



A DIGITAL ECONOMY STRATEGY FOR THE IRAQI ECONOMY

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Article history:	Abstract:
Received: 6 th June 2024	The application of the digital economy to the reality of the Iraqi economy requires a set of measures to be taken in order to keep pace with the development in information and communications technology spread in the countries of the developed world, including increasing the efficiency of human cadres working in various sectors and increasing spending on research and development, therefore, the research problem crystallizes around the Iraqi economy, which suffers from various problems in all economic, social and political aspects, has made it unable to keep pace with the development taking place in the field of digital transformation.
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Keywords: digital Economy, Iraqi economics, communication technology, digital transformation, digital transformation	

THE INTRODUCTION

The Iraqi economy suffers from economic backwardness, including a decline in the use of technology, especially those related to the digital economy, due to the unstable economic, political and social conditions that prevail in its country, unlike the countries of the developed world that have reached an advanced stage of development in the field of technology and have become primarily concerned with on this sector, the digital economy has come to occupy a major position in the global market, or it is called "economic globalization." This economy has helped accelerate trade exchange operations between different countries of the world, increased the influence of global electronic communication companies that connect different countries of the world, and increased the need to create new global communication networks. Therefore, in this research, we try to identify the topic of transformation to the digital economy and the possibility of its application in the Iraqi economy and what these are the reasons that made him suffer from a relatively small decline in the application of this economy.

RESEARCH PROBLEM

The research problem attempts to find out the reasons that led to the digital economy not being properly applied in its economy due to unstable conditions, despite the fact that a small part of the digital economy has been applied to its reality.

RESEARCH IMPORTANCE

The importance of the research comes from clarifying the relative importance of digital transformation, which is considered one of the important innovations at the present time and which can be applied to the private and public sectors in order to increase productive returns and increase its contribution to the gross domestic product, and how it affects the performance of the Iraqi economy.

RESEARCH OBJECTIVE

The research aims to clarify the concept of digital transformation and what is the difference between it and the traditional economy, as well as knowing the strategies for its application in the Iraqi economy and the challenges facing its application, and knowing its indicators.



RESEARCH HYPOTHESIS

The research hypothesis is based on the possibility of implementing the transformation of the digital economy in Iraq through increasing spending on research and development and increasing the expertise of human cadres who are trained to use communications technology correctly and intensively.

First: Digital transformation: its concept, goals and components

1- The concept of digital transformation

There are many concepts for the topic of digital transformation, which are as follows (1):

- A - It refers to the use of the Internet and computers in economic operations in an effective and more efficient manner.
- B - It is also known as a set of changes brought about by modern technology in the way of working and interacting in creating wealth within a specific economic system.
- C - It is a system that aims to increase the efficiency of institutions and entities through a set of major changes to their characteristics through the use of information technology, computers, and other means of communication (2).
- D - Or it is defined as a global network that is spread between countries and includes a group of economic, humanitarian and social activities that can be fed by electronic pumps such as the Internet, the notification network and mobile phones (3).

2- Digital transformation goals

The digital transformation process includes a set of goals, which are as follows (1):

- A - Working to develop and enhance technological systems and financial culture, which is characterized by being more innovative and cooperative than all institutions of society.
- B - Developing the education system in order to provide new skills and future orientation for individuals so that they can apply excellence in digital work.
- C - Creating new and innovative models and developing the institutional and regulatory framework and technical performance standards.
- D - Protect digital data, enhance transparency, and work to ensure the requirements for independence at work.
- E - Working to accelerate the comprehensive development of digital transformation and increase the speed of efficiency of financial services at affordable prices for customers.
- F - Working to reduce administrative corruption by increasing transparency in government transactions and increasing their efficiency.
- G - Reducing costs during financial transfers between countries (2).

Second: The components of digital transformation and the difference between it and the traditional economy

1- Components of the digital economy (4)

This topic has received great attention from researchers because of its importance on the global economic scene at the present time, and its most important components are:

- A - Digital technology devices: such as 3D printers, the Internet of Things, artificial intelligence, large-scale data, and cloud computers that are used in business models by international institutions and companies.
- B - Digital transformation strategy: It represents a set of organizational processes and issues concerned with digital transformation processes and their goals.
- C - Network relations: Digital technology that deals with a large number of governments, investors, governments, companies, and others has a high degree of accuracy, communication, and speed.



D - Forecasting and analysis: Every organization trying to achieve success must have the ability and ability to predict all the circumstances surrounding it and try to adapt to them very quickly.

E - Digitization of customers: This includes all matters related to customers and their relationships and the extent of the impact of digital technology on these relationships that bind them with others.

F - Digital technologies: which relate to advanced organizations establishing new, more competitive businesses through which they can develop their offers.

2- Comparisons between the digital economy and the traditional economy

There are a number of differences between the digital economy and the traditional economy, which are:

1- The traditional economy: Excessive use of its resources leads to depletion, and it decreases when individuals share in their use of one resource, while the digital economy increases in its resources when used and does not decrease when individuals share in their use of one resource.

