THE IMPACT OF ELECTRONIC BANKING SERVICES ON CUSTOMER SATISFACTION: THE CASE OF IRAQI BANKS

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ABSTRACT

Purpose: The main objective of this paper is to study the impact of electronic banking on customer satisfaction.

Theoretical framework: This study is among the rare studies who tried to analyse the impact of electronic banking practices on the relationship between banks and their customers. All previous studies have analyzed the quality of banking services in general, although part of themfocused on the quality of banking services in different countries and the impact of this quality on improving the performance of banks, as well as identifying the level of services provided and the most important elements that customers rely on to judge the quality of these banking services

Design/methodology/approach: On the basis of a survey covering 165 Iraqi Banks customers, we found that electronic banking consists one of the main determinants of customers satisfaction. Meanwhile, results have shown that for all electronic banking factors   A five-point Likert scale was used to judge each item of the questionnaire,

Findings: The results were analyzed statistically, as the results of the statistical analysis of the data showed the existence of a significant relationship between electronic banking services and customer satisfaction, measured by all indicators affecting the quality of these tangible services, reliability, responsiveness, and safety. , empathy, and that there is a positive moral impact of electronic banking services on customer satisfaction.

Research, Practical & Social implications: This research provides many implications and proposaql for Iraqi banks to improve their customer satisfaction and therefore their performance. In fact, the stdy shows that when using these services widely, they will lead to an increase in the custumers satisfaction. Also, the linear regression analysis showed a positive significant effect of the independent variable (electronic banking services) on the dependent variable customer satisfaction as measured by all indicators of previous quality. This supports the second hypothesis of the study.

Originality/value: The value of the study consists of the use of qualitative data (Survey) to carry out regressions to identify the main leading factors of customers' satisfaction.

Doi: https://doi.org/10.26668/businessreview/2023.v8i11.3936

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O IMPACTO DOS SERVIÇOS BANCÁRIOS ELETRÔNICOS NA SATISFAÇÃO DO CLIENTE: O CASO DOS BANCOS IRAQUIANOS

RESUMO

Objetivo: O objetivo principal deste artigo é estudar o impacto do banco eletrônico na satisfação do cliente.

Enquadramento Teórico: Este estudo está entre os raros estudos que tentaram analisar o impacto das práticas bancárias eletrónicas na relação entre os bancos e os seus clientes. Todos os estudos anteriores analisaram a qualidade dos serviços bancários em geral, embora parte deles tenha focado na qualidade dos serviços bancários em diferentes países e no impacto desta qualidade na melhoria do desempenho dos bancos, bem como na identificação do nível de serviços prestados e do elementos mais importantes nos quais os clientes confiam para julgar a qualidade desses serviços bancários.

Design/Metodologia/Abordagem: Com base num inquérito abrangendo 165 clientes de bancos iraquianos, descobrimos que a banca electrónica consiste num dos principais determinantes da satisfação dos clientes. Enquanto isso os resultados mostraram que para todos os fatores bancários eletrônicos Uma escala Likert de cinco pontos foi usada para julgar cada item do questionário.

Constatações: Os resultados foram analisados estatisticamente, pois os resultados da análise estatística dos dados mostraram a existência de uma relação significativa entre os serviços bancários eletrônicos e a satisfação do cliente, medida por todos os indicadores que afetam a qualidade desses serviços tangíveis, confiabilidade, capacidade de resposta, e segurança. , empatia e que existe um impacto moral positivo dos serviços bancários eletrónicos na satisfação do cliente.

Implicações de Investigação, Práticas e Sociais: Esta investigação fornece muitas implicações e propostas para os bancos iraquianos melhorarem a satisfação dos seus clientes e, portanto, o seu desempenho. De facto, o estudo mostra que a utilização generalizada destes serviços conduzirá a um aumento da satisfação dos clientes. Além disso, a análise de regressão linear mostrou um efeito positivo e significativo da variável independente (serviços bancários eletrônicos) sobre a variável dependente satisfação do cliente medida por todos os indicadores de qualidade anteriores. Isto apoia a segunda hipótese do estudo.

Originalidade/Valor: O valor do estudo consiste na utilização de dados qualitativos (Survey) para realizar regressões para identificar os principais fatores determinantes da satisfação dos clientes.

Palavras-chave: Banca Eletrónica, Satisfação dos Clientes, Confiabilidade, Capacidade de Resposta, Segurança.

EL IMPACTO DE LOS SERVICIOS DE BANCA ELECTRÓNICA EN LA SATISFACCIÓN DEL CLIENTE: EL CASO DE LOS BANCOS IRAQUÍES

RESUMEN

Propósito: El objetivo principal de este trabajo es estudiar el impacto de la banca electrónica en la satisfacción del cliente.

Marco teórico: Este estudio se encuentra entre los pocos estudios que intentaron analizar el impacto de las prácticas de banca electrónica en la relación entre los bancos y sus clientes. Todos los estudios anteriores han analizado la calidad de los servicios bancarios en general, aunque parte de ellos se centraron en la calidad de los servicios bancarios en diferentes países y el impacto de esta calidad en la mejora del desempeño de los bancos, así como en identificar el nivel de servicios prestados y el Elementos más importantes en los que confían los clientes para juzgar la calidad de estos servicios bancarios.

Diseño/Metodología/Enfoque: Sobre la base de una encuesta que abarcó a 165 clientes de bancos iraquíes, encontramos que la banca electrónica es uno de los principales determinantes de la satisfacción de los clientes. Mientras tanto, los resultados han demostrado que para todos los factores de la banca electrónica se utilizó una escala Likert de cinco puntos para juzgar cada elemento del cuestionario.

