

Digital transformation of Banking Services and Its Impact on Customer Satisfaction

Case Study, Commercial Bank of Iraq

Assistant Lecturer: Sahm Hazim Najeeb
University of Mosul
College of Administration & Economics
Saham_hazem@uomosul.edu.iq

ISSN 2709-6475 DOI: <https://dx.doi.org/10.37940/BEJAR.2022.3.4.4>

تاريخ استلام البحث ٢٠٢٢/٤/٢٣ تاريخ قبول النشر ٢٠٢٢/٧/٧ تاريخ النشر ٢٠٢٢/١٠/٣٠

Abstract

A result of the importance of technology and digital transformation today in the world of banking, and customers' tendency to pay attention to the digital services provided in banks. The study started from the following problem: Is there an impact of digital transformation on customer satisfaction in commercial banks in Iraq. The current study aimed to achieve the following: identifying the digital transformation in the Commercial Bank of Iraq, and measuring the impact of digital transformation on the customers' satisfaction of Iraqi banks. The descriptive analytical approach was also used in the study. A questionnaire related to the study variables was designed and distributed to an easy sample of 150 Commercial Bank clients in Iraq. Data was analyzed using the SPSS and SMATPLS programs. The study reached a set of results, the most important of which are: There is an impact of digital transformation in increasing customer satisfaction in the Commercial Bank in Iraq.

Keywords: digital transformation, customer satisfaction, process transformation, business models.



مجلة اقتصاديات الأعمال
المجلد (٣) العدد (٤) ٢٠٢٢
الصفحات: ٦٧-٨٧

التحول الرقمي في خدمات المصارف وأثرها على رضا العملاء

دراسة حالة المصرف التجاري في العراق

م.م. سهم حازم نجيب

جامعة الموصل

كلية الإدارة والاقتصاد

Saham_hazem@uomosul.edu.iq

المستخلص

نتيجة لأهمية التكنولوجيا والتحول الرقمي اليوم في عالم المصارف، وتوجه العملاء إلى الاهتمام بالخدمات الرقمية المقدمة في المصارف، انطلقت الدراسة من المشكلة الآتية: هل يوجد أثر للتحول الرقمي على رضا العملاء في المصارف التجارية في العراق؟ هدفت الدراسة الحالية إلى تحقيق ما يأتي: التعرف على التحول الرقمي في المصرف التجاري في العراق، وقياس أثر التحول الرقمي على رضا عملاء المصارف العراقية. كما تم استخدام المنهج الوصفي التحليلي في الدراسة، كما تم تصميم استبانة متعلقة بمتغيرات الدراسة وتوزيعها على عينة ميسرة من عملاء المصرف التجاري في العراق بلغت (150)، تم تحليل البيانات باستخدام برنامجي SPSS SMATPL. توصلت الدراسة إلى مجموعة من النتائج أهمها: يوجد أثر للتحول الرقمي في زيادة رضا العملاء في المصرف التجاري في العراق.

الكلمات المفتاحية: التحول الرقمي، رضا العملاء، عملية التحول، نموذج العمل.

1. Introduction:

Through the global technical development in recent decades, digital transformation has become a basic requirement in all sectors. This rapid transformation depends on virtualization and interdependence as an essential demand for what is known the era of the industrial revolution or industry in the banking system. The banking industry has witnessed a fundamental transformation in the banking system, greatly influenced by the rapid spread of technologies such as smart phones, artificial intelligence, smart robots...etc., this study focused on clarifying the reality of digital transformation in Iraqi commercial banks and its impact on their satisfaction with the provided modern services.

Study Methodology:

First: The problem of the study:

Iraq has suffered from many economic sanctions that have affected the banking sector in recent decades, in addition to wars and multiple internal problems. This has affected the ability of Iraqi banks development and relying on modern technology for years. However, the lifting of sanctions contributed significantly to the return of banks' role in economic activity. This was accompanied by a development in work mechanisms and a tendency to keep up with the provided services in international banks in terms of quality and the use of multiple technologies. Thus, the study problem can be formulated by the following main question: Is there an impact of digital transformation in the services of the Commercial Bank of Iraq on the satisfaction of its customers? A set of sub-problems arise from the main problem:

1. Is there an impact of the digital customer experience on customer satisfaction in the Commercial Bank of Iraq?
2. Is there an impact of the employee's digital experience on customer satisfaction in the Commercial Bank of Iraq?
3. Is there an impact of digital operations transformation on customer satisfaction in the Commercial Bank of Iraq?
4. Is there an impact of digital business models on customer satisfaction in the Commercial Bank of Iraq?

Second: Objectives and importance of the study:

The objectives of the study can be defined as follows:

- Learning about the digital transformation in the Commercial Bank of Iraq.
- Measuring the impact of digital transformation on customers' satisfaction of Iraqi banks.

