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Olesia Suntsova
Doctor of Economic Sciences, Professor,
Professor at the Department of International Economy
National University of Food Technologies
ORCID: https://orcid.org/0000-0002-3854-7939

DIGITAL TECHNOLOGIES FOR THE DEVELOPMENT OF INTERNATIONAL BUSINESS AND INTERNATIONAL MANAGEMENT

Summary

This investigation provides a comprehensive analysis of digital technologies driving the evolution of international business, examining both the wide-reaching impacts of digital transformation and the specific disruptive potential of blockchain technology. In the first section, Digital Transformation of the Global Economy: Challenges and Opportunities, the study discusses how digital innovations, such as artificial intelligence, big data, and cloud computing, are reshaping conventional business frameworks and introducing novel business models. It addresses the significant challenges that arise for international companies, including cybersecurity risks, adaptation to rapidly advancing technology, and heightened competition. However, these challenges are paralleled by opportunities for improved operational efficiency, expanded market reach, and enhanced customer experience, which are key to global competitiveness. The second section, Role of Blockchain Technology in Changing the Structure of an International Business, focuses on blockchain's unique ability to transform cross-border operations by enhancing transparency, security, and trust. This section details blockchain's applications across international supply chains, trade financing, and customer engagement, highlighting its role in reducing transaction costs, improving data traceability, and minimizing reliance on intermediaries. The article further analyzes how blockchain technology challenges existing structures, creating decentralized and autonomous networks that may redefine strategic relationships in international business. Overall, this study contributes to a nuanced understanding of digital transformation as both a catalyst and a challenge within the global economy, emphasizing the importance for businesses to adapt digital solutions to maintain resilience and competitiveness in a constantly changing international market. Through an in-depth exploration of the impact of digital and blockchain technologies, it offers valuable insights into the evolving landscape of international business and suggests strategic approaches for leveraging these advancements to achieve sustainable growth.

Introduction

The world is going through a revolution, with the emergence of digital technology and its impact on our planet. By Christine Moorman Researchers examine the challenges and opportunities of how to digitize a tradition-bound, offline industry. The research highlights key factors propelling this transition; ranging from technological and legal advances to societal impacts. Other subjects covered in the study include potential cyber threats and data privacy risks as well as what digitalization means for different industries, from manufacturing to services and finance. These findings suggest that while digital transformation promises significant opportunities for innovation and economic growth, it also requires comprehensive policy approaches to reduce associated risks and ensure inclusive development.

This study aims to investigate the challenges and opportunities posed by the transition in global economy from analogical towards digital. The global economy is undergoing a radical transformation thanks to digital technologies. These tectonic shifts kindle an array of opportunities and challenges that we discuss in this article. Highlighting key factors behind this transformation – technology, legal frameworks and socioeconomic considerations – the study takes a deep dive into how blockchain can allow farmers to capture premium prices while ensuring traceability of genuine produce. The another purpose of this investigation is to investigate the practice of implementing blockchain technology in the financial support of various economic processes of economic entities and their impact on the structure of a country's monetary base. Thus, it has been identified that the influence of blockchain on the structure of the monetary base itself has received little attention. Despite blockchain being used as an alternative to components of the monetary base, thereby changing its structure within a certain country, most studies focus on literature reviews and provide information for practitioners and academic communities. Therefore, this article aims to bridge the gap by developing a model to identify distortions in the structure of the monetary base under the influence of blockchain. The effective use of blockchain is still being explored. As a result, the operations of many companies using blockchain technologies for payments are vulnerable to technical issues. Blockchain technology is utilized to address this problem and facilitate data exchange among relevant stakeholders. This document presents a benchmark for the impact of blockchain technology on the structure and mass of the monetary base for a specific country, integrating blockchain for sustainable money functioning with the integration of the Internet of Things and big data. Finally, potential benefits and limitations are analyzed during the implementation of this framework.

The research looks at the potential dangers linked to cybersecurity and privacy, while it also studies how digitalization impacts sectors including manufacturing, services and finance. The findings show that while digital

transformation provides considerable opportunities for innovation and economic growth, it also requires comprehensive strategies to mitigate associated risks and ensure inclusive development. This article is written as to observe the titled paradigm shift of global economy with Digitalisation, and changes it brings about in form of opportunities & challenges.

The findings show that digital transformation is a two-edged sword: it provides significant opportunities for economic growth, innovation, and the creation of new business models like digital platforms and the gig economy. However, it presents significant challenges, particularly in terms of cybersecurity and data privacy. The increasing frequency and sophistication of cyberattacks pose serious threats to businesses and governments, while concerns over data privacy necessitate the development of strong regulatory frameworks.

This study explores the role of blockchain technology in changing the structure of a country's monetary base. Specifically, it examines the potential benefits and risks of using blockchain in monetary policy, such as efficiency, transparency, and new opportunities for managing the financial system. The study highlights changes in approaches to monetary policy through the use of blockchain-based digital currencies, as well as discusses challenges that may arise in implementing this technology. The conclusions of this article may be valuable for government agencies, central banks, and researchers interested in the impact of blockchain technology on the financial sector.

In recent years, the adoption of blockchain technology as an alternative to fiat currencies in various countries around the world has significantly expanded globally, as a significant number of business organizations have recognized the importance of all the advantages that blockchain technology provides. Previously, the focus was on cost control to remain competitive, but lately blockchain technologies have somewhat shifted the significance and monetary mass, influencing the structure of a certain country's monetary base.

Based on recent research and publications, the article emphasizes the importance of understanding economic principles that govern the determination of the impacts of various economic and financial indicators on components of economic growth and predicting the consequences of such decisions. It references the seminal work of economists P. Romer, R. Lucas, R. Barro, I. Salla y Martin, and R. Levine, who laid the foundation for studying endogenous economic development.

Methods. Macroeconomic analysis, econometric analysis, trend analysis.

Determination of the level of influence of blockchain technologies on the change in the structure and volume of the monetary base of a certain country.

The study casts doubt on classical economic doctrines by establishing a strong correlation between the distribution of components of the monetary base in its structure and the use of blockchain technology for payments for goods,

labor, and services. It emphasizes that the economic growth of a country and the structure of its monetary base depend on the proportion of blockchain technology usage in that country. This research opens up possibilities for further studies in this interdisciplinary field.

Chapter 1. Digital Transformation of the Global Economy: Challenges and Opportunities

The rapid advancement of digital technologies has brought about significant changes in the global economy. This phenomenon, known as digital transformation, refers to the integration of digital technologies into various aspects of economic activity, leading to the reconfiguration of business models, the emergence of new industries, and the alteration of traditional economic structures. The relevance of this topic is underscored by the growing dependence of economies on digital infrastructure, which has become a critical driver of economic growth and competitiveness. However, the digital transformation also poses several challenges that need to be addressed to maximize its potential benefits. This article aims to explore the challenges and opportunities associated with the digital transformation of the global economy, providing insights into how these changes are reshaping the economic landscape.

The literature on digital transformation and its impact on the global economy is extensive, encompassing various perspectives and approaches [4]. Recent studies have emphasized the role of digital technologies in enhancing productivity and efficiency across different sectors [18; 19; 22]. For instance, the integration of artificial intelligence (AI) and machine learning in manufacturing has led to the development of smart factories, which optimize production processes and reduce costs [16]. Additionally, the digitalization of financial services has revolutionized the way transactions are conducted, leading to the rise of fintech companies that offer innovative solutions to traditional banking challenges [8].

Xia, Baghaie, and Sajadi [26] conducted an analysis of the digital economy's influence on businesses and consumers, emphasizing the opportunities it provides for rapid and convenient access to products and services. Their study highlighted how these advancements contribute to enhanced efficiency and productivity. They contended that the digital economy has far-reaching impacts across various economic, social, and cultural domains, including significant transformations in work practices and social interactions. Specifically, they noted the promotion of flexible and remote work arrangements and the facilitation of increased global connectivity.

Skare, de Obesso, and Ribeiro-Navarrete [15] investigated the challenges faced by SMEs, such as customer access, heightened competition, external funding difficulties, rising input costs, skilled labor shortages, exogenous

shocks, global crises, and regulatory complexities. Their research addressed a gap in the literature by examining the impact of digital technology on these challenges, utilizing the Digital Economy and Society Index (DESI) as a proxy to explore the issues confronting SMEs.

Zhang and Chen [20] focused on the digital transformation of human resource management within the digital economy. They identified five key drivers of this transformation: the digital needs of internal customers, industry-wide digital innovation, competitive pressures, governance of digital innovation, and the broader demands of the digital era. Their work underscores the critical factors that propel the digitalization of human resource management in contemporary business environments.

However, the literature also highlights several challenges associated with digital transformation. One of the primary concerns is the risk of cyber threats, which have become increasingly sophisticated and pose significant risks to businesses and governments alike [2]. Another challenge is the potential for increased inequality, as the benefits of digitalization may not be evenly distributed, leading to a digital divide between those who have access to digital technologies and those who do not [27].

Despite these challenges, digital transformation offers substantial opportunities for economic growth and development. For example, digital platforms have enabled the creation of new business models, such as the gig economy, which provides flexible employment opportunities and fosters entrepreneurship. Furthermore, digital technologies have the potential to address global challenges, such as climate change, by promoting the adoption of sustainable practices and reducing carbon emissions [7].

The research findings indicate that digital transformation is driven by several key factors, including technological advancements, changes in consumer behavior, and the need for businesses to remain competitive in a rapidly evolving market. In the financial sector, digitalization has led to the development of new financial instruments and services, such as mobile banking and cryptocurrency, which have transformed the way financial transactions are conducted. In the manufacturing sector, the adoption of AI and robotics has improved production efficiency and reduced operational costs, leading to increased profitability.

However, the research also highlights several challenges associated with digital transformation. Cybersecurity risks have emerged as a significant concern, with the increasing frequency of cyberattacks threatening the stability of digital infrastructure. Data privacy issues have also come to the forefront, as the collection and processing of large volumes of data raise concerns about the potential misuse of personal information.

Despite these challenges, the research suggests that digital transformation presents significant opportunities for economic growth and innovation.

The development of digital platforms has created new markets and business models, enabling companies to reach a global audience and increase their revenue streams. Additionally, digital technologies have the potential to promote sustainable development by reducing the environmental impact of economic activities and fostering the adoption of green technologies.

The state of digitalization among countries is often analyzed using key indicators that reflect the adoption and integration of digital technology, such as internet penetration rates, mobile broadband subscriptions, contributions of the digital economy to GDP, and the quality of digital infrastructure. Creating a table with these indicators for each country provides a clear comparison of their digital maturity, while a pie chart can effectively illustrate the distribution of digitalization levels globally.

Digital transformation in the global economy is driven by multiple factors that shape the technological and economic landscape. Among the primary drivers are technological advancements, including artificial intelligence (AI) and machine learning (ML), cloud computing, the Internet of Things (IoT), and 5G technology. These innovations enable automation, predictive analytics, and real-time data connectivity, fundamentally transforming business models and decision-making processes. Cloud computing, in particular, offers scalable resources for remote work and data management, supporting cross-border collaboration on a large scale. Similarly, the widespread rollout of 5G networks provides the necessary connectivity to sustain advanced digital services and applications.

Evolving consumer behavior also plays a critical role, as increased online activity drives businesses to enhance their digital presence. Modern consumers demand personalization and convenience, prompting companies to adopt data analytics and AI to cater to individual preferences. Globalization intensifies competitive pressures, encouraging businesses to integrate digital strategies to reach broader markets and remain competitive. Moreover, an accelerated pace of innovation forces businesses to adapt continuously, integrating new tools to maintain relevance in the market.

Regulatory and policy changes, such as data privacy regulations like the GDPR, also shape the digital transformation landscape by enforcing secure, compliant data management practices. Government initiatives supporting digital infrastructure further incentivize businesses to embrace digital technologies. Economic shifts, like the growth of the digital economy and the rise of remote work post-COVID-19, underscore the necessity of digital tools for effective collaboration and workflow management.

Sustainability is also a significant driver, with green technologies and smart cities demonstrating how digitalization can enhance energy efficiency and resource optimization. Customer-centric innovation, emphasizing user experience (UX), is another essential aspect, as businesses increasingly focus

on seamless digital interactions to attract and retain customers. This trend encourages advancements in interface design and digital service delivery, positioning businesses to meet changing consumer expectations.

Digital transformation in the global economy is driven by technological advancements, evolving consumer behavior, global competition, supportive regulatory frameworks, and shifts toward sustainability. These factors collectively contribute to a dynamic, interconnected, and data-driven global economy that continually reshapes how businesses, governments, and societies function and interact. The ongoing evolution of these drivers will shape the future of digital transformation, influencing economic development and technological innovation on a global scale.

Digitalization profoundly influences Ukraine's economic landscape, reshaping various key sectors and driving modernization. In the information technology (IT) sector, digitalization has catalyzed rapid growth, positioning Ukraine as a competitive player in the global market with skilled developers and robust IT services that cater to Europe and North America. This expansion has spurred the creation of tech startups and IT service firms, generating high-paying jobs and fostering innovation within the economy.

Agriculture is also benefiting from digitalization through precision farming, with technologies like drones, IoT, and data analytics optimizing crop yields and improving resource management. These advancements enhance productivity and promote sustainable practices. Farmers now have better market access via e-commerce, which improves profitability and streamlines supply chains, leading to greater transparency and efficiency.

In manufacturing, digital technologies, such as artificial intelligence, robotics, and IoT, are transforming production processes. Automation and smart manufacturing have driven productivity gains, reduced costs, and improved product quality. However, some Ukrainian manufacturing firms face barriers in fully embracing these technologies due to high initial costs and regional disparities in digital infrastructure.

The financial services sector is experiencing a fintech boom, with digital banks, mobile payments, and blockchain technologies advancing financial inclusion by reaching previously underserved populations. Digital banking and online financial services have grown in popularity, making financial services more accessible and reducing the need for physical branches.

Healthcare has seen significant digital advancements, particularly through telemedicine, which became widely adopted during the COVID-19 pandemic, enhancing healthcare access, especially in rural areas. The gradual implementation of electronic health records (EHR) has improved patient care by reducing paperwork and streamlining healthcare services.

Digitalization is transforming retail as e-commerce platforms grow rapidly, with consumers increasingly opting for online shopping. Retailers are adopting

omnichannel strategies, blending digital and physical shopping experiences to meet changing consumer preferences and expectations.

Education has shifted towards digital learning platforms, particularly during the pandemic, with schools and universities incorporating online tools into teaching. This shift improves educational access and supports lifelong learning, although rural areas continue to face challenges due to limited access to high-speed internet and digital devices.

The energy sector is incorporating smart grids to improve energy efficiency and reliability, supporting renewable energy management. However, transitioning to digital energy systems requires substantial investment and regulatory reforms, making full implementation a challenge.

In public administration, digitalization has enabled the government to provide various e-government services that enhance transparency and reduce bureaucracy, with the "Diia" app being a notable example. Efforts to implement digital IDs and online voting systems are underway, which may further enhance citizen engagement and governance.

Digitalization in Ukraine thus drives sectoral transformations, supporting competitiveness and modernizing the economy, while challenges in digital infrastructure and regional disparities highlight the need for targeted investments to maximize the benefits across all sectors.

Digitalization is reshaping various economic sectors in Ukraine, driving growth, enhancing efficiency, and fostering innovation. However, the full potential of digital transformation can only be realized by addressing challenges such as infrastructure gaps, the digital divide, and the need for regulatory frameworks that support innovation while ensuring security and privacy. The continued investment in digital skills, infrastructure, and supportive policies will be crucial for Ukraine to fully harness the benefits of digitalization across all sectors of the economy.

Digitalization has profoundly impacted various economic sectors, reshaping traditional processes, enhancing efficiency, and creating new opportunities. In the manufacturing sector, the integration of digital technologies has led to the emergence of Industry 4.0, characterized by the use of automation, robotics, and data-driven decision-making. This transformation has increased production efficiency, reduced operational costs, and enabled the customization of products to meet specific consumer demands. Advanced manufacturing technologies, such as 3D printing and digital twins, have further revolutionized production by allowing rapid prototyping and real-time monitoring of production processes.

In the financial sector, digitalization has fundamentally altered the landscape of banking and financial services. The rise of fintech has introduced innovative financial products and services, such as mobile banking, peer-to-peer lending, and cryptocurrency. These developments have enhanced financial inclusion

by providing access to banking services for previously underserved populations. Moreover, digitalization has improved the efficiency and security of financial transactions through the implementation of blockchain technology and digital payment systems. This shift has also led to the disintermediation of traditional financial institutions, enabling more direct interactions between consumers and service providers.

The retail sector has experienced significant disruption due to digitalization, with e-commerce platforms transforming the way consumers shop and businesses operate. Online retail has expanded market access for businesses, allowing them to reach a global audience with minimal physical infrastructure. Digitalization has also enabled personalized shopping experiences through the use of data analytics and artificial intelligence, which analyze consumer behavior and preferences to tailor product recommendations. Additionally, the integration of digital payment systems and logistics networks has streamlined the purchasing process, enhancing the overall efficiency and convenience of retail operations.

In the healthcare sector, digitalization has led to the development of telemedicine, electronic health records, and health monitoring devices. These innovations have improved patient access to healthcare services, particularly in remote or underserved areas. Telemedicine allows for remote consultations, reducing the need for physical visits to healthcare facilities and thereby increasing the efficiency of healthcare delivery. The use of electronic health records has facilitated better coordination of care by enabling healthcare providers to access and share patient information more easily. Furthermore, wearable health monitoring devices and mobile health applications have empowered individuals to take a more active role in managing their health, leading to better health outcomes.

The impact of digitalization is also evident in the education sector, where the adoption of digital tools has transformed teaching and learning processes. Online learning platforms and digital resources have expanded access to education, enabling learners to access quality education regardless of their geographical location. Digitalization has also enabled personalized learning experiences through adaptive learning technologies that adjust content and pacing to the needs of individual students. The use of data analytics in education has further enhanced the ability to track student progress and identify areas for improvement, leading to more effective teaching strategies.

In agriculture, digitalization has introduced precision farming techniques that use data analytics, IoT devices, and satellite imagery to optimize crop yields and resource use. These technologies have improved the efficiency of agricultural practices, reduced waste, and increased sustainability. Digital platforms have also connected farmers to markets, enabling them to sell their produce more effectively and access timely information on market prices and

weather conditions. This has contributed to increased productivity and income for farmers, particularly in developing regions.

Digital transformation presents significant risks in cybersecurity and data privacy, with a growing attack surface as organizations increasingly adopt digital technologies. This includes not only traditional IT infrastructure but also IoT devices, cloud services, and mobile applications, which collectively amplify potential entry points for cyber threats. Advanced persistent threats (APTs) pose an additional challenge; these sophisticated attacks can infiltrate systems undetected for extended periods, potentially causing extensive damage.

The heightened use of digital platforms also raises the risk of data breaches, exposing sensitive data such as personal information, financial records, or intellectual property. Both inadvertent and malicious actions by employees or contractors add to this risk, as insider threats can lead to severe repercussions. Compounding these challenges is a critical shortage of cybersecurity professionals, with the demand for skilled experts outpacing supply, which leaves many organizations vulnerable and lacking the expertise needed to address complex cyber threats.

Compliance with a broad spectrum of regulatory requirements is another intricate dimension of digital transformation. As organizations integrate digital technologies, they must navigate an evolving regulatory landscape involving data protection, privacy, and cybersecurity, with regulations like the General Data Protection Regulation (GDPR) presenting additional hurdles, especially for multinational organizations.

Reliance on third-party vendors for digital services introduces further risk. Security breaches within a vendor's infrastructure can compromise an organization's data and systems, particularly in shared responsibility models commonly used in cloud environments, where misunderstandings of roles and obligations may lead to vulnerabilities.

Data sovereignty issues are also prevalent, as digital operations frequently involve cross-border data transfers. Differing international regulations regarding data handling can create jurisdictional conflicts, making compliance difficult and exposing organizations to legal challenges. Privacy violations are an associated risk, as organizations collecting extensive personal data to support digital initiatives face heightened obligations for data protection, transparency, and user consent.

System downtime poses another significant risk, as digital systems underpin critical business operations. Cyberattacks, such as Distributed Denial of Service (DDoS) attacks, or technical failures can disrupt operations and lead to financial losses, with recovery often complicated by the complexity of digital infrastructures.

Cybersecurity incidents can result in substantial financial losses, both direct and indirect. Direct costs may include fines, remediation expenses, and potential ransom payments, while indirect costs encompass loss of customer trust, reputational damage, and decreased market value. Together, these risks illustrate the complex landscape organizations must navigate as they embrace digital transformation, underscoring the need for robust cybersecurity measures and careful regulatory compliance to mitigate potential impacts.

These risks highlight the importance of robust cybersecurity measures, compliance with data protection regulations, and ongoing vigilance in managing digital transformation initiatives.

Table 1

State of Digitalization by Country

Country	Internet Penetration (%)	Mobile Broadband Subscriptions (per 100 people)	Digital Economy Contribution to GDP (%)	Digital Infrastructure Quality (Score)
United States	89	135	9.6	85
Germany	91	120	8.3	82
China	70	115	7.1	78
Japan	93	120	8.7	84
South Korea	97	140	11.1	90
India	50	85	5.4	68
Brazil	75	95	6.7	72
United Kingdom	94	125	10.2	86
Australia	88	130	8.9	83
Russia	80	105	6.5	74
Ukraine	65	90	6.0	70

Source: independently compiled by the author from: 1) International Telecommunication Union. (2023). Statistics. Retrieved from https://www.itu.int/en/ITU-D/Statistics; 2) World Bank. (2023). World Development Indicators. Retrieved from https://data.worldbank.org; 3) OECD. (2023). Digital Economy Outlook. Retrieved from https://www.oecd.org/digital

At Figure 1 represents the distribution of digitalization levels based on an aggregated score from the key indicators listed in the table 1. representing the distribution of digitalization levels by country, based on an aggregated score of key digitalization indicators. Each country's share in the pie chart reflects its relative level of digitalization compared to the others listed.

Digital technologies have the potential to significantly foster inclusive economic growth and development by bridging gaps in access to resources, information, and opportunities. The transformative power of digital tools can reshape various sectors, driving progress across diverse economic and social strata.

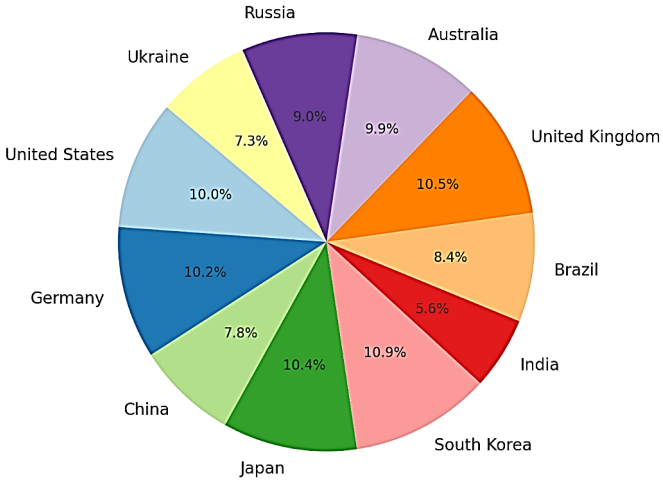


Figure 1. Distribution of Digitalization Levels by Country (Including Ukraine)

Source: prepared by author from: 1) International Telecommunication Union. (2023). Statistics. Retrieved from https://www.itu.int/en/ITU-D/Statistics; 2) World Bank. (2023). World Development Indicators. Retrieved from https://data.worldbank.org; 3) OECD. (2023). Digital Economy Outlook. Retrieved from https://www.oecd.org/digital

One of the primary ways digital technologies contribute to inclusive growth is through enhanced access to information and services. The internet, for example, offers unprecedented access to educational resources and professional training, enabling individuals in remote or underserved regions to acquire new skills and knowledge. This democratization of information empowers people to participate more fully in the economy, potentially leading to higher levels of employment and entrepreneurship.

Moreover, digital platforms facilitate market access for small and medium-sized enterprises (SMEs) and individual entrepreneurs. E-commerce platforms, for instance, allow businesses to reach global markets that were previously out of reach, thus fostering economic opportunities in areas with limited physical infrastructure. This expanded market reach can drive business growth and create jobs, contributing to more balanced economic development.

Digital technologies also enhance financial inclusion, a critical factor for economic growth. Mobile banking and digital payment systems have revolutionized financial services by providing unbanked and underbanked populations with access to banking services through their mobile phones. This increased financial inclusion enables individuals and businesses to engage

more effectively in economic activities, from savings and investments to transactions and credit access.

Furthermore, data analytics and artificial intelligence (AI) are being leveraged to address specific development challenges. For instance, predictive analytics can improve resource allocation in sectors such as healthcare and agriculture, leading to more effective interventions and better outcomes. In agriculture, AI-driven tools can optimize crop yields and supply chain management, contributing to food security and economic stability in developing regions.

The integration of digital technologies into governance and public services also holds promise for promoting inclusivity. E-governance platforms can enhance transparency and reduce corruption by making government processes more accessible and accountable. Additionally, digital platforms for citizen engagement and feedback can ensure that marginalized voices are heard and considered in policy-making processes.

However, the potential of digital technologies to promote inclusive growth is not without challenges. Issues such as digital literacy, access to technology, and cybersecurity must be addressed to ensure that the benefits of digital advancements are equitably distributed. Bridging the digital divide and investing in digital infrastructure are essential to ensuring that all individuals and communities can participate in and benefit from the digital economy.

In conclusion, digital technologies offer transformative opportunities for inclusive economic growth and development by expanding access to information, services, and markets, enhancing financial inclusion, and improving governance. To fully realize these benefits, concerted efforts are needed to address challenges and ensure that digital advancements reach all segments of society.

Chapter 2. Role of Blockchain Technology in Changing the Structure of an International Business

Blockchain technology, originally developed as the primary infrastructure for cryptocurrencies such as Bitcoin, has evolved significantly in recent years and has shown potential for applications in various fields, including finance and economics. One of the areas of application of blockchain technology is to change the structure of the country's monetary base. In this article, we will look at how blockchain technology can affect this aspect of the economy and what benefits and risks it carries.

Blockchain is a decentralized data storage system that consists of sequentially linked blocks. Each block contains a certain amount of data, such as transactions, information about when they were created, and a link to the previous block in the chain. These blocks are linked together using cryptographic hash functions, which ensures that the data in the previous blocks

cannot be changed without changing the entire chain. The essence of blockchain is that it provides a decentralized and secure way to store and transmit data without the need to trust centralized organizations or intermediaries. This makes it different from traditional centralized systems, where trust is based on central institutions.

The main characteristics of blockchain include decentralization, immutability (immutability of data), security, transparency, and reliability. These characteristics make blockchain attractive for use in a variety of industries, including finance, logistics, healthcare, voting, and many others. The main difference between blockchain technology and fiat currencies lies in their nature and way of functioning, namely the way data is stored and transmitted, grounded, decentralized, and used. Blockchain is a technology that allows for the decentralized storage and transmission of data, such as transactions. Fiat currencies, on the other hand, are traditional currencies that are issued and regulated by countries' central banks. It is based on distributed ledger technology, where information is stored on different network nodes. Fiat currencies, on the other hand, are based on trust in the country's government and central bank, which determine their value and control their issuance. Blockchain can be decentralized, which means it does not require a centralized authority to control or govern. Fiat currencies, on the other hand, are governed by central banks and governments, which have the power to issue and regulate them.

Blockchain technology is often used to create cryptocurrencies and other digital assets, as well as to implement smart contracts and other decentralized applications. Fiat currencies are official means of exchange used in everyday life and international trade. So, while both types of currencies can function as a medium of exchange, their nature, functioning mechanisms, and ways of using them are different. The mass use of blockchain clearly affects the structure and volume of the money supply of a particular country.

Blockchain is a technology designed to support an era of information disruption. It offers an alternative solution that can represent data or a set of data that is constantly growing. Each block contains a cryptographic hash, timestamp, and transaction information from the previous block. Each block is interconnected, so if you want to change one block, you'll have to change the other. Each block remains connected to the network and mathematically verifies a copy of the blockchain with a copy of the other networks. As a ledger of transactions, Blockchain allows not only the use of cryptocurrencies but also other digital currencies and digital assets. Intangible assets such as houses, cars, land, etc. One of the benefits of using blockchain is the ability to trade almost any valuable thing that can be tracked, reducing risks and costs for all stakeholders. Blockchain has the characteristics of security, resilience, and

programmability, which are characteristics of a consensus protocol that can be used. [1–12].

According to H Yulianton, RCN Santi, K Hadiono, S Mulyani [25], a blockchain is a collection of blocks that are connected (linked) to each other and contain information about events that have occurred. A key blockchain technology is the ability to track a distributed database. Simply put, the development of blockchain technology went through three stages: blockchain 1.0, which first became a landmark event in the history of digital currencies, then blockchain 2.0 as a further development of the digital economy, and finally blockchain 3.0 as the development of the digital economy, the transformation from a currency economy to an association or digital society [1–26].

In the digital age, management and financial accounting must change. To ensure transparency and accountability in regional financial management, accounting standards are needed in the preparation of financial statements, so that the government's reports and performance reflect transparency and accountability in financial management. Very complex problems often arise in achieving improvements in the quality of government performance, especially when carrying out operations that require special conditions to analyze visible problems in order to achieve clear objectives. Often there are problems such as administrative errors, corruption, which lead to the fact that financial management does not meet expectations. Therefore, solutions are needed to address this. Deficiencies in transparency and accountability in regional financial accounting still exist due to the fact that many officials responsible for financial management do not yet fully understand their duties and functions when preparing financial statements. In addition, the accounting system currently in use is still quite easy to interfere with, rather than erroneous record-keeping, creates an opportunity and provides an opportunity for individuals who wish to commit fraud such as corruption [1–27].

There are changes in the approach to the formation of monetary policy. Traditionally, a country's monetary policy is carried out through the central bank, which controls the issuance of money and regulates interest rates. The use of blockchain technology has the potential to change this approach, allowing for the creation of blockchain-based digital currencies and their distribution directly to system participants, bypassing traditional intermediaries.

The use of blockchain technology can cause significant changes in the approach to monetary policy. Here are some of them:

1. Decentralization of money issuance: Blockchain can be used to create digital currencies that are not controlled by a centralized authority such as a central bank. This could pave the way for decentralized money issuance, where new money is created through mechanisms based on blockchain protocols rather than by decision of a central authority.

2. Transparency and support for financial stability: Blockchain can provide a high level of transparency in monetary policy, as all transactions can be open and verifiable. This can increase trust in the monetary system and help avoid financial crises, as transparency can facilitate early detection of problems.

3. Efficiency of transfers and payments: The use of blockchain can facilitate international transfers and payments, reducing costs and reducing transaction times. This can increase the velocity of money circulation and promote economic growth.

4. Automation of monetary policy: Blockchain-based smart contracts can automate the execution of monetary policy, ensuring that set rules and restrictions are met without the need for constant central bank intervention.

The above-described areas of change in the approach to monetary policy can be of great importance for the financial system and the economy as a whole, leading to new opportunities and challenges that should be carefully considered when developing and implementing new approaches.

The gradual replacement of fiat currencies with blockchain technologies is also taking place due to the efficiency and transparency of the latter. Blockchain technology can provide high efficiency and transparency in the management of the monetary base. Transactions made using the blockchain are irreversible and irreversible, avoiding double-spending and manipulation. In addition, all transaction information is verifiable and viewable, ensuring transparency and trust in the system. Efficiency and transparency are two key characteristics that make blockchain technology attractive to various industries. Let's take a closer look at each of them:

– Speed and execution time: Blockchain can speed up transaction processing and settlement processes compared to traditional systems. With the help of smart contracts and automation, the ability to conduct and confirm transactions can happen directly and instantly.

– Reducing intermediaries: Blockchain can eliminate the need for intermediaries in financial transactions, such as banks or payment systems, which reduces costs and reduces the time it takes to complete transactions.

– Scalability: Some blockchain platforms are scalable, allowing them to process a large volume of transactions without increasing processing time.

– Transaction verification: All transactions made on the blockchain are public and verifiable. This avoids fraud and manipulation, as anyone can check the transaction history.

– Governance transparency: Governance of data and solutions on the blockchain can be democratized and open to public participation. This allows for greater openness and trust in decision-making processes.

– Auditability and traceability: Blockchain allows for the storage of a complete transaction history, making it easy to audit and trace data, especially in the context of supply chains or financial transactions.

The implementation of blockchain technology in monetary policy is also accompanied by risks and challenges. For example, the need to regulate new digital currencies and ensure their stability can prove challenging for governments and regulators. In addition, there is the threat of cyberattacks and vulnerabilities in the blockchain system, which can lead to the loss of data or financial assets. While blockchain provides a high level of cryptographic security, it is not completely immune to cyberattacks. The security of the system may be at risk as a result of implementation vulnerabilities, 51% attacks, and other types of cybercrime. Blockchain provides transparency and inaccessibility to data changes, it can also create issues with data privacy and confidentiality. Some blockchain platforms may have limited security of personal data, which can lead to privacy breaches.

In some cases, it may be necessary to cancel or void transactions, especially in the case of erroneous or illegal activities. However, blockchain usually does not provide mechanisms to carry out such actions, which can lead to irreversible loss of funds or data. Another major challenge for the spread of the adoption and use of blockchain technologies is that many countries have not yet developed clear laws and regulations regarding the use of blockchain and cryptocurrencies, and it is this lack of regulation that can create legal risks and restrictions on the adoption and development of these technologies. For blockchain to be successful, technical, organizational, and social challenges must be addressed. Integration with existing systems, lack of staff qualifications, and abandonment of old practices can be obstacles to success. Therefore, it is necessary to carefully assess the risks and challenges associated with the use of blockchain and develop strategies to manage them to ensure the successful implementation and use of this technology.

As shown at Figure 2, there are certain centers where blockchain technologies are most actively used by business entities, and there are also 15 countries where the largest volume of blockchain transactions is observed: the USA, China, Switzerland, Singapore, Japan, Great Britain, Canada, Germany, Australia, Korea, France, India, Russia, Sweden, the Netherlands. These countries have significant potential in the field of blockchain technologies, are actively developing the industry and implementing new projects and initiatives related to this technology.

Figure 3 shows power consumption data across various countries for different models of Antminer, which is likely a reference to different models of cryptocurrency mining hardware. The horizontal axis lists numerous countries alphabetically, from Afghanistan to Brazil. Each country has a group of bars representing power consumption for each Antminer model. The vertical axis represents the total power consumption, with values likely measured in watts or kilowatts, ranging from 0 to around 3500. This graph visualizes the total power consumption of different Antminer models across a wide range of

countries. It seems designed to compare energy usage patterns between countries and to observe which models consume more power globally. This type of visualization could be useful in understanding the impact of cryptocurrency mining across various regions or in identifying the regions with the highest energy demands based on mining equipment.

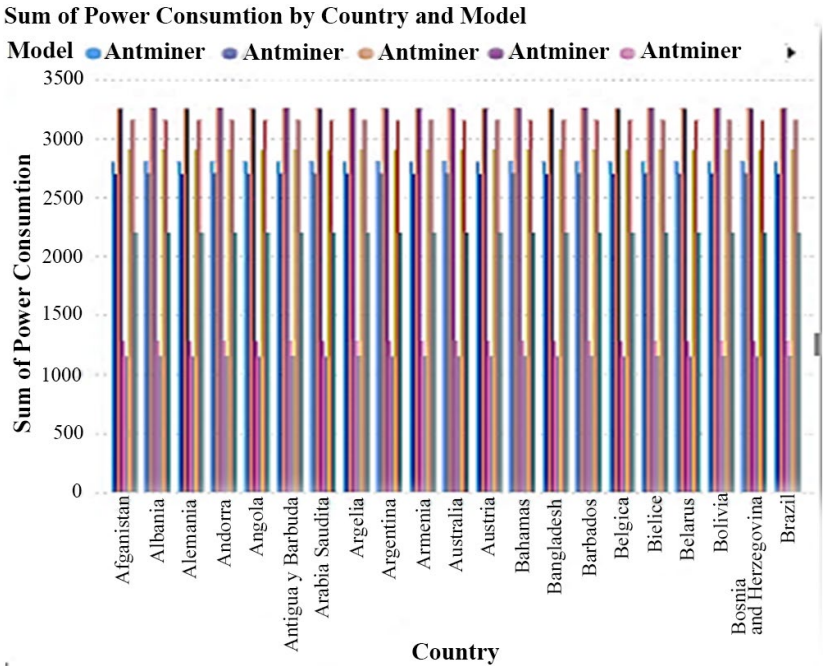


Figure 2. Sum of Power Consumption by Country and Model

Source: author's development according to US Data using Microsoft Power BI

Figure 3 shows the dynamics of power consumption by country, with colors indicating different types of changes: green for increase, red for decrease, blue for total, and yellow for other factors. On this chart, consumption fluctuates between 20,000 and 40,000 units, with rises and falls for each country. For example, Albania shows a sharp increase reaching approximately 35,000, followed by a significant decrease. In Afghanistan, consumption also varies but remains within the range of 23,000–25,000. In the case of Andorra, the total amount, marked in blue, remains stable at around 20,000 units, while other countries show smaller and uneven changes.

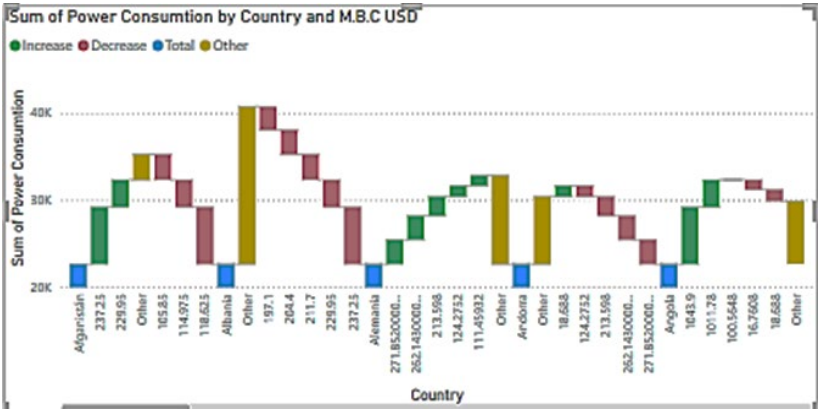


Figure 3/ Sum of Power Consumption by Country and M.B.C USD

Source: author's development according to US Data using Microsoft Power BI

