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THE IMPACT OF DIGITALIZATION ON THE FINANCIAL AND ECONOMIC SECURITY OF ENTERPRISES AND NATIONAL SECURITY OF THE STATE

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Key words:

digitalization, technology, society, enterprise economy, financial and economic security, national security, innovative changes, cybersecurity, social impact.

The article substantiates the expediency of the economy's transition to modern innovative digital technologies, since their implementation has a positive impact on the efficiency of business entities, business development, financial, economic and national security of Ukraine. It is noted that digitalization significantly transforms the functioning of enterprises, and its impact is felt at the level of financial, economic and national security of the State. It is proved that digital technologies not only accelerate and optimize economic processes, but also create new opportunities and challenges. It is noted that an important aspect is to understand the positive impact on enterprises and national security, which makes the study of digitalization an urgent task. Various aspects of the impact of digitalization on the financial, economic and national security of Ukraine are considered in detail. In particular, the educational aspect, cybersecurity, improved cooperation with the government, cost and risk analysis, increased competitiveness and innovation, and social impact. It is noted that digitalization brings important benefits, but also brings risks. In particular, the author considers the issues of cybersecurity and the disadvantages that may arise from untimely or inadequate implementation of digital technologies. The theoretical and methodological approaches to establishing relationships between the processes of digitization of the economy, cyber security, financial and economic and national security through the prism of reforming the educational component and introducing innovations into this process have been expanded. It is determined that such a combination allows not only to identify the risks of reducing the efficiency of business entities, but also to increase labor productivity, profitability, competitiveness, products, enterprises and the economy on the basis of the introduction of digital innovations. It is the use of digital technologies that provides access to new financial instruments, which will ensure business transparency and the possibility of obtaining investments in the innovative development of all spheres of activity and the economy as a whole, which will have a positive impact on the financial and economic security of business entities and the national security of Ukraine. It is proved that in the context of globalization and internationalization of business, the introduction of digital technologies allows not only business entities to gain competitive advantages, but also employees in the field of information technology and innovation. The introduction of digital technologies contributes to the development of national education, and also provides access to additional competencies domestic students and scientists in higher education institutions of other countries, which will have a positive impact on socio-economic security in the country. It is substantiated that digitalization provides advantages in the field of cybersecurity and ensures the availability of cooperation between citizens and society with the government in order to formulate an investment strategy, a strategy for cyber security of digital assets, and to reduce cyber espionage, which will have a positive impact on international cooperation.

ВПЛИВ ЦИФРОВІЗАЦІЇ НА ФІНАНСОВО-ЕКОНОМІЧНУ БЕЗПЕКУ ПІДПРИЄМСТВ ТА НАЦІОНАЛЬНУ БЕЗПЕКУ ДЕРЖАВИ

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Ключові слова:

цифровізація, технології, суспільство, економіка підприємства, фінансово-економічна безпека, національна безпека, інноваційні зміни, кібербезпека, соціальний вплив.

