DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

Hasan Hadi Khawo RADI

Al-Furat Al-Awsat Technical University - Technical Institute of Karbala, Iraq hassanhadi87@atu.edu.iq

Abstract

The main purpose of this exploratory research is to study the digital transformation technology and achieve the achieving sustainable competitive advantage in Irag in banking sector from an employee's point of view and to analyze them accordingly. Given that maintaining a sustainable competitive advantage is now one of the requirements for any bank to continue operating, particularly in light of the information revolution and the ongoing technological advancements known to affect all areas of the economy, including banking, banks have invested in the so-called digital transformation of banking services, and to show this, it has adopted a number of measures. Deductive reasoning is used in the study of the theoretical side, while inductive reasoning is represented by a questionnaire form to improve the practical side, which is represented by a case study of a sample of bank employees in the Iraq. The research has produced a number of findings, the most significant of which are: utilizing digital transformation technologies in banking, the research sample banks increased productivity and encouraged staff and management to take on new duties that would improve and build performance efficiency; additionally, the research sample banks are sufficiently aware of the extent to which sustainable competitive advantage helps them to achieve their long-term objectives, this demonstrates that it is interested in sustainable competitive advantage's dimensions. While the research gave a list of suggestions that would support digital transformation in banks generally, these included: improving the usability and promotion of the electronic programs via which the service is provided, as well as attaching more detailed instructions for use; examining the successes of the top banks in using digital transformation technology to deliver and manage services in a way that enhances bank performance to carry out their duties effectively.

Keywords: Digital transformation technology, Sustainable competitive advantage. **DOI:** <u>https://doi.org/10.24818/beman/2023.13.3-05</u>

1. INTRODUCTION

The era of digitization required numerous changes in all sectors, but the banking sector was particularly affected because it was one of the first to adopt digitization and digital transformation in the banking sector. This led to the emergence of a driving force to achieve growth and sustainability, especially with the widespread use and application of digital technology by conducting operations and utilizing the

services offered. The rise of digital work created new opportunities for meeting customer needs and desires at the right time while also achieving a number of other benefits and objectives, such as gaining a sustained competitive advantage based on methods that implement financial operations quickly and affordably. Iraq introduced the first service of its kind in the region and Iraq as part of the adoption of digital transformation in numerous nations across the world. Iraq is working to become a country less dependent on cash, and digital enrollment is an integrated digital financial system that increases financial independence and liberation from traditional financial systems. This allows the state to fight corruption, tax evasion, and bureaucracy in financial transactions within banks operating in Iraq. Because of this, banks now have a competitive edge that will allow them to remain in the labor market both now and in the future by attracting these services and offering a variety of them. Based on the aforementioned, the research aimed to determine how using digital transformation technology can help Iraqi banks achieve a sustainable competitive advantage and what the reality of digital transformation in them is. The research was divided into three sections, the first of which covered scientific research methodology, the second of which was devoted to identifying research variables represented by digital transformation technology and sustainability.

2. METHODOLOGY

2.1 Research problem

Digital transformation technology is seen to be undergoing an infinite change. Every day, new technical advancements emerge that make business easier in all industries, including banking, and they can have regulatory side effects that are either beneficial or detrimental to the technology's ability to preserve competitive advantage. Consequently, the research problem was launched to show the extent of a relationship the connection and impact of digital transformation technology in achieving sustainable competitive advantage in banks.

2.2 Research importance

The importance of the research is revealed by the significance of one of its variables, "digital transformation technology," as it is one of the subjects of great importance at the moment, which is referred to as the era of digitization. For banks, this is no longer a qualitative option, but rather an unavoidable necessity and a strategic choice, as their activity necessitates utilizing the advantages of technological development to achieve the "advantage." The second study variable is "sustainable competitiveness," and it is crucial to understand this concept in order to inform future research. It demonstrates how banks can use digital transformation technology and the ways in which they might improve their operations.