Hallazgos: Los resultados se analizaron estadísticamente, ya que los resultados del análisis estadístico de los datos mostraron la existencia de una relación significativa entre los servicios de banca electrónica y la satisfacción del cliente, medida por todos los indicadores que afectan la calidad de estos servicios tangibles, confiabilidad, capacidad de respuesta y seguridad. , empatía y que existe un impacto moral positivo de los servicios de banca electrónica en la satisfacción del cliente.

Investigación, Implicaciones prácticas y Sociales: esta investigación proporciona muchas implicaciones y propuestas para que los bancos iraquíes mejoren la satisfacción de sus clientes y, por lo tanto, su desempeño. De hecho, el estudio muestra que cuando se utilizan ampliamente estos servicios, conducirán a un aumento en la satisfacción de los clientes. Además, el análisis de regresión lineal mostró un efecto significativo positivo de la variable independiente (servicios de banca electrónica) sobre la variable dependiente satisfacción del cliente medida por todos los indicadores de calidad anterior. Esto apoya la segunda hipótesis del estudio.

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Originalidad/Valor: El valor del estudio consiste en el uso de datos cualitativos (Encuesta) para realizar regresiones para identificar los principales factores determinantes de la satisfacción de los clientes.

Palabras clave: Banca Electrónica, Satisfacción del Cliente, Confiabilidad, Capacidad de Respuesta, Seguridad.

INTRODUCTION

The rapid development of technology is nowadays one of the most important ways to develop banking services and provide innovative new banking services. characterized by efficiency, with the aim of keeping pace with the great challenges and competition facing this sector, which plays an important role in the process of economic development, and with the aim of banks continuing to compete and maintain Despite its role in the process of economic development, its goal must constantly be to realize and meet customers' needs for banking services, and this represents the content of the concept of quality for electronic banking services. Accordingly, this research included an attempt to survey the opinion of customers in various Iraqi banks regarding the quality of electronic banking services provided.

1- Have electronic banking services achieved the required level of customer service?

2- What are the most important indicators in measuring the quality of electronic banking services?

3- How are the dimensions of electronic banking services considered?

This research falls within the framework of the importance of analyzing the reality of the quality of electronic banking services and is considered an attempt to add value to identifying the reality of electronic banking challenges and providing recommendations to improve the quality of these services.

The research objectives are set out as follows:

1- The quality of banking service is applied in various banking operations.

2- The function of the electronic banking service is comprehensive and wide-ranging.

3- This research demonstrated electronic banking services, financial inclusion, and modern financial technology.

The method of describing information in books, research, and statistical analysis of data collected from answers to questionnaire questions that were adopted to find out the opinions of customers in various Iraqi banks was adopted.

The research consists of two requirements, in addition to conclusions and recommendations. The first requirement addressed the conceptual framework for the quality of electronic banking services, its dimensions, measurement methods, and the quality of banking

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services for Iraqi banks and the second requirement included the procedures adopted by the study and the results that were reached through the answers to the questions received. In the questionnaire on the quality of electronic banking services in Iraq, the descriptive approach and statistical analysis were adopted to verify the objectives of the study and reach a set of conclusions and recommendations.

LITERATURE REVIEW

All previous studies have dealt with the issue of the quality of banking services in general, although part of them focused on the quality of banking services in different countries and the impact of this quality on improving the performance of banks, as well as identifying the level of services provided and the most important elements that customers rely on to judge the quality of these banking services The relative importance of quality standards used by customers varies between different countries. Some studies also aimed to investigate how the quality of banking services can be a gateway to achieving a competitive path for the bank by identifying, analyzing, and adopting customer expectations as a priority in describing quality standards for banking services, and that modern technical means contribute to improving quality and achieving a competitive advantage for banks. Some studies also indicated the role of marketing innovation in improving the quality of banking services, as adopting marketing innovation has positive effects in improving the quality of banking services in all its elements, and the most important element is marketing innovation in individuals because human capital is the basis for development, innovation and delivery.

There are also some studies that focused on the issue of the impact of the quality of banking services on customer satisfaction, as such studies are useful in marketing to strengthen the relationship between quality and customer satisfaction by setting the priorities of the dimensions of the quality of banking services and work to enhance and complete them.

From the above, it can be said that the current study looks specifically at the quality of electronic banking services and not banking services in general, and the impact of these services on customer satisfaction in Iraqi banks exclusively, through surveying customers' opinions through research into the elements of this quality and its impact on developing the electronic banking service in Iraqi banks by adopting the satisfaction measure as one of the important and most common measures as an indicator to measure the quality of banking services from the point of view of the customer (beneficiary), using various quality elements and analyzing the results at two levels descriptively and statistically by using descriptive analysis of the results of

the questionnaire at the level of two axes, the first axis. About the electronic banking service and the second axis about the dimensions of the quality of banking services. We also work on estimating a linear regression for these axes by adopting balances from (1-5) for these two axes. All of this leads to an assessment of the reality of electronic banking services and their level of quality in Iraqi banks, and recommendations regarding improving these services and improving their quality.

The Quality of Electronic Banking Services

The rapid technological changes led to major competitive challenges as a result of developments, the globalization of banking activity, and the liberalization of financial and banking services, which cast a shadow on the banks due to the need to adapt to these challenges, face their effects, keep abreast of technological developments, and develop the banking services provided also Paying attention to the quality of electronic banking services.

(Radwan, 1999) Electronic banking services can be defined as "includes financial transactions between financial institutions, individuals, commercial and governmental companies, and to achieve profitability, banking organizations try to control costs and reduce operating expenses, using technology and innovation as their tools to achieve that." As Bank for International Settlement, it has defined electronic banking services as representing the provision of productive banking services remotely or through electronic channels, whether to residents or non-residents inside and outside the country.

The Basel Committee also defined it through the Committee of Electronic Banking Activities as (santos, 2003) "electronic banking activities that provide low-value retail electronic banking products and services through electronic channels. Products and services include deposits, account management, cash consultations, electronic bill payment, and the provision of other electronic payment products and services such as electronic banking activities." Each of the previous concepts has defined electronic banking services from a certain aspect, but they all indicated, in one way or another, that they represent all traditional banking services that can be provided electronically, as well as new added electronic services, which can be provided in a fast, flexible, and accurate manner, which a traditional bank cannot submit it.

