

Investment Support for the Digitalization of Socio-Economic Systems in the Context of Ensuring Security

Myroslav Kryshchanovych [†], Iryna Gorban ^{††}, Lesia Kornat ^{†††}, Anatolii Dykyi ^{††††}, Nadiia Marushko ^{†††††}

[†] Lviv Polytechnic National University, Ukraine

^{††} Lviv State University of Internal Affairs, Ukraine

^{†††} Lviv Polytechnic National University, Ukraine

^{††††} Zhytomyr Polytechnic State University, Ukraine

^{†††††} Lviv State University of Internal Affairs, Ukraine

Abstract

At the current stage of development of the world economy, the main task is to stimulate the transition from raw materials export strategies to strategies of reindustrialization and modernization of economic relations. To solve this problem, it is necessary to implement material production based on high technologies, a new material and technical base of economic entities, most of which should be the latest machinery and equipment. This is possible in the conditions of a sharp increase in the volume of attracting investments in fixed capital at the regional level of socio-economic systems. Thus, the task of analyzing the directions of attracting investments in socio-economic systems is becoming the most relevant topic of various scientific studies and requires close attention in the context of digitalization of the socio-economic space in the world. The results of the study identified the main features of the investment support for the digitalization of socio-economic systems.

Keywords:

socio-economic systems, high technologies, investment support, digitalization, security

1. Introduction

In the last decade, for the development of the world economy and society, the influence of key technologies that underlie the digital economy (blockchain, cloud computing, extensive data, the Internet of things, cyber-physical systems, etc.) is of particular importance. Their accelerated introduction significantly changes traditional economic and technological processes, contributes to the creation of new sectors of the economy; improving the business climate by increasing the availability of public services, transparency of business conditions; distribution for the population of the availability and convenience of obtaining an increasing number of services; creating comfortable conditions for human

life. All these changes, of course, require investments, primarily digital and networking, and the latest technologies/tools for their application. Given the state of the Ukrainian economy and understanding the need for digital transformation of its model, the problem of attracting investment capital and ensuring a continuous and expanded investment process covering all areas of innovative breakthrough and components of socio-economic development is currently being updated.

During periods of cardinal changes in world development, significant transformational processes in relation to socio-economic relations are explained from the point of view of the technological approach (techno-economic paradigm), which justifies the relationship between the development of human civilization and the progress of technology. Thus, the current stage of such changes is associated with the fourth industrial revolution (Industry 4.0) and is identified with the formation of the sixth technological device, where digital technologies occupy a key place and cause systemic, not only technological, but also socio-economic changes.

It should be noted that digital technologies themselves, from the point of view of a scientific and practical approach, appeared about 50 years ago, however, in the conditions of the digital economy, they have become more advanced and integrated, spreading much faster and on a larger scale, accelerating the course of changing the picture of the world based on digital transformation. Today, digitalization is replacing informatization (at the same time, informatization is a component of digitalization), which from a conceptual point of view should be understood as a systematic approach to the use of digital technologies to increase labor

productivity, competitiveness of production and accelerate socio-economic development. That is, a digital system must be created that can act independently, has analytical and predictive functions, and solves the problem itself (however, today the task is in the vast majority of cases set by a person). The phenomenon of the concept of "digital economy" in a generalized form is considered as a system of social, economic and technological relations between the state, the business community and citizens, functioning in the global information space through the widespread use of networked digital technologies, leading to continuous innovative changes in order to improve the efficiency of social and economic development. economic processes

From the standpoint of the subject of our study, in the present conditions it can be considered as a separate segment of the economy, which is a set of financial investments (investments) in order to ensure the growth of the efficiency of existing business processes and competitiveness through the development of new technological solutions and the development of current technologies; the opportunity for businesses to invest in IT to reduce the cost of their own products and develop their own portfolio of proposals.

2. Methodology

To achieve the goals set in the study, we applied the following methods: induction and deduction, comparison and systematization; synthesis and analysis; abstract-logical - for theoretical generalizations and conclusions of the study.

3. Research Results and Discussions

The phenomenon of the concept of "digital economy" in a generalized form is considered as a system of social, economic and technological relations between the state, the business community and citizens, functioning in the global information space through the widespread use of networked digital technologies, leading to continuous innovative changes in order to improve the efficiency of social and economic development. economic processes. Table 1 presents the main advantages of implementing investment support processes for the digitalization of socio-economic systems.

Table 1: The main advantages of implementing investment support processes for the digitalization of socio-economic systems

<i>№</i>	<i>The main advantages</i>
1	Financial independence and stability
2	Advanced and mass production
3	Strengthening competitive advantages, strengthening positions in the domestic market and entering the international market

In this context, it is possible to identify characteristic global investment trends that directly or indirectly affect digitalization.