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

2.3 Research objectives

- 1. Defining the concept of digital transformation technology and sustainable competitive advantage.
- 2. Studying the reality of digital transformation and its relationship to achieving a sustainable competitive advantage in banks, a research sample.
- 3. Presenting recommendations that can help the research sample banks keep pace with the technological transformations to achieve their sustainable competitive advantage.

2.4 Research hypotheses

The research is based on three hypotheses:

- 1. There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, which are Value Creation, Segmenting the market, Channels of distribution, and the first dimension of the dimensions of sustainable competitive advantage approved in the research, which is information technology.
- 2. There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, namely Value Creation, Segmenting the market, Channels of distribution, and the second dimension of the dimensions of sustainable competitive advantage approved in the research, which is quality.
- 3. There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, namely Value Creation, Segmenting the market, and Channels of distribution, and the third dimension of the dimensions of sustainable competitive advantage approved in research, which is flexibility.

2.5 Research model

A hypothetical model was created to analyze the influence of digital transformation technology on establishing sustainable competitive advantage for banks, based on two variables, in order to address the issue and achieve its goals (Figure 1).

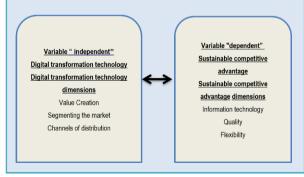


FIGURE 1. RESEARCH MODEL Source: Researcher

Digital transformation technology (Value Creation, Segmenting the market, and Channels of distribution) is the first independent variable.

Sustainable competitive advantage (information technology, quality, and flexibility) is the response variable.

3. THEORETICAL SIDE OF THE RESEARCH

3.1 Digital transformation technology

There are many concepts about digital transformation technology in the financial and administrative literature, and before starting with concept of digital transformation technology we should know the difference between Digitalization and Digitization. Digitalization "has paved the way for developing many approaches for business-IT alignment such as concepts for technology adoption, procedures for software selection" (Imgrund, Fischer, Janiesch, & Winkelmann, 2018). Digitization is "the automation of processes through information communication technologies" (Hess et al., 2016). The IT strategy, synchronization of business of an organization and the incorporation of information technology into the business strategy are both explained by digitization (Udovita, 2020). Figure 2 shows a framework to explain digital transformation technology.

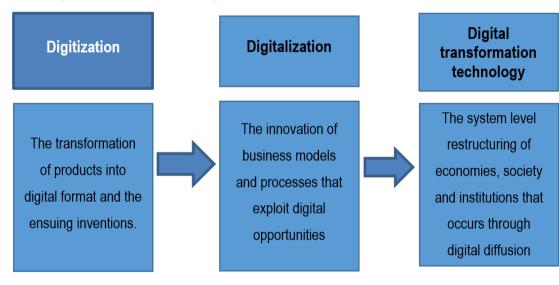


FIGURE 2: A FRAMEWORK TO EXPLAIN DIGITAL TRANSFORMATION TECHNOLOGY Source: Researcher

According to Kane (2017) the Digital transformation technology is defined as use and implementation of cutting-edge technology which involves organizations using technology to do business in different and new ways. Digital transformation technology impacts both the internal pillars and external environment (like, customer expectations, competitive dynamics, etc.), internal pillars (e.g. emerging from product

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

and organizational structures, service offering, and business models) of organizations (Lucas & Goh, 2009; Downes & Nunes 2009; Porter & Heppelmann 2014). Moreover, Transformation of Digital technology also the process that the organization goes through when it changes from outdated ways to new approach of thinking and working, using social, digital, new technologies and mobile (Terrar, 2015). Additional definition for the term Digital transformation technology recently accepted is: represents creation of new revenues, improvement of existing business models and value-adding opportunities with the digital transformation technologies. It can be understood as a complicated problem including a number of domains e.g. (adopting new ideas, changes leadership, embracing technology, digitization resources, and adopting innovation (Francis, 2018).

In the banking sector, Digital transformation technology is defined as:" transformation or fundamental changes in business process, including digitalizing everything that can be digitalized" (Hagberg et al., 2016).

