



## PECULIARITIES AND CONCEPTUAL BASES OF INTRODUCTION OF DIGITAL ECONOMY IN AGRICULTURE

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### ABSTRACT

Data on the use of digital economy in Uzbekistan and the reforms undertaken by the government, the features of digital economy, the features of reducing costs, the information and future development of information and communication technologies that contribute to its development.

### INTRODUCTION

Currently, in the context of globalization and technological advancement, the world's leading economies are characterized by the high level of development, implementation and use of digital technologies. Many countries are beginning to develop a new model for the development of the national economy, based on the development of the digital economy and their development priorities. The construction of a digital economy in Uzbekistan is a strategic objective that ensures national security, competitiveness and development efficiency at various levels and in various sectors of the economy.

The study explored the concept of digital technology, given the prevalence of digital technology, its role and importance in modern society, and concluded that Digital Economy is an economy that uses digital technology. It also analyzes the current development of the digital economy in Uzbekistan and shows that the country has significant scientific and resource potential for the development of the digital economy, including modern agriculture.

It is noteworthy that to date, the concept of digital economy has emerged in economic theory and practice in a number of countries. It is characterized by the rapid development of digital technologies, the information revolution and the acceleration of globalization of the economy. The effectiveness of their use is based on increasing knowledge and is explained by the growing social and economic ties. The main factor of digital transformation in the activities of market entities is the development of digital culture. At the current stage of social and economic reform of the society, the environment brings about the peculiarities of the institutional structure of society, and on this basis there is a need to develop new concepts and approaches.

### ANALYSIS AND RESULTS

Over the past 10 years, the market of information and communication technologies of the Republic of Uzbekistan has changed dramatically through implementation of projects on modernization and development of telecommunication networks throughout the country. In particular, digital intercity stations were installed in all regional centers of the Republic, fiber-optic cables and digital radio lines were installed on intercity and intra-regional lines, upgraded and installed television and radio transmitters, CDMA wireless radio systems were introduced. The level of coverage of digital telecommunication in cities and district centers of the country has reached 100%. The level of coverage of rural areas by telecommunications networks is 90%, of which digital radio - 52%. Uzbekistan's telecommunications system has direct international channels in 28 destinations using fiber-optic and satellite systems to 180 countries worldwide, which will enable the country to move to the digital economy.

Of course, progress and modern technology do not stop there. As the system improves, of course, the legal framework for the industry will continue to strengthen. Presidential Decree of February 19, 2018 "On Measures for Further Improvement in the Information and Communication Technologies" [3] is a timely document that is in harmony with the demands of this critical era.

Modern agriculture in Uzbekistan is a guarantee of stability of the country's economic system and its regional security. Because the level of development of the agricultural sector of the country's economy depends on food security and social stability of the society.

Like other industries, agriculture in Uzbekistan is undergoing changes in the global economy. One of the major trends in the development of the global economy is the active development of the digital economy. The national economies of the countries are also adapted to changes in the world economy, and sometimes they are aligned with previous levels of development. The level of development of digital technologies will gradually affect agriculture, which will allow introducing new high technologies, expanding the capabilities of artificial intelligence in agricultural production and other processes.

Information and communication technologies, computerization, the Internet, mobile communication and other features are an integral part of the modern progressive society that actively promotes innovation. This is unimaginable without the use of digital technologies that currently provide information without commercializing the products of economic systems subjects developed in the developed countries of the world.

Another reason for the development of the digital economy in the world is the activity of transnational companies in the globalization of the global economy, which will lead to the

loss of separate sectors and a narrow range of national economy sectors and the development of local and international economic relations. These companies seek to find the most effective ways of developing organizations, the mechanism of interaction between enterprises, reducing external and internal costs due to the use of modern information and communication technologies.

In turn, small companies are actively using digital technologies in their activities. As a rule, the introduction of these technologies does not require significant material and financial costs, and the results from the implementation of these technologies significantly exceed the costs.

Based on the results of the study, it is important to use reproductive approaches to identify opportunities for the development of digital economy in the agricultural sector of Uzbekistan. Today, a number of key indicators of the development of the digital economy can be summarized.

The current level of digital technology development and their impact on ongoing processes allow us to define the term “digital economy” using digital technologies. In this sense, it is worth mentioning that "Digital economy is the use of artificial intelligence as an integral part of the economy, robotizing business processes, reducing labor costs in manufacturing, modeling economic systems, and enhancing programming capabilities with the help of special computer programs."

The current level of technical support for agriculture in Uzbekistan and the level of production technologies used include the use of innovative innovations designed to reduce labor costs for workers. For this purpose, high-quality equipment supplied to agricultural producers in Uzbekistan must be equipped with modern management tools, computer and satellite navigation, fuel consumption, cargo optimization and efficient use of equipment. This, in turn, will allow to keep track of agricultural production processes through modern information and communication technologies based on the construction and development of agricultural systems in the agricultural sector of Uzbekistan, adapted to the needs of modern agriculture.

One of the most promising areas of use of modern digital technologies is the use of GIS (geographic information system) technology to monitor agricultural land use, and the overall availability of the Internet and software allows the Internet to be used as an interactive platform for selling agricultural products and promoting products. Many agricultural

producers create their own websites, expand their economic relations, and post other information.

Modern information and communication technologies are aimed at minimizing production resources, including resources that allow for more accurate control of labor resources and flow of material and technical resources. and use GPS (Global Positioning System).

Likewise, using high-tech equipment for the use of microorganisms, water, land reclamation can help to conserve resources, reduce water consumption and, consequently, reduce environmental impacts and, most importantly, the low cost and competitiveness of products.

In our opinion, the integral elements of the use of information and communication technologies to contribute to the development of the digital economy in agriculture in Uzbekistan are:

- Opportunity to inform manufacturers and consumers and exchange information via Internet;
- An interactive opportunity for rapid information exchange and promotion of products in various markets;
- expanding the market space and access to digital banking services;
- providing information on weather events and land use;
- making sound decisions based on the efficient use of software for artificial intelligence, robotic equipment and other processes.

The digital economy is the basis for the future economic growth of Uzbekistan and also encourages the effective development of certain industries, including agriculture. The use of information and communication technologies in agriculture provides equal opportunities for promoting products between large and small enterprises, which increases the efficiency of their operations and creates equal opportunities for competition in the industry.

## CONCLUSION/RECOMMENDATIONS

In conclusion, the introduction of digital technologies in agriculture has the potential not only as a necessary infrastructure for the production process, but also for the use of artificial intelligence in the production process, the creation and development of agricultural systems. It will also be closely linked to the increased use of the digital economy in agriculture, the level of knowledge gained, the development of science, technical and

technological equipment of production processes, and the ability to control processes at all stages of the product life cycle.

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