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FLEXIBILITY AS AN ESSENTIAL FORM OF LABOUR MARKET IN DIGITAL ECONOMY

ГНУЧКІСТЬ ЯК КЛЮЧОВА ФОРМА РИНКУ ПРАЦІ В УМОВАХ ЦИФРОВОЇ ЕКОНОМІКИ

Chatchenko Taras
PhD Student,
V.N. Karazin Kharkiv National Universit
ORCID: https://orcid.org/0009-0006-3272-8348
Gritsenko Andrii
Doctor of Economics, Professor,
Academician of the National Academy of Sciences of Ukraine,
V.N. Karazin Kharkiv National University
ORCID: https://orcid.org/0000-0002-5030-864X

Чатченко Тарас Юрійович, Гриценко Андрій Андрійович
Харківський національний університет імені В.Н. Каразіна

This article explores the impact of digitalization on the labor market within the context of a transforming economy. The purpose of this research is to investigate how digital tools and systems redefine workforce organization, skill relevance, and economic productivity. The results reveal a significant shift from manual and routine labor toward knowledge-intensive, high-skilled positions. Technologies such as automation, artificial intelligence, cloud computing, and platform work are considered as providers of s new forms of employment, such as platform-based work and remote collaboration. Flexibility as a fundamental feature of contemporary labor relations, influencing job types, work schedules, remuneration systems, mobility, and organizational design is analaused and investigated. The practical insights for policymakers, employers, and educators in developing digital competencies and inclusive, future-ready labor systems are offered.

Key words: digitalization, labor market, flexibility, labor relations, digital competencies.

Стаття присвячена аналізу впливу цифровізації на ринок праці в умовах трансформаційної економіки. Актуальність теми зумовлена зростанням ролі цифрових технологій у зміні структури зайнятості та вимог до кваліфікації. Цифрові інструменти дедалі більше впливають на всі сфери життя, тому здатність ринку праці адаптуватися до цих змін є ключовою передумовою сталого економічного розвитку. Мета дослідження полягає в аналізі того, як цифровізація змінює попит на працю як у кількісному, так і якісному аспектах. Методологія базується на порівняльному аналізі та синтезі класичних і сучасних економічних теорій, що стосуються створення вартості, продуктивності та трансформації ролей працівників. За допомогою дедуктивного підходу встановлено наслідки змін, спричинених цифровими інноваціями. Розглянуто основні зміни у вимогах до професійних компетентностей, форми зайнятості та організації праці. Підкреслюється зростання попиту на висококваліфікованих працівників, здатних адаптуватися до цифрових інновацій. Окрема увага приділена гнучкості як ключовому інструменту взаємодії між роботодавцями та працівниками. Результати свідчать про зсув від ручної та рутинної праці до знаннєво-інтенсивної та висококваліфікованої зайнятості. Автоматизація, штучний інтелект і хмарні технології зменшують потребу в простих завданнях, натомість зростає цінність творчих і когнітивних навичок. Платформена праця та віддалена співпраця змінюють традиційні організаційні структури. Гнучкість набуває особливої ваги в сучасних трудових відносинах: це стосується форм зайнятості, графіків, оплати, мобільності й організації праці. Запропоновано класифікацію видів гнучкості, що формують сучасні трудові відносини. Зроблено висновок про необхідність подальших досліджень з урахуванням глобальних цифрових тенденцій Практичне значення статті полягає у формулюванні рекомендацій для державних органів, роботодавців і освітян щодо розвитку цифрових компетентностей і стратегічного планування в умовах цифрової трансформації ринку праці.

Ключові слова: цифровізація, ринок праці, гнучкість, трудові відносини, цифрові компетентності.