In this regard every bank must deal with the effects of digital transformation, which can be huge effects. Those effects are not limited to changes in sales channels or products, digital transformation technologies can take place in entire business models, significant business operations and organizational structures as well as management perceptions (Berman, 2012; Hess et al., 2016; Li et al., 2018; Matt et al., 2015).

The technologies that are currently most closely associated with digital transformation technology include: (Wade et al., 2015)

- 1. Applications like the big data and analytics tools.
- 2. Applications and mobile tools.
- 3. Platforms upon which to build shareable digital capabilities, like app marketplaces and cloud solutions.
- 4. Tools of social media.
- 5. The (IoE) Internet of Everything such as connected devices and smart networks.

In the following section the different dimensions identified by different author reviews and sources regarding Digital transformation technology adoption within the banking environment:

- Value Creation: represented by the services provided by banks to customers, these elements contribute providing value to business models, include (performance, customization, design, trade mark, status, price, cost reduction, risk reduction, and accessibility) convenience and ease of use. All these elements have the ability to strengthen the work of the institution, enabling to create business models and provide services better (Hadi & Hmood, 2020).
- 2. Segmenting the market: Five different market sectors are described by Topiboom: collective markets, specialized markets, divided markets, diversified markets, and multifaceted platforms.

Through these markets, customers can be distributed in accordance with their needs, preferences, and traits, allowing the institution to better understand their behaviors, needs, and attitudes. This in turn increases the extent to which banks are able to meet those tendencies and desires of customers in a desired way.

3. Channels of distribution: There are various stages, such as delivery and client value proposition presentation. For instance, the element of raising awareness and evaluating products and services is referred to as communication and marketing for it. Through these stages, awareness is created, evaluation of the proposition of value of affiliates, purchase of products or services, provision of product services, and customer support after purchase are all carried out. Making educated decisions that have a clear connection to the previous stages of the evaluation, which is the value proposition for the organization, is of utmost importance to the company.

All above dimensions composing Digital transformation technology, that is part of what is driving our study. This study focuses on three of digital transformation dimensions. This part will be described in the empirical section and study on the different digitalization axes.

3.2 Sustainable competitive advantage concepts

In order to understand the term sustainable competitive advantage in banks it must first list some concepts about it. Competitive advantage has been widely studied throughout 1980s. According to Porter (1985) "the only competitive global business strategies would be based on differentiation by unique specialization" in quality, terms of cost leadership, service technology or product. (Peters, 2010) claims that excellence in execution: (was, is, wherever, and forever) will be sustainable competitive advantage.

In general, sustainable competitive advantage is defined as a tool for banks that enhances its ability to implement plans that make it superior to competitors and in a more and better important position. It works on developing a strategic vision for managing the banks to anticipate events because they are in a competitive environment (Al Zweeni & Al-Musawi, 2021).

Every bank and every service in the competition it entered aimed to obtain a sustainable competitive advantage thus, the ability of a bank to value its customers more than its cost gives it a sustainable competitive advantage. A bank can take a number of actions to gain a sustainable competitive advantage. Banks must establish core skills to acquire a lasting competitive edge. These competencies are different capabilities that enable banks to achieve customer response, efficiency, quality, or innovation, generating competitive advantage and superior value (Wade et al, 2015).

Strategic management literature identified the essential dimensions of sustainable competitive advantage:

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

- Quality: every bank can achieve quality by focusing on continuous improvement and eliminating all defects, quality is a process of eliminating defects and attempting to produce a consistent result free of defects (Matei & Iwinska, 2016).
- IT: a group of electronic tools that aid in the management of the bank's operational procedures, enable it to carry out its functions, and let it communicate with its stakeholders in an efficient and effective manner. Any scientific application of contemporary technology to get the necessary data (Buhalis, 2003).
- 3. Strategic flexibility: described as the bank's capacity to change with the times in a competitive market in order to preserve the gained competitive advantage, assure its sustainability, and identify potential issues down the road (Ginn & lee, 2008). And it's defined as the bank's capacity to identify prospective changes and dangers in the external environment and work to promptly supply the resources and requirements to address those (Bao et al, 2008).