Обґрунтовано доцільність переходу економіки на сучасні інноваційні цифрові технології, оскільки їх впровадження позитивно впливає на ефективність діяльності суб'єктів господарювання, розвиток бізнесу, фінансово-економічну та національну безпеку України. Зазначено, що цифровізація суттєво трансформує функціонування підприємств, а її вплив відчутний на рівні фінансово-економічної та національної безпеки держави. Доведено, що саме цифрові технології не лише прискорюють та оптимізують економічні процеси, але й створюють нові можливості та виклики. Зазначено, що важливим аспектом є розуміння позитивного впливу на підприємства та національну безпеку, що робить дослідження цифровізації актуальним завданням. Детально розглянуто різні аспекти впливу цифровізації на фінансово-економічну та національну безпеку України. Зокрема, освітній аспект, кібербезпека, покращення співпраці з урядом, аналіз витрат та ризиків, підвищення конкурентоспроможності та інноваційності, а також соціальний вплив. Зазначено, що цифровізація вносить важливі переваги, але також приносить і ризики. Зокрема, розглядаються питання кібербезпеки та недоліки, які можуть виникнути при несвоєчасному або неадекватному впровадженні цифрових технологій. Розширено теоретико-методичні підходи до встановлення взаємозв'язків між процесами цифровізації економіки, кібербезпеки, фінансово-економічної та національної безпеки через призму реформування освітньої складової та впровадження новачій в даний процес. Визначено, що саме таке поєднання дозволяє не лише виявити ризики зниження ефективності діяльності суб'єктів господарювання, а й підвищити показники продуктивності праці, рентабельності виробництва, конкурентоспроможності, продукції, підприємств та економіки на засадах впровадження цифрових інновацій. Саме використання цифрових технологій дає доступ до нових фінансових інструментів, що забезпечить прозорість бізнесу та можливість отримання інвестицій в інноваційний розвиток всіх сфер діяльності та економіки в цілому, що позитивно буде впливати на фінансово-економічну безпеку суб'єктів господарювання та національну безпеку України. Доведено, що в умовах глобалізації, інтернаціоналізації бізнесу впровадження цифрових технологій дозволяє отримувати конкурентні переваги не лише суб'єктам господарювання економіки, але і працівникам у сфері інформаційних технологій і інновацій. Впровадження цифрових технологій сприяє розвитку національної освіти, а також надає доступ до отримання додаткових компетентностей вітчизняними студентами та науковцями в закладах вищої освіти інших країн, що позитивно буде впливати на соціально-економічну безпеку в державі. Обґрунтовано, що цифровізація забезпечує переваги в сфері кібербезпеки та забезпечує доступність співпраці громадян і суспільства з урядом з метою формування інвестиційної стратегії, стратегії кіберзахисту цифрових активів, зниження кібершпигунства, що позитивно впливатиме на міжнародне співробітництво.

Problem Statement

In contemporary society, the transition to digital technologies, known as digitization, has become a necessity in all spheres of life and the economy. The changes it brings significantly impact the functioning of businesses and have a considerable influence on the financial, economic, and national security of Ukraine. Digital technologies create new opportunities but also bring new challenges and risks to modern life. The problem lies in effectively addressing

these challenges and maximizing the benefits of digital transformation while ensuring the financial and national security of the country.

Analysis of latest research and publications

The analysis of the impact of digitization on the financial-economic security of enterprises and national security of the state is determined by studying various aspects of digital transformation conducted by scholars such as Andrukiv I., Arapova O., Areshonkov V., Horytska K.,

Kotelevets D., Nyeizvestna O., Polishchuk S., Psuy M., Rospopchuk T., Rudyuk Y., Rykun S. [1-10], and others. Their studies examine important aspects of digital transformation, such as changes in enterprise business models, financial stability, digitization of the banking sector, and its impact on workforce competitiveness and innovation.

Purpose statement

The objective of the article is to investigate and systematize the impact of digitization on the financial-economic security of enterprises and the national security of the state, identify key aspects of this impact, and uncover the advantages and risks associated with this process.

Presentation of the basic material of the research

Digitization, or the transition to digital technologies in all spheres of life, has become an integral part of modern society and the economy. This process significantly alters the paradigm of enterprise functioning and has a profound impact on the financial-economic security as well as the national security of Ukraine. By transforming economic processes and increasing access to information, digital technologies simultaneously create new opportunities and challenges, demanding careful analysis and effective strategies for adaptation. In this context, investigating the impact of digitization on the financial-economic security of enterprises and national security becomes a pertinent task as it contributes to understanding the innovative changes shaping Ukraine's current economic reality and future.

Digitization accelerates and simplifies many processes while also creating space for new opportunities to enhance competitiveness and efficiency. However, it also introduces risks alongside benefits. Among the key aspects of digitization's impact on the financial-economic and national security of Ukraine are: increasing business efficiency, ensuring financial stability, reducing costs and risks, enhancing competitiveness, fostering innovation, improving government collaboration, cybersecurity, education and training, social impact, independence, and national security.

One of the main aspects of digitization's impact on the financial-economic security of enterprises and national security is the enhancement of business efficiency. The incorporation of digital technologies facilitates process automation within enterprises, increasing employee productivity and optimizing production. Consequently, this contributes to cost reduction and profitability growth. The adoption of digital innovations enables enterprises to enhance market competitiveness by swiftly responding to changes in demand and supply, refining products and services, and implementing new business models.

Through the implementation of digital transformation, enterprises can collect and analyze large volumes of data, aiding them in making well-informed decisions based on precise data, thereby enhancing management efficiency. Digital technologies help identify risks, thereby increasing a company's resilience to financial and economic challenges.

Digitization enables enterprises to enter new markets more easily and attract investments. Enterprises can utilize e-commerce and online platforms to interact with clients and partners worldwide. Implementing digitization in tax

and financial processes simplifies reporting and tax payment, reducing fiscal risks and enhancing investor trust. Additionally, the application of digital financial technologies allows enterprises to access new financial instruments and services, facilitating investment and financing.

Thus, digitization creates opportunities for enhancing business efficiency and ensures economic and financial security for enterprises, contributing to the development of the national economy.

Financial-economic security of enterprises and the national security of a country undergoing digitization aim to ensure financial stability. An important factor in ensuring financial stability is the effectiveness of financial management. The implementation of digital transformation enables enterprises to manage their financial situation more effectively using digital tools and analytics. They can analyze financial data more quickly, predict trends, and forecast risks, facilitating effective decision-making regarding budgeting, investment, and financial planning.

Digital tools, such as electronic financial management systems, can be utilized by enterprises to control finances, including expense control, monitoring of debt obligations, and cash flow management. Digital technologies facilitate easier access to funding through online crowdfunding, issuance of digital securities, cryptocurrencies, and other innovative financial instruments. By utilizing digital tools, enterprises can identify and assess financial risks, such as credit risk, operational risk, and market risk, enabling them to take timely actions to mitigate these risks.

Therefore, digitization contributes to ensuring financial stability for enterprises and national security in Ukraine through improved financial management, funding attraction, risk reduction, and increased efficiency of financial operations.

Digitization impacts the financial-economic security of enterprises and national security in Ukraine by reducing costs. This is because digital tools enable enterprises to automate a layer of routine operations and business processes. Streamlining internal management, production, logistics, and many other aspects of operations leads to reduced labor costs and optimized expenses on materials and resources. Utilizing digital technologies in inventory management and analytics systems allows for controlling inventory levels and reducing costs on unnecessary stockpiles.

The use of digital tools helps to mitigate risks more effectively by identifying, assessing, and managing risks. For instance, data analytics can assist in timely detecting financial anomalies or fraud, thus reducing financial risks and fraud.

A positive impact is the enhanced efficiency in financial planning, accounting, and reporting. Data analysis and forecasting digital tools aid enterprises in creating accurate and realistic financial plans, preventing excessive spending, and accurately calculating revenues. Digital accounting and reporting systems enable precise and rapid financial record-keeping, facilitating timely tax calculation and other financial obligations reporting, streamlining reporting processes.

The implementation of digital transformation reduces costs and risks for enterprises and ensures financial stability through effective risk management and increased financial management efficiency.

Digitization significantly enhances competitiveness. Enterprises actively adopting digital solutions can respond more swiftly to changes in market conditions and compete with other market players.

Enterprises can optimize their operational processes through digital technologies, leading to increased efficiency and reduced costs. Implementing automated management systems in production, logistics, and other areas allows enterprises to produce more for less, which is a significant competitive advantage.

The use of digital technologies enables enterprises to interact with customers and partners internationally, promote their goods and services on the global market through e-commerce, social media, and other digital channels. Digitization helps to control and improve the quality of products and services. The application of digital technologies facilitates consumers' access to products and services, stimulating demand for innovations. Enterprises can analyze data and receive feedback from customers promptly to tailor their offerings to market needs.

Digitization serves as a stimulus for the development of new technologies and business models. Enterprises can innovate faster and respond to changes in market conditions, creating new products and services, which increases their competitiveness. Enterprises that are early adopters of innovative digital solutions gain a competitive edge in the market and can increase their market share and ensure sustainable revenue growth.

Moreover, the application of digitization creates a demand for the development of digital skills among employees and the attraction of highly skilled workers who possess skills in information technology and innovation, which fosters the development of innovative projects and helps attract talented workforce.

Thus, digitization enhances competitiveness through improved efficiency, creating opportunities for easy market access, developing innovative potential, and improving the quality of products and services.

Digitization significantly improves cooperation between enterprises and the government, contributing to the financial-economic security of enterprises and national security. A key aspect of this impact is enhancing the accessibility and transparency of information, particularly through the implementation of digital tools that facilitate real-time data and information exchange between the government and enterprises. This greatly facilitates monitoring of enterprises' financial-economic activities and promotes open and transparent reporting.

Key aspects of influence also include e-governance. The implementation of digital tools helps governments improve the efficiency of their work, particularly in the areas of tax and regulatory control. Enterprises have the opportunity to submit reports, make tax payments, and fulfill other obligations in electronic format, simplifying cooperation with government agencies.

The implementation of digitization reduces the risk of fraud and enhances data exchange security. Digital technologies enable enterprises and government bodies to utilize electronic identification and digital signature systems. Digitization facilitates interaction and prompt issue resolution

through online services and platforms. For example, governments or enterprises can utilize specialized online platforms for information exchange, collaboration, and issue resolution.

Digitization contributes to increased regulatory efficiency. With the adoption of digital technologies, government bodies can better analyze market situations, identify risks, and regulate industries more effectively, creating a favorable environment for business and investment.

Thus, the implementation of digitization improves collaboration between enterprises and government, streamlines information exchange, and enhances regulatory efficiency, helping enterprises improve their financial-economic security and contributing to national security by ensuring more effective control and supervision of economic activities.

Digital transformation affects the process of education and learning. Digital technologies promote the development of online learning and distance programs, allowing learning from anywhere in the world, thereby expanding educational opportunities nationwide. Digital tools create conditions for using innovative teaching methods, such as virtual reality, artificial intelligence, and others, making learning easier and potentially more effective.

Digital learning methods contribute to cost savings in training and staff development. Enterprise managers can create their own online courses and materials to enhance employee qualifications. With digital tools, enterprises can analyze the productivity and success of employee training, helping to improve training programs and enhance learning effectiveness. Additionally, enterprises can collaborate with universities and educational institutions, attracting talented graduates and preparing future workforce to meet enterprise needs.

Therefore, digitization has a positive impact on education and learning, ensuring accessibility, efficiency, and cost savings. This helps enterprises improve the skills and knowledge of their personnel, positively impacting their financial-economic security and competitiveness, while also promoting the development of national education and readiness to address national security challenges.

One of the aspects of the impact of digitization on the financial-economic security of enterprises and national security is its social impact.

Digitization affects the creation of new jobs, particularly in the field of information technology and digital services. However, at the same time, digital transformation may lead to automation and reduced demand for certain types of manual labor, affecting employment levels and requiring worker retraining. Digitization requires workers to acquire new technological skills. Enterprises and governments must invest in education and retraining of workers to ensure their competitiveness in the labor market.

A positive impact of digitization is the simplification of access to services. Digital tools make financial and banking services more accessible and convenient for the population. This enables people to obtain credits, invest money, make payments, and manage their finances using smartphones and computers.

The implementation of digitization promotes financial inclusion for those who previously lacked access to

traditional banking services. This helps reduce economic inequality and provide greater access to financial resources. Digital transformation can impact the structure of the economy and wealth distribution in society. Therefore, it is important to improve and transform policies and regulations to ensure fair distribution of digital economy benefits.

In conclusion, digitization has a significant social impact on society, including employment levels, education, access to financial services, and many other aspects. Effective management of these challenges helps ensure the financial-economic security of enterprises and national security of Ukraine, maintaining a balance between innovation and social stability.

Digitization significantly impacts the independence and national security of Ukraine, which includes economic and financial security, as well as cybersecurity. As a large portion of financial and economic activities and information exchange has transitioned to the online environment, digitization creates new challenges and opportunities for cybersecurity.

With increased use of digital technologies comes a rise in cyber threats. Digitization influences the development of electronic financial services, which can play a crucial role in the country's financial system. However, it can also create new risks to financial stability and national security. Digitization has a significant impact on the country's financial infrastructure, including the banking system, payment systems, and stock market. The expanded use of digital technologies may increase the vulnerability of these systems to cyberattacks, posing a threat to financial-economic security.

Hackers, cybercriminals, and cyber spies may target enterprises and national infrastructure to steal confidential information, inflict financial losses, or disrupt normal operations. Therefore, considering that digital transformation contributes to the increase in the volume of financial information stored and processed electronically, governments and enterprises must pay special attention to protecting this financial data from unauthorized access and theft.

Digitization renders critical infrastructure, such as energy, transportation, banking, and others, more susceptible to cyberattacks. Especially in the post-war period, adversaries may attempt attacks to harm the national economy and security. Governments and enterprises must develop and implement cyber strategies and policies to safeguard critical information and infrastructure. To enhance cybersecurity, the state should create conditions and invest in training and engaging cybersecurity specialists to protect digital assets. Cyber threats have no borders, so it is crucial to establish international partnerships and collaborate with other countries to exchange information and jointly respond to cyberattacks.

Digitization fosters increased cyber espionage, which can be used to leak confidential information and gain market advantage. This can affect the competitiveness of Ukrainian enterprises and threaten the country's economic security. Ukraine should develop and implement a cyber strategy and policy to protect its national security in the digital space. It is essential to develop effective means of protection against cyber threats and promote international cooperation in cybersecurity.

In conclusion, digitization presents both opportunities and challenges for Ukraine's independence and national security. By addressing cybersecurity risks effectively and fostering international collaboration, Ukraine can safeguard its financial-economic security and protect its national interests in the digital age.

Conclusions

Thus, digital transformation holds the potential for improvement and development, yet it also presents new challenges and risks to the financial, economic, and national security of Ukraine. It is crucial to focus on cybersecurity, workforce development, and ensuring national sovereignty in the digital sphere to ensure the country's sustainable and successful development in the era of digital transformation.

References

1. Andrukhiv I., Psui M., Rudyuk Y. Influence of digitalization on the formation of competitive personnel of enterprises in crisis conditions DOI: <https://doi.org/10.32782/2524-0072/2023-51-22>
2. Arapova O. M., Goritska K. M. Competitiveness of personnel and its importance in the activities of the enterprise. *Effective economy*. 2015. № 7. URL: <http://www.economy.nayka.com.ua/?op=1&z=4203>.
3. Areshonkov V. Yu. Digitization of higher education: challenges and answers. *Bulletin of the National Academy of Sciences of Ukraine*. 2020. No. 2 (2). P. 1-6
4. Kotelevets D. O Development trends of the digital economy in Ukraine. *Problems of modern transformations. Series: Economics and Management*. 2022. No. 5. DOI: <https://doi.org/10.54929/2786-5738-2022-5-03-01>
5. Neizvestna O. V., Rykun S. S. Ensuring financial stability and digitalization of the banking sector of Ukraine in the conditions of the COVID-19 pandemic/ URL: <https://eprints.kname.edu.ua/61210/1/2021-170-172.pdf>
6. Polischuk S., Rospopchuk T. The impact of digitalization on changing business models of enterprise DOI: <https://doi.org/10.20535/2307-5651.18.2021.231175>
7. The number of cyberattacks on Ukraine continues to grow. State Service of Special Communications and Information Protection of Ukraine. URL: <https://cip.gov.ua/ua/news/kilkist-kiberatak-na-ukrayinu-prodovzhuye-zrostaty>
8. Ukraine 2030E – a country with a developed digital economy [Electronic resource] / Ukrainian Institute for the Future / URL: <https://strategy.uifuture.org/kraina-z-rozvinutoyucifrovoyu-ekonomikoyu.html>
9. Digitalisation for recovery in Ukraine. OECD, 2022. URL: <https://www.oecd.org/ukraine-hub/policy-responses/digitalisation-for-recovery-in-ukraine-c5477864/>
10. What is Industry 4.0 – the Industrial Internet of Things (IIoT), available at: <https://www.epicor.com/en-us/resourcecenter/articles/what-is-industry-4-0>