Statement of the problem. Digitalization is profoundly affecting all aspects of life, transforming businesses and the labor market. Economies in underdeveloped countries often lack sufficient capacity to convert digital intelligence into business opportunities and utilize it for economic and social development. The digital transformation of society and the economy is changing human interaction, as evidenced by various digital transformations and the exponential growth in machine-readable information, or digital data, on the Internet [15]. These transformations are central to technologies such as cloud computing, data analytics, the Internet of Things, artificial intelligence, and other Internet–based services, all of which are considered fundamental economic resources. The COVID-19 pandemic significantly accelerated digitalization processes, resulting in a broader engagement of people in both business and non-business activities via online platforms [8; 12]. Digital data flows offer numerous benefits and contribute to addressing domestic and international challenges related to development goals.

Analysis of recent research and publications. Theories of value and production traditionally focus on the allocation of a given amount of employed resources among various uses, considering their quantity and relative remuneration in the broader economic context. Contemporary approaches to value and production increasingly emphasize the transformative impact of digital technologies on the structure of production, employment, and value creation. raditional theories – rooted in classical (Smith, Marx) and neoclassical (Marshall, Walras) economics – conceptualized value primarily as a function of labor, capital, and land inputs. However, in the digital economy, value formation centers around intangible assets such as data, algorithms, and digital platforms as foundational infrastructures [7; 14].

Digitalization has shifted production paradigms from labor-intensive to highly automated and algorithm-driven systems, with big data analytics and cloud computing playing pivotal roles [15]. As Arntz, Gregory, and Zierahn highlight, automation disproportionately affects routine jobs, while simultaneously increasing demand for highly skilled workers possessing flexible digital competencies[2].

These developments necessitate a redefinition of labor value beyond quantitative inputs, focusing instead on workers' adaptability, capacity to collaborate with intelligent systems, and ability to generate added value through creativity and interdisciplinarity [11; 12]. Hence, modern value theories incorporate not only traditional production factors but also cognitive and innovative human capital as critical drivers of sustainable competitive advantage.

Highlighting previously unresolved parts of the overall problem. This research draws from classical economic theories and integrates them with contemporary approaches in the era of digital technologies. One of the most strategic challenges in today's labor market is the increasing demand for highly qualified personnel. The proliferation of IT technologies across all life domains has introduced new requirements for specific skills among graduates. Consequently, employers must adopt greater flexibility in response to the evolving working conditions brought about by the implementation of digital technologies.

Formation of the objectives of the article (task statement). Digitalization has significantly influenced the labor market by altering the demand for both the quality and quantity of labor. A considerable portion of work can now be executed with minimal or no human involvement. This trend is not entirely new; during the industrial revolution, simple, repetitive tasks were also automated, leading to concerns about a reduced demand for labor and consumption [11].

Digital technologies now offer unprecedented capabilities. Modern employees require more advanced technical skills to operate and maintain new applications. Digitalization enhances employee efficiency and has transformed the work process through improved online communication, information sharing, and technical process management. Consequently, while fewer workers are needed, the demand for more qualified personnel has grown, as digitalization typically replaces only simple tasks [1].

Moreover, digitalization has introduced new forms of employment. Individuals now face new skill requirements in emerging fields such as data analysis, web development, commercial analysis, customer support, and social media management. It also enables companies to address customer needs more effectively by developing increasingly complex goods and services. These new job roles necessitate specific competencies and the use of specialized applications tailored for client-oriented services.

In essence, digitalization extends its influence across the labor market, integrating specialized approaches into everyday work. One of its most

critical features is the flexibility it offers at all stages of work [6].

Summary of the main research material. Although the core organization and allocation of personnel and work processes have not drastically changed, digitalization has altered the nature of human interaction in these processes. It has influenced the types and locations of workplaces. Many professionals now work externally due to digital transformations, which have reshaped entire industries and organizations. Collaboration between workers and enterprises often occurs directly through platforms, eliminating the need for traditional intermediaries.

According to post-industrial theories, digital processes in society are highly effective in generating new labor market opportunities. If economic science can distinguish strategic planning phenomena at various stages of economic transformation, it must acknowledge that modern digital progress has real transformational economic effects.