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The Importance of Electronic Banking Services

The importance of electronic banking services can be clarified through the following. (Danoun, 2010)

a- Development in communications technology has a mutual impact. Whenever there is a development in this technology, the electronic banking service develops.

b-The expansion in the size and quality of the electronic banking service leads to increased competition between banks and thus increases the bank's profitability due to the lower cost of the electronic service compared with traditional services.

c- (Al-Shammari & abdul lat, 2008) The basis for providing electronic banking services is that it is provided remotely, without there being direct contact between the service providers and the beneficiaries, and the service is provided through electronic processing and what technology deals with many means of security to identify the electronic identity.

d- (Danoun, 2010) maintains that the he provision of electronic services in an easy, fast and flexible way, which entails the expansion of dealing with the provision of these services within financial and banking institutions and other parties, and the speed of providing electronic banking services achieves customer satisfaction and increases confidence in dealing with the bank.

e- According to (Danoun, 2010), processing data related to the components of the electronic service system by developing control methods over the work of banks.

f- (Ashraf, 2014) argues that providing a new means of advertising for banks about the banking services provided to customers and how to provide this service, which leads to increased investment opportunities.

g- (Ashraf, 2014)also maintains that addressing problems easily, quickly, and at a low cost, and bypassing the geographical and temporal dimension by securing a means of communication between the internal and external environment through networks and technological communications.

(Ahmed, 2009) added that quality of tangible goods differs from the quality perceived in the banking service, due to the characteristics of banking services and the presence of the human element as a provider of service and a recipient of the service, and also that the judgment on the quality of banking service depends on the opinion of the customer. The quality of banking service means "the bank's ability to respond to customers' expectations and requirements or exceed them. Through quality, banks seek to support their competitive ability

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by providing excellent service that enhances the bank's position and position in the target market. (Al-Sarn, 2008)" argues that the quality of banking services lies in the perception of customers, and therefore the real judge of evaluating the level of service quality is the customer, not the bank. The quality of banking service is defined as "a series of relationships between customers and employees of the bank, and we must work to improve that relationship by selecting individuals capable of providing better and better service." Banking service is defined as "satisfying customer requirements and studying the bank's ability to identify these requirements and the ability to meet them. If the bank adopts a process of providing high-quality services, it must strive through it to exceed customer requirements." The quality of electronic banking services is also defined as: "suitability to what is expected." Customers benefit from the banking service provided to them with their actual awareness of the benefit they obtain as a result of obtaining the service. Therefore, a good service from the customers' point of view is one that agrees and matches their expectations and requirements. (Omar, 2020) The importance of the quality of electronic banking services can be summarized as follows:

a- According to (Al-Bakri & Al-Rahomi, 2008), the development of the field of banking services through the increasing number of banks, given that the financial service sector is important, as it represents a large part of economic activity in developed countries.

b- Greater understanding of customers. It is not enough to provide quality services at a reasonable price only, as this may be available in all competing banks. The principle of excellence is to provide good treatment for customers.

c- The economic meaning of quality. The interest in the quality of services in general is due to its direct impact on the marketing position in service institutions, their market share, and their level of profitability. Likewise, institutions must strive to attract new customers and maintain existing customers. To achieve this, attention must be given to the level of service quality.

d- Treating customers well when providing services, it is not enough to provide service at a reasonable price without providing good treatment and greater understanding of customers.

Dimensions of Banking Services Quality and Measurement Methods

(Qader, 2017) argues that the needs and expectations of customers represent the basis on which the quality of banking service is measured, and therefore good banking service from

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the customer's point of view represents the service that meets and agrees with his needs. According to (Omar, 2020), the banking institution must try to reach certain specifications or dimensions that make the customer reach a judgment on the quality of this banking service so that he seeks, by meeting these dimensions, to exceed the expectations and needs of customers. (Zeithaml, Parasuraman, A., & Malhotra, A., 2002) maintain that there have been many interpretations of the dimensions of banking service quality, but they are all considered the result of an interactive process between the customer and elements related to the institution that provides the banking service. Accordingly, some researchers have referred to these dimensions through three classifications:

a- Dimensions related to the physical aspects of the service, including various equipment and buildings, and including (physical quality)

b- Dimensions related to the institution's reputation and its image to the public. These dimensions are called or classified as (institutional quality).

c- Dimensions that relate to the human element, meaning that they relate to the employees of the institution that provides the banking service and the extent of this element's interaction with customers, which is referred to as (interactive quality).

Within a comprehensive and expanded framework, many studies have participated in adopting comprehensive and expanded dimensions of the quality of banking service, which included ten dimensions, as shown below:

a- (Rabei Al-Budi & Al-Ammar, 2020) consider that this dimension includes everything that related to the ease and proximity of access to the service and communication with the service provider, whether via mobile phone, the Internet, etc., as well as the suitability of the place for providing the service and staying away from parking areas and crowded places.

b- (Communication): everything related to the possibility of communication and the ability of service providers to prepare customers with complete information about the service and how to obtain it in an understandable and clear manner.

c- (Masalgia, 2016) argue that understanding and knowing the customer, meaning being keen to know and understand the needs of the customer or service requester, with the ability to describe these needs correctly.

d (Rabei Al-Budi & Al-Ammar, 2020) emphasize on tangibles dimension including all the tangible elements that provide a physical explanation of the service in terms of the

external appearance that reflects the modernity and attractiveness of the design, decor, and furniture used, as well as what is related to the technical devices and equipment.

e-(Security): This dimension, in brief, includes the lack of risk or doubt in the service in terms of physical and financial security and maintaining the confidentiality and privacy of information.

f- (Harakat, 2017) highlight the role of Response that is, the extent of the ability to respond immediately to meet the needs of customers, respond to them, and deal well and be courteous with the customer.

g- (Reliabilities): The extent to which the organization is able to fulfill its promise to provide the service in the correct manner and to maintain and be consistent in providing it later on the dates that have been specified.

h- (Rabei Al-Budi & Al-Ammar, 2020) consider the role of credibility That is, the bank, with all its employees and dealings, is committed to honesty and credibility in dealing with customers in a way that builds bridges of trust between the two parties.

i-(Courtesy): Adherence to good manners and tact in dealing with customers, especially for employees who are in direct contact with customers.

j-(Competence): Having intelligence and the ability to know the details of their work and draw the correct conclusion of what is required so that it is easy for the customer to deal with the employees.