The importance of digital transformation in banks is due to the diversity of services provided by digital platforms, such as opening accounts services and attracting new customers, in addition to completing payments, purchases, money transfers, and transactions via the Internet and mobile Phones. (Sobegh,2019)

Third: Study Methodology:

The descriptive analytical approach was used in this study, which is one of the appropriate approaches that give a clear image of the study's problem. In addition, it helps in understanding the study by clarifying and explaining the relationship among its variables.

Fourth: Study Tool:

A questionnaire was designed consisting of two main sections: The first section is related to digital transformation and includes 5 dimensions and 25 questions as follows: The digital customer experience 6 questions. Digital employee experience 5 questions. Digital information 5 questions. Electronic operations 5 questions. Electronic business models 5 questions. And finally customer satisfaction 9 questions.

Fifth: Statistical Methods:

The appropriate analysis method is mainly based on the type of analyzing data.

The statistical package (SPSS) and structural equation modeling based on molecular small squares are used. The ready-made software (SmarPLS) was adopted to analyze the collected data to achieve the objectives of the study and test hypotheses. The following test methods were used:

- Validity and reliability test of the study tool.
- t-test and unique-variance analysis.
- Path analysis to find the impact level and test hypotheses.

Sixth: Study Limits:

The spatial limits of the study were represented by the clients of the Commercial Bank of Iraq in the city of Mosul, as the bank provides similar services all over Iraq. The time limits were represented in March 2022, which is the year of designing the questionnaire and distributing it to the client sample of the Commercial Bank of Iraq. The study limits were specified in the two variables of digital transformation and customer satisfaction.

Theoretical side:

First: The concept of digital transformation:

Digital transformation has become a necessity for all financial institutions that seek to develop, enhance their services, and facilitate beneficiaries' access. Banking transformation does not only mean the application of technology inside banks, but also it is a comprehensive and complete program that touches on financial institutions and the way they work internally and externally.

Digital transformation is defined as: "the process of companies movement to business models that depend on digital technologies to support the development and innovation of the offered products and services, and provide new marketing channels and job opportunities that increase their product value, either goods or services (Ismail et al, 2017).

Digital transformation is defined as: "The use of new digital technologies for achieving superior performance and continuous competitive advantage by transforming multiple business dimensions, including the business model and customer experience that comprises digitally enabled products, services, and processes including decision-making. Also, the simultaneous impact on people including their skills, talents, organizational culture, networks and the entire organization (Ismail, Khater & Zaki, 2017).

Digital transformation is a complex process that requires the commitment of all organization's resources to apply digital technologies throughout the organization, especially in operations (Stark, 2020).

It is also a complex cultural, technical and organizational development process carried out by banks in order to satisfy their customers and their changing needs and meet the requirements of their employees by taking advantage of digital capabilities to build banking business models, create

new banking services and digitize operational processes in order to improve financial performance, reduce banking risks and support competitive advantage, thus creating value to the bank. (Bloomberg,2018)

Second: The importance of banks digital transformation:

The development of financial technology has passed through many stages since the global crisis in 2008. Here, new companies and technology companies began to provide financial products and services directly to the companies and the customer. Therefore, digital transformation is necessary and its role is important in improving the efficiency of the banking sector and the provided services.

Its importance comes from the banks' need to develop and improve their services and facilitate their access to beneficiaries. Digital transformation is concerned with the way of using technology inside banks. It provides a great assistance in improving operational efficiency and the services they offer to target customers. The digital transformation employs technology in an optimal manner, which serves the work progress in banks, and also in their dealings with customers to enhance services and make easy access to them, which ensures saving time and effort. However, the practical importance is represented in how banks always strive to improve their performance and attract new customers and thus achieve a competitive advantage for them. In addition, it attracts investments efficiently and effectively to achieve a position for banks and reach an effective banking system. (Victoria,*et.al.*,2020)

Digital transformation contributes to linking public or private sectors with each other in a way that achieves joint business with high flexibility and harmony. It has become necessary to make banks digital due to the rapid development in the use of information technology means and tools in all aspects of life, whether they are related to transactions with the government sector, the private sector, or they belong to individuals. Therefore, there is a clear pressure from all segments of society on institutions to improve and develop their services and make them available on all digital channels. (Stark,2020)

Banks tend to digital transformation, make use of artificial intelligence, block chain and smart banking applications, and raise the demand percentage for them. The goal of digital transformation in banks is to reduce banking transactions by modifying products and communication

strategies to serve customers, and thus banks can no longer be satisfied with traditional services, but they must keep developing to keep up with their customers' needs.

