FINANCIAL SECURITY OF THE DIGITALIZATION OF HUMAN CAPITAL

Abstract. Digitalization of human capital has become a strong driving force of world society. The digital economy makes significant and profound demands on the quality of human capital.

The rapid development of digitalization of human capital requires significant financial investments. At the same time, the developed and implemented financial support mechanisms solve many problems of the development of various spheres of society. Financial provision of digitalization of human capital requires urgent development of the concept and mechanisms of financial provision of digitalization of human capital.

Purpose. Develop and substantiate the concept of financial support for the digitization of human capital, provide content for the main categories.

Institutional theory has become basic in solving a set of research tasks. A number of scientific methods were used to achieve the set goal and solve the identified tasks, which ensured the conceptual integrity of the research, in particular: structural-logical analysis and generalization, scientific abstraction, logical generalization, systematic approach and classical categorization. The information base of the research consists of scientific developments of domestic and foreign scientists, materials of scientific conferences, Internet networks, as well as the results of research prepared and conducted by the author.

In the course of the study, the "Concept of financial support for digitalization of human capital" was developed, which is represented by two components: theoretical and scientific and practical concepts.

The implementation of the developed concept will unfold the process of natural or forced accumulation of changes. This will ensure the emergence of new mechanisms, tools, methods of financing the digitization of human capital, new institutes of digitization of human capital, significant modernization of those already operating in this area with the aim of successful functioning of the system of digitization of human capital.
ФІНАНСОВЕ ЗАБЕЗПЕЧЕННЯ ЦИФРОВІЗАЦІЇ ЛЮДСЬКОГО КАПІТАЛУ

Анотація. Міцною рушійною силою світового суспільства стала цифровізація людського капіталу. Цифрова економіка висуває значні глибокі вимоги до якості людського капіталу. Стрімкий розвиток цифровізації людського капіталу потребує значних фінансових вкладень. При цьому розроблені та реалізовані механізми фінансового забезпечення вирішують багато проблем розвитку різноманітних сфер суспільства. Фінансове забезпечення цифровізації людського капіталу вимагає термінової розробки концепції та механізмів фінансового забезпечення цифровізації людського капіталу. Мета. Розробити та обґрунтувати концепцію фінансового забезпечення цифровізації людського капіталу, надати змістовність основних категорій. Інституціональна теорія стала базовою у вирішенні сукупності завдань дослідження.

Для досягнення поставленої мети, вирішення визначених завдань використано низку наукових методів, які забезпечили концептуальну цілісність дослідження, зокрема: структурно-логічний аналіз та узагальнення, наукове абстрагування, логічне узагальнення, системний підхід і класична категоризація. Інформаційну базу дослідження становлять наукові розробки вітчизняних і зарубіжних учених, матеріали наукових конференцій, мережі Інтернет, а також результати досліджень, підготовлених і проведених автором. В ході дослідження розроблено «Концепцію фінансового забезпечення цифровізації людського капіталу», яка представлена двома складовими: теоретичним та науково-практичним концептами.

Впровадження розробленої концепції розгорне процес природного або примусового накопичення змін. Це забезпечить появу нових механізмів, інструментів, методів фінансування цифровізації людського капіталу, нових інститутів цифровізації людського капіталу, істотну модернізацію вже діючих у цій сфері з метою успішного функціонування системи цифровізації людського капіталу.
Statement of the problem. The picture of peace is changing. Digitization and the digital economy, human capital, financial support of these processes and objects have become key factors in the development of world society. Recent political events and COVID-2019 contributed to the rapid development of the above-mentioned processes. The rapid development of the digitalization of human capital requires the urgent development of the concept and mechanisms of financial support for the digitalization of human capital.


Numerous studies emphasize the need for digitization of all branches of the national economy of Ukraine. So, for example, it is believed that "Modern innovation processes in the medical field are closely related to the digital transformation of this field, which is aimed at creating an interoperable ecosystem of digital health care" [1]. "Digital transformation of the economy and society plays the role of a key driver of economic development only under the condition of ensuring information and cyber security" [2]. And this applies to other directions.