Moving banks towards digital transformation technology required appropriate technological infrastructure and to success the bank in digital transformation technology is highly dependent on the management strategy the bank follows, its management should possess digital leadership and vision, open mindset. Therefore, these things are important for the purpose of gaining sustainable competitive advantage for the bank.

4. PRACTICAL FRAMEWORK FOR RESEARCH

4.1 Description of the research sample

The research community consists of the Iraqi banks listed in the Iraq Stock Exchange, which number 23 banks. Business Bay, Iraqi National, International Development as an intentional sample, and perhaps the most prominent justification for this selection is the ease of obtaining data and information related to the research variables. 50 questionnaires were distributed to the bank employees and 46 questionnaires were retrieved. The questionnaire consists of two parts. The first part included questions about bank employee's demographic information as shown on Table 2. The second consisted of two sections, the first included questions about independent variable (Digital transformation technology) and the second questions focused about sustainable competitive advantage as dependent variable.

4.2 Statistical indicators

The research uses the Likert scale. To prove the research questions and hypotheses, the researcher used the most significant statistical indicators through frequencies and percentages, arithmetic mean, standard deviation, multiple correlation and multiple regression, finally test F.

RADI, H.H.K. DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

In attempt to analyze questionnaire, the following section starts with a description the Frequencies and Percentages Demographic Variables for study. Next we analyze Digital transformation technology and its impact on achieving sustainable competitive advantage in research sample banks. Table 1 show result banks employee's demographic details.

	TABLE 1. FREQUENCIES AND PERCENTAGES DEMOGRAPHIC VARIABLES FOR RESEARCH											
	No.	Details	Туре	Number	Percentage %	Total						
			diploma	8	% 17.3							
			Bachelor's	30	% 65.2	46						
	1	Academic level	Master	5	% 11							
			Ph.D.	3	% 6.5							
			Accounting	13	% 28.2							
		Educational qualification	Administrative	7	% 15.2							
	2		Financing	16	% 35	46						
			Economy	2	% 4.3							
			Other	8	% 17.3							
			Less 5	7	% 15.2							
			6-10	14	% 30.4							
	3	Work experience	11-15	13	% 28.3	46						
			More than 16	12	% 26.1							

Source: Researcher's results

The following sub-section will analyze research's variables: 1- Digital transformation technology as the first independent variable as measured by indicators of (Value Creation, Segmenting the market, Channels of distribution) 2- sustainable competitive advantage as the second dependent variable is measured by means of (Quality, Information technology (IT), and Strategic flexibility). Table 3 and 4 show descriptive statistics.

 TABLE 2. AVERAGES AND STANDARD DEVIATIONS RESPONSES FOR THE DIGITAL TRANSFORMATION TECHNOLOGY

 DIMENSIONS

	Dimensions										
No.	Paragraphs	Arithmetic mean	Standard deviation	Coefficient of difference	Relative importance						
1	Digital transformation helps in providing, creating new banking services and constantly improving.	4.370	0.642	0.147	2						
2	Digital transformation technology contributes to improving performance and increasing the efficiency of customer service provided.	4.391	0.496	0.113	1						
3	Digital transformation technology leads to a reduction in the cost of performing work and providing services.	4.217	0.760	0.180	5						
4	Digital transformation technology provides rapid response to the requirements of the bank's customers and achieves excellence in its performance.	3.957	0.727	0.184	4						
5	Digital transformation technology helps to adopt innovative and creative ideas in banks.	3.978	0.651	0.164	3						
Aver age	First dimension: the source of value	4.183	0.655	0.157							