Third: Characteristics and features of digital transformation in banks:

- Digital transformation has many advantages, not only for customers and the public, but also for institutions and companies. The most important characteristics of digital transformation in banks can be identified as follows: (Muslim et al, 2013)
- It improves and organizes banks' operational efficiency and speeds up the completion of operations.
- It saves cost and effort to a large extent in banks.
- It improves quality and facilitates procedures for clients to get services.
- Digital transformation helps provide new innovative and creative services away from the existing traditional services.
- It helps banks to expand and spread in a wider range and reach a larger number of customers.

Fourth: Elements and Components of Digital Transformation in Banks:

Digital transformation's elements and components of banks varied and can be identified as follows:

Digital government: One of the most important requirements for digital transformation in the banking sector is e-government, which helps in facilitating banking operations efficiently and quickly, so that it is able to lead the following: (Abo Samrah, 2019)

- Improving the productive efficiency of its operations.
- Improving services provided to citizens.
- Accelerating the completion of social sector projects.
- Cost savings.
- Encouraging transparency and reducing corruption.
- Facilitating the ability of setting up new business projects.

The e-government is urgent for the digital transformation of banks. When activating the work of e-government, all transactions will go to digital transformation, and therefore all financial transactions will become digital, and this will contribute to the speed of digital transformation in banks to meet the needs of customers, and will provide appropriate electronic infrastructure services for digital transformation operations.

Digital Business: It focuses on developing and promoting a distinguished digital market by increasing the quality of financial inclusiveness, fair competition, a good information infrastructure, and protect consumers strongly. It focuses on three areas:(Shallomm2017)

- digital commerce.
- digital financial services.
- A digital conviction of what is going on in the market.

Infrastructure: It is one of the most important factors of digital transformation in countries, especially in banking works. The most important requirements for digital infrastructure in banks can be identified as follows: (Sreehesh,2016)

- The presence of a developed communications and Internet infrastructure in the country.
- The availability of necessary equipment and software in banks.
- The availability of laws and regulations governing digital banking operations.
- The availability of able cadres to carry out digital transformation.

Supporting innovation and creativity:

This can be done by motivating banks and various companies to digital dealings apart from traditional methods. Moreover, governments should rely on the use of digital technology to improve the operations of economic activities. Also, Inventing digital business models and modernizing economic and commercial intelligence. (Luiz,2020)

Digital culture and values spreading:

It is one of the most important stages through which marketing takes place because of the importance of digital transformation in various sectors, especially banks. Furthermore, showing the customer's positive features that can have through the use of technology instead of traditional methods, and the possibility of obtaining services at home or by the computer or mobile. This stage is one of the important stages that affects the consumer's behavior and the shift from traditional banking services dependence to digital ones. (Ying,2016)

Laws and legislation: It is necessary to work on issuing laws and legislation that regulate and facilitate digital transformation, because digital

transformation in banks and in various other sectors in Iraq needs a legal environment that regulates its work, such as European countries.

Fifth: The concept and importance of customer satisfaction in banks:

The change of the world leads to a change in the customers' behavior and their attitudes towards banks and banking transactions. Customer satisfaction is one of the most important factors in measuring the bank's ability to meet customer requirements and reach their expectations. (Salem,2011)

By reaching customers' expectations, this would increase their satisfaction rate. This is considered as an essential part in increasing their loyalty. In order to get this loyalty, it is necessary, in the beginning, to obtain their satisfaction. Because the failure in achieving customers' satisfaction, this leads to lose their trust, which leads to leaving it and looking for others. (Villers,2012)

One of the most important aspects of banks' profitability is the relationship between banks and their customers. Customers are the basis and backbone of banks, since they are their main source of revenues. Banks must earn the loyalty of customers in order to repeat their dealings with them and convince others with their services and sincerity in dealing with customers. This generates additional profits for them. On the contrary, if the customer is not satisfied with the bank's services, this will negatively affect its reputation, leading to significant losses.

Therefore, it is important for banks to build and maintain a good relationship with customers, and this relationship can be strengthened through interacting with customers by providing the preferable products and services. This can be done by collecting information about consumers and existing customers, and then behaving according to the information collected. This process is known as "customer relationship management" as it is considered an essential aspect of most banks. (Patr,2003)

Customer satisfaction is defined as: "a high personal assessment that is significantly influenced by an individual's expectations".

Customer satisfaction is defined as "the degree of the customer's conviction with meeting his requirements". There may be a more accurate definition which is "the process by which the needs and expectations of customers are met by providing a high quality service that results in customer satisfaction" (Wahbah, 2002)

Changes in the customers' behavior and their increasing transfers between banks cause many problems for them, as they try hard from the beginning to gain their satisfaction. However, these changes and transfers make it difficult for banks to maintain the customers' loyalty if their demands and preferences are not met (Ndubisi, 2006).

