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The Role of E-Banking Service Quality in Enhancing Customer Satisfaction: An Empirical Study of Iraqi Banks, Iraq

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ABSTRACT

With the development of technology and the trend towards digital transformation in various fields, the banking sector was not far behind. Rather, it was already eager to meet customer expectations and needs even before the transformation. Hence, the importance of this research lies in providing scientific evidence for banks regarding the types of services that meet customer desires and work on improving the services provided. It also provides indicators that help decision-makers in the banking sector in developing banking digital transformation strategies. The research aimed to demonstrate the impact of the quality of electronic services provided on customer satisfaction and whether they meet their expectations. This was tested through a questionnaire for a sample of 114 respondents from different demographics. The research concluded that the dimensions of electronic banking service quality combined have a very high explanatory power of 74% (R2 = 0.740), which confirms that customer satisfaction is formed through a holistic view of digital quality and not through one dimension in isolation from the others. It also recommends the necessity for banks to focus on raising "technical efficiency" by upgrading servers and reducing application response times, as it is the main driver of customer satisfaction according to the statistical result.

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INTRODUCTION

The world is currently undergoing a significant shift in the nature of banking operations. The financial services were undergoing transformation based traditional structures with the physical bank branches and face-to-face communication have transformed over a digital age that is characterized with speed of the independence of time and place. With the growing rate of the digitalization, the quality of the service's dimension of the digital banking has become a key element of the current banks' approaches motivated by their goal to increase their market share, and sustainability in an intense, difficult competitive environment.

The quality electronic service is not only be defined as a technical approach for performing the operation operation, but it has become the primary tool for influencing the shape their customer satisfaction and increasing loyalty. Indeed customer of today is characterized by a high technical awareness rate, and increasing expectations for standards of efficiency, security, ease ease of using and its response's speed. Thus, any gap in the quality of the of the service's dimensions would cause a trust gap that is difficult to be recovered, and the integration between the contribute to the creation of a unique user experience that would increase the level of satisfaction and loyalty.

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In spite of the intense effort of the banks in Iraq of their digital platforms, the major task is the identification of which of the dimensions of the service's quality is the most influential and attractive for customers. Many of them tend security of security, while others tend to the simplicity in the design and its technical's speed. On this level, the need of this urgent work has arisen to study and analyze the nature of the relationship between the dimensions of the quality of electronic banking services (such as reliability, responsiveness, security, ease of use, and technical efficiency) and the customer satisfaction to explain the real factors which determine their perceptions and drive their conditional behavior towards the digital services.

STUDY METHODOLOGY

Research Problem

The quality of electronic banking services is becoming more important in the success of e-commerce applications. The provision of good electronic services is key for banks to deliver good banking services to their customers.The research problem is that, despite the development of electronic banking services in recent years, there are inequalities in customer opinions and satisfaction with the services provided.The difference shows that there is a gap between customer expectations of these services and the level of service delivered by banks.Therefore, research problem can be formulated in the following form:

To what extent does the quality of electronic banking services contribute to enhancing customer satisfaction?

The importance of the research:

The importance of the research is highlighted by providing scientific evidence to banks on the type of services that meet customer desires and work on improving the services provided. It also provides indicators that help decision-makers in the banking sector in developing strategies for digital banking transformation. The research represents an applied study on the relationship between the quality of electronic banking services and customer satisfaction. It also contributes to enhancing the literature related to the subject of the research sample.

Research Objectives

1) This research aims to determine the quality level of electronic banking services.
2) To assess customer satisfaction with the services provided.
3) To define the concept of banking service quality, customer satisfaction, and methods for measuring them.
4) To measure the relationship between each dimension of electronic banking service quality and customer satisfaction.
5) To provide recommendations that would improve the quality of banking services and customer satisfaction.