 (Attawi, Al-Hamoud, bin Saeed, & Al-Zahraa Karousha, 2011) highlight the importance of quality of banking services is, in essence, an interactive process between the customer and the employee, that is, between the service provider and the beneficiary, meaning that the provision of this service depends primarily on the human element. Therefore, the quality of this service depends on the direction of the service provider's tasks and the beneficiary's participation in the process of producing and providing this service. In this case, it is very necessary to ensure this quality to some extent so that the organization obtains accurate and detailed information about customer needs and tries to meet these needs. Due to the presence of a large number of customers, this means a large number of needs and services, and it is difficult to provide a consistent and unified standard for measuring quality. Banking service, and therefore there are multiple methods of measuring this service. Below is an attempt to clarify the most important methods of measurement adopted and based on the fact that two parties interact to produce the banking service.

Indicators for measuring the quality of banking services from the beneficiary's perspective:- (Attawi, Al-Hamoud, bin Saeed, & Al-Zahraa Karousha, 2011) (Saada & Al-Bahi, 2020)

First: An indicator of complaints: It is one of the easy indicators, as the number of complaints submitted by the customer during a certain period of time is counted and then classified in such a way that it gives an indication of the customers' awareness of these procedures, making submitting complaints an objective matter that does not require much effort, and it is possible to be an important tool for measuring, identifying errors and correcting them.

Second: (Attawi, Al-Hamoud, bin Saeed, & Al-Zahraa Karousha, 2011) have been interested to Satisfaction measure: It is one of the most widely used and common measures to know and measure trends regarding the quality of banking services that are provided. This measurement is done by asking customers questions about multiple aspects related to arriving at knowledge of the nature of customers' feelings about the service provided.

Third: (Saada & Al-Bahi, 2020) studied the gap measure: This measure is based on expectations and perception, that is, customers' expectations of the level of service and their perception of the level of service actually provided. Based on this measure, five types of the gap (Research gap, design gap, delivery gap, communication gap, real gap).

Fourth: Actual performance measure: The content of this measure is summarized in the fact that customer attitudes can indicate or judge the quality of banking service.

Fifth: The value measure: It depends on the relationship between benefit and price that determines the value. The higher the value, the higher the demand for the service.

Indicators for measuring the professional quality of banking services (Harakat, 2017) (Al-Sarn, 2008)

a- Measuring quality in terms of inputs: Inputs and resources are what express the essence of the service provided. The service provided is distinguished if the institution has buildings, supplies and equipment, as well as efficient human resources, auxiliary laws, tools and systems, as well as work methods and procedures for dealing with these inputs and interacting between them.

b- Measuring quality in terms of processes: This measure focuses on the various processes that accompany the provision of this service, as each process or stage of these stages has certain specifications and timings that must be met in order for the service provided to be judged to be good.

c- Adopting outputs as a measure of quality: This measurement depends on the final results that show whether the service has been completed or not. Comparative measurement is adopted as one of the methods for this measure, which is a comparison between a targeted and actual quantity to discover weaknesses and avoid them in the future. This measurement may also be based on surveying workers in the service organization to identify problems and try to overcome them with appropriate solutions.

Table 1 Research hypotheses

H1	**There is a positive relationship between electronic banking services and customer satisfaction**
H1.1	There is a positive relationship between electronic banking services and customer satisfaction as measured by tangibility indicators.
H1.2	There is a positive relationship between electronic banking services and customer satisfaction with reliability indicators.
H1.3	There is a positive relationship between electronic banking services and customer satisfaction as measured by response indicators.
H1.4	There is a positive relationship between electronic banking services and customer satisfaction as measured by security indicators.
H1.5	There is a positive relationship between electronic banking services and customer satisfaction as measured by empathy indicators.
H2	**There is a positive impact of electronic banking services on customer satisfaction**
H2.1	There is a positive impact of electronic banking services on customer satisfaction, measured by tangible indicators.
H2.2	There is a positive impact of electronic banking services on customer satisfaction as measured by reliability indicators.
H2.3	1- There is a positive impact of electronic banking services on customer satisfaction as measured by response indicators.
H2.4	There is a positive impact of electronic banking services on customer satisfaction as measured by security indicators.
H2.5	2- There is a positive impact of electronic banking services on customer satisfaction as measured by empathy indicators.

Source: Designed by the authors based on the literature review

DATA AND METHODOLOGY

The study has been conducted on the basis of a questionnaire addressed to a sample of 165 Iraqi banks customers. They have been asked to evaluate their expereince with banking practices especially in the field of electronic banking services.

Quality of banking services for Iraqi Banks

The nature of the banking system generally shows an idea about the work of banks, the challenges they face, and the importance of the banking services they provide in general, with the necessity and importance of shifting towards providing electronic banking services and emphasizing the quality of these services. This requirement addressed the steps and procedures

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that took place in the applied aspect of this study in terms of the study methodology, the study population and sample, the study tool used, and the statistical treatments that were used in analyzing the data to test the validity and reliability of the study tool and reach the final results of the study, as follows:

1- Study methodology: We adopted the descriptive analytical method in order to achieve the objectives of the study, through which he attempts to describe and analyze the problem of the study and study the relationship between its variables and the processes and effects they cause.