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

No.	Paragraphs	Arithmetic mean	Standard deviation	Coefficient of difference	Relative importance
1	Digital transformation provides information that can be taken as a basis for accurately determining customer needs and expectations.	4.087	0.666	0.163	1
2	Digital transformation technology increase customers' awareness of the bank's services and their loyalty to the bank well.	3.804	0.861	0.226	3
3	Digital transformation technology contributes to increasing the bank's ability to adapt its services to customers' needs.	4.087	0.930	0.228	4
4	Digital transformation technology enables banks to efficiently identify customer behaviors.	3.565	1	0.280	5
5	Digital transformation technology helps banks to accurately determine the position of customers regarding the services provided to them.	3.891	0.768	0.197	2
Aver age	Second dimension: market segmentation	3.887	0.845	0.219	
1	The use of digital transformation technology contributes to increasing the bank's ability to provide banking services at any place or time.	4.609	0.494	0.107	1
2	Digital transformation technology helps customers increase awareness of the banking services provided.	4.196	0.652	0.155	4
3	Digital transformation technology contributes to increasing the means of marketing banking services.	4.348	0.603	0.139	3
4	Using digital transformation technology and the advantage of the Internet and modern technologies in the completion of business and the speed of providing services.	4.326	0.560	0.129	2
5	Digital transformation technology helps customers evaluate the banking services provided.	3.870	0.868	0.224	5
Aver age	Third dimension: distribution channels	4.270	0.635	0.151	

Source: Researcher's results

To illustrate the banks employees' attitude towards sustainable competitive dimensions, Table 3 displays the mean of employees' opinions.

No.	Paragraphs	Arithmetic mean	Standard deviation	Coefficient of difference	Relative importance
1	The employees deal with easy technological programs and devices.	4.326	0.669	0.155	3
2	The employees in the bank used devices accomplish business appropriately.	4.239	0.604	0.142	2
3	The bank relies on programmers to develop its software.	3.229	0.689	0.213	5
4	The data is constantly updated and treated with a high degree of confidentiality.	4.370	0.676	0.155	4

Business Excellence and Management Volume 13 Issue 3 / September 2023

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

No.	Paragraphs	Arithmetic mean	Standard deviation	Coefficient of difference	Relative importance
5	Staff benefit from the Internet and modern technologies in completing work and providing services quickly.	4.283	0.541	0.126	1
Aver age	The first dimension: information technology	4.089	0.636	0.158	
1	The bank's management strives seriously to improve the quality of services provided to the bank's customers.	4.196	0.685	0.163	1
2	By using information technology, no complaints, claims to improve the quality of services by the bank's customers.	3.446	0.894	0.259	2
3	The bank's departments applied Modern methods in total quality management.	3.763	0.999	0.265	5
4	The Bank owns organizational units and divisions that concerned with studies and research related to quality at the each of division Bank.	3.533	0.987	0.279	4
5	The bank's management follows up quality improvement processes and constantly monitors working hours.	3.804	0.911	0.239	3
Aver age	The second dimension: Quality	3.748	0.895	0.241	
1	The bank management emphasizes the rapid response to the required changes in designing and providing services to customers.	4.196	0.652	0.155	1
2	The bank adapts its orientations to the needs and expectations of customers.	4.065	0.758	0.186	3
3	The bank's management interested in modifying the characteristics of the current services to suit requirements of customers.	4.174	0.718	0.172	2
4	The bank's management changes the services prices according to market requirements.	3.674	0.920	0.250	5
5	The Bank enjoys with ability to provide services to the markets in quickly and quality required.	4.087	0.864	0.211	4
Aver age	The third dimension: Flexibility	4.039	0.782	0.195	

Business Excellence and Management Volume 13 Issue 3 / September 2023

Source: Researcher's results

5 TESTS OF RESEARCH HYPOTHESES AND DISCUSSION OF FINDINGS

5.1 Results of testing first hypothesis

Hypothesis 1: (There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, which are (Value Creation, Segmenting the market, Channels of distribution) and the first dimension of the dimensions of sustainable competitive advantage approved in the research, which is information technology).

RADI, H.H.K. DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

Table 4 represents the Correlation and multiple regression of the correlation and effect of the dimensions of digital transformation technology and the first dimension of sustainable competitive advantage, which is information technology. The results are presented in Table 4.