Customer satisfaction may be varied and related to different dimensions of multiple service providers or product experiences. Customer satisfaction can be obtained if the performance of the product or service is equivalent to its expectations, but if this performance is below expectations, satisfaction will not be met. The ultimate goal of banking service quality is customer satisfaction. Satisfaction is related to the customers' perception of banking performance that meets or exceeds their expectations.

Sixth: Methods of measuring customer satisfaction in banks:

Satisfaction: It is the feeling of happiness and joy that a person obtains as a result of need or desire satisfaction. Satisfaction in the field of business and services, such as consumer satisfaction, is the benefit that they achieve through consuming a commodity or benefiting from a service.

The degrees of satisfaction in the banking sector can be divided into the following:

- Performance > Expectation, the result is customer happiness, close connection and loyalty to the bank.
- Performance = expectation, the result is satisfaction with the provided services, dealing with the bank, and non-absolute loyalty in the event that there are banks that provide better services.
- Performance < Expectation, the result is dissatisfaction and the search for another alternative.
- Customer satisfaction is usually measured by the difference between expectations and apperceptions, or by a questionnaire that includes a set of questions which measure their degree of satisfaction and loyalty to the bank. (Asaad et al, 2016)

Seventh: The relationship between digital transformation and customer satisfaction:

Commercial banks have made a boom in digital banking services in recent years, especially in 2020, in light of the repercussions of the Corona pandemic, which imposed new patterns in banking operations, reducing the number of work hours and closing some branches due to physical distancing

and separation. Banks have launched new versions of online banking services and mobile banking, which allow customers to conduct their transactions easily and without the need to go to bank branches, and include a greater number of banking services that can be implemented through digital platforms. All these led to move towards digital transformation, as some banks have launched fully electronic branches, in addition to using artificial intelligence applications, big data and other digital technologies in operational processes, in order to achieve operational efficiency and meeting the needs of customers, especially the youth group that is interested in making an integration between digital technologies and all offered products and services.

Customers' satisfaction has become one of the most important topics that concern business owners in the field of banking business. Due to the digital development, society is facing an unprecedented shift from industry towards digitalization. A new generation of customers that grew up on the Internet tends towards technological development.

Kennedy and Jackie note that digital banking technology has greatly advanced by playing a major role in improving service delivery standards in the financial institution sector. They say that the days of long queues to pay for electricity, water and telephone bills, school fees or any financial transactions are over. Today, customers can do this by using credit cards or online at home. These are for gaining customer satisfaction which is a priority for any bank to gain and keep its customers without losing them. So, the relationship between digital transformation and customer satisfaction is a correlated relationship that is in the interest of banks to maintain their customers. (Abolhassan,2017:22)

Digital bank offers must be based on a deep understanding of digital customer behavior as well how a bank's brand value can be built and spread among digital customers. Banks usually offer innovative and modern means of customer satisfaction such as the online banking system, telephone and call centers. Competitiveness and ease are the two most important factors for banks that affect overall customer satisfaction. Therefore, in order to increase the effectiveness of the organization, it is necessary to measure customer satisfaction. (European Commission,2019)

Analytical framework of the study:

First: The model and hypotheses of the study:

The study model shown in Figure (1) was designed depending on the study variables, literature and reference studies related to the subject, to include the impact of digital transformation, in its four dimensions, on customer satisfaction in the Commercial Bank of Iraq, and the following figure illustrates the study model:

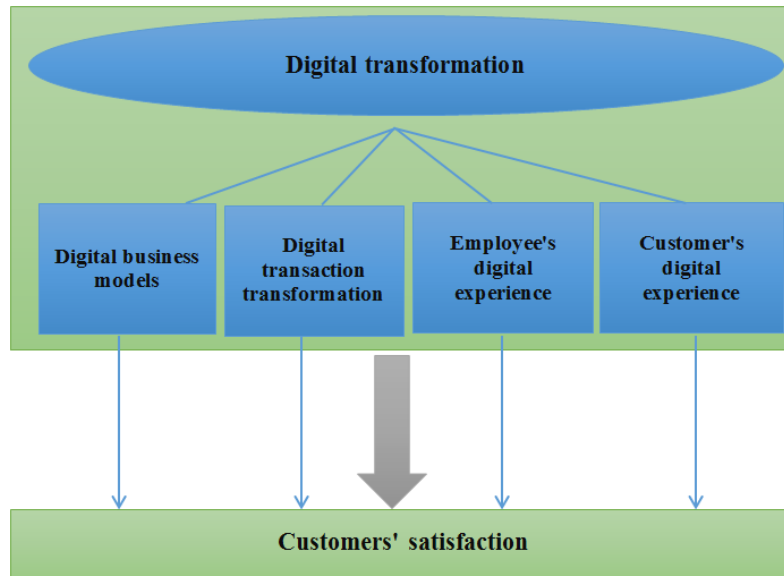


Figure (1) Study model

In dependence on the study model, the following hypotheses can be developed:

- H1: Digital transformation positively affects customer satisfaction in the Commercial Bank of Iraq.
- H2: The digital customer experience positively affects customer satisfaction in TBI.
- H3: The employee's digital experience positively affects customer satisfaction in the Commercial Bank of Iraq.
- H4: The transformation of digital operations positively affects customer satisfaction in the Commercial Bank of Iraq.
- H5: Digital business models positively affect customer satisfaction in TBI.