Since 2015, there has been a steady downward trend in investment flows on a global scale. Thus, according to the UNCTAD report "Monitoring of investment trends, 2019", in 2018, compared with the previous year, the attraction of foreign direct investment (FDI) in the world economy decreased by 19% to 1.2 trillion. USA, and compared to 2015 - 1.6 times. Consequently, the global investment market has narrowed significantly in recent years, leading to increased competition for FDI, especially between developing countries and countries with economies in transition. In addition, cross-border investment in developed countries (down 40% to 2017 levels) and economies in transition (down 8%) declined sharply, with a modest increase (down 3%) in developing countries, which is a sign of a lack of "healthy" state of the world economy and trade. Against the background of this

trend, according to the OECD framework conditions and UNCTAD recommendations for the countries of the world, a set of measures for state incentives for investment activity is focused on the implementation of the concept of sustainable development and should ensure the correct construction of the state investment policy and the effective functioning of certain sectors of the economy (financial, public and other sectors). Important arguments in favor of developing a comprehensive framework investment policy for the development of the digital economy are examples of the relationship between investment policy and the digital development strategies of individual countries and companies, which can be the key to the fruitful integration of the economies of developing countries into the global economy and help reduce the digital divide. and meet the significant investment needs needed to make the 2030 Agenda for Sustainable Development a reality.

The overall rating of global trends in the development of the digital economy, methodologically based on an integral assessment of the most significant analyzed indicators (the amount of investment, the number of significant scientific publications in this and related fields of knowledge, patents) and reflects the importance and relevance of the established areas of technological development of companies, industries and countries, not only allows you to compare different trends with each other and draw conclusions about the prospects for strategic development, but also make decisions on investing in new areas. Thus, noteworthy is the fact that in the ranking of global investment activity since 2015, electronic commerce (E-commerce) has been the leader, however, significant growth rates have been shown by technologies of a distributed registry (Blockchain), intelligent power supply networks (Smart Grid) and computer vision (Computer vision). Thus, the rating of investment attractiveness in 2018 in relation to investments in new companies refers to the so-called end-to-end trends and reflects the level of investors' willingness to finance technology start-ups in specific areas.

In the field of digital business development, global digitalization is changing value chains, creating new hubs, and transforming the sources of economic activity. The advantages of this process are in solving various kinds of socio-economic and technological problems, including: attracting investment in the business sector; emergence of new

products and new markets; reducing the cost of doing business; the emergence of new professions and jobs; growth of productivity, efficiency of process execution; increase in taxes; increased diffusion of innovations, etc. Under these circumstances, it is up to policymakers to strike the right balance between harnessing the benefits of openness and mitigating the risks emerging at an unprecedented rate in the digital world. At the same time, businesses that do not require a significant physical presence are completely and relatively easily moving to digital platforms (services, banking and financial operations, software and application development, entertainment business, etc.). Less flexible industrial enterprises, many of which have not yet automated their business process management system, are lagging behind in development. Companies operating in the b2b market are striving for digitalization at least at the level of interaction with consumers. Local niche small firms are looking for business transformation solutions based on the introduction of digital business models in order to increase productivity.

As part of the development of the Industry 4.0 industry, digital production is becoming a key aspect, and the competitiveness of companies is determined by the level of their digitalization. Of course, to become a digital enterprise, you need to invest in a digital asset. Digital spillover occurs when digital technologies accelerate knowledge transfer, business innovation and increase productivity within a company through industry supply chains to achieve sustainable economic development. In addition, it has been empirically proven that investments in a digital asset are more profitable than in a non-digital one. For example, every US dollar invested in digital technology over the past 30 years yields \$20. USA in GDP on average. This is a huge return compared to non-digital investments that yield an average return of \$3 to \$1. USA. Investments in 1 dol. The US is 6.7 times more profitable for digital investments than for non-digital ones. However, it is important to keep in mind that the digital enterprise is the product of the next industrial revolution, and not the evolution of IT-based automation, on which the previous Industry 3.0 was based. In addition, although industrial automation systems half a century ago were able to interconnect thousands of devices, manage them, collect and process the data received from them, today the very concept of data analysis and decision-making algorithm needs to change: the era of digital

business is characterized by an unprecedented level of convergence. technologies, business processes, communications, artificial intelligence and various "smart" products. Table 2 presents the main negative factors that have a negative impact of implementing investment support processes for the digitalization of socio-economic systems.

