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CONTACTS

Phone: **97-748-70-03**

Website: <https://ist-journal.uz>

Email: munis.iriskulova@gmail.com

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DIGITAL ECONOMY AND THE PROCESSES OF ITS FORMATION IN THE CONDITIONS OF MODERNIZATION OF THE ECONOMY

Abdullaev Abdurauf

Doctor of Economics, Professor
Andijan State Technical Institute

Abstract: The article sees the basics of the theory and method of digital economy, its basic concepts, purpose, content, principles and features. It is based on the fact that in the process of substantiating the digital economy, it is necessary to use the data of economic calculations. In the technologies of Information Communication of the Republic, widespread attention is paid to the creation and implementation of a system of protection of the digital economy.

Key words: information communication, digital economy, information, trend, development, theory of digital economy, method, justification of digital economy.

INTRODUCTION

Today, in our country, it is becoming a necessity to modernize modern networks and production areas based on structural changes and high technologies, to equip Technical and technological re-equipment, to improve management methods and mechanisms for the rapid development of leading sectors of the economy. The decree of the president of the Republic of Uzbekistan Shavkat Mirziyoev "on measures to further improve the field of Information Technology and communications" of February 19, 2018 became the basis for the development and implementation of important measures for the development of the digital economy by our government.

The transition to market relations in the economy has accelerated the process of introducing the latest achievements of information communication technologies (ICT) into all spheres of socio-economic life of society. Terms such as "informatization", "computerization", "electronic government", "electronic management", "Open Education", "smart homes", "smart cities" have entered our lives extensively. Information systems and technologies are more widely used year after year in various areas of human activity. The purpose of their design, creation, launch and widespread use is to solve the problems that arise in economic social development and to increase the effectiveness of muhnat.

The process of historical development, analysis shows that the choice of strategy and tactics of socio-economic development of the country is among the main, as well as extremely complex issues of theoretical thought and economic practice. In the context of globalization, it is necessary to carry out an in-depth analysis of production processes in terms of quantity and quality in order to increase the competitiveness of the country, increase its economic potential, introduce innovation widely and use resources on the basis of these.

The decision of the president of the Republic of Uzbekistan "On measures for the further strengthening of the infrastructure of research institutions and the development of innovation activities" dated November 1, 2017 RP-3365¹ defines tasks such as "strengthening the integration of Education, Science and production through the creation of small innovation enterprises with advanced higher educational institutions and research institutes" in this area requires the development of President Of The Republic Sh.M. Mirziyoev: "today we are moving towards the path of innovation development, which is aimed at a radical renewal of all spheres of life of the state and society. It is not for nothing, of course. Because who will win in the current era, when the times are developing rapidly? A new thought, a state that relies on a New Idea, Innovation, wins"[1]. the decree "on measures to further improve the field of Information Technology and communications" was adopted on the border of the country, and important tasks for the rapid development of the field were set.

1 <https://lex.uz/docs/7550113>

REVIEW OF LITERATURE ON THE SUBJECT

The digital economy has emerged as a central driver of economic transformation in the 21st century, reshaping production, consumption, and governance structures globally. Manuel Castells, in his seminal work *The Rise of the Network Society*, argues that the digital revolution has fundamentally changed the logic of economic systems by introducing new forms of informational capitalism. According to Castells, the network-based economy emphasizes information flows, innovation, and global interconnectivity.

Carl Shapiro and Hal Varian, in *Information Rules*, highlight how information goods differ from traditional commodities, emphasizing the role of increasing returns to scale and network effects in digital markets. Their analysis underscores the strategic behavior of firms in the digital economy, particularly in pricing, bundling, and market entry.

OECD research has provided a comprehensive understanding of how digitalization impacts productivity, labor markets, and regulatory frameworks. Their reports stress the need for adaptive governance models and investment in digital infrastructure to ensure inclusive growth.

In the context of emerging economies, Erik Brynjolfsson and Andrew McAfee emphasize in their book *The Second Machine Age* the potential for digital technologies to leapfrog traditional industrial stages. They caution, however, that without parallel investments in education and institutional reform, the benefits of digitalization may be unequally distributed.

From a policy perspective, Mariana Mazzucato argues that governments play a crucial entrepreneurial role in creating digital innovation ecosystems. Her analysis refutes the notion of the state as merely a market-fixer and instead presents it as a co-creator of markets through mission-oriented investments.

In the post-Soviet space, researchers such as Tatiana Lukovnikova and Sergei Bobylev have studied the integration of digital technologies into economic modernization strategies, highlighting institutional inertia and uneven technological adoption as key challenges. Their empirical analyses in Russia and other CIS countries reveal that successful digital transformation requires not only technological readiness but also institutional flexibility and transparent governance.

In the Central Asian context, studies by Ziyodullaev and Tadjibayeva analyze Uzbekistan's digital economy policy frameworks, pointing to recent reforms aimed at expanding broadband access, e-government platforms, and support for ICT-based startups. They note, however, that challenges remain in ensuring interoperability, cybersecurity, and human capital development.