2- Study sample: We selected the study sample from specialist workers in the Iraqi banking sector, and in order to achieve the objectives of the study, he distributed a copy of the questionnaire electronically to the targeted sample, and (165) responses were collected.

3- Description of the sample: the tables below show the statistical description of the study sample according to demographic factors.

A- Gender: It is clear from Table (2) below that the percentage of males is approximately (49%) of the total study sample size, while the percentage of females is approximately (51%) of the study sample size.

Table 2 the Gender

Details	The number	Ratio %
Male	81	49.1
Female	84	50.9
Total	165	100

Source: Source: Compiled by the authors from Data Analysis

B: Age: It is clear from Table (3) below that (8.5%) of the members of the total study sample are less than (25) years old, (34.5%) are between (25) and (35) years old, and (34.5%) Their ages range from (35) to (45) years, and (22.5%) are more than (45) years old.

Table 3 the age of interviewed individuals

Details	The number	Ratio %
Less than 25 year	14	8.5
From 25 to 35 year	57	34.5
From 35 to 45 year	57	34.5
more than 45 year	37	22.4
Total	165	100

Source: Source: Compiled by the authors from Data Analysis

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c- Academic achievement: It is clear from the table (4) below that (72.7%) of the members of the total study sample have a bachelor's degree, (21,2) have a master's degree, and (6.1%) have a PHD degree.

Table 4 the Academic qualification

Details	The number	Ratio %
bachelor's degree	120	72.7
master's degree	35	21.2
master's degree	10	6.1
Total	165	100

Source: Source: Compiled by the authors from Data Analysis

Study tool: For the purpose of answering the study's questions and hypotheses, we prepared a questionnaire consisting of two axes, the first axis on the electronic banking services variable and the second axis on the customer satisfaction variable.

Validity of the Questionnaire

The validity of the questionnaire means that it measures what it was designed to measure in order to achieve the objectives of the study that were established before the questionnaire was prepared. The most important standards that measure the validity of the questionnaire are the following:

Honesty of arbitrators

The honesty of the arbitrators means that we selected a number of arbitrators who specialize in the field of the phenomenon or problem that is the subject of the study. The questionnaire was presented to a group of arbitrators consisting of (10) specialized professors, as shown in Appendix No. (1). We responded to the arbitrators' opinions and deleted or modified them in light of the proposals presented, and thus the questionnaire came out in its final form, as it is in Appendix No. (2).

Internal consistency

The researcher calculated the internal consistency of each axis of the questionnaire by calculating the correlation coefficients between the score of each item of the axis or dimension with the total score of the axis or dimension.

First: Internal consistency of the first axis, electronic banking services.

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Construct validity

The researcher calculated the correlation coefficient between the total score of the questionnaire's axes and the score of each axis of the questionnaire, as in the table below.

Table 5 Structural validity results

Axes	Correlation coefficient
First axis: electronic banking services	.881**
Second axis: customer satisfaction	.634**
First dimension: tangibility	.557**
Second dimension: reliability	.554**
Third dimension: responsiveness	.489**
Fourth dimension: security	.493**
Fifth dimension: empathy	.566**

**Statistically significant at a significance level (0.01)
*Statistically significant at a significance level (0.05)
Source: Prepared by the author from Data Analysis

It is clear from Table (5) that the correlation coefficient between the total score of the questionnaire axes and the score of each axis of the questionnaire is statistically significant at the level of (0.01), and that the dimensions and axes of the questionnaire are characterized by a high degree of construct validity, which indicates that the questionnaire measures what it was designed to measure.

RESULTS AND DISCUSSION

Testing the Stability of the Scale

Reliability means that the questionnaire is stable and does not contradict itself. It means that we get one result if we re-apply it to the same sample (Al-Bahrawi 2018:3). The researcher calculated the reliability of the questionnaire through the Cronbach's alpha coefficient.

Cornbrash Alpha Coefficient

To measure the stability of the study tool (questionnaire), the researcher used the Cronbach Alpha equation to ensure the stability of the study tool on the exploratory sample of (30) that was excluded from the total sample. Table (12) shows the stability coefficients of the study tool.

Table 6 Reliability coefficients for the study's scales according to the (Cronbach's alpha) method

Variables	Number of questions	Alpha coefficient
First axis: electronic banking services	9	**0.869**
Second axis: customer satisfaction	17	**0.938**
First dimension: tangibility	4	**0.834**
Second dimension: reliability	3	**0.784**
Third dimension: responsiveness	3	**0.787**
Fourth dimension: security	3	**0.729**
Fifth dimension: empathy	4	**0.767**
Total	26	**0.943**

Source: Prepared by the author from Data Analysis

It is clear from the table above that the values of the general reliability coefficient for the study axes are high, reaching (0.943) for the total questionnaire items, which were (26) items, while the reliability degrees ranged from (0.729) to (0.938), and this indicates that the questionnaire It has a high degree of reliability that can be relied upon in the field practice of the study according to the Natalie scale, which adopted (0.70) as the minimum level of reliability.(Nunnally &Bernstein, 1994).

Analyze Data and Test Hypotheses

This section explains the presentation and analysis of the statistical results that were reached through testing the study hypotheses, which aim to know the impact of electronic banking services on customer satisfaction as measured through indicators of the quality of banking services (tangibility, reliability, responsiveness, security, and empathy) in the banking sector.

A-First: Results for testing the first main hypothesis (there is a significant relationship between electronic banking services and customer satisfaction, and the following hypotheses branch out from it:

(1) The first sub-hypothesis: There is a significant relationship between electronic banking services and customer satisfaction as measured by tangible indicators.

(2) The second sub-hypothesis: There is a significant relationship between electronic banking services and customer satisfaction as measured by reliability indicators.