Classical economic theories describe the labor supply using two foundational postulates:

– Wages are equal to the marginal product of labor.

– The utility of wages at a given level of employment is equal to the marginal disutility of that employment level [9, p. 11].

Digitalization has transformed industrial relations and work coordination. It has altered employer-employee relationships, introducing new forms of social bargaining and management. Flexibility, the main tool of digitalization, improves employer-worker interactions and facilitates more efficient, productive communication. It also enhances workplace adaptability, offering benefits such as increased productivity.

The most prominent result of increased workplace flexibility is the diminished importance of physical location, which reduces office rent and utility costs [13]. Working hours have become more flexible; employees can now work at any time or place, fostering global interconnectivity and enabling the establishment of international branches. The forms / criteria of flexibility are defined also very variable. We try to accentuate the most widely accepted ones.

Common forms of flexibility include:

Flexibility of Employment Possibilities: Employers and employees now have diverse hiring options. The labor market is expanding, necessitating continuous development of skills and new employment approaches.

Corporate Flexibility: Enterprises and their leaders manage internal workflows by flexibly assigning tasks, ensuring efficiency, updating processes, fostering inclusive corporate cultures, and maintaining gender equality.

Working Time and Work Scheldues Flexibility: This is the most requested form or flexibility. Digitalization enables employees to perform tasks at times that suit them best, enhancing productivity and supporting a better work – life balance. It also facilitates the portability of rights and entitlements, making job transitions smoother. Moreover, it allows workers to better meet family needs while maintaining access to benefits, thereby supporting greater mobility between jobs.

Real Labor Cost Flexibility / Wage Flexibility: Macroeconomic theory suggests that total real labor costs are flexible. These costs must be monitored to align salary levels with macroeconomic variables, requiring continuous analysis across sectors [10; 13].

Occupational Flexibility (Mobility): This concerns an employee's ability to adapt to changes, including transitioning from low-skilled jobs to new careers through retraining [13].

Workplace Flexibility: Businesses can reduce office maintenance costs, as digitalization enables remote work arrangements, provided tasks are completed efficiently and punctually. This adaptability is key to managing change.

Enterprises typically coordinate their activities following hierarchical directives, which incur various managerial expenses [5; 16]. However, digitalization can significantly reduce coordination costs by enhancing communication and organization across distances [3]. It eliminates geographic barriers, lowers recruitment costs, and induces major transformations in workplace structure and specialization.

Digital transformation often replaces labor – intensive roles with capital – intensive solutions, reallocating tasks between humans and machines (or software), both within companies and across sectors [2]. It also enables systematic monitoring and the adoption of new management strategies, further expanding collaboration possibilities.Digitalization inevitably leads to the creation and destruction of jobs. A comparison with the industrial revolution reveals that shifts in consumer preferences and consumption processes have also reshaped labor supply and demand [8].

New technologies have an ambiguous impact on existing products and services. While they boost productivity, they can also reduce

workforce requirements. The ultimate effects on prices and consumption remain uncertain [14].

Conclusions. The digitalization of the labor sector is a key priority for policymakers in modern economies, as a digitally driven economy requires a workforce equipped with relevant digital skills. New initiatives are being implemented to support individuals in developing their careers and to foster broader participation in the digital society. This shift highlights the ongoing need to continually update economic theories and methodological approaches to keep pace with rapid technological and social change.

Flexibility plays a crucial role in adapting work processes to the conditions of the digital market. It affects all aspects of labor, both within traditional business environments and across emerging workspaces. Economic relationships – particularly those between employers and employees – must embrace both existing and innovative forms of flexibility to maintain balance and competitiveness in the future labor market.

Given current global economic trends, it is clear that further research is essential to understand and respond to these dynamic transformations. Analyzing the implications of digitalization, workforce flexibility, and evolving economic structures will help build more resilient and inclusive economic models for the future.

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