In other studies, the attention of the world population is focused on the ambiguity of the impact of digitization processes on society. "In less developed countries, in particular in Ukraine, which has significant problems in the spheres of industry and innovation, the spread of digital technologies has a smaller positive impact on the environment than in more developed countries. Therefore, the long-term positive effects of digitization for Ukraine are not obvious, and the negative ones can be serious" [3].

Basic results in the study of human capital were obtained by scientists H. Becker, H. Bowen, N. Bhutoria, B. Weisborg, L. Gratton, E. Denison, J. Kendrick, J. Mintzer, L Turow, T. Schultz.

Formulation of the purpose of the article. The relevance of the above-mentioned problem provided grounds for outlining the purpose and tasks of this study. Purpose: development of the concept of financial support for digitalization of human capital. The task: to provide content for the main categories, to develop and substantiate the concept of financial support for the digitalization of human capital.

The main material of the research. Institutional theory has become basic in solving a set of research tasks. The methodological basis of the research is the institutional provisions of institutional economy, social economy, which are presented in classic and modern scientific works of domestic and foreign scientists on issues of human capital development, financial support of digitization.

A number of scientific methods were used to achieve the set goal and solve the identified tasks, which ensured the conceptual integrity of the research, in particular: structural-logical analysis and generalization, scientific abstraction, logical generalization, systematic approach and classical categorization.

The information base of the research consists of scientific developments of domestic and foreign scientists, materials of scientific conferences, Internet networks, as well as the results of research prepared and conducted by the author.

The reduction of the share of the financial sector in the global income structure has become a trend in recent years. At the same time, in the highly developed countries of the world, on the contrary, it is growing and is the main factor in the transformation of the economy. "Growth in world GDP has ensured significant progress and allowed billions of people to be freed from impoverishment to some extent" [4]. In this vein, scientists note that "implementation of financial, currency, and credit measures, adoption of changes to the legislative framework, and development of the financial security strategy of Ukraine are becoming more and more important" [5].

At the same time, the developed and implemented financial support mechanisms solve many problems of the development of various spheres of society. They lie, first of all, within the framework of state policy, which should focus not only on situational changes in the country, but also use additional resources and opportunities of modern financial instruments.

Scientists emphasize that "without adequate resource support, primarily financial" [6] development is impossible.

The rapid development of society and the prosperity of each state are possible only thanks to high-quality human capital. And if five to eight years ago the essence of the "human capital" category was hotly debated, now the situation has changed. The role of human capital in effectively ensuring the functioning of all spheres without exception is beyond doubt. Human capital is considered the basis of social, economic, and political development of both the national economy and the world as a whole.

Human capital is an invaluable resource of the state. At the same time, it requires significant capital investments and current costs - appropriate financial support. Without proper financing, the formation of competitive human capital and its successful functioning is impossible.
Scientists define human capital as an "intangible asset, which is a set of innate and acquired qualitative and quantitative properties of a person. The set of these characteristics generates, supports, ensures the growth of income (material, spiritual, physical), becomes a driving force for the development of an economic agent and proactively affects all processes in society" [7].

Such capital acts as a "driver of institutional transformations, a means of horizontal and vertical connection between elements of the national economy" [8].

The quality of life depends not only on each individual, but also on the group, team, business structure, state, world community, and world economy.

Therefore, we consider the digitalization of human capital to be a strong driving force of the world economy. The digital economy makes not just high, but significant, deep demands on the quality of human capital.

New challenges, such as the spread of COVIT-2019, the introduction and extension of martial law in Ukraine, have shown that life constantly puts difficult tasks on the path of society. They need to be solved in an optimal way.

"Ukraine remains one of the few countries that has a complete technological cycle of development and production of highly informative prospective systems" [9]. Ukraine has the potential to apply innovative technologies and digitization.

Evolutionary and revolutionary changes, in turn, contribute to the technological and digital development of human capital.

"Globalization 4.0 and the technological innovations underlying it are moving the world into a new era of development - cyber-physical systems and talent - an era that has no historical precedent in terms of scale, speed and depth of change. The latest waves of globalization and the industrial revolution bring unprecedented challenges and prospects for development, which countries, regions, companies and people should be aware of in order to respond adequately and make relevant decisions" [10]. The processes of globalization and industrialization have completely changed the life of world society and the requirements for its development.