Research Hypotheses

This research is based on the main hypothesis:
There is a statistically significant relationship between the quality of electronic banking services and customer satisfaction in Iraqi banks.
From this main hypothesis, the following sub-hypotheses are derived:
The reliability dimension of electronic banking services affects customer satisfaction in Iraqi banks.
The responsiveness dimension of electronic banking services affects customer satisfaction in Iraqi banks.

The security dimension of electronic banking services affects customer satisfaction in Iraqi banks.
The ease of use dimension of electronic banking services affects customer satisfaction in Iraqi banks.
The technical efficiency dimension of electronic banking services affects customer satisfaction in Iraqi banks.

Research Population and Sample

Research Population: The research population consists of customers who use electronic banking services offered by banks, such as mobile banking applications.
Research Sample: A random sample of users of electronic banking services in Iraq.

Research Scope

The spatial scope of this study covers banks operating within the Iraqi banking sector, while the temporal scope is limited to the period in which the research was conducted.

THEORETICAL ASPECT

The Concept of Electronic Banking

Electronic banking is an electronic portal that enables customers to use various types of banking services such as current accounts, loans, financial advice, receiving deposits, paying bills, managing accounts, and providing products and services (AlHaliq & AlMuhirat, 2016:140). Electronic banking can be defined as diverse electronic channels for conducting various banking transactions via the internet, mobile phones, and computers. Customers wish to conduct banking transactions from anywhere without needing to visit the bank, at a convenient time without being restricted by working hours, and to carry out all operations quickly and at a reasonable cost (Hammoud et al, 2018:2). Electronic banking is also defined as an electronic means of communication between customers and the bank to conduct, manage, and monitor financial operations. It is a means of communication that enables customers to access their accounts remotely, transfer funds, and make the necessary payments (Ayinaddis et al, 2023:4).

The quality of electronic

banking services is the ability of banks to provide high-quality online digital services that meet customer needs, enhance trust, and foster loyalty. This quality impacts customer satisfaction and trust, two mediating factors that promote customer loyalty and maintain their relationship with the bank, especially in high-risk financial environments (Kamara & Bangura, 2026:1). The quality of electronic banking services directly affects customer satisfaction, loyalty, and transaction costs. Service quality can be defined as the extent to which the service provided meets customer expectations. This is determined by comparing initial customer expectations with their perceptions after experiencing the actual service. It depends on several key factors derived from previous studies, most notably the efficiency and speed of electronic transactions, which contribute to completing operations on time, the efficiency and speed of the service, reliability, responsiveness, privacy, and security. All these elements play a fundamental role in enhancing the customer experience and achieving their satisfaction (Nguyen, 2025: 727).

Types of Electronic Banking Channels

Electronic banking channels represent the ways through which customers can make their banking transactions without visiting branches. Currently electronic banking services include a series of channels, such as:

1) ATM Banking: are self-service electronic banking machines that make it possible for customers to withhdraw money, make trasfers, and check their balances by using a debit card and a secure PIN code. These machines operate 24/7 and are placed in different locations to ensure an uninterrupted and easy access and lessen the flow of traffic to branches. ATMs provide convenience and security, and lessen the risks of dealing with large cash amounts, as in the result they make the experiences of customer more satisfying and encourageing of electronic banking banking services. This channel is regarded to be the first self-service channel providing customers to make their banking transactions without the need to visit the branches, and in the way decreasing the operational costs for the banks (Money & Iyoha, 2025:197).

2) Point of Sale (POS): devices are a widely used electronic channel for banking services that are used for to process credit or debit card transactions in retail locations like shops, restaurants, and hotels, These devices allow customers to make transactions 24/7 and are usually connected to the bank's central server through telephone lines or wireless connections, transferring funds from the buyer's account to the merchant's account. These devices are characterized by their level and availability that contributes to facilitating banking transactions and rising the bank's marketshare (Nazaritehrani & Mashali, 2020:4).

