# ECONOMIC RISKS IN THE CONDITIONS OF DIGITAL TRANSFORMATION

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**Abstract**

*The development of the modern world is taking place against the background of the introduction of digital technologies, which is an objective and irreversible process that opens up opportunities for all spheres of society.*
*At the same time, digitalization is accompanied by negative consequences, generating many threats to the sustainability of economic systems.*
*The article considers the most significant problems of digital transformation and related economic risks. It is noted that, in general, digitalization provides society with many benefits and opportunities for intensification and efficiency of development, increasing the welfare of the population. But there are new risks that lead to structural changes in socio-economic and political-administrative systems that pose a threat to the economic security of the world's countries.*
*These risks include: technological disruption, cybersecurity and data vulnerability, digital skills deficit, labor migration, legal vulnerability, and economic inequality. Preventive measures to avoid negative development scenarios based on the use of modern technologies are proposed.*

**Keywords:** disruption, market dynamics, innovation, cybersecurity, digitalization, economic risks

## I. Introduction

The beginning of the 21st century is marked by the progressive movement of digital technologies, against the background of which economic and social systems, forms of international cooperation and business processes began to transform. This led to a reformatting of world economic and social relations, moving into the virtual space.

Digitalization continues to revolutionize the way businesses operate, business and interpersonal communication, and value creation. The new era of the digital economy has opened up unique opportunities for economic growth and increasing the efficiency of the global economy based on innovation and artificial intelligence. At the same time, digitalization, while creating broad opportunities and prospects, also has a negative effect since any development under conditions of uncertainty entails inevitable risks that are poorly studied and practically not calculated or assessed.

In the context of the dynamic digitalization of all life processes, society finds itself in a state of

permanent risks, which aggravates the problems of making rational management decisions, both at the state level and at the level of economic entities (companies and citizens).

## II. Methods

The concept of "Risk Society", described in scientific works by Ulrich Beck (1984), takes the concept of risk beyond the scope of exclusively social problems [2]. Having described the universality and scale of risks, U. Beck came up with a definition of a "risk society", which develops in conditions of uncertainty and unpredictability, and hypothetical losses are difficult to calculate and evaluate. Under these conditions, the implementation of current activities and decision-making, as defined by U. Beck, occurs reflexively and has a dual character. On the one hand, the increase of the role of public institutions in assessing the probability of developments and taking appropriate regulatory measures are aimed at minimizing risks. On the other hand, the changes introduced create new risks, expanding the range of uncertainty and unpredictability.

It is known that any decision made is associated with or entails certain risks, the fact of the occurrence of which can lead to identification of their form. The development of socio-economic systems is always accompanied by risks, which is the norm and at the same time a trigger for the rationalization of subsequent actions.

In 2017, The Global Risks Report [2] was presented in Davos (Switzerland), in which, on the basis of large-scale research work, 30 global risks of the most common nature were presented, and also 13 trends in the development of the world community for 10 years perspective in the context of the transition to a digital development model were described. Potential risks and threats were aggregated into five main groups: geopolitical, economic, technological, social and environmental.

In the annual report of the World Economic Forum 2024, these risks were confirmed, with clarification and emphasis on disinformation and polarization of society as the main modern threats [3].

The scientific research is based on a number of works of modern domestic and foreign authors, considering the issues of threats of economic nature in the period of digital transformation. This allowed, on the one hand, to generalize the accumulated experience of scientific thought, on the other hand, to identify and present new challenges arising in the conditions of digitalization in such a rapidly changing environment.

The purpose of the article is to identify the main economic risks of the digital format of society development, the factors that determine their impact on the socio-economic system.

The work used traditional methods of scientific cognition: generalizations and characteristics, observation and comparison, as well as information-analytical and statistical methods of research.

## III. Results

Economic threats against the background of digital transformation create serious challenges to the stability of economic systems, their level of safety and security. This characterizes the main risk of an economy developing and operating on the basis of digital technologies. Digitalization leads to increased openness of national economic systems, making them more vulnerable to the negative impact of external factors. This problem is not only economic, but also political, ideological, social and other in nature, since information technologies reduce the security of the national system from negative external influences (the forms of manifestation are financial espionage, information and psychological pressure, manipulation with financial assets and instruments, and many others).

Also, the use of digital technologies increases access to companies' commercial and financial data, increasing the vulnerability of their financial stability and competitiveness. Thus, there is a scaling of criminal activity in the financial and economic sphere, against the background of which the threat of loss of control over the activities of companies increases, the likelihood of loss of

property arises, etc.

High risks also arise for each individual in the field of personal finance management, regarding the use of personal data for criminal purposes, the threat of losing jobs, and, consequently, a source of income.

Thus, the composition of probabilistic risks in the context of digitalization is quite extensive and affects all spheres of society: government, commercial and personal interests.

Currently, there is a growing debate in the scientific community regarding possible risks that have already become obvious and that are possible in the future. At the same time, the opinions of experts differ regarding the real threats and assessments of their impact on socio-economic processes.

One of the main economic risks associated with digital transformation is the disruption of traditional markets, business models and business processes. Indeed, the rapid implementation of new technologies, such as artificial intelligence (AI), blockchain and the Internet of things (IoT), have the potential to disrupt a number of economic sectors, the products and services of which, as well as their business processes and logistics systems, are beginning to become obsolete quite quickly , and competition intensifies. Against the background of dynamic technological development, the pace of which is accelerating, market volatility is increasing, to which companies cannot respond quickly and adequately, thereby losing profits and competitiveness

To avoid this, or mitigate the negative consequences, companies need to increase investment in research and development, promoting a transformative culture of innovation and flexible management decision-making methods to meet increasing market dynamics.

But not all companies can afford this, but only those ones that have accumulated stability in their segment for years, have a high or sufficient level of capitalization and reserve resources. Unfortunately, the changes taking place will lead to a selection of the business community, with the strongest companies remaining “afloat”.

The consequence of these processes in a negative context will be a sharp reduction in jobs, and, consequently, it will lead to a reduction in income due to stagnation of wages [2]. The problem of job loss is one of the most urgent and most widespread among those discussed and studied. In addition, the threat of job losses, caused by the processes of replacing human labor with information and digital technologies, is incomparable with any economic and financial crisis of past years in scale and consequences.

In the context of the introduction of digital technologies, the labor market is undergoing a structural transformation, when traditional employment is replaced by platform forms and methods of using labor resources, which has the potential for global qualitative changes, simultaneously associated with the risks of intensification of competition and increased restrictions for a significant part of those employed in the economy.

On the one hand, digital transformations, provided they are managed well, lead to increased diversification of employment and improved quality of life [1], on the other hand, they put forward new qualification requirements, increasing competition and competency gaps in the labor market. Platform employment is growing rapidly, but is not uniform across countries, leading to global inconsistency in its regulation. Currently, there are several approaches to regulating platform qualifications and employment. Some countries are taking a wait-and-see attitude regarding the introduction of regulations, while others are actively introducing legal initiatives to regulate platform employment.

By now, a unified approach to the regulation of the digital labor and employment market has not been developed; there is no scientific basis for the concept of its development, which stagnates the processes of its functioning both within national systems and on a global scale. The complexity of managing migration processes arises.

The migration policy of states in a traditional economy was focused mainly on regulating the movement of labor, which historically consisted of workers engaged in non-standard forms of labor and having predominantly temporary employment. However, in the context of digital transformations, new forms of labor, demonstrating high growth rates, lead to a change in the

classical nature of the labor market, when standard (traditional) forms of employment, prevailing in the main market segments, are replaced by other forms of organization and implementation of labor activity (platform labor based on information-communication technologies). Traditional migration is being replaced by virtual and telemigration [5], a new digital labor market with a changing structure and qualitative content of the demand and supply of labor resources is being formed. Its main characteristics are the rapid flow of labor from one area to another, the rapid growth of new professions and specialties.

According to MasterCard forecasts, the global platform economy will double in size by 2023 compared to 2018 and by 2027, the volume is predicted to be $864.7 billion [8].

Thus, in the near future, platform employment will replace traditional forms of labor organization, which in many ways has positive effects such as expansion of jobs, employment flexibility, transformation of migration into the integration of highly qualified labor. At the same time, gaps between countries in the speed of entry into the digital world and the use of advanced technologies, including gaps in the development of the labor market, can lead to negative effects, which include instability or loss of income, insufficient qualifications to work in new conditions, and social isolation. Countries need consolidation in regulating migration and labor employment processes.

Cyber security and data vulnerability are another one of the most common problems among researchers, which has now received more evidence of its reality and danger. Digitalization has the property of total and rapid spread, the tools of which are available to the criminal world, sometimes to a greater extent than to institutions regulating life processes. The risk of cyber attacks and identity theft has already become an obvious reality: infection with malicious software; fraudulent attacks and extortion leading to financial losses, causing damage to the population and companies (loss of trust and reputation among consumers); loss of confidentiality and protection of personal and corporate data.

Prevention of these actions also requires significant financial investments in their own security through the implementation of reliable cyber security measures (encryption, multi-factor authentication and regular security audits) on the part of companies and ensuring cyber security for all market participants on the part of the state.

The use of digital technologies to ensure cyber security in all areas not only requires high financial investments, but also significantly complicates the processes of interaction both within companies and in society as a whole.

On the one hand, companies that implement authentication systems in order to protect the personal data of their clients (for example, banks) greatly complicate the processes of interaction between employees and clients, when in order to make a decision on the requested service they have to overcome a multi-stage system of verification, approvals, confirmations, etc. On the other hand, the state also has to use the same complex algorithm of actions in all executive institutions, and in cases of failures, be the guarantor of the preservation of the rights and property of citizens. In addition, being the main guarantor of the rights and freedoms of its citizens, the state is obliged to significantly expand its participation in the creation of training platforms for the population, business entities of various forms of ownership, scale and type of activity and in this direction to closely interact with business, research centers and individuals to create a cyber security-oriented culture under the new conditions.

The peculiarity of digitalization, which distinguishes it from all previously historically important processes, is the speed of its spread and penetration, which greatly complicates the development of regulatory measures for the effective management of digital activities. As a result, organizations and citizens often face uncertainty regarding compliance with existing regulations and are unable to anticipate future changes in the regulatory environment. Failure to comply with regulatory requirements can result in unexpected legal and fiscal liabilities, fines and damage to reputation.

To mitigate this risk, it is necessary to monitor changes in legislation by creating and using appropriate software (information and consulting), companies need to conduct a thorough legal

audit in real time, and the population needs to improve legal literacy, or seek help from specialists. Yet again, this is costly, more labor-consuming in terms of the intensity of actions and attention on the part of all users.

Of course, digital transformation, which has become a reality and inevitability, requires certain skills for all members of society. In the public and corporate sectors of the economy, there will be a growing demand for qualified personnel capable of using advanced technologies to make management decisions, stimulate innovation and increase productivity. However, many government agencies and private companies have difficulty finding staff to meet current demands, leading to a widening digital skills gap. In addition, automation and artificial intelligence may displace traditional jobs, causing unemployment and income inequality (this problem was outlined above). To solve this problem, organizations of all ownership types must invest in digital skills development, reskilling and upskilling to ensure their workforce has the capabilities to thrive in the digital economy.

For citizens, the presence of digital skills becomes a determining condition for strengthening their personal potential and the ability not only to use it as a means of managing personal income, but also as a means of personal identification in the digital space (the use of digital platforms and tools for life support). At the same time, digital qualifications require constant learning, since they are being transformed too rapidly, new digital products and services are appearing, and new digital conditions are being created to ensure economic and everyday issues.

The problem described is of a more pronounced social nature but its economic component consists in danger of losing its usual way of life due to the loss of income received under the traditional economic model.

To solve this problem, all organizations (in the state and private sectors) must increase investment in digital skills, reskilling and upskilling to ensure that their employees have the opportunities to thrive in the digital economy, and the government should do the same for the unemployed population. Besides, encouraging a culture of lifelong learning and career development can help employees adapt to changing work roles and new technology trends.

## IV. Discussions and conclusions

Digital transformation poses a real threat of deepening socio-economic inequality and growth of the digital divide. Digital access, internet use and digital skills are not evenly distributed across the population, leading to differences in economic opportunities and access to vital services. In this regard, for all countries around the world, bridging the digital divide and ensuring equal access to digital technologies is critical to stimulate economic growth and reduce inequality.

Investing in digital infrastructure will become a universal and very large-scale task, the solution of which can only be achieved through joint efforts on the part of national systems, businesses and citizens; international institutions are also needed to regulate these processes.

A strategy for reducing inequality as a result of digital influence should be developed at the level of interstate interaction and implemented through the expansion of digital infrastructure, open access to broadband Internet and advanced software, supported by large-scale training and retraining programs for citizens of all social categories. But its implementation depends on coherency between the world's leading countries regarding to the negative effects of the digital world.

The problems described above are far from being solved; their number, degree of negative impact and possible destructive consequences are wider and more diverse in many ways. We have described some of them that, in our opinion, are the most acute and have already become a reality in a changing world.

Among them:

1. Technological disruption and market dynamics.
2. Cyber security threat and data vulnerability.

3. Complications of compliance with regulatory standards and other legal challenges.
4. Deficit of digital skills among economic entities and the population, movement of labor.
5. Economic inequality and digital gap

To summarize all of the above, we`d like to note that the identified economic risks and threats of digital transformation have one common property – you can only resist them if all economic entities work on a large-scale and permanent basis to adapt to the changes that are taking place. This work requires significant financial costs, personal, corporate and organizational efforts, readiness to accept reality, self-development and self-learning.

In conclusion, we note that digital transformation has many advantages and opens up wide opportunities for personal growth and self-development, expands the range of innovations and investments, creating new products and services. At the same time, it poses significant threats to national economic security, giving rise to new risks that have no analogues in scale and consequences. Moreover, negative consequences are difficult to assess and calculate, which makes it difficult to take preventive measures to fight them, both at the government level and in the corporate and private sectors.

Understanding of current changes, the ability to accept and adapt to them will greatly contribute to the right attitude towards proactive action in all areas.

Acceptance of digital transformation and understanding its benefits, will allow using them for driving sustainable economic growth and creating value for stakeholders. This requires new mechanisms for proactive risk management, investment in cyber security, and the development and strengthening of digital skills by all members of society. Coordination of actions within national systems and at the interstate level will make it possible to mitigate the entry into new conditions without significant losses. Countries need to consolidate joint actions in the areas of scientific research, legal initiatives and advanced technological achievements, despite existing geopolitical differences and contradictions.

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