Taken together, these scholarly contributions reflect a growing consensus that the digital economy is not merely a technological shift but a comprehensive transformation affecting the structural and institutional foundations of modern economies.

RESEARCH METHODOLOGY

This study is based on a qualitative content analysis of official policy documents, academic publications, and international reports related to the digital economy. Data were collected through desk research and expert opinions. The collected information was analyzed using comparative and trend analysis methods to identify key factors influencing digital transformation in the context of economic modernization.

Analysis and results

The digital economy, which is becoming important in modern economic development, must create conditions for the effective solution of the most pressing economic and social problems. Such conditions include: improving the well-being of members of society, ending poverty, developing a person in every possible way, humanizing the process of Labor and social life.

The targeted formation of a higher quality of economic development is one of the complex tasks studied by the modern science of digital economics. All the factors of production necessary to achieve the goal, modernization of the capital structure, a system of social relations and a serious reform of the action models of economic agents largely determine the socio-economic and institutional progress of society and the quality of life.

The overall systemic impact of the Global economic crisis on society puts the modern digital economy among the highest national priorities, turning the task of achieving a new quality of development from relevance to vital necessity. The social order formed under its influence activates the search for practical solutions suitable for the modern stage. This leads to a legally re-understanding of the base of elementary theoretical rules and an expansion of the growth theory methodology.

At the center of the attention of scientists came the task of determining the conditions and factors of the process of intellectualization of economic activity, leading the economy to a long - term sustainable development, and developing theoretical and methodological foundations for analysis, building innovative technologies, a

system of motivations for the effective use of the digital economy. The process of fundamental transformations is taking place in the technological method and structure of growing needs, social production. New opportunities and driving development forces are being formed: these are, the condition of growing productivity, multiplicative network effects, intellectual technologies and intellectual renta.

The specificity of the modern stage of the development of the theory of economic growth, overcoming the orthodox approach, consists in the development of theoretical and methodological foundations of the anthropocentric quality of development, which determine the priority of universal values. In this case, the effect of structural modifications generated by positive feedback, which generates impulses of endogenous sources of dynamic instability of the economic system and increasing qualitative changes of the system itself, becomes the main issue.

Serious systemic changes determine the need to justify a new measure of economic development in conditions of imbalance, instability and uncertainty, arise the need for a new synthesis of theoretical and methodological theories that reveal the topic of the boundaries of development in the replacement of labor with knowledge. The quality of economic development, which is considered through the prism of the technological basis of social production and the interdependence of changes in the social device of the intellectual economy, is interpreted, firstly, as a fundamental reform of the system of social relations and, secondly, as a criterion of essence that determines the results of the activities of national and world economies. In our opinion, the new socio-economic relations that dictate the deep structural changes of the economic system, the transformation of the economic character and resource base determine the modern quality of economic development.

Development towards a modern, intellectual economy, the formation of a digital economy is a complex process, dependent on many factors, and their econometric analysis allows you to wisely manage and regulate the digital economy. In the structure of the digital economy, the relations of producers and consumers, sellers and buyers are based on the "digital" environment. In the near future, its vital activity, economy and management, the main areas of Science and technology will acquire a new form and content. The introduction of digital technologies, digital vocabulary into life is one of the peculiarities of the future world.

The concept of digital economy was applied by Nicolas Negroponte in the late 20th, early 21st centuries. He showed the advantages of virtual economy by differentiating between Real Economy and virtual economy. The contribution of the digital economy is increasing during the period of innovation development. Especially in China, the digital economy is developing rapidly. Alibaba+Aliexpress (Alibaba, Ali Express) Tanset and Xiaomi companies are leading in the world in the digital economy environment. They are ahead in exporting digital goods and services to the world market. "Digital economy" is a multifaceted activity in which digital information and knowledge are used as the main factor in production, and ICT is used as the basis for increasing efficiency [3,4].

In the next decade, China and India's share of the global e-commerce transactional costs increased by 40 percent. Especially today, China's Internet commercial transactions outnumber those of France, Germany, Japan, the United Kingdom and the United States (when taken together). In China, 875 million in 2020. Who are users of the Internet service, from which 750 mln.ga more and more are doing business using mobile technology. Currently in India (ICICI Bank), Turkey (Akbank, Deniz Bank), Poland (PKO Bank, mBank, Alior Bank), Belarus (Insync.by), existing digital banks in Russia (Yandeksbank) provide quality and reliable services to small business entities. Russia and Belarus are working with Uzbekistan to launch digital banks (7).

By 2021, electronic informatization covered all aspects of the economy. Through electronic means of Communication, Information Document Management is provided between government agencies, the business environment, as well as consumers of the government and its services - business and the population. In connection with the strengthening of the competitive environment in the countries, the number of operators and providers of Internet services is steadily increasing, which can be seen from the data of Table 1 (Table 1).