3) Home banking: means the ability to make banking transactions from one's home without needing to visit the bank's branches. This bank provides customers to access and handle their personal's account information via telephone, relying on a phone line, passwords and personal code to ensure data's security. This bank provides customers to access and handle their personal's account information via telephone, relying on a phone line, passwords and personal code to ensure data's security. Through this service it is possible for customers to monitor their account balances and transfer funds between accounts, and to perform various daily routine transactions easily.

4) PC banking: is a type of banking service that provides customers to make their financial transactions by using a personal computer. This involves providing customers with specialised banking software that enables them to perform banking operations from their homes via a modem, ensuring easy access to banking services without the need to visiting branches (Hoehle, Scornavacca, & Huff, 2012:123).

5) Internet banking: is an advanced service that enables customers to access their accounts and make their financial transactions directly online, as well as get information about bank's products and services. Customers can transfer funds, pay bills, check account balances, repay loans and buy financial instruments, and certificates of deposit, providing easy and secured handling of banking operations that without the need to visit the banks (Calisir & Gumussoy, 2008:215).

6) Mobile banking: is the latest in electronic banking which provides customers to make various financial transactions via their mobile devices. This service is based on WAP (Wireless Application Protocol) technology, allowing a compatible mobile browser to get access to information and complete transactions easily and securely (Drigă & Isac, 2014: 53).

Dimensions of Electronic Banking Service Quality

Service quality dimensions are the attributes that represent the customer's experiences during their interaction with the services. According to the literature, several attributes have been introduced to define the influence of the dimensions that affect customers' perception of the quality service. It has been introduced as dimensions to give researchers and managers more understanding the elements which affect the development and enhancing of their service level. the dimensions are (Ighomereho et al., 2022:7) and (Pat
e et al., 2024:215):

1) Website appearance: Website appearance is its visual design and organization of content, it is a important aspect that affects customer's perception first impression of service quality of online services, Therefore, the website must be clearly visible, attractive, and be-friendly, without too much visual effects and advertising that may annoy the user and impede their transaction.

2) Ease of Use of the Electronic Channel: This dimension refers to the ease of use of the electronic channel and the customer's ability to find information and conduct transactions with minimal effort. Ease of use is a key factor in determining the quality of electronic service, as it increases the likelihood of system usage, customer satisfaction, and loyalty. Conversely, difficulty of use may hinder transactions and discourage customers from returning to the electronic channel.

3) Reliability: Refers to the ability of an electronic service to perform accurately, consistently, and with continuous availability, with the organization fulfilling its promises. This includes accurate billing, record-keeping, and on-demand service delivery. Reliability is the most important factor in determining the quality of electronic service and customer satisfaction. Customers appreciate quality more when the service is delivered as expected, while they may avoid using the channel if it is unavailable when needed.

4) Security: Security in electronic services refers to protecting customers from fraud and financial losses, and safeguarding their personal information. It encompasses both information security and transaction security. Security is a fundamental dimension of electronic service quality, enhancing customer trust and satisfaction, although some studies have found its impact to be limited.

5) Personalization: By personalization in e-services is meant ability of channel to provide a differentiated service and understand the needs and preferences of each of customers. Personalization enables website to recognize repeat customers and show them personalized content, creating the feeling of the close familiarity and enhancing relationship and loyalty. Customer information and purchase history are also be used to make more tailored offers and services.

6) Fulfillment: Fulfillment of promises is means the ability of online channel to meet customers expectations, realizing its commitments as products and services, ensuring timely delivery. This involves accuracy in presentation and description of product, and ensuring that customer will receive what they have actually asked for. It is important determinant of quality of online service.

7) Responsiveness: refers to the speed and efficiency of the electronic channel in treatment of customer problems and complaints, including responding to queries, processing of returns, compensation of losses if necessary. Ability to react in time and appropriately is important determinant of customer perception on the quality of electronic service.