(3) The third sub-hypothesis: There is a significant relationship between electronic banking services and customer satisfaction as measured by response indicators.

(4) The fourth sub-hypothesis: There is a significant relationship between electronic banking services and customer satisfaction as measured by security indicators.

(5) Fifth sub-hypothesis: There is a significant relationship between electronic banking services and customer satisfaction as measured by empathy indicators.

Testing the correlation between the independent variable (electronic banking services) and the dependent variable (customer satisfaction) and its dimensions (tangibility, reliability, responsiveness, security and empathy), as in the following table:

Table 7 Results of the correlation test between the independent variables and the mediating variable

Variables	Correlation coefficient	Probability value
customer satisfaction	.395**	.000
tangibility	.413**	.000
reliability	.426**	.000
responsiveness	.379**	.000
security	.364**	.000
empathy	.421**	.000

**Statistically significant at a significance level (0.01)
*Statistically significant at a significance level (0.05)
Source: Prepared by the author from Data Analysis

Table (7) shows that the correlation coefficient between the independent variable (electronic banking services) and the dependent variable (customer satisfaction) and its dimensions (tangibility, reliability, responsiveness, safety and empathy) is statistically significant at a significant level (0.01), and this indicates the existence of a correlation relationship Direct and strong between the independent variable and the dependent variable, and this indicates that the more electronic banking services are applied, the more customer satisfaction with the services provided in the banking sector increases.

B-Second: Results for testing the second main hypothesis (there is a significant effect of electronic banking services on customer satisfaction)

To test this hypothesis, simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable (customer satisfaction).

Table 8: Simple linear regression results

Variables	B	T	Sig.
Fixed limit	1.643	8.316	0.000
Electronic banking services	0.434	5.491	0.000
Test value (f)	30.149		0.000
Coefficient of determination (R^2)	.156		.151
Durbin –Watson		1.778	

Source: Prepared by the author from Data Analysis

The results presented in the table above show, through the results of the statistical analysis, the significance of the model, where the value of (F-statistic) (Sig) was less than (0.05) and was (0.000), which indicates that the model is valid for testing and its results are reliable.

As for the value of (Durbin Watson) it reached (1.778), which is greater than the value of (R-squared), which was (%16) this explains the lack of autocorrelation and spurious regression. As for the value of (R-squared), it was (0.156), which means that the explanatory power of the independent variable with the dependent variable is (16%), while the value of (Adjusted R-squared) was (0.151), which means that the independent variables affect the dependent variable by (15%), and the remaining (85%) is due to other factors outside the model in addition to random errors resulting from the accuracy of the sample test and the accuracy of Units of measurement and others.

The results of the statistical analysis indicate that the probability value (Sig) of the (T) test for the independent variable, of electronic banking services, is less than (0.05), reaching (0.000), which indicates that there is a direct significant effect of electronic banking services on customer satisfaction.

The simple linear regression equation can be represented as follows:

Y = 1.871 + 0.492X1

Were:

Y:customer satisfaction measured by the tangible index.
X1:Electronic banking services.

-Testing the first sub-hypotheses of the second main hypothesis of the study.

 -Results of the first sub-hypothesis: (There is a significant effect of electronic banking services on customer satisfaction as measured by the tangibility index).

To test this hypothesis, simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable, customer satisfaction, as measured by the tangibility index.

Table 9: Simple linear regression results

Variables	B	T		Sig.
Fixed limit	1.643	8.796		0.000
Electronic banking services	0.434	5.784		0.000
Test value (f)	30.149	Probability value		0.000
Coefficient of determination (R^2)	.156	Modified coefficient of determination(R^2)		.165
Durbin –Watson		2.011		

Source: Prepared by the author from Data Analysis

The results presented in the table above show, through the results of the statistical analysis, the significance of the model, where the value of the (F-statistic) (Sig) was less than (0.05) and was (0.000), which indicates that the model is valid for testing and its results are reliable. As for the value of Durbin-Watson It reached (2011), which is greater than the value of (R-squared), which amounted to (17%). This explains the lack of autocorrelation and spurious regression. As for the value of (R-squared), it was (0.170), which means that the explanatory power of the independent variable depends on the variable. The dependent variable is (17%), while the value of (Adjusted R-squared) was (0.165), which means that the independent variables affect the dependent variable by (17%). The remaining (83%) is due to other factors outside the model in addition to random errors resulting from the accuracy of the test. Sample, accuracy of measurement units, etc

The results of the statistical analysis indicate that the probability value (.Sig) of the (T) test for the independent variable electronic banking services is less than (0.05) and reached (0.000), which indicates that there is a positive significant effect of electronic banking services on customer satisfaction as measured by the tangibility index.

The simple linear regression equation can be represented as follows:

Y = 1.871 + 0.492X1

Were:

Y: customer satisfaction is measured by the tangible index.
X1: Electronic banking services.

- Results of testing the second sub-hypotheses of the second main hypothesis of the study.

- The second sub-hypothesis: (There is a significant impact of electronic banking services on customer satisfaction as measured by the reliability index

To test this hypothesis, simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable, customer satisfaction, as measured by the reliability index.

Table 10: Simple linear regression results

Variables	B	T		Sig.
Fixed limit	2.153	11.532		0.000
Electronic banking services	0.449	6.016		0.000
Test value (f)	36.192	Probability value		0.000
Coefficient of determination (R^2)	.182	Modified coefficient of determination(R^2)		.177
Durbin –Watson		1.850		

Source: Prepared by the author from Data Analysis

The results presented in the table above show, through the results of the statistical analysis, the significance of the model, where the value of (F-statistic) (Sig) was less than (0.05) and was (0.000), which indicates that the model is valid for selection and its results are reliable. As for the (Durbin -Watson) value it reached (1.850), which is greater than the value of (R-squared), which was (18%),this explains the lack of autocorrelation and spurious regression. As for the value of (R-squared), it was (0.182), which means that the explanatory power of the independent variable depends on the variable, the dependent is (18%), while the value of (Adjusted squared) was (0.177), which means that the independent variables affect the dependent variable by (18%). The remaining (82%) is due to other factors outside the model in addition to random errors resulting from the accuracy of the sample test and the accuracy of the units ,measurement and more.

