

# THEORETICAL AND APPLIED ASPECTS OF ECONOMIC PROCESSES IN UKRAINE AND IN THE WORLD ECONOMY

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## DIGITALIZATION OF KAZAKHSTAN ECONOMICS AND DEVELOPMENT OF ACCOUNTING

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### Key words:

digital economy, digitalization, accounting, management accounting, financial accounting.

It is determined that in the coming years, the digital economy will actively develop and become the main engine of innovation, competitiveness and economic growth in the world. The process of digitalization is affecting almost every country in the world today. It is stated that the main idea of the digital economy is that digitalization will be considered beneficial if it leads to economic efficiency and profit. It has been proven that the digital economy has many advantages over the traditional economy: it is more efficient in terms of labor productivity and possible unit costs; its implementation reduces the cost of payments, goods and services; it is able to open up new sources of revenue, as well as simplify and accelerate the interaction of the parties, making economic processes easier and more transparent. It has been found that the transition to the digital economy involves complex decisions and changes, both at the macro and micro levels. Digitalization should involve the whole of society: government, business and the community. It is proved that the accounting is quick to adapt to the digitalization processes that are developing in the administrative, financial and tax fields. In particular, cost accounting, costing, planning and budgeting can be addressed within information systems. Almost all financial accounting methodology, including the preparation of financial statements, is also described in the application programs. The competences that specialists must possess in the conditions of economic privatization are given.

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## ДІДЖИТАЛІЗАЦІЯ ЕКОНОМІКИ КАЗАХСТАНУ ТА РОЗВИТОК ОБЛІКУ

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### Ключові слова:

цифрова економіка, діджиталізація, бухгалтерський облік, управлінський облік, фінансовий облік.

Визначено, що найближчим часом цифрова економіка буде активно розвиватися і стане головним двигуном інновацій, конкурентоспроможності та економічного зростання у світі. Процес діджиталізації сьогодні відбувається майже в усіх країнах. Зазначено, що основна ідея розвитку цифрової економіки полягає в тому, що діджиталізація буде вважатися корисною, якщо це приведе до забезпечення економічної ефективності діяльності та збільшення прибутку. Доведено, що цифрова економіка має багато переваг перед традиційною: вона більш ефективна з точки зору продуктивності праці та можливих витрат на одиницю продукції; її впровадження зменшує вартість платежів, товарів і послуг; вона здатна відкривати нові джерела доходу, а також спрощувати та прискорювати взаємодію сторін, роблячи управління економічними процесами більш простим та прозорим. Установлено, що перехід до цифрової економіки передбачає складні рішення та зміни і на макро-, і на мікрорівні. Діджиталізація повинна залучати все суспільство: уряд, бізнес та громадську спільноту. Доведено, що облік швидко адаптується до процесів діджиталізації, які розвиваються в управлінській, фінансовій та податковій сферах. Зокрема, облік витрат, калькулювання, планування та складання бюджету можна вирішити в межах інформаційних систем. Майже вся методологія фінансового обліку, включаючи підготовку фінансової звітності, також описана в прикладних програмах. Наведено компетенції, якими повинні володіти фахівці в умовах діджиталізації економіки.

### Statement of the problem

Currently, the world economy is characterized by the following recent trends: companies engaged in the business of information technologies overtake raw materials companies in terms of market capitalization, the Internet audience is growing, the most expensive companies and brands belong to the IT sector, the share of the Internet economy is growing from year to year in GDP developed countries. So, in terms of market capitalization at the beginning of 2019, such companies as Amazon Inc. were in the top 10 with a capitalization of 802.18 billion dollars, Microsoft (789.25 billion dollars), Alphabet Inc. (previously Google 737.37 billion dollars), Apple Inc. (720.12 billion dollars), Facebook (413.25 billion dollars), Tencent (400.90 billion dollars), Alibaba Group (392.25 billion dollars) [1].

In the next few years, the digital economy will actively develop and will be the main engine of innovation, competitiveness and economic growth in the world. The digitalization process today affects almost all countries of the world.

### Objectives of the article

The purpose of the article is to study the features of the development of economic digitalization in Kazakhstan.

### The main material of the research

The term “digitalization” itself literally means a transition to a digital method of communication, recording and transmitting data using digital devices. In a broader meaning, “digitalization” is a system of economic relations based on the use of digital information and communication technologies. The digital economy is a model of interaction of all participants in economic processes, based on the use of modern electronic communication channels and methods of recording and storing information using electronic document management. This kind of economy implies the maximum automation of business processes inside the enterprise and in relations with contractors and government agencies through the use of modern information technologies. For the successful operation of the digital economy, three elements are necessary: infrastructure (access to the Internet, software, telecommunications), e-business (conducting business through computer networks), and e-commerce (product distribution via the Internet).

The basic idea behind the development of a digital economy is that digitalization will be considered as beneficial, if it leads to economic efficiency and higher profits. The digital economy has many advantages over the traditional one: it is more efficient in terms of labour productivity and possible costs per unit of production; it reduces the cost of payments, the cost of goods and services, opens up new sources of income; it simplifies and accelerates the interaction of the parties, making the management of economic processes simpler and more transparent; it takes less effort to make certain decisions; scaled to international scope and also easily integrates into existing processes in the country. Benefits are also visible to consumers – cheaper goods and services, the speed of their receipt; for the country – economy transparency and more opportunities for economic monitoring. At the same time, we note that of the disadvantages, digitalization is

accompanied by the people release, i.e. unemployment, and this is probably the biggest problem of the future.

Some industries are easier to digitize, namely, non-manufacturing industries where there is no tangible product. In other words, the smaller the raw materials industry and the more information, the easier the digital transformation. These are branches related to information technology, in which the interaction of participants without the use of electronic communication channels is difficult. Examples include services, trade, the financial sector, telecommunications, software development, government, media business.

The transition to a digital economy involves complex solutions and changes, both at the government level and the companies' level. The development of digitalization should involve the whole society: government, business, civil society and the IT community.

The government assistance in the development of the digital economy should consist of two parts: firstly, is to adapt the legislative base to new models of interaction, and also to minimize unnecessary bureaucratic and administrative barriers. Secondly, it is necessary to stimulate companies and the population to transfer to the digital plane, create favourable conditions for companies that are on the path of digitalization, as well as eliminate digital inequality in the regions.

An important component is ensuring the information security of information and innovative technologies, which ensures public confidence in the digital economy.

Kazakhstan don't lag behind from the global trends in the digitalization of the global economy. We are seeing a significant government involvement in the economy digitalization. As part of the President's Message “Third Modernization of Kazakhstan: Global Competitiveness”, on January 31, 2017, the Ministry of Information and Communications of the Republic of Kazakhstan developed the Government Program “Digital Kazakhstan”. The implementation dates have been assigned to 2018-2022 [2].

Central and local executive authorities, government authorities are directly subordinate and accountable to the President of the Republic of Kazakhstan and also subjects of the quasi-public sector have been appointed by government authorities and organizations responsible for the implementation of the program.

The program aims to accelerate the development of the republic's economy and improve the quality of life of the population through the use of digital technologies in the medium term, as well as creating conditions for the transition of Kazakhstan's economy to a fundamentally new development trajectory ensuring the long term creation of a digital economy of the future.

The objectives of the program were: digitalization of industry and power industry; digitalization of transport and logistics; digitization of agriculture; the development of electronic commerce; development of financial technologies and non-cash payments; government to citizens; government to business; digitalization of the internal activity of public authorities; “Smart” cities; expansion of communication networks and ICT infrastructure; information security in the ICT field,

increasing digital literacy in secondary, technical and vocational, higher education; increasing digital literacy of the population (training, retraining); support for innovation development sites; development of technology entrepreneurship, start-up culture and research and development; attraction of the "venture" financing; formation of demand for innovation.

It is planned to achieve the following target indicators:

- the share of e-commerce in the total volume of retail trade in 2022 – 2.6%;
- the growth of created jobs due to digitalization in 2022 – 300,000 people;
- the share of public services received in electronic form, of the total volume of public services in 2022 – 80%.

To assess the scale of the declared program, we give sources and amounts of funding for the program in 2018-2022. So, for these years budget funds in the amount of 141,048,387 thousand tenge will be allocated for its implementation, including: 2018 – 21,544,099 thousand tenge; 2019 – 33 153 045 thousand tenge; 2020 – 59 865 614 thousand tenge; 2021 – 26 485 629 thousand tenge. Funds can also come from other sources of funding that are not prohibited by the legislation of the Republic of Kazakhstan. The amounts will be adjusted in accordance with the budget for the relevant fiscal year [2].

Achieving the goal of the program implies movement along two development vectors. The first is the digitalization of the existing economy, and the second is the creation of a digital industry of the future. The second vector, aimed at the future, involves ensuring long-term sustainability, launching a digital transformation of the country by increasing the level of human capital development, building innovative development institutions and, in general, the progressive development of the digital ecosystem.

The program contains five main directions of implementation:

“Digitalization of the economy sectors” is the direction of the transformation of traditional sectors of the economy of Kazakhstan using breakthrough technologies and opportunities that will increase labour productivity and lead to an increase in capitalization.

“Transition to a digital government” is the direction of the transformation of the government functions as an infrastructure for providing services to the population and business, anticipating its needs.

“Implementation of the digital Silk Road” is the direction of development of high-speed and secure infrastructure for the transmission, storage and processing of data.

“The development of human capital” is the direction of change, encompassing the creation of the so-called creative society to ensure the transition to new realities – the economy knowledge.

“Creating an Innovation Ecosystem” is the direction of creating conditions for the development of technological entrepreneurship and innovation with sustainable horizontal links between business, science and the government.

Since 2005, the formation of an “e-government” has begun, a number of elements of the innovation ecosystem have been created, the FEZ PIT Alatau, ACS Nazarbayev

University has been functioning, the international Technology Park Astana Hub has been launched. In 2013, the government program "Information Kazakhstan 2020" was approved.

Today, information technologies are being actively implemented in all sectors, all public services have been converted to electronic format. Thus, an electronic government was created in the form of basic infrastructure and information systems of public authorities directly or indirectly involved in the provision of public services egov.kz. Public service centres have been transferred to electronic document management, a system of electronic digital signatures has been created for legal entities and individuals.

The accounting area quickly adapts to the processes of digitalization, which are developing in three areas: management, financial and tax accounting. It should be noted that accounting work in Kazakhstan today has become much easier and has changed in recent years. In terms of tax accounting digitalization, on the basis of the Government Revenue Committee such information systems were created as: IS SONO, IS ESF and IS VAT-Blockchain.

SONO is a tax reporting processing system. It offers one client application for filling out and submitting all tax reporting forms. The system offers a solution in which there is no need to download all tax reporting forms, but it is enough to download only the necessary forms for the taxpayer, complete and send them for processing.

From July 1, 2014, in Kazakhstan on a voluntary basis (and from 2019 on a mandatory basis), it became possible to issue invoices in electronic form. The Electronic Invoices Information System (EC ISF) allows invoices issuance and exchange in electronic form between participants in trading operations in real time. Moreover, IS ESF is integrated with accounting systems. Invoicing in electronic form has a number of advantages: an increase in the term for issuing an ESF to 15 days; the ability to write ESF in foreign currency; the possibility of delegation of rights for issuing invoices to their employees; the ability to manage the ESF issued by the structural units of the legal entity; the possibility of not providing a register for goods, works, services sold (300.07), if all invoices are issued in electronic form; the possibility of not providing a register for purchased goods, works, services (300.08), if all invoices are issued in electronic form; ability to view the product life cycle.

As for the VAT-Blockchain IP, the use of the Blockchain technology has been introduced since January 1, 2019, to use the new value-added tax administration methods. The VAT payer, on a voluntary basis, opens a VAT control account, which is a separate bank account used solely to record the movement of money on VAT amounts. The basic principle of the proposed solution is to monitor the financial flows of VAT in real time for subsequent accelerated returns. For exporters applying VAT control accounts, the timing of VAT returns on the results of inspections will be reduced from 55 to 15 working days. The use of the new method of administering VAT using the Blockchain technology will optimize the processes of administering VAT and ensure: reducing the time for VAT refunds for exporters; automatic generation of preliminary declarations; reducing the number of inspections by the

tax authorities; increase in the collection of VAT; increasing the transparency of VAT administration; the inability to use grey schemes.

Payments and transfers are made through Internet banking, accountants do not need to provide payment documents to the service bank in paper form. Today, almost all Kazakh banks provide services through remote channels, 70% of banks provide services to individuals through the Internet and mobile banking, 55% of banks provide services based on mobile applications.

The main tasks of management accounting, such as cost accounting and costing, planning and budgeting can be solved within information systems. Almost the entire methodology of financial accounting, including the preparation of financial statements, is also described in the application programs. The market for suppliers of the latter is quite wide and diverse, and enterprises are not limited in the choice of developers. Of course, before being converted to digital technologies, enterprises should analyse their business processes to the level of their digitization. It is necessary to determine which processes need to be translated into electronic format, determine the costs and formulate the benefits that digitalization will give. When the decision on the transition will be made, then you can proceed to the updates [3, 4].

It is advisable to divide all the work into stages, since doing everything at once is extremely difficult, time-consuming and may be ineffective. A phased update will allow you to quickly get the effect of the innovations and allow the management to make the whole process manageable.

It is necessary to say about the important competencies that specialists should possess in the conditions of digitalization of the economy. This issue is particularly

important in today's training of specialists of higher educational institutions. The main competence that needs to be developed is the ability to continually learn, the willingness to constantly master new knowledge on new, rapidly emerging technologies. This is a key factor for successful professional growth in the modern digital world. That is, you need to have a broad understanding of modern technological digital media, these are the so-called digital competencies. The skill of remote work and the ability to work with large volumes of information become important. Since all routine accounting work will continue to be automated, the role of a specialist, who should have the skills to analyse and interpret data, is growing.

### Conclusions

The program of development of the digital economy in Kazakhstan determines the main directions of the government policy of the Republic of Kazakhstan on the formation of a digital (electronic) economy, in order to comply with national interests and implement national priorities. At the same time, the absence of physical boundaries in the digital space provides access to a substantial array of such data to numerous participants in the global economic space. The operation of national programs for the development of a new-generation economy, including the development and introduction of technologies, the analysis of "big data" and forecasting, the introduction of new management methods, becomes a task of strategic importance not only in the context of the socio-economic of government well-being, but also as a condition for maintaining sovereignty globalization and implementation of digital development programs by other global market participants.

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