Customer satisfaction

The evaluation by the customer of his/her experience with a specific product or service that expresses the correspondence with the expectations with their need. Customer satisfaction is an important measure of the quality of service or product and a fundamental factor for sustainable business success. It promotes the loyalty to the company by encouraging customers to continue the business relationship with the company and spreading it around. In order, customer satisfaction, directly affects the company's economic results by increasing customer retention, reducing costs of marketing activities for new customers and obtaining a competitive advantage on market.Furthermore, customer satisfaction is linked to psychological and behavioral outcomes, raising brand trust and stimulating positive interaction with the services

provided (Evangelista, Flegueras, & Antonio, 2025:27). Customer satisfaction is a crucial factor in organizational success and is significantly influenced by the behavior of direct service providers. Customer management requires considering customers as valuable assets, taking into account the differences in their needs, preferences, and purchasing behaviors, in order to ensure the provision of customized and effective services that enhance their loyalty and achieve their continuous satisfaction (Lee et al., 2016:1). Customer satisfaction is the feeling of the consumer after experiencing a product or service, and it is a strategic goal for any organization, as it is related to service quality, customer loyalty, and positive promotion, and contributes to increasing profits and reducing costs (Zouari & Abdelhedi, 2021:3).

Factors Affecting Customer Satisfaction

Factors affecting customer satisfaction are a primary concern for any organization, department, or country, as customer satisfaction allows any business to build long-term, profitable relationships with its clients. This is because when a company loses loyal customers, it incurs the cost of regaining them in addition to the costs of attracting new ones. Among these factors are internal factors such as product quality, employee efficiency, and company policies, and external factors such as competition, economic conditions, and market trends. The impact of communication and customer service on customer satisfaction (Hanif, Hafeez, & Riaz, 2010:45) identifies the main factors affecting customer satisfaction with electronic banking. These include positive factors such as perceived utility, ease of use, comparative advantages, and the service's suitability to current customer needs, which promote reliance on online banking services. Conversely, there are disincentive factors that negatively affect usage, including security risks, financial risks, time risks, performance risks, and social risks. These factors reflect the importance of institutions considering these aspects when developing and improving electronic banking services (Ekanayaka, 2021:1269):

1) Product or service quality.
2) Response time and customer service.
3) Pricing and value for money.
4) User experience and overall buying experience.

The Relationship Between E-Banking Quality and Customer Satisfaction

E-banking quality elements such as empathy, reliability, and responsiveness play a significant role in enhancing customer satisfaction and purchasing intentions. While customer satisfaction acts as a mediator in this relationship, there is a lack of research demonstrating how responsiveness directly influences customer behavior. This highlights the need for further research to better understand this impact and improve the customer experience in e-banking (Ali, Azhar, & Sherwani, 2023:180). E-banking quality significantly impacts customer satisfaction and loyalty, with trust playing a crucial mediating role in fostering this relationship, particularly in high-risk financial environments. Studies have shown that customer satisfaction enhances the impact of service quality on loyalty, and that trust is important in the acceptance of online banking services. However, most previous research has focused on satisfaction or trust as a single mediator, and there is a lack of evidence regarding the combined role of satisfaction and trust. Therefore, service quality affects psychological outcomes such as satisfaction and trust, which in turn maintain customer loyalty and the continuity of their relationships with the bank (Kamara & Bangura, 2026:1).

PRACTICAL ASPECT

Presentation of Statistical Results

The results obtained from collecting data from the research sample, consisting of 114 respondents, which was characterized by demographic and professional diversity, show, as shown in Table (1), that there is a close relationship between the respondents of both genders,

with a slight advantage for females, as the percentage of females constituted approximately (53.5%), while the percentage of males constituted 46.5%.

Table (1) Distribution of the study sample according to gender

Category	Frequency	Percentage
Female	**61**	**53.5%**
Male	**53**	**46.5%**
Total	**114**	**100%**

The table is based on the survey results.

In terms of age, the young age group (26-35 years) dominated the sample at a rate of (45.6%), which is close to half of the number of respondents. This reinforces the opinions presented about electronic services, as this group is the most familiar with modern technology, as shown in Table (2).