Significance level	Т	Degree of impact β		Sig	F	R ²	R	Dependent variable	
0.864	0.217	0.562	Value creation						
0.626	0.666	0.449	Segmenting the market	0.913	0.913	0.159	0.232	0.568	Information technology
968.0	0.051	0.089	Channels of distribution						

TABLE 4. RESULTS OF TESTING FIRST HYPOTHESIS

Source: Researcher's results

Table 4 shows that the existence of a weak, positive and non-significant correlation and impact relationship between "information technology" and the dimensions of digital transformation technology approved by research, which are (Value Creation, Segmenting the market Channels of distribution), The correlation coefficient "R" was (0.568) at a level of significance (0.913), which is higher than the level of significance approved by the research, which is (0.05), which means that there is a medium positive correlation that is not significant. The interpretation coefficient "R2" was (0.232), which explains the degree of influence of the independent variable "information technology" on the dimensions of the digital transformation technology used in the research, meaning that the independent variable was able to explain (0.232) percentage of the total variations of the dependent variables, which is (Value Creation, Segmenting the market, Channels of distribution) According to the results of the statistical analysis (0.768) of the variances are caused by other factors, and the value of its effect showed different results based on the answers of the research sample, as the value of degree influence of "\beta" on Value Creation reached (0.562), market segmentation (0.449), and distribution channels (0.089), which means The one-degree increase in information technology is reflected in the dimensions of digital transformation technology in banks, the research sample, with a value of (0.562) for the source of value dimension and (1.449) for market its highest. And (0.089) for the Channels of distribution, which is the least influential among the dimensions used in the research, and confirms the non-significance of this effect, that the value of the significance levels is greater than the level of significance adopted in the research, which is (0.5), which means that there is a positive and non-significant effect. As a result, the first hypothesis of the research: There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, which are (Value Creation, Segmenting the market, Channels of distribution) and the first dimension of the dimensions of sustainable competitive advantage approved in the research, which is information technology), is rejected.

5.2 Results of testing second hypothesis

Hypothesis 2: There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, namely (Value Creation, Segmenting the market, Channels of distribution) and the second dimension of the dimensions of sustainable competitive advantage approved in the research, which is quality), detailed in Table 5 below.

Significance level	Т	Degree of impact β		Sig	F	R ²	R	Dependent variable	
0.039	0.638	0.649	Value creation						
0.009	1.335	1.143	Segmenting the market	0.048	0.827	0.713	0.844	Quality	
0.013	0.696	0.480	Channels of distribution						

TABLE 5. RESULTS OF TESTING SECOND HYPOTHESIS

Source: Researcher's results

The results of the statistical analysis of the second research hypothesis in Table 5 showed that there is a positive and significant correlation and impact relationship between "guality" and the dimensions of digital transformation technology approved by the research, which are (Value Creation, Segmenting the market, Channels of distribution). The correlation coefficient "R" was (0.844) at the level of significance (0.048), which is less than the level of significance approved by the research and amounted to (0.05), which means that there is a positive and strong significant correlation, and the interpretation coefficient "R2" amounted to (0.713), which explains the degree of influence of the variable The independent variable is "quality" with the dimensions of the digital transformation technology used in the research, meaning that the independent variable was able to explain (0.713) of the total variations of the dependent variables, which are "source of value, market segmentation, distribution channels", and that (0.287) of the variations are caused by other factors. Based on the responses of the research sample, the value of the effect produced various outcomes. The value of the degree of influence of " β " on the source of value reached (0.649), market segmentation (1.143), and distribution channels (0.480), which means that the increase of one degree in guality is reflected in the dimensions of digital transformation technology in the research sample banks, with a value of (0.649) for the source dimension. The value and (1.143) for market segmentation "which is the highest" and (0.480) for the distribution channels, which are the least influential among the dimensions used in the research, and confirm the significance of this effect, that the value of the significance levels is less than the level of significance approved by the research which is (0.5) and means that there is a positive and relevant effect Significantly, and this means accepting the second hypothesis of the research, which states (the existence of a correlation and impact of significant and statistical significance between the dimensions of digital transformation

RADI, H.H.K. DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE

ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

technology adopted in the research, namely (Value Creation, Segmenting the market, Channels of distribution) and between the second dimension of the dimensions of sustainable competitive advantage approved in the research, which is (the quality).

