the bank's online banking service?					
F - Customer Loyalty					
14 - Would you recommend other people to use the online banking service offered by the bank?					
15 - Will you continue using the online banking service from the bank?					

RESUME

PERSONAL INFORMATION

Name and surname	Esam Hussein Sarhan Sarhan
Place of birth	
Date of birth	

UNDERGRADUATE EDUCATION INFORMATION

University	University of Al Kufa
Degree	Bachelors
Department	Business Administration

WORK EXPERIENCE

Institution you are working at	Private store
Role/Position	Manager
Experience Period	Five years

JOIN

Courses / Papers	NA
Projects	NA

CONTACT

Address	
E-Mail	