Table (2) Distribution of the study sample according to age group

Age Group	Frequency	Percentage
26-35 years	52	45.6%
36-45 years	28	24.6%
15-25 years	17	14.9%
46-55 years	14	12.3%
Over 55 years	3	2.6%
Total	114	100%

The table is based on the survey results.

At the educational level of the sample, the largest percentage was formed, which reflects a high level of awareness and knowledge, as (81%) of the respondents were Bachelor's and postgraduate students, which leads to ensuring the ability of the respondents to accurately evaluate the technical and professional standards, as shown in Table (3).

Table (3) Distribution of the study sample according to academic achievement

Educational Qualification	Frequency	Percentage
Bachelor's	64	56.1%
Master's	29	25.4%
PhD	9	7.9%
Higher Diploma	8	7.0%
High School or less	4	3.6%
Total	114	100%

The table is based on the survey results.

Regarding the professional aspect, it is clear that the sample combines youthful energy and experience, as the percentage of those who have experience of (1-5 years) reached about (36%), followed by the category of long experience (16-25 years) at a rate of (26.3%), which provides a comprehensive vision of the research that combines the aspirations of the new generation and the background of experienced administrative cadres in banking work, as in Table (4).

Table (4) Distribution of the study sample according to number of years of service

Years of Service	Frequency	Percentage
1-5 years	41	36.0%
16-25 years	30	26.3%
6-10 years	19	16.7%
One year or less	14	12.3%
11-15 years	10	8.7%

Total	114	100%

The table is based on the survey results.

STATISTICAL ANALYSIS AND INTERPRETATION OF RESULTS

This study adopted a descriptive-analytical approach to analyze the impact of the quality of electronic banking services, in its dimensions (reliability, responsiveness, security, ease of use, and technical aspect), on customer satisfaction in banks. Data were analyzed using SPSS v23 software based on a sample of (114) valid questionnaires. The following methods were employed:

Reliability Analysis

Cronbach's alpha coefficient was used to measure the consistency of the measurement instrument, and the results were as follows:

Table (5) Cronbach's Alpha Coefficient

Dimension	Cronbach's Alpha
Reliability	0.832
Responsiveness	0.886
Security / Assurance	0.920
Ease of Use	0.910
Technical Dimension	0.878
Customer Satisfaction	0.915
Dimension	Cronbach's Alpha

Table based on SPSS v23 results

The results showed that all alpha values were higher than the statistically acceptable limit (0.70), indicating that the measurement tool has a high degree of reliability and internal consistency, and therefore its data can be relied upon in subsequent analysis with high scientific confidence.

Descriptive Statistics of Study Variables

The mean results obtained from the arithmetic means revealed that all dimensions of quality of the electronic banking services were very good, while the means ranged from (3.4632 – 3.8228) on a five-point Likert scale, as given in Table (6), the dimension of ease of use recorded the highest arithmetic mean of (3.8228), revealing the customers consider electronic services easy and easy to handle. This was followed by security dimension with an average of (3.7105) which revealed a good general feeling on the part of customers on the level of protection and in confidentiality of electronic transactions.

Table (6) Descriptive Statistics for Study Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Reliability	114	1.00	5.00	3.6053	0.73663
Responsiveness	114	1.00	5.00	3.4632	0.76068
Security	114	1.00	5.00	3.7105	0.86958
Ease of Use	114	1.00	5.00	3.8228	0.82129
Technical Aspects	114	1.40	5.00	3.5719	0.82607
Customer Satisfaction	114	1.00	5.00	3.6303	0.79615

Table based on SPSS v23 results

The overall mean scores of reliability (3.6053) and technical (3.5719) indicate a satisfactory judgment of service stability and efficiency. The lowest relative mean (3.4632) of the

responsive criteria can be considered a high value, suggesting that the level of satisfaction with the speed of response to requests and inquiries is acceptable.