Second: Analyzing the demographic characteristics of the study population:

Table (1) Features and demographic characteristics of the study sample

Gender							
Female				Male			
%		Number		%		Number	
%25		30		%75		90	
Age							
76 and more		51-75		26-50		18-25	
%	Number	%	Number	%	Number	%	Number
-	-	32.5	39	62.5	75	5	6
Study level							
Postgraduate		University		High school		Middle school	
%	Number	%	Number	%	Number	%	Number
5	6	55	66	25	30	15	18

Source: Prepared by the researcher based on SPSS results.

- Table (1) includes the demographic analysis of the study sample as follows:
- Regarding gender, the number of males was greater than the number of females, and despite the difficulty of female response, 25% is considered good for expressing their opinion about the study variables.
- Concerning age, the questionnaire was distributed in a manner that takes into account the distribution of the age groups of the bank's customers. The biggest percentage of customers are between the age group 26-50 years, and the questionnaires distributed to them were 62.5%, while the percentage 32.5 was distributed to the age group 51-75, and 5% was distributed to the youngest age groups.
- Concerning the academic level, all educational categories were approved for distribution, and university graduates' opinions were more emphasized on by 55% of the study sample, while 25% was distributed to holders of secondary certificates, and 15% to holders of intermediate school certificates.

Third: Analyzing Data and testing the hypotheses:

To test the validity of the hypotheses and analyze the data of the study using the Smart PLS program for modeling structural equations by small squares, which is a methodology based on an algorithm to estimate the specific model, as it uses two models (an internal model and an external model) simultaneously when performing the estimation process. (Aisha, Atiq, Siti, and Al-Ajal, 2016)

In order to prove the suitability of the study model according to the pls smart program, three basic steps must be followed:

1. Ensuring the quality and conformity of the measurement model
2. Ensuring the quality of the structural model
3. Testing the significance of the structural paths of the study model.

To measure the quality and conformity of the measurement model, this is done by using the following indicators: Cronbach's alpha coefficient, composite reliability, the explained average variance (AVE), and the validity of the differentiation (Atallah and Ben Habib, 2021).

Table (2) Measuring the degree of reliability and validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Digital costumer experience	0.9794	0.9832	0.9072
Digital employee experience	0.9526	0.9658	0.8760
Digital information	1.0000	1.0000	1.0000
Digitizing internal processes	0.9722	0.9783	0.9001
Digital business models	0.9691	0.9759	0.8902
Satisfaction	0.9761	0.9795	0.8275

Source: Prepared by the researcher based on Smart pls program.

The previous table shows that the value of Cronbach's alpha coefficient for all study variables exceeds 0.6, and the value of cognitive reliability for all study variables exceeds 0.7, and the AVE values for all study variables exceed the required minimum limit of 0.5. Therefore, all indicators of quality and model conformity for the all study dimensions have been achieved.

Table (3) Measuring the validity of the differentiation of the study variables

	Digital costumer experience	Digital employee experience	Digital information	Digitizing internal processes	Digital business models	Satisfaction
Digital costumer experience	0.9525					
Digital employee experience	0.9503	0.9359				
Digital information	0.9896	0.9774	1.0000			
Digitizing internal processes	0.9822	0.9620	0.9930	0.9487		
digital business models	0.9737	0.9497	0.9886	0.9786	0.9435	
satisfaction	0.9587	0.9415	0.9671	0.9647	0.9561	0.9097

Source: Prepared by the researcher based on Smart pls program.

The previous table shows that all the variables of the study are distinct from each other and there is no intersection between them. This indicates that each variable expresses itself and has no relationship with the other variables. That is, the square root of AVE for any latent variable is greater than the value of its association with the remaining variables.