2- The traditional economy is characterized by its decreasing returns due to its scarce resources and the high cost of the unit produced, while the digital economy has increasing returns due to the use of technology that leads to a decrease in the cost of the unit produced the role of the state in the traditional economy is to provide equipment, meaning working to establish infrastructure, provide public services, and set commercial policies and laws, while the state's role in the digital economy is directive in the sense of partnership with the private sector.

3- Property rights in the traditional sector are owned forever, while in the digital economy they are represented in a patent.

4- Economic indicators in the traditional economy are quantitative in the sense that they can be calculated, while in the digital economy their indicators are qualitative and quantitative (5).

5- In the case of the traditional economy, it aims to achieve full employment, while in the digital economy, its goal is to achieve the greatest income for individuals through their personal skills, which makes them more dynamic and not based on job specialization.

6- The digital economy depends on the use of the Internet and information technology, and at the same time production has become more flexible and based on knowledge and creativity, while the traditional economy depends on the gradual organization of production processes.

3- Digital transformation strategy

This process begins by developing general plans for the organization and setting specific times for them, which take into account the organization's real capabilities and resources. Accordingly, there are a set of strategies for digital transformation, which are as follows:

1- Electronic support: In this type, financial institutions try to use technology in their investments by relying on digital strategies that work to bring about a change in the organizational structure of the institution so that it is distinguished in its work.

2- New competition response: In this type of strategy, organizations and banks adapt to the changes that occur on the demand and supply sides of the total financial services by providing new digital services and products so that they are in a new competitive position, meaning that the organizations adopt a strategy for environmental changes.

3- Technological adaptation: This strategy works to bring about a major change in the infrastructure of the technological platform so that it is more flexible, in addition to providing new services and speeding up the product development process (6).

Third: Digital economy indicators and its impact on the Iraqi economy

1- Digital economy indicators in Iraq

There are five main indicators of the digital economy in Iraq, which are as follows:



- 1- Digital foundation: This indicator measures the extent of access to the technological infrastructure in terms of information and communications through which it can keep pace with the rapid technological events in the world.
- 2- Digital innovations: Through this indicator, Iraq can keep pace with the technological changes occurring at the world level.
- 3- Digital citizenship: through which one can benefit from the use of digital technology and provide qualified skills and level of education.
- 4- Digital business: It enables companies to use information technology and participate in the digital economy and provides digital business that keeps pace with technological changes.
- 5- E-Government: Through this indicator, it is possible to invest in information and communications technology in order to serve citizens, reduce costs, work to raise the quality of life for citizens, and achieve transparency and reform in electronic work (7).

2- The impact of the digital economy on the performance of the Iraqi economy

The digital economy has great importance in all countries of the world, including the Iraqi economy, as it depends largely on human creativity. As for other matters, it is the main driver of the economy and supports it extensively. When making decisions, information can be obtained quickly, which contributes to the effective use of information management and its use in serving policies and decisions. Economically, the digital economy also works to increase integration into the global economy, as it works to increase the opportunity to access world markets and makes global trade opportunities great. It also works to change the pattern of economic performance by using modern technology in trade, money and investment transactions. If everything mentioned above is applied, the digital economy can be easily implemented and integration into the global economy can occur in a scientific and clear manner (8).

It is known that the most important indicators of the digital economy in Iraqi e-government are "the digital foundations, which are electronic services, electronic innovation, which is the electronic communications infrastructure, and citizenship, which is human capital, digital businesses, and technological governments, or called electronic governments," which reflect digital performance in the economy. We find that Iraq It has focused on keeping pace with developments in e-government in order to provide safe and fast services to the Iraqi citizen. Large sums of money have been allocated to this field, but they have not been used well due to the security and political conditions prevailing in the country. We note that the innovation index in Iraq, which is the most important indicator of the digital economy.

In 2013, it reached about (0.037%), then it rose to (0.051%) in 2019, but it decreased to (0.043) in 2020 due to the Corona pandemic, but it rose again in 2021, reaching (0.63%), and in 2022, it reached about (0.86%), and the reason is The rise in this indicator indicates an increase in the number of innovators and experts in scientific disciplines. As shown in Table (1).

Table No. (1) Iraqi Innovation Index for the period (2010-2022) (9)

Years	Innovation Index%	Years	Innovation Index%
2013	0.037	2018	0.043
2014	0.037	2019	0.051
2015	0.038	2020	0.043
2016	0.036	2021	0.63
2017	0.044	2022	0.86

The percentage of technology's contribution to the value of the gross domestic product was characterized by a decrease or increase due to the circumstances going through the Iraqi economy. The value of allocations to the technology sector in 2019 was about (0.015), while the gross domestic product amounted to about (2351 billion dollars), and the percentage of the contribution of technology to the output was about (5.52). In 2020, the ratio decreased to (1.02) due to the Corona pandemic, which affected the entire global economy as well as the decline in oil prices, and thus the allocations to this sector decreased, but in subsequent years the ratio increased to reach (9.55) in 2021, and after it increased to (9.65) in the year 2022 according to table No. (2), we find that the reason for the high percentage of the telecommunications sector's contribution to the gross domestic product is due to the developments that occurred in human resources and financial resources, meaning that Iraq worked to keep pace with the growth and development



that occurred in the information technology sector, software and modern technologies, especially those concerned with financial inclusion, which worked to shorten many Paper transactions.