5.3 Results of testing third hypothesis

Third hypothesis: There is a correlation and effect of significant and statistical significance between the dimensions of digital transformation technology adopted in the research, namely (Value Creation, Segmenting the market, and - Channels of distribution) and the third dimension of the dimensions of sustainable competitive advantage approved in research, which is (flexibility). According to the results of the statistical analysis third hypothesis are displayed below in table 6.

Significance level	Т	Degree of impact β		Sig	F	R ²	R	Dependent variable	
0.050	3.968	0.569	Value creation						
0.040	10.504	0.822	Segmenting the market	0.046	72.477	0.995	0.998	Flexibility	
0.044	4.358	0.775	Channels of distribution						

TABLE 6. RESULTS OF TESTING THIRD HYPOTHESIS

Source: Researcher's results

The findings in table 6 showed the existence of a positive correlation and effect between "flexibility" and the dimensions of digital transformation technology approved by research, namely (Value Creation, Segmenting the market, Channels of distribution) The correlation coefficient "R" was (0.998) at a level of significance (0.046), which is less than the level of significance approved by the research and amounted to (0.05), which means that there is a positive and strong significant correlation, and the interpretation coefficient "R2" was (0.995), which explains the degree of influence of the variable "Flexibility" in the dimensions of digital transformation technology used in research, In other words, the independent variable was able to explain (0.995) of the total variations of the dependent variables, which are " Value Creation, Segmenting the market, Channels of distribution ", and that (0.005) of the variations are due to other factors, and the value of its impact was shown by different results based on the answers of the research sample., as the value of the degree of influence of " β " on the source of value was (0.569), Segmenting the market (0.822), and Channels of distribution (0.775), which means that the increase in one degree of flexibility is reflected in the dimensions of digital transformation technology in the research sample banks, with a value of (0.569) for the dimension The source of value, which is the least influential of the dimensions used in the research. And (0.822) for Segmenting the market "which is the highest" and (0.775) for distribution channels, and confirms the significance of this effect, that the value of the significance levels is less than the level of significance approved by the research, which is (0.5),

which means that there is a positive and significant effect, and this means that the third hypothesis of the research is accepted. Which states (the existence of a correlation and impact of significant and statistical significance between the dimensions of digital transformation technology approved by research, namely (source of value, market segmentation, distribution channels) and the third dimension of the dimensions of sustainable competitive advantage approved by research, which is (flexibility).

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The research sample's bank departments show interest in all aspects of electronic transformation technology, demonstrating their desire to take advantage of the services offered by technology in order to enhance the reality of both customer-facing banking services and internal administrative tasks.

In the research sample banks, the adoption of digital transformation technology in banking work improved productivity and inspired employees and managers to take on new tasks that would increase and grow performance efficiency.

The research sample banks have a sufficient understanding of how sustainable competitive advantage helps them achieve their long-term objectives, which supports their interest in these aspects of sustainable competitive advantage.

The existence of a weak and insignificant correlation and effect relationship between the dimensions of digital transformation technology, which are (Value Creation, Segmenting the market, Channels of distribution) and after the sustainable competitive advantage, which is (information technology). This means that bank administrations, despite their great interest in all dimensions of digital transformation technology, are limited now, it has not been able to fully exploit all its dimensions in order to achieve a competitive advantage for it in the long run.

The existence of a significant and statistically significant correlation and impact relationship between the two dimensions of sustainable competitive advantage (quality and flexibility) and the three dimensions of digital transformation technology (Value Creation, Segmenting the market, Channels of distribution).

6.2 Recommendations

Due to the advantages of this technology that make it possible for it to be used to decrease the cost, time, and quality of work for banks and their customers, it is essential to increase the interest of bank departments in all facets of digital transformation technology and to intensify efforts in the areas of its application.