Table (4) The saturation of the paragraphs on the latent variables

	Digital costumer experience	Digital employee experience	Digital information	Digitizing internal processes	Digital business models	Satisfaction
DT			1.0000			
dgc1	0.9642					
dgc2	0.9032					
dgc3	0.9599					
dgc4	0.9698					
dgc5	0.9635					
dgc6	0.9526					
dgm1		0.9147				
dgm2		0.9093				
dgm3		0.9621				
dgm4		0.9565				
dgp1				0.9312		
dgp2				0.9531		
dgp3				0.9495		
dgp4				0.9500		
dgp5				0.9596		
dgw1					0.9626	
dgw2					0.9321	
dgw3					0.9306	
dgw4					0.9578	
dgw5					0.9339	
s1						0.8744
s10						0.9458
s2						0.8989
s3						0.7050
s4						0.9308
s5						0.9562
s6						0.9527
s7						0.8932
s8						0.9616
s9						0.9488

Source: Prepared by the researcher based on Smart pls program.

The previous table shows that all the items of the study have a high level of saturation on the latent variables, and the correlation of these items (\wedge)

with the latent variables exceeds the required limit of 0.7. Also, the saturation values indicate a high correlation for most of the study items that exceeds 0.9.

Table (5) Evaluation of the quality of the structural model

	R Square	R Square Adjusted
Digital information	0.9999	0.9999
Satisfaction	0.9421	0.9395

Source: Prepared by the researcher based on Smart pls program.

Table No. (5) shows that the value of R^2 for both digital transformation and customer satisfaction is very high, exceeding the value of 0.70, which indicates the strength of the study's model and its ability to predict the degree of influence of each of the independent study variables on the dependent variable.

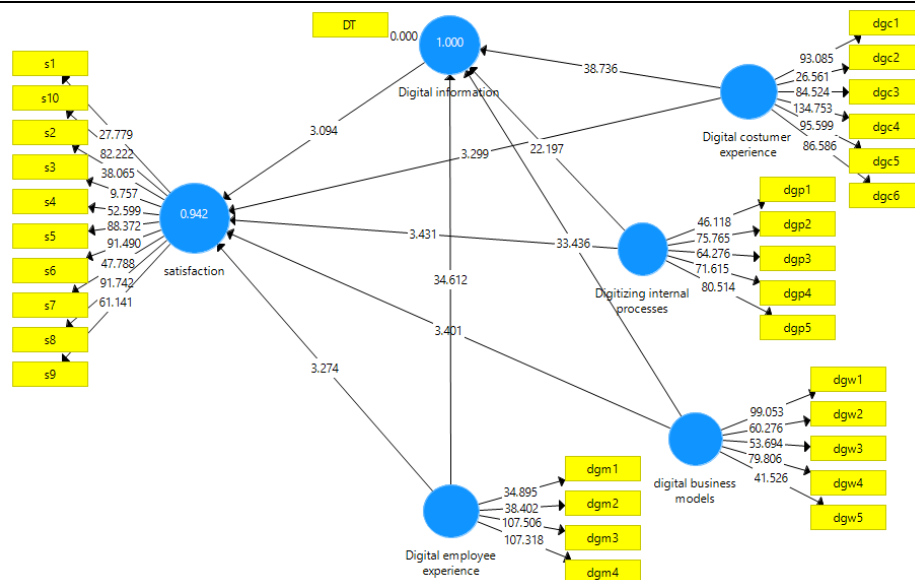


Figure (2) The network diagram of the variables

Source: Prepared by the researcher based on Smart pls program.

The figure shows the presence of the underlying variables formed for the study, which represent (the digital customer experience, the digital employee experience, digital business transformation, digital business models and measuring customer satisfaction) and a set of questions that were posed through the questionnaire.

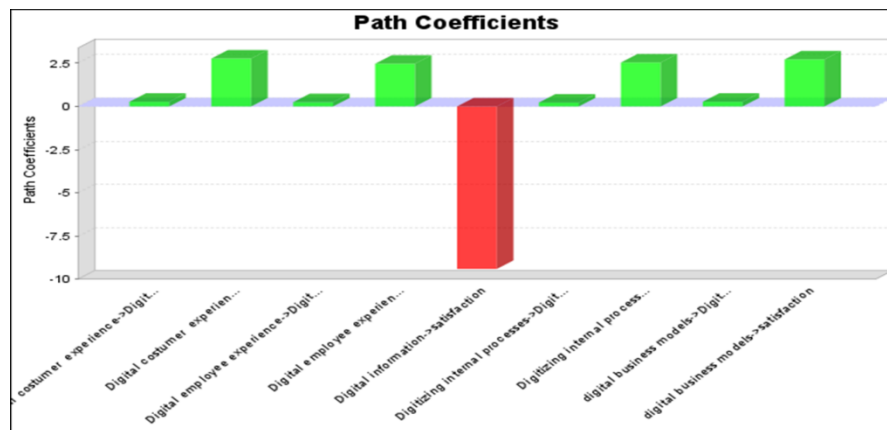
Hypothesis testing:

Depending on the previous form of the study model, hypotheses can be analyzed and tested as follows:

Table (6) The relationship between the variables

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values
Digital information -> satisfaction	-9.4055	-9.4236	3.4400	2.7341	0.0065
Digital customer experience -> satisfaction	2.7725	2.8048	0.9515	2.9139	0.0037
Digital employee experience -> satisfaction	2.4730	2.4983	0.8507	2.9071	0.0038
Digitizing internal processes -> satisfaction	2.5408	2.5268	0.8378	3.0327	0.0025
digital business models -> satisfaction	2.7196	2.6980	0.9010	3.0185	0.0027

Source: Prepared by the researcher based on Smart pls program.