As for the customer satisfaction variable, its arithmetic mean reached (3.6303), which is a relatively high level, indicating that there is a good degree of satisfaction among the study sample towards the electronic banking services provided.

The standard deviation values, which ranged between (0.73663 – 0.86958), show a moderate degree of variation in the responses of the sample members, reflecting a relative convergence in their views on the quality of services and the level of satisfaction.

Normality Test

The results of the normality test indicate a deviation from the normal distribution, but the sample size of (114) individuals allows the use of parametric methods based on the central limit theory, which makes the effect of this deviation limited and not affecting the validity of the regression analysis results as shown in Table (7).

Table (7) Normal Distribution Test

Variable	Kolmogorov-Smirnov (Sig)	Shapiro-Wilk (Sig)	Decision
Reliability	0.000	0.001	Non-normal
Responsiveness	0.005	0.034	Non-normal
Security	0.000	0.000	Non-normal
Ease of Use	0.000	0.000	Non-normal
Technical Dimension	0.021	0.018	Non-normal
Customer Satisfaction	0.004	0.017	Non-normal

Table based on SPSS v23 results

Testing the main hypothesis and sub-hypotheses

A. Main Hypothesis

The results indicate a strong positive correlation between the quality of electronic banking services and customer satisfaction, as shown in Table (8), where the value of (R = 0.860) and the coefficient of determination $R^2 = 0.740$. That is, the dimensions of quality of electronic banking service (reliability, responsiveness, security, ease of use, and technical capacity) could only explain 74 of customers' satisfaction variation. This high explanatory power reflects the strength of the explanatory model. Furthermore, the value of F = 61.378 and its significance (Sig = 0.000 < 0.05) confirm the statistical significance of the regression model. Therefore, this indicates acceptance of the main hypothesis, which states: "There is a statistically significant relationship between the quality of electronic banking services and customer satisfaction in Iraqi banks."

Table (8) Testing the main hypothesis

R	R^2	F	Sig
0.860	0.740	61.378	0.000

Table based on SPSS v23 results

B. First Sub-Hypothesis

The results of testing the first sub-hypothesis, as shown in Table (9), indicate a weak positive correlation between the reliability dimension and customer satisfaction (R = 0.199). The coefficient of determination, $R^2 = 0.040$, shows that the reliability dimension explains only about 4% of the variance in customer satisfaction, which is a limited explanatory power. The F-value of 4.96 and its significance (Sig = 0.026 < 0.05) confirm the significance of the

regression model. Therefore, the first sub-hypothesis is accepted: "The reliability dimension of electronic banking services affects customer satisfaction."

Table (9) Testing the first sub-hypothesis

R	R^2	F	Sig
0.199	0.040	4.96	0.026

Table based on SPSS v23 results

C. Testing the Second Sub-Hypothesis

The results in Table (10) indicate that the relationship between response and customer satisfaction is very weak (R = 0.082), and R^2 = 0.007 indicates that the response dimension explains less than 1% of the change in customer satisfaction. The F-value = 0.90 and its significance (Sig = 0.345 > 0.05) indicate that the model is not statistically significant, and therefore the second sub-hypothesis is rejected: "The response dimension of electronic banking services affects customer satisfaction."

Table (10) Testing the second sub-hypothesis

R	R^2	F	Sig
0.082	0.007	0.90	0.345

Table based on SPSS v23 results

D. Testing Sub-Hypothesis 3

The results in Table (11) show that the relationship between security and customer satisfaction is very weak (R = 0.037). R^2 = 0.001 indicates that the security dimension explains only about 0.1% of the variance in customer satisfaction, a near-zero explanatory power. The F-value = 0.19 and its significance (Sig = 0.661 > 0.05) indicate the model's insignificance, and therefore, the third sub-hypothesis is rejected: "The security dimension of electronic banking services affects customer satisfaction."