The results of the statistical analysis indicate that the probability value (Sig) of the T-test for the independent variable electronic banking services is less than (0.05) and reached (0.000), which indicates that there is a positive significant effect of electronic banking services on customer satisfaction as measured by the reliability index.

 The simple linear regression equation can be represented as follows:

Y = 2.153 + 0.449X1

Were:

Y: customer satisfaction measured by the reliability index.
X1: Electronic banking services.

- Results of testing the third sub-hypotheses of the second main hypothesis of the study.

The third sub-hypothesis: **(There is a significant effect of electronic banking services on customer satisfaction as measured by the response index**

To test this hypothesis of simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable, customer satisfaction, as measured by the response index.

Table 11: Simple linear regression results

Variables	B	T		Sig.
Fixed limit	2. 529	15.043		0.000
Electronic banking services	0.351	5.222		0.000
Test value (f)	27. 272	Probability value		0.000
Coefficient of determination (R^2)	.143	Modified coefficient of determination(R^2)		.138
Durbin –Watson		1.783		

Source: Prepared by the author from Data Analysis

The results were indicated in the table above through the results of the statistical analysis of the significance of the model, where the value (F-statistic) (Sig) was less than (0.05) was (0.000), which indicates that the model is valid for the test and its results are reliable. As for the value of (Durbin - Watson) which reached (1.783), which is greater than the value of (R-squared), which reached (14%), this is the explanation for the lack of autocorrelation and false similarity. As for the value of (R-squared), it is (0.143), which means that the explanatory power of the independent variable with the recognition variable is (14%). As for the value (Adjusted Re-Squared), it is (0.138), Which means that the independent variables affect the dependent variable by (14%), and the remaining (%86) is due to other factors outside the model, in addition to random errors resulting from the accuracy of the sample test, the accuracy of the units of measurement, and others.

The results of the statistical analysis indicate that the probability value (Sig) of the (T) test for the independent variable electronic banking services is less than (0.05) and reached (0.000), which indicates that there is a positive significant effect of electronic banking services on customer satisfaction as measured by the response index.

The simple linear regression equation can be represented as follows:

Y = 2.529 + 0.351X1

Were:

Y:Customer satisfaction as measured by the response index.
X1: Electronic banking services.

- Results of testing the fourth sub-hypotheses of the second main hypothesis of the study.

- The fourth sub-hypothesis: (There is a significant effect of electronic banking services on customer satisfaction as measured by the security index.

To test this hypothesis, simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable, customer satisfaction, as measured by the security index.

Table 12: Simple linear regression results

Variables	B	T	Sig.
Fixed limit	2. 535	14.024	0.000
Electronic banking services	0.361	4.997	0.000
Test value (f)	24. 967	Probability value	0.000
Coefficient of determination (R^2)	.133	Modified coefficient of determination(R^2)	.128
Durbin –Watson		1.756	

Source: Prepared by the author from Data Analysis

The results presented in the table show that the significance of the model was raised through the results of the statistical analysis, as the value of (F-statistic) (Sig) was less than (0.05) and was (0.000), which indicates that the model is valid for testing and its results are reliable. As for the value of (Durbin- Watson) reached (1.756), which is greater than the value of (R-squared), which was (%13), this is due to the lack of autocorrelation and spurious regression. As for the value of (R-squared), it was (0.133), which means that the explanatory power of the independent variable depends on the variable. The dependent variable is (13%), while the value of (Adjusted R-squared) was (0.128), which means that the independent variables affect the dependent variable by (13%). The remaining (87%) is due to other factors outside the model in addition to random errors resulting from the accuracy of the test Sample, accuracy of measurement units, etc.

The results of the statistical analysis indicate that the probability value (Sig) of the (T) test for the independent variable electronic banking services is less than (0.05) and reached (0.000), which indicates that there is a positive significant effect of electronic banking services on customer satisfaction as measured by the security index.

As for the linear regression equation Simple, it can be represented as follows:

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Y = 2.535+0.361X1

Were:

Y: Customer satisfaction as measured by the safety index.
X1: Electronic banking services.

- Results of testing the fifth sub-hypotheses of the second main hypothesis of the study.

- The fifth Sub-hypothesis **(there is a significant effect of electronic banking services on customer satisfaction as measured by the empathy index)**

To test this hypothesis, simple linear regression was used to determine the effect of the independent variable (electronic banking services) on the dependent variable, customer satisfaction, as measured by the empathy index.

Table 13: Simple linear regression results

Variables	B	T	Sig.
Fixed limit	2. 078	10.940	0.000
Electronic banking services	0.450	5.930	0.000
Test value (f)	35. 160	Probability value	0.000
Coefficient of determination (R^2)	.177	Modified coefficient of determination(R^2)	.172
Durbin –Watson		1.502	

Source: Prepared by the author from Data Analysis

The results presented in the table show, through the results of the statistical analysis, the significance of the model was increased, as the value of (F-statistic) (Sig) was less than (005) and was (0.000), which indicates that the model is valid for testing and its results are reliable. As for the value of (Durbin-Watson) It reached (1.502), which is greater than the value of (R-squared), which amounted to (18%). This explained the lack of autocorrelation and spurious regression. As for the value of (R-squared), it was (0.177), which means that the explanatory power of the independent variable with the dependent variable It is (18%), while the value of (Adjusted R-squared) was (0.172), which means that the independent variables affect the dependent variable by (17%), and the remaining (83%) is due to other factors outside the model in addition to random errors resulting from the accuracy of the sample test and Accuracy of units of measurement, etc.