**Figure (3) The network diagram of the variables**

Source: Prepared by the researcher based on Smart pls program.

The previous hypothesis-test table and the previous figure show the acceptance or rejection of the hypotheses as follows:

H1: Digital transformation positively affects customer satisfaction in the Commercial Bank of Iraq.

Regarding the effect of digital transformation on customer satisfaction, its effect was -9.4055, with an average of -9.4236, standard error of 3.4400, and T-value = 2.7341. $P < 0.05$, meaning that the effect was significant and had a statistical denotation.

So, digital transformation has a direct positive impact on customer satisfaction, despite the relationship between digital transformation and

customer satisfaction is inverse. The more variables and complexity of digital transformation increases, the greater customer satisfaction will be, since the benefits gained by digital transformation. As the Studies (Asaad,2020),(kuldeep,2014).

H2: The digital customer experience positively affects customer satisfaction in TBI.

The effect of the digital customer experience on customer satisfaction was 2.7725 with an average of 2.8048 and standard error of 0.9515, while the T-value = 2.9139 and it was $P < 0.05$. this means that the effect was significant and had a statistical denotation. So, that the digital customer experience had a direct positive impact on customer satisfaction.

H3: The employee's digital experience positively affects customer satisfaction in the Commercial Bank of Iraq.

The effect of the employee's digital experience on customer satisfaction is 2.4730 with an average of 2.4983 and standard error of 0.8507, while the T = value of 2.9071 was $P < 0.05$. This means that the effect is significant and has a statistical denotation. So, that the employee's digital experience has a direct positive impact on customer satisfaction.

H4: The transformation of digital operations positively affects customer satisfaction in the Commercial Bank of Iraq.

The effect of digital transaction transformation on customer satisfaction reached 2.5408 with an average of 2.5268 and standard error of 0.8378, while the value of T = 3.0327 was $P < 0.05$. This means that the effect was significant and had a statistical denotation, meaning that the transformation of digital operations had a direct positive impact on customer satisfaction.

H5: Digital digital business models positively affect customer satisfaction in TBI.

The effect of digital digital business models on customer satisfaction was 2.7196, with an average of 2.6980 and standard error of 0.9010, while the T value = 3.0185, and $P < 0.05$, meaning that the effect was significant and had a statistical denotation. So, digital digital business models had a direct positive impact on customer satisfaction.

Results:

- ✓ Achieving a state of satisfaction is a matter that needs follow-up and knowledge accumulation, especially in the banking sector, which consolidates a completely new idea through the dimensions of digital transformation related to customers happiness and achieving their goals and requirements in its financial dealings.
- ✓ The banking sector is the provider of financial services through digital transformation. Therefore, customers' acceptance of these services and their satisfaction with them requires years of training and qualification of employees and to experience digital transformation to make this experience successful.
- ✓ From Table (6) There is a contrary relationship and a statistical abstract effect of digital transformation on customer satisfaction, although the relationship between digital transformation and customer satisfaction. Since this contrary relationship, this indicates the acceleration of customers to attract the advantages and benefits of digital transformation that it provides in the field of bank services and its reflection on the ability of customers to develop and utilize these advantages permanently, keeping up with the changes in the world around them, especially in a country that has suffered and is still suffering from the consequences of war and turmoil
- ✓ The digital customer experience is characterized by a moral effect and has a statistical denotation. That is, it has a direct positive impact on customer satisfaction. Where the customer turns from a beneficiary of the benefits of digital transformation to a positive propaganda for the benefits of this transformation.
- ✓ Digital operations Transformation has a direct positive impact on customer satisfaction through the radical and structural transformation of the types and method of services that have changed due to keeping pace with the digital transformation.
- ✓ Digital business models have a direct positive impact on customer satisfaction by keeping up with progress in digital channels and platforms and the expansion of services on a global scale.

Recommendations:

- ✓ The need to increase attention to digital transformation in the bank, because digital transformation and digital services are of great importance to customer satisfaction.
- ✓ Increasing training courses for bank employees to deal professionally with digital transformation, and working to attract innovators in this field who are able to offer differentiated digital products that raise the level of customer satisfaction.
- ✓ Constant measuring of customer satisfaction with the provided digital banking services, and working to raise their quality and diversification to serve the customer's interest.
- ✓ Diversifying the digital services and digital business provided in the bank, and benefiting from the experiences of international banks in the same field.