Table No. (2): The amount of allocations for information technology and the value of the gross product in Iraq for the period (2013-2022) million dollars (10)

Year	Communication Technology	GDP value	The percentage of the technology sector's contribution to the GDP, i.e. (1/2)
2013	0.036	23464	1.53
2014	0.012	22842	5.25
2015	0.029	16678	1.73
2016	0.043	16661	2.58
2017	0.079	187212	4.21
2018	0.011	22737	4.83
2019	0.013	23511	5.52
2020	0.017	16676	1.02
2021	0.018	18647	9.55
2022	0.019	19848	9.65

It is known that the technological diffusion index in Iraq reached (47%) in relation to the business and people index and other major indicators, but Iraq was not able to reach the indicators of the global digital economy because of the huge quantities of oil it possesses and its geographical location that links the West and the East, because of the factors that it was mentioned that its economy is exposed to major challenges due to the desire of the major countries to control it as well as due to the significant decline in the provision of infrastructure for communications and information technology, in addition to the government's inability to manufacture technological materials and the information and communications sector due to weak investment in this field, so this economy is considered modern. Growth in the Iraqi economy compared to developed countries due to:

1- The decline in the value of digital indicators in the Iraqi economy compared to developed countries due to the spread of financial and administrative corruption in the joints of the state and political instability. All of these things worked to give negative indicators about the Iraqi economic reality. Accordingly, there is a relationship between technological indicators and social and economic development on the one hand. other.

2- The spread of cognitive illiteracy in Iraqi society due to its isolation from global development in the technological field and the communications and information sector, as well as due to mismanagement adopted by decision makers (11).

3- Increased fears of owning the infrastructure for the digital economy, of which technology is one of its most important basic foundations. The value of business indicators (33%) and e-governments (32%) have declined compared to other countries .

4- Weak funding for the information and communications sector due to the inability to generate knowledge and the inability to support research and development operations. This leads to national brain drain and heavy reliance on foreign expertise.

5- Increasing the difference in technological progress between Iraq and the major countries that are distinguished by the rapid spread of scientific progress, and despite the Iraqi state's efforts to import modern technology and exchange experiences and information between it and the countries of the other world, however, it is known that the technology that the countries that export it, especially America, wants to export is of a type that does not help achieve the economic development of the country and does not help the country in building local expertise. This requires the importing countries, or rather Iraq, to work on developing and adapting the technology that helps achieve economic growth.

CONCLUSIONS

1- The digital economy works to increase the efficiency of workers in various economic sectors, increase experience in the field of strategic performance, and increase the economic and social returns resulting from the application of the digital economy.

2- Iraq suffers from limited resources necessary to establish advanced infrastructure for information and communications technology.



- 3- Due to the deteriorating security and economic situation in Iraq, we find that it is unable to keep pace with the developments in the field of the digital economy compared to major countries.
- 4- The weak value of funding for the knowledge sector of the digital economy, which contributes to the weakness of the information and communications sector on the one hand and the inability to generate knowledge and support research and development that contributes to developing the skills of community members.
- 5- Technology imported from countries of the developed world does not help achieve economic development and cannot keep pace with the development taking place in countries of the other world because the countries exporting that technology are trying to control the countries of the world and colonial hegemony in order to keep those countries economically backward.
- 6- We find that in 2022 the Iraqi government increased spending on the information and communications technology sector and its contribution to the domestic product increased.

RECOMMENDATIONS

- 1- In order for the digital transformation process to succeed in the Iraqi economy, a set of changes must be made to the education system in order to provide future cadres with great skills who can use digital work in order to achieve well-being for members of society.
- 2- Working to exploit digital technology to help customers facilitate their commercial transactions better, and this works to develop institutions.
- 3- Increasing the amount of allocations to the information and communications technology sector in order to advance the reality of the digital economy in Iraq.
- 4- Working to form an institution that works to document investment flows in order to advance the reality of the Iraqi digital economy. It also works to record cash flows, and works to collect digital data and statistics on all material inputs, and invest them in the economic sectors that are identified by the government in order to improve technological systems. Information technology is an important condition for its success.
- 5- The Iraqi government must involve the private sector in working in the digital economy by using a policy of participation between the private and public sectors, using an appropriate and sound economic government.
- 6- The Iraqi government must work to provide funds in order to build small projects that support the information and communications technology sector and that bring great benefit to Iraqi society, such as digital education, digital health, digital agriculture, digital marketing, etc., using bilateral funds and supporting the field of local innovations in the sector of communications and information technology.

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