The results of the statistical analysis indicate that the probability value (.Sig) of the (T) test for the independent variable electronic banking services is less than (0.05), reaching

(0.000), which indicates that there is a positive significant effect of electronic banking services on customer satisfaction as measured by the empathy index.

As for the simple linear regression equation, it can be represented as follows:

y = 2.078 + 0.450X1

where:

Y: Customer satisfaction as measured by the empathy index.
X1: Electronic banking.

CONCLUSION

The aim of this paper was to study the impact of Electronic Banking Services on the degree of customers' satisfaction

1- Electronic banking services represent all traditional banking services that can be provided electronically, in addition to new, added electronic services that are provided in a flexible, fast, and accurate manner that a traditional bank cannot provide.

2-The customer is the one who determines the level of quality of electronic banking services, meaning that the quality of banking services lies in the customers' perception.

3-The dimensions of the quality of banking service revolve around the interactive process between the customer and the elements or parties that provide the banking service.

4- The satisfaction measure is one of the most common and widespread measures of the quality of banking services, and this measurement is done by asking questions to customers to find out their feelings about the service provided.

5- The conclusions reached through analyzing the results of the questionnaire were summarized as follows: -

A- The internal consistency was calculated for each axis of the questionnaire, and the correlation coefficients for the first axis (electronic banking services) and for the second axis (customer satisfaction), as well as at the level of each dimension of the second axis, appeared to be statistically significant at a 0.01% significance level, thus being true and expressive of what Made to measure.

B-The correlation coefficient was calculated between the total score of the questionnaire axes and the score of each axis, and the coefficient appeared statistically significant at

a significance level of 0.01%. Therefore, the questionnaire axes are characterized by a high degree of construct validity, meaning that they measure what they were designed to measure.

C- (Cornbrash Alpha) treatment was used to ensure the stability of the study tool, and it was found that the reliability coefficient was high, reaching %0.943, and indicates that the questionnaire can be relied upon in the field practice of the study.

 D. The arithmetic means related to the five-point Likter scale to judge the direction of each item of the questionnaire were calculated, and the results showed the following:

(1) For the first axis, electronic banking services, from the point of view of the respondents, it obtained a score of (46,909), meaning disagree. As for the items of this axis, the results ranged between agreement and strong agreement, with the exception of item (7): The bank adopts bill payment services, electricity, telephone... which got a neutral result.

 (2) As for the second axis (customer satisfaction), in its dimensions, it obtained a score of (62,667), meaning neutral. Regarding the results at the level of each dimension, the result was from agree to agree for each of the dimensions.

 (3) The correlation coefficient between the independent variable (electronic banking services) and the variable (customer satisfaction) and its dimensions of tangibility, reliability, responsiveness, safety, and empathy shows the presence of a statistically significant effect at a significance level of 0.01%. This supports the first hypothesis of the study, meaning that whenever electronic banking services were applied more widely as this led to increased customer satisfaction.

 (4) Linear regression models have been used to determine the effect of the independent variable (electronic banking services) on the dependent variable (customer satisfaction) in general, as well as to determine the effect of the independent variable (electronic banking services) on the dependent variable (customer satisfaction) as measured by indicators of tangibility, reliability, responsiveness, security, and empathy. All results resulted in a significant positive effect of electronic banking services on customer satisfaction in general, as well as customer satisfaction as measured by all of the above indicators, as the moral value of the (T) test was all less than 0.05%, and this supports the second hypothesis of the study.

On the basis of those findings, the following recommendations can be provided to Iraq Banks leaders:

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Recommendations Regarding Electronic Banking Services

A- Banking departments must pay attention to expanding the provision of electronic banking services and constantly providing new products and services. This is done by paying attention to developing Staff working in electronic banking activities and keeping them informed of developments in this sector up to date.

B- Giving reliance on banks to pay government bills, through coordination between the monetary authority and those government agencies issuing those bills and providing all requirements and capabilities for the success of this project.

C - Study advanced experiences in the field of providing electronic banking services, especially in those societies whose social, cultural and religious fabric is similar to the activity of our societies and peoples.

D- Relying on providing electronic banking services, whether new services or developing traditional banking services, in order to enhance financial inclusion.

Recommendations Regarding the Dimensions of the Quality of Electronic Banking Services

Those banks in Iraq seek to adopt or expand the mobile banking service and provide possible facilities through this service.

A- Paying attention to the marketing and operations departments in banks with the aim of responding to, understanding and meeting customers' needs in a way that leads to realizing the required quality of electronic banking services by providing them with competent staff and constantly paying attention to their knowledge formation.

B- Striving to raise awareness and spread the culture and dimensions of the quality of banking services in society in a way that leads to raising the level of interaction between service providers and beneficiaries, leading to improving the quality of their provision.

C- Senior management in banks must monitor the quality of electronic banking services and strive to take measures to improve the level of this quality.

D-Iraqi bank departments must provide advanced banking systems, machines and equipment that help improve the quality of electronic banking services.

E- The administrations of Iraqi banks should pay attention to the element of innovation in the field of marketing, encourage innovators in this field, support them financially and morally, and provide them with all capabilities with the aim of improving the quality of providing banking services.

F- Iraqi banks must develop strategic plans to develop the quality of electronic banking services, and these plans must be implemented and followed up in a phased manner, so that each stage aims to achieve a specific dimension of quality and in a way that leads to addressing deviations in the implementation of these plans on an ongoing basis.

G- Continuous development and education of employees towards giving personal attention to customers by knowing their needs and meeting them at the required times or meeting them with their required specifications so that the two dimensions of responsiveness and reliability are met when these needs are met.

H- Banks must adopt standards and indicators to measure the quality of various electronic banking services, and these standards must be examined to determine and evaluate performance and the extent of improvement achieved in the field of quality.

ACKNOWLEDGMENTS

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