Table 1. Numerical of the economy formation and development indicators

Indicators	Uzbekistan	MDX,	Well then _	in the PRC
Landline phone communication (every 100 people)	11.3	20.7	13.6	14.7
Mobile communication (per 100 people)	77.3	141.2	101.5	96.9
active mobile network related (per 100 people) _ _	55.9	59.7	52.2	69.1
3G range (general contact regarding)	45.3	77.1	85	98
LTE/ WiMAX circle (general contact regarding)	16.9	45.9	66.5	97

Mobile connection _ price (GDP relative to)	2,3	1.7	5.2	0.6
Mobile network price of 500 MW (GDP in relation to)	3.3	1.4	3.7	0.7
Mobile network 1G price (GDP relative to)	16.7	3.1	6.8	1.1
Computer available was number of households (per 100 households)	43.9	67.4	46.6	52.5
To the Internet used households percentage	75.4	68	51.5	55.5
From the Internet users percent _	46.8	65.1	45.9	53.2
User for the Internet speed (kilobytes/second)	5.7	59	74.5	14.7

As can be seen from the table data, thanks to the great attention given to the development of Information Communication Technologies and the Internet system in our republic, the industry is developing rapidly. But the speed of the Internet Network, the cost of mobile communication and mobile network, in terms of the availability of mobile communication, is lagging behind in the world and in the Commonwealth of independent states. Despite the fact that the bulk of providers and operators are concentrated in Tashkent, there is a steady increase in their number in the regions of the Republic, especially in the Samarkand and Bukhara regions. This is a sign of increased competition in this segment of the market. With an increase in the bandwidth of channels and an increase in the number of operators and providers, subscribers of the system of communicable and broadband access to the internet network are rapidly increasing [5].

In the country, the number of collective uses of the Internet network is increasing (JFSH). This is facilitated by the simplification of the process of licensing the activities of these shops. The use of Wi-Fi technology for connection in the internet network is also expanding. Based on the results of experimental use, frequencies were allocated to each operator by the state radio frequency Commission in order to develop broadband wireless use networks under WiMAX technology in the Republic. This allows the creation of wireless networks (up to 50 kilometers), while covering large areas. In this case, the data transfer rate is from 32 to 135 Mbit/s gacha. At the same time frequencies were allocated for the development of wireless use networks in Wi-Fi technology. They are designed to create wireless local (in-office) networks and generate wireless connections with a high speed with a data transfer rate of 54 Mbit/s to the internet. The implementation of interactive teaching methods using modern information and communication technologies, as well as the measures taken to further develop the higher education system (in addition to higher education institutions, the introduction of contract admission, correspondence courses) influenced the growth of services in the field of education during the reporting period.

Large-scale work on the consistent introduction of information and communication technologies in public administration, sectors of the economy, social sphere and the daily life of the people led to an increase in the volume of communication and informatization services (117.3%). At the moment, the ICT sector accounts for 2.2 percent of the country'S GDP [5].

CONCLUSIONS AND SUGGESTIONS

As a result of analyzing the potential of our republic and identifying and forecasting the development trends of macroeconomic indicators through econometric models, it is necessary to note that by 2030, bringing the share of the digital economy in GDP to 30 percent, it will be necessary to develop the annual average growth rate of the network above 15 percent. For this, we can say that scientific potential, material and intangible resources in the Republic are sufficient.

Developed major G-20 states in J.Korea, England, Germany, Sweden, Switzerland, Japan and Ireland are taking the leading positions. According to "the Economist", "digital economy "has become a" fuel of the future "-that is, a" fuel of the future " - a revenue-maker.

Currently, in the EU countries, 22 percent of users of banking services are buying e - finance services from Facebook, Amazon. The share of "digital services" in GDP in China is reaching up to 30 percent, while annual growth is 11 percent. Today and in the future (2017-2023), digital assets are predicted to account for 10-11% of economic growth.

In the future, it is planned to establish innovation institutions capable of spurring the development of an economy based on innovation. Such institutions are represented by various government programs in large and small businesses, as well as venture funds. In order to effectively implement the state innovation policy, there is a strong need to establish such institutions.

Therefore, the digital economy is a business or an everyday life event that means collecting and sorting information and giving it to others, such as knowledge, making it possible to use it as an intellectual product and increasing the efficiency and acceleration of innovation ideas and developments related to it in our republic. Scientific and technical developments and tools for commercialization of technologies for two different purposes may include:

consulting engineering-providing engineering and technological services on the basis of contracts, conducting research, implementation of developments, design, assistance in the organization of production;

technological engineering-providing services related to the development or improvement of technologies, issuing technical documentation;

complex engineering-to show a complex of services covering all of the above when launching a specific industrial facility on the basis of a contract;

to conclude agreements with organizations on the basis of the use of equipment and employees of the parties, the direct financing of their work by each party for the implementation of Ittk-related programs;

it is possible to draw conclusions about the possibility of internet connection, as well as informatization of society, depending on the level of computerization in the country.

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