"In the developed capitalist world, in fact, a dialectical and synergistic continuation of the spiral of industrialization takes place" [11].

The digital economy uses completely different tools compared to the analog economy. It accelerates technological processes, fundamentally changes the life of society. Therefore, it requires the formation and application of completely new concepts, mechanisms, strategies, and approaches.

"The state of war in Ukraine and, according to the forecasts of the World Bank, a significant reduction in the volume of GDP, determine the need to attract additional financial resources aimed at restoring the country's economy, which requires proper information support" [12]. The strategic vector of Ukraine is aimed at digitalization of the economy, human resources, and other objects. "The basis of the strategic course should be the implementation of the state policy aimed at choosing an innovative strategy for the structural restructuring of the economy of Ukraine. This strategy will require the use of domestic scientific and technical potential and will make its contribution to the innovative development of the national economy decisive" [13].
The state plays a significant role in promoting the digitization of all spheres without exception. "The digitalization of the economy requires effective state regulation and support, the mechanisms and tools of which must be developed in accordance with the current conditions of the digitalization environment by determining the appropriate stimulating factors" [14].

Now it mostly happens in a chaotic, disorganized manner. This case requires normalization, legal definition, state regulation.

The scientists established "that most of the priority directions of the development of the digital economy are in the stage of formation and are not ready for a mass transition to their use. In particular, there is still a significant inequality of access to digital services, the system of training digital competences is not regulated, the system of forming digital jobs is almost undeveloped, there are gaps in digital services of public safety, the issue of nationwide educational platforms is unresolved, the system for providing remote medical services has not been formed, the procedure for accounting for tourist migration, providing remote financial services, etc., has not been regulated" [15].

Undoubtedly, the scientific basis is the theoretical platform for the practical application of digitization and the mechanisms of its financial support. "The development of an innovative field of scientific research — "digital humanities" — integrates the methodological apparatus and develops the potential of the humanities and technical sciences under the condition of their effective interaction" [16].

Scientists have argued that "the digital era changes the paradigm of development of modern economic systems, which in turn causes institutional shifts in the economy, which manifests itself in the achievement of peak indicators of innovative development" [17]. The depth of changes brought about by digitalization is manifested through their diverse direction and multifaceted nature. And one of the significant trends is the natural emergence and forced creation of new institutes and institutions. The study of these general and specific formations in the process of digitalization requires new research.

G. Kalach notes that "The digital technological revolution has an extremely high speed of diffusion of innovations, it completely changes not only everyday life, but also the relationship between sellers and consumers of financial services" [18].

Digitization completely transforms the structure of the analog economy. Digitalization in general, and digitalization of human capital, is based, first of all, on intellectual capital. It has become the cornerstone of the digital economy.

Scientists rightly note the negative aspects of digitization in general. "Transformation can also have devastating consequences for markets that are unable to adapt to new technologies" [18].

In Ukraine, researchers assess the state of digitization as "the average level of the environment of digital technologies. In order to promote the progress of digitization of the economy, they propose the implementation of "measures regarding the development of the appropriate infrastructure and organizational and institutional support for the implementation of the policy of digitization of the
economic system and society" [14]. Digitization implies the complexity of networks, the intensity of information that moves through these networks. This provokes systemic risks in the global financial system. The list of risks can include: increased financial instability, non-compliance of existing institutions with the new requirements of the digital economy, inability of these institutions to adequately respond and regulate the activities of global financial systems.

In addition, this stage of the development of society is inhibited due to a number of factors, including those related to digitalization:

1) There is no understanding of the content of digitalization categories;
2) Lack of understanding of the significance of digitization for the global community, individual countries, and the growth of the quality of human capital;
3) Insufficient coverage of the positive aspects and problems of digitization;
4) Low awareness of the world community, the population;
5) Weak and insufficient legislative framework;
6) Lack of legal, financial and tax concepts, strategies, mechanisms for support and development of digitalization;
7) Lack of theoretical scientific basis;
8) Lack of highly specialized specialists in digitalization issues;
9) Undefined mechanism of compliance and protection of copyright in matters of digitization;
10) Non-compliance of existing institutions with the new requirements of the digital economy;
11) Insufficient development of mobile applications;
12) Misunderstanding by the world community of the need for capital investments in digitization.

Researchers identify a number of the following trends in Ukraine in general: "unstable dynamics and a significant discrepancy between technological sectors, a decrease in the knowledge intensity of innovative products, low efficiency of investment in innovation in most industries, a tendency to primitivize innovative activity in industry" [19].

The above factors largely relate to the digitalization of human capital. Human capital has always claimed significant attention and sufficient amounts of funding. Digitization of human capital requires at this stage of the development of the digital economy a general concept of financial support for digitalization of human capital, as well as effective mechanisms for financial support for digitalization of human capital.

It is possible to compensate for the lack of sufficient financing of the digitization of activities by the state with non-traditional methods of financing.

Categorical, legislative, and legal definitions are insufficient in this area. Therefore, it is necessary to indicate the content of the categories.

We define financial support for the digitalization of human capital as providing financial capacity based on the involvement of principles, methods, mechanisms, tools, levers, and means of influencing the financial state of the
digitalization of human capital for the purpose of its successful functioning.

The above-grounded provisions provided grounds for developing the concept of financial support for digitalization of human capital. In the course of the study, the "Concept of financial support for digitalization of human capital" was developed (Fig. 1).

**Fig. 1. The concept of financial support for digitalization of human capital**
The implementation of this concept will unfold the process of natural or forced accumulation of changes, which will ensure the emergence of new mechanisms, tools, methods of financial support for the digitization of human capital, new institutions for the digitization of human capital, significant modernization of those already operating in this area with the aim of the successful functioning of the system of digitization of human capital.

The architecture of the concept of financial support for digitalization of human capital is represented by the following two components: theoretical and scientific and practical concepts. The basic core is the construction of a theoretical basis by forming a research methodology, defining the object, subject, main categories, and principles. The block of the scientific and practical concept represents methods in accordance with the structure of the digital economy, mechanisms of financial support and financial policy, levers and means of influence on financial support, tools for practical implementation of financial support for digitalization of human capital.

The concept provides the principles of financial support for the digitization of human capital, which ensure the formation of civilized economic relations in society and provide an impetus for economic growth and the improvement of the well-being of the world community: unity and coherence of the financial support system, data reliability, effective and economical use, constructive interaction of owners and consumers of financial resources, objectivity and goal setting, effectiveness and efficiency, prioritization and situation, competence, comprehensiveness, continuity, transparency and legality. The formation of the concept is based on the institutional paradigm, which includes general worldview principles, value attitudes, the nature of the interaction between the object and the subject, the subject of knowledge, the way of thinking, the selection of existing and the formation of new institutions and institutions. "Existing traditions and customs are the institutional basis for the preservation of traditional relations, which are based on the usual system of values and motivation of the activities of individuals" [20].

The development of the scientific and practical concept has a stimulating effect on the financial support of digitalization of human capital, but at the same time it is restrained by a system of restrictions, control and punishments from the defined principles of the theoretical concept.

The theoretical concept presents two parallel methods that correspond to the structure of the digital economy: 1) government reforms with the aim of reshaping the structure of the economy – authorities carry out reforms based on the development and implementation of formal rules; 2) creation of new institutions and institutions of the digital economy.

After choosing the method, appropriate mechanisms of financial support, financial policy of digitalization of human capital are applied, which connect other meaningful parts and ensure their interaction. The purpose of the concept is realized
through the functioning of these financial policy mechanisms. The practical implementation of the concept takes place through the implementation of relevant tools through the implementation of measures in all sectors.

Conclusions. Thus, it was determined that the rapid development of the digitalization of human capital requires the urgent development of the concept and mechanisms of financial support for the digitalization of human capital. The content of the category "the concept of financial support for digitalization of human capital" is given. The concept of financial support for digitalization of human capital has been developed and substantiated. It was found that the theoretical platform for the practical application of digitization and the mechanisms of its financial support is the scientific basis. The implementation of the developed concept will unfold the process of natural or forced accumulation of changes. This will ensure the emergence of new mechanisms, tools, methods of financial support for digitalization of human capital, new institutes of digitalization of human capital, significant modernization of those already operating in this area with the aim of successful functioning of the system of digitalization of human capital. The concept of financial support for digitalization of human capital is represented by two important components: theoretical and scientific and practical concepts.

References:


Література:


