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THE IMPACT OF DIGITALISATION ON CHANGING FORMS OF ECONOMIC RELATIONS

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Abstract. The *article is aimed* at identifying, systematising and characterising new forms of economic relations arising in the digital economy in the process of production, distribution, redistribution, exchange and consumption of goods and services based on the use of technological, production, organisational and managerial innovations, and also at defining the main directions of the State policy and corporate sector policy aimed at their further development. *Methodology*. The theoretical provisions relating to the processes of digital transformation of the economy and society, as well as the disclosure of the content of the objective prerequisites for the emergence of new forms of economic relations in the digital economy, are highlighted on the basis of creative development of the conceptual provisions of the theories of digital and technological development. The study of the content and peculiarities of manifestation of certain forms of economic relations is carried out on the basis of an integrated application of the methods of systematic and comparative analysis, generalisation, systematisation, classification, formal logic, expert assessments and forecasting. *Results*. The study identifies and summarises the main factors contributing to the emergence and development of new forms of economic relations in the context of digital transformations. It has been proved that a characteristic feature of the modern system of economic relations is its innovative and transformational nature, formed due to the widespread use of modern digital technologies. The article identifies and characterises new organisational forms and types of business models of enterprises, changes in the organisation of production process management, distribution of material and financial resources, exchange of goods and services and the nature of final consumption. The author identifies and systematises changes in labour relations and employment structure that occur due to automation, robotisation and digitalisation of production processes. The paper reveals the content and features of the formation of new types of monopolies, describes the main objects of digital competition, as well as new forms of mergers and acquisitions in the digital economy. The main directions of strengthening the social responsibility of business are identified and approaches that contribute to the further development of the system of economic relations are summarised. *Practical implications*. Based on the results obtained, the article identifies the main areas of digital development of the economy, production activities, resource allocation, exchange, consumption of goods and services, and labour relations that require priority support and incentives from both the state and the corporate sector, which allowed the author to propose specific measures for the development of new forms of economic relations through the development of appropriate regulatory mechanisms. *Value / Originality*. The proposed measures to stimulate the development of new forms of economic relations in the context of deepening digital transformations will facilitate the development and implementation of appropriate state and corporate sector policies aimed at introducing digital technologies into production and social processes, increasing the efficiency of companies, accelerating social development, ensuring a high level of economic competitiveness, social stability and digital sovereignty.

Keywords: digital transformation, digital development, digital technologies, digital company, digital business model, digital industry, digital assets, economic relations.

JEL Classification: E02, M11, M15

1. Introduction

The digital transformation of various economic sectors, areas of activity, institutions and people's daily lives has become a characteristic feature of the development of modern society. The use of digital technologies, which provide a high level of automation, robotics and the functioning of intellectual and cyber-physical systems, significantly changes the nature

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of production, its organisation and management, increases labour productivity, changes social communications and human communication, which ultimately contributes to the democratisation of the economy and all spheres of public life.

As a result of the implementation of comprehensive technical and technological digital innovations, the organisational forms and business models of enterprises are undergoing transformation, alongside the methods of organising and managing production and human resources. New forms of ownership are emerging, including various crypto-assets and virtual property. The importance of intellectual property is increasing, the nature of monopolies is evolving, and the conditions of competition between digital and traditional companies and business models are changing. These changes are determined not only by the ability to adopt modern digital technologies, but also by the capacity to accumulate and efficiently utilise large volumes of data, as well as the ability to maintain resilience in the face of uncertainty and constant change.

Along with significant changes in the technical and technological characteristics of production processes, the level of digitalisation of which is constantly increasing, there are fundamental changes in economic relations between people in the process of production, resource allocation, exchange and final consumption of material goods and services, as well as in labour relations between owners, managers and employees, which raises a number of ethical and social issues and requires comprehensive interdisciplinary research.

Changes in the forms and nature of economic and labour relations have a reverse effect on the production process itself, its organisation and management, as well as on the functioning of digital institutions, which necessitates increased attention from company executives and other participants in production and labour processes to the establishment and development of new forms of human relations in order to direct their functioning in the right direction in order to accelerate socio-economic development and ensure stability in society.

Therefore, the purpose of this article is to identify, systematise and characterise the new forms of economic relations arising in the digital economy in the process of production, distribution, redistribution, exchange and consumption of goods and services based on the use of technological, production, organisational and managerial innovations, and also to identify the main directions of the State policy and corporate sector policy aimed at their further development.