Table (11) Testing Sub-Hypothesis 3

R	R^2	F	Sig
0.037	0.001	0.19	0.661

Table based on SPSS v23 results

E. Testing Sub-Hypothesis Four

The results in Table (12) indicate a weak to moderate positive correlation between ease of use and customer satisfaction (R = 0.256). R^2 = 0.065 suggests that the ease of use dimension explains approximately 6.5% of the variance in customer satisfaction. The F-value of 11.79 and its significance (Sig = 0.001 < 0.05) confirm the model's significance, thus accepting Sub-Hypothesis Four: "The ease of use dimension of electronic banking services affects customer satisfaction."

Table (12) Testing Sub-Hypothesis 4

R	R^2	F	Sig
0.256	0.065	11.79	0.001

Table based on SPSS v23 results

F. Testing Sub-Hypothesis Five

The results in Table (13) show a moderate positive correlation between technical efficiency and customer satisfaction (R = 0.388). R^2 = 0.151 indicates that technical efficiency explains approximately 15.1% of the variance in customer satisfaction, the highest explanatory power among the dimensions. The value of F from 20.74, of signifcant (Sig = 0.000 < 0.05) prove very significantly to prove the signifcation of model Fifth sub hypthesis: "The technical effcency dimensions of the electronic banking services affects customer satisfaction"

Table (13) Testing Sub-Hypothesis 5

R	R^2	F	Sig
0.388	0.151	20.74	0.000

Table based on SPSS v23 results

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

According to the results of statistical analysis dimensions analysis of e-banking service quality quality and their relationship to customer satisfaction, the following conclusions were obtained: 1) The level of significance of the overall explanatory of: The results were showed that the combination of the individual dimensions of the quality of the e- have a very high predictive power of the in of 74% ($R^2 = 0.740$), confirming that the customer's satisfaction is influenced by a holistic perception of a quality of a and not a single dimension of dimensionally isolated. 2) The centrality of the dimension "Technical efficiency: The results obtained were in "technical efficiency" was the most influencing and significant statistically significant (explaining 15.1% variance in customer satisfaction), which reflects customers' high awareness of the quality of software performance and the speed of operations.

3) The low impact of the traditional dimensions (security and the dimension: In the results there were a important, but not statistically significant, deficiency in the dimension of security and responsiveness in explaining the the satisfaction of is is either to the high expectations that have not been fulfilled by customers, or to the fact of customers considering security as an existing and not service required and not a competitive advantage that increases their satisfaction.

4) The role of the interface: For the of in 'ease of use' was ranked second, resulting in an important significant impact (which suggests customers relate their satisfaction with the ease-of-use simplicity of the interfaces in ease of navigation within the electronic interfaces.

Recommendations

1) Strategic Investment in Technological Infrastructure: Banks need the to focus and enhance 'technical efficiency" through upgrading their servers and reducing the response times of applications as it is proven to be the main driver of customer satisfaction according to the results of the statistical analysis.
2) Designing an "Interactive Security" Strategy: Since the security is has not proven a high impact, we suggest that to transform it in a silent technical procedure in an tangible experience of the customer (to achieve activating real alerts using technologies for authentication - e.g., fingerprint and facial recognition) in order to increase customer's trust and thus increase their satisfaction .
3) Design of simple and clear interface of reduce number of steps required to complete completing banking transactions in enhance the "Ease of use that has proven to have a positive impact .
4) Implement of AI-Powered Instant Response: In an attempt to improve the lack of in banks need to implement intelligent chat systems that offer solutions at any time around time, which will convert responsiveness in tangible added value for the customer. 5) The quality of electronic services must be considered the "backbone" of loyalty digital loyalty, as a study proved that overall level quality proved to be the strongest predictor ($R = 0.860$) of the satisfaction. Therefore, the management of banks must design its marketing and service policies based on the integrate integration of technical and human dimensions as the key to ensure excellence in a high competitive environment of a digital banking environment.

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