To ensure that their services are delivered to the greatest number of customer's possible, banks must increase the technological means by which they deliver their services, disperse them to various

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

locations, and take care of the electronic programs through which they provide the service in terms of ease of use or promotion and attach more detailed instructions for their use.

Banks must enroll their employees in continuing education programs in related technological fields in order to increase their technological efficiency, which is reflected in their work performance and in a way that creates a sustainable competitive advantage given that technological means are constantly evolving.

Analyze how prominent banks have used digital transformation technology to provide and manage services in a way that enhances bank performance and helps banks perform their jobs effectively.

Work to raise customer awareness of the tools of digital transformation technology used in banks in order to persuade them to use them, which improves the services offered by banks and exploits them to get to know customers better by anticipating their needs and satisfying them, as the customer is the ultimate goal of any bank or institution operating within the economic activity.

REFERENCES

- Al Zweeni, M.S. & Al-Musawi. A.N.K. (2021). International Journal of Research in Social Sciences & Humanities.
- Bao, Y., Olson, B. & Yuan, W. (2008). Defensive and expansion responses to environmental shocks in China. Unpublished search. University of Lethbridge.
- Buhalis, D. (2003). E-tourism: information technology for strategic tourism management. London. UK. Pearson. Financial Times/Prentice Hall.
- Francis, J. (2018). How BPM is taking a central role in digital transformation. Retrieved from https://kissflow.com/bpm/how-bpm-is-taking-a-central-role-in-digital-transformation.
- Hadi, A.M. & Hmood, S.J. (2020). Analysis of the role of digital transformation strategies in achieving the edge of financial competition. International Journal of Innovation, Creativity and Change. www.ijicc.net 10(11): 19-40.
- Hagberg, J., Sundstrom, M. & Egels-Zandén, N. (2016). The digitalization of retailing: an exploratory framework. Int. J. Retail Distrib. Manag, 44(7): 694–712.
- Hess, T., Matt, C., Benlian, A. & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. MIS Quarterly Executive, 15(2): 103-119.
- Hitt, M.A., Ireland, R.D. & Hoskisson, R.E. (1997). Strategic management: Competitiveness and globalization. 4th ed. U.S.A. South-Western College. A Division of Thomson Learning.
- Imgrund, F., Fischer, M., Janiesch, C. & Winkelmann, A. (2018). Approaching digitalization with business process management. Multikonferenz Wirtschaftsinformatik (MKWI). Lüneburg.
- Kane, C., (2017). Digital maturity not digital transformation. MIT Sloan Management Review, 1. Retrieved from https://sloanreview.mit.edu/article/digital-maturity-not-digital-transformation/.
- Li, L., Su, F., Zhang, W. & Mao, J.Y. (2018). Digital transformation by SME entrepreneurs. A capability perspective. Information Systems Journal, 28(6): 1129- 1157.
- Lucas, H.C. & Goh, J.M. (2009). Disruptive technology. How Kodak missed the digital photography revolution. Journal of Strategic Information Systems, 18(1): 46-55.

DIGITAL TRANSFORMATION TECHNOLOGY AND ITS IMPACT ON ACHIEVING SUSTAINABLE COMPETITIVE ADVANTAGE FOR BANKS: AN EXPLORATORY STUDY

- Matt, C., Hess, T. & Benlian, A. (2015). Digital transformation strategies. Business & Information Systems Engineering, 57(5): 339-343.
- Porter, M.E. & Heppelmann, J.E. (2014). How smart connected products are transforming competition. Harvard Business Review, 92(11): 11-64.
- Terrar, D. (2015). What is digital transformation? Retrieved 12 May 2020 from http://www.theagileelephant.com/what-is-digital-transformation/.
- Udovita, P.V.M.V.D. (2020). Conceptual review on dimensions of digital transformation in modern era. International Journal of Scientific and Research Publications, 10(2): 520-529.
- Wade, M. (2015). Digital business transformation. A conceptual framework. International Institute for Management Development.