References:

- Abo Samrah(2019), Proposal Model for digital transformation,24 international conferences of crises, Management of digital transformation, Egypt vision 2030, Aen Shamss university.P3-5.
- Abolhassan, F. (2017)" The Drivers of Digital Transformation" Germany: Springer International Publishing AG Switzerland.P17-22.
- Aisha, Aisha Atiq, Syed Ahmed Siti, and Buzayen Al-Ajal. (2016). Testing the median effect of both satisfaction and confidence in the relationship of brand identity to consumer loyalty. Al-Bashaer Economic Journal, Volume Five, Issue 1, p. 226.
- Bassel Asaad ,Habeeb mahmod(2016),Measuring the quality of health service in Iatakia province patient (failed study of health centers in jahble city) ,Journal of Social Economics Research, Volume3,Issue4.P6-12.
- Bloomberg, J. (2018)" Digitization, digitalization, and digital transformation: confuse them at your peril" Retrieved from <https://www.forbes.com/sites/jasonbloomberg//digitizationdigitalization-and-digital-transformation-confusethem-P14-21>.
- European Commission. (2019)" Digital transformation" Retrieved from https://ec.europa.eu/growth/industry/policy/digitaltransformation_en
- For Hassan Atallah, and Abdul Razzaq bin Habib. (2021). Studying the direct and indirect impact of the brand's experience on customer satisfaction and trust, using PIs Smart and the importance-performance map. Journal of the Economic Researcher.P33.
- Ismail, M. H., Khater, M., & Zaki, M. (2017). Digital business transformation and strategy: What do we know so far? Retrieved from https://cambridgeservicealliance.eng.cam.ac.uk/resources/Downloads/Monthly%20Papers/2017NovPaper_Mariam.pdf,p3-4.
- Luiz, M., & Smith, A. (2000). Modelling bank customer satisfaction through mediation of attitudes towards human and automated banking. International Journal of Bank Marketing, 18(3), P124–134.

- Muslim, A., Zaidi, I., & Rodrigue, F. (2013). Islamic banks: Contrasting the drivers of customer satisfaction on image, trust, and loyalty of Muslim and non-Muslim customers in Malaysia. *International Journal of Bank Marketing*, 31(2), P79–97
- Ndubisi, N. O. (2006) “Effect of gender on customer loyalty: a relationship marketing approach”, *Marketing intelligence & planning*, 24(1), p. 48-61
- Patrício, L., Fisk, R.P., & Cunha, J.F. (2003). Improving satisfaction with bank service offerings. *Managing Service Quality*, 13 (6), P471-482.
- Saleem, Z., & Rashid, K. (2011). Relationship between Customer Satisfaction and Mobile Banking Adoption in Pakistan. *International Journal of Trade, Economics and Finance*, 2(6), P537–544.
- Shallmo, D., Williams, C. A., & Boardman, L. (2017) "Digital transformation of business models – best practice, enablers and roadmap". *International Journal of Innovation Management*, 21(8), 1740014 (17 pages). <https://doi.org/10.1142/S136391961740014X>.P1-6.
- Sobegh M.(2019), Pillars Of Digital Economy,24 international conferences of crises, Management of digital transformation, Egypt vision 2030, Aen Shamss university.P 61-77.
- Sreejesh, S., Anusree, M. R., & Mitra, A. (2016). Effect of information content and form on customers’ attitude and transaction intention in mobile banking: Moderating role of perceived privacy concern. *International Journal of Bank Marketing*, 34(7), P1092–1113.
- Stark, J. (2020) " Digital Transformation of Industry" Geneva, Switzerland: Springer International Publishing, P22-31.
- Victoria, Carla Guzmán-Ortiza, Nohelia Gabriela Navarro-Acostaa, Wilmer Florez-Garciaa and Wagner Vicente-Ramosa (2020) " Impact of digital transformation on the individual job performance of insurance companies in Peru" *International Journal of Data and Network Science* (4) 337-346 www.GrowingScience.com/ijds.P6-11.
- Villers.V (2012). Banking will mean digital banking in 2015. Retrieved [February 3, 2015].from <http://www.pwc.lu/en/press-articles/2012/banking-will-mean-digital-banking-in-2015.jhtml>P11-13.
- Wahbah, Z. (2002). Contemporary banking transactions. Damascus: Dar Alfikr for publication. P8-14
- Ying-Yu, K. C., Yi-Long, J., & Bing-Li, W. (2016)"Effect of digital transformation on organizational performance of SMEs: Evidence from the Taiwanese textile industry’s web portal" *Internet Research*, 26 (1), P186-192.