2. Prerequisites for the Formation of New Forms of Economic Relations

The system of economic relations, as a set of human interactions in the process of creating, distributing, exchanging and consuming public goods, is determined by the level of development of science, technology and the productive forces of society as a whole (Heyets, 2025). The main factors that contribute to the emergence of new forms of economic relations are digital technologies integrated into innovative ecosystems, as well as the economic, political and socio-cultural conditions in which the economic system and society operate. Therefore, a special feature of the modern system of economic relations is its innovative and transformational nature, which leads to changes in the structure of production, market structure, forms of management, and the nature of labour relations; and increases the level of social responsibility of business.

The most significant influence on the transformation of economic relations stems from the use of technologies and innovations within production processes such as the Industrial Internet of Things, mobile and cloud technologies, artificial intelligence technologies, blockchain, digital twins, additive manufacturing, augmented and virtual reality technologies, as well as modern cybersecurity technologies. Their systemic integration shapes the productive forces and production relations characteristic of the digital economy, enabling the intensification of production, optimisation of production and management processes, improvement of labour productivity, substantial reduction of material, financial, and labour costs, and enhancement of working conditions and occupational safety, all of which ultimately increase production efficiency and the competitiveness of the national economy (Mishchenko et al., 2021).

In the digital economy, new forms of ownership are emerging, in particular for digital assets and virtual property objects, which determine the processes of forming economic relations in the virtual world, the need for copyright protection, in particular in artificial intelligence systems, decentralised ownership systems are starting to function, allowing business transactions to be carried out without the participation of intermediaries, and access to and exchange of data is significantly simplified (Mishchenko, Naumenkova, 2021).

The processes of digital transformation are leading to the emergence of new organisational forms of enterprises: smart factories, digital platforms, digital enterprises, startups, digital exchanges, virtual companies, digital agencies, data centres, cyber security

companies, etc., which are closely interconnected by production and technological links, allowing for the formation of certain digital ecosystems, the functioning of which fundamentally changes the nature of interaction between the participants in the production process. New types of business models are emerging, such as the platform model, e-commerce model, shared consumption model, data model, direct sales model, subscription model, freemium model, crowdfunding model, licensing model, and others. The use of intelligent systems and artificial intelligence technologies in new business models allows automating and optimising production processes, provides automatic data collection, speeds up product design and testing, significantly reduces material, financial and labour costs, facilitates more informed production, organisational and management decisions, and improves working conditions and safety (Tishchenko, 2019).

The forms of operation and organisational forms of existing companies are changing significantly. For example, in the banking sector, due to increased competition with non-bank financial institutions, new business models of digital banks have emerged, often operating as technology companies, providing their clients with administrative, tax, accounting, analytical and other services supporting financial services and payments on a single platform. Management of such banks is carried out using artificial intelligence systems, making them significantly more efficient compared to traditional institutions. In the medium term, network-based financial platforms that are large digital holding companies capable of providing comprehensive financial services both in the physical world and in the virtual economy may become the primary model of client financial servicing (Mishchenko et al., 2025).

By creating new types of intelligent, modular and cyber-physical systems, the use of digital technologies facilitates the emergence and development of new types of economy (distributed, virtual, data economy, gig economy, sharing economy, digital gaming industry) and new markets (cryptocurrencies, cryptoassets, data, digital commerce, decentralised markets for certain goods, services and assets) that could not have emerged in the pre-digital economic system.

The digital economy is also characterised by the emergence of new types of monopolies, such as those based on networks, innovation ecosystems, software, hardware, data, intellectual property, digital goods and services, digital assets, and content, which significantly changes the forms and nature of competition and may adversely affect the digital sovereignty of individual countries. Competition between digital companies significantly affects the nature of their mergers and acquisitions. Alongside traditional types of M&A transactions, new forms of mergers are becoming more common to acquire innovative technologies or intellectual property, expand access to data and analytical tools, improve data-driven marketing strategies, and consolidate high-tech resources and intellectual potential.