Table 1: The main negative factors that have a negative impact of implementing investment support processes for the digitalization of socio-economic systems.

<i>№</i>	<i>The main negative factors</i>
1	Post-pandemic consequences
2	Military operations on the territory of Ukraine, as a result of a full-scale military invasion
3	High level of costs of the process of digitalization of socio-economic systems

An important role is played by digital platforms, both commercial (electronic trade in goods both through intermediary platforms and directly from the manufacturer; transactional digital platforms as a key way of doing business for a number of digital corporations) and non-commercial (not profit-oriented and aimed at solutions to various types of social problems). It should be noted that with the development of the digital space and the emergence of new startups, e-commerce platforms for services are also expanding, including subscription companies (Netflix, Amediateka), taxi and transportation services (Uber), hotel and tour booking services (Booking.com, Airbnb), cloud service (Salesforce, Amazon Web Services) and many others. Among the conditions on which these platforms are formed, a

business based on digital data and platforms must be attractive to all parties: manufacturers, sellers, buyers, intermediaries.

Financial innovation (Fintech) has become the most important global phenomenon in recent years, and digital technologies, being the core of the provision of financial services, stimulate the penetration of innovations into the financial market. The volume of venture investments in Fintech has increased 10 times over the past 5 years, reaching the level of 20 billion US dollars per year, confirming the unprecedented interest in the digitalization of financial activities. The growth of Fintech actualizes issues before the financial authorities on the expansion of regulatory and supervisory content, compliance of new types of digital financial services with existing rules, identification, assessment, reduction and monitoring of the risks of financial innovations. Today, more and more large financial institutions (in order to maintain market share) with the participation of the regulator initiate projects to create specialized blockchain-based platforms. For example, China-based fintech company Hande Financial Technology Holdings Co., Ltd (HDFH) has set up a special investment fund to launch a global consortium of global digital banks on blockchain, which plans to fund the creation of a leading digital bank, which will be the basis for launching a global consortium of global digital banks. The first step is the investment and digital transformation of the bank, then the blockchain consortium is launched, where the bank will become the central node. It is expected that the amount of funding will be about 1 billion dollars. In addition to HDFH, Yillion Bank and Zhongguancun Private Equity&Venture Capital Association (ZVCA) will join the investment fund. The investment period will be 6 years, and the withdrawal of investments will take up to 2 years. In addition, Chinese financial regulators have begun to closely monitor the cryptocurrency market after the hype around the blockchain began in the country, in particular, they began to monitor the implementation of the ban on cryptocurrency trading and ICOs and are preparing new restrictive measures.

4. Conclusions

Today, investment activity and the digital economy are becoming more and more interconnected, since the progressive development of the digitalization of economic processes is impossible without significant investment, and the most effective investment tools are directly related to the digital economy. An important global trend of the current stage of investment policy is the establishment of a link between the digitalization strategy and the strategy for the development of the digital economy, which has important implications for investment, and investment also determines the development of digital technologies of network platforms.

The main components of the development of the digital economy as the next stage in the formation of a modern model of the production, technological and social system of society based on the results of the fourth industrial revolution are regulation, infrastructure, network security (cybersecurity), training of professionals and the formation of technological platforms. This is what the function of the state should be aimed at in partnership with business, the implementation of which requires an appropriate investment policy. In this context, the currently visible "digital divide" between developed and developing countries (which includes Ukraine) necessitates the implementation of a comprehensive evidence-based state investment policy, taking into account global trends in investing in the digitalization of the economy and new models of activity in transnational digital companies on based on digital networks.

When developing an investment strategy for digital development, the government should be guided by the principle of finding a balance between the goals of public policy and the interests of investors and society, which requires the development of modern regulatory mechanisms in areas such as data security and privacy, protection of intellectual property, consumer interests and cultural values, so that during the transition on digital technologies in the event of violations, timely prevent negative socio-economic consequences, taking into account the interests of both society and private investors. The Ukrainian state and business have already joined in the work to develop responses to the challenges caused by global trends in investing

in digital development. Specialists and company executives understand that without the use of digital technologies, they will not be able to successfully compete either in the domestic or foreign markets. They highly appreciate the effectiveness of the solutions they have already implemented, but they are quite pragmatic about these technologies, focusing on what it is no longer possible to do business without, slowly investing in fundamentally new areas. However, in the context of the growing global crisis, it is the latest technologies, as it was already recorded in the previous difficult times of the development of the world economy and society, that become the driver for solving critical problems and encourage investors to re-profile investments in priority areas, which today are digital technologies. The following studies will focus on the features of this process.

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