In the author's view, the main problems that may hinder the development of the digitalisation of the economy and society, as well as the emergence of new forms of economic relations, include the following:

– High rates of innovation development, resulting in businesses and citizens not being able to obtain the necessary knowledge and skills to use them effectively in a timely manner.
– The need for significant investments in the development and implementation of new technologies.
– Rapid obsolescence of technologies, which requires constant renewal of production capacity and talent.
– Insufficient legislative and regulatory regulation of the processes of developing and using digital technologies, which can create uncertainties in the digital environment and ethical problems (Tishchenko, Savchenko & Shostak, 2024).
– High energy intensity of digital technologies. For example, in the United States, data centres alone currently consume about 3-4% of all electricity produced, and in 2030 this figure could increase to 11-12% (Noffsinger, 2025).
– Reduction of jobs or even the disappearance of certain professions due to automation, robotics and the use of artificial intelligence, which may cause certain ethical, social and economic problems. It is worth noting that such a reduction in the number of employees, on the one hand, helps to reduce labour costs for companies, but on the other hand, leads to an increase in unemployment and the need for employees to acquire new professions or qualifications that require certain investments. If upskilling and retraining of employees is carried out at the expense of the company, the additional costs may exceed the savings.
– The emergence of digital divides between individual countries, businesses, and population groups, growing economic inequality, and the threat of "energy poverty" (Naumenkova et al., 2024).
– Lack of clear approaches to the tax administration of crypto assets.
– The emergence of cyber threats and digital risks that may pose a threat to the rights and freedoms of citizens.
– Increased digital protectionism by individual countries and large tech companies to control the markets for data, digital services, etc. (e.g., regulatory restrictions on data exchange, taxation of certain digital goods and services, and so forth).

Solving these problems requires the development and implementation of appropriate government and corporate policies and mechanisms that will help

ensure equal access to digital technologies, more reliable, secure and efficient implementation and use of digital technologies, achieve sustainable economic development and increase national competitiveness.

3. Characteristics of New Forms of Economic Relations

Due to the use of intelligent production systems, digital production, digital platforms and digital interaction of society members, as well as the transformation of data and information into a strategic asset, economic relations are becoming more dynamic, flexible, transparent, often mediated by remote or virtual interaction, which requires a high level of skill, coordination and responsibility from participants in the process of social production, distribution, redistribution, appropriation, exchange and consumption.

Economic relations in the field of goods production and service provision are characterized by the intellectualization of labour and management processes through the combination of human and cyber-machine capabilities, an increased level of coordination and interaction between enterprises across production, supply, and distribution chains, the emergence of new forms of labour organisation, expanded co-operation among employees from different departments or sectors, simplified interaction between executives and staff, the strengthening of employee control functions, as well as the rise of labour relations such as remote and project-based work, freelancing, co-operative and hybrid employment models. These developments require workers to have higher qualifications, digital skills, and the ability to rapidly adapt to new technologies, changes in working conditions, and evolving market demands.

New forms of economic relations in the distribution of material resources include the use of digital networks and platforms for network distribution; the use of algorithmic distribution based on artificial intelligence technologies; and the operation of decentralised platforms and networks that use blockchain technology, which allows all participants to safely and securely conduct transactions and store their assets; the functioning of collaborative platforms that involve the sharing of resources; the use of cloud platforms for the secure storage and constant access of employees to data and information; free content creation on crowdsourcing platforms; the use of social investment platforms; the operation of digital online markets for goods, services and assets, etc.

New forms of relations in the distribution of financial resources, which ensure the effective redistribution of financial resources and income among members of society, are associated with the activities of digital banks, fintech companies, digital payment systems, online insurance platforms, cryptocurrency exchanges, etc. that provide quick access to financial resources through mobile applications and web platforms, which increases the level of financial inclusion; the functioning of decentralised financial markets that operate without the participation of traditional financial intermediaries and distribute financial resources using blockchain technologies; the operation of crowdfunding and crowdinvesting platforms that accumulate funds from small private investors to implement their projects; peer-to-peer lending platforms and social platforms for raising and distributing funds for charity; the use of robo-advisors that can provide qualified investment advisory services (Naumenkova et al., 2023; Varela et al., 2023).

The emergence of new forms of economic relations in the field of exchange is associated with the development of e-commerce and digital financial services markets, the creation of online stores and online platforms that change traditional relationships between people in the exchange of goods and services and allow for transparency of transactions, simplify customs procedures, detect illegal transactions, reduce logistical and commercial risks; the use of service exchange platforms and marketplaces for the sale and exchange of goods without the involvement of intermediaries; the operation of customer loyalty systems; provision of a wide range of digital financial services based on mobile applications and online digital payment platforms in real time; crowdsourcing of content based on open invitations, use of review and rating platforms, etc., which allows for the intensification of the exchange and consumption of goods and services.

New economic relations between people in the process of final consumption of goods and services are characterised by a change in consumer behaviour and the added value they receive from digital forms of consumption, which are associated with the ability to conveniently and securely purchase a wide range of goods and services through online stores and e-commerce platforms, make online orders and receive a wide range of goods and services by delivery or subscription; the use of collabourative consumption platforms, which allows users to significantly reduce their consumer spending; the availability of a wide range of digital financial services that can be accessed online (e.g., mobile payments, online banking, financial advice, digital wallets, currency conversion, purchase of financial assets); the ability to receive personalised advice, educational and medical services online, as well as recommendations and offers that meet individual consumer needs and requirements; personalisation of customer service through the creation of personalised products and services and the development of digital self-service systems;

increased transparency and reliability of transactions, as well as a high level of data and asset protection (Mishchenko et al., 2022).

The emergence of new forms of economic relations is closely linked to socio-economic changes, the emergence of new professions, the introduction of ethical principles of digital technologies, changes in the structure of employment, education, social communications, and contributes to economic growth and improving the standard of living of citizens. The importance of engineering professions is growing significantly, and there is a need for specialists in the field of regulatory compliance and ethics in the use of digital technologies, especially artificial intelligence, as well as the need for ongoing training of employees in the correct and effective use of gen AI capabilities.

The need to develop and support new forms of economic and labour relations places new demands on both company executives and employees. Leaders must have strategic digital thinking, provide innovative leadership in the face of constant change, understand current trends and the impact of digital technologies on business processes, maintain an innovative culture, and have the skills to effectively manage change to adapt their company to new conditions. Employees must be digital savvy, able to use digital tools, interact effectively with colleagues and partners, have analytical skills, and use digital learning and retraining opportunities.

In the digital economy, business social responsibility is taking on new features, including the need to support the development of new technologies, overcome energy poverty, ensure fair and safe working conditions, develop professional skills and improve the qualifications of employees, support their health and well-being, as well as implement social programmes and help vulnerable groups of the population.

In the context of Ukraine, the study of digital transformation processes and the development of new forms of economic relations acquires particular significance due to the need to ensure effective post-war economic recovery, the ethical use of modern digital technologies, equitable access to technologies, and the reduction of digital divides. This should be achieved through the development of a national system of standards for the implementation and use of digital technologies, the improvement of mechanisms for regulating digital markets, the strengthening of the domestic innovation ecosystem, and the support of the country's digital sovereignty (Grytsenko et al., 2024).

4. Conclusions

The analysis of the conditions of emergence and forms of manifestation of new economic relations between people in the process of production, distribution, exchange and consumption of material goods and services in the digital economy shows the high dynamics of this process and its innovative and transformational nature, which, according to the feedback principle, has a significant positive impact on the development of the economy and society. The emergence and development of new forms of economic relations transform the economic system and market structure, facilitate the simplification of business conditions, change the nature of labour processes and employment conditions, methods of production and management organisation, and increase labour productivity and production efficiency.

At the same time, digital transformation is leading to increased monopolisation of certain markets that are most sensitive to the use of digital products and assets, increased competition, growing digital inequality, and ethical issues related to the use of artificial intelligence, information privacy, cyber threats, and cyber risks, which requires the development and implementation of adequate policies to counter these negative phenomena.

The need to support and develop new forms of economic relations requires addressing a range of issues related to ensuring the effective regulation of the processes of developing, implementing, and ethically using digital technologies, improving the management of risks associated with the use of generative AI, regulating platform activities and platform-based employment, creating safe working conditions, protecting personal data, reducing digital divides, and enhancing the taxation of cryptoasset operations, among others. These efforts will contribute to sustainable and secure economic development as well as the support of digital and technological sovereignty.

Prospects for further research into the processes of formation and development of new forms of economic relations in the digital economy should include an assessment of their potential impact on ensuring effective socio-economic development, as well as substantiation of adequate mechanisms to stimulate the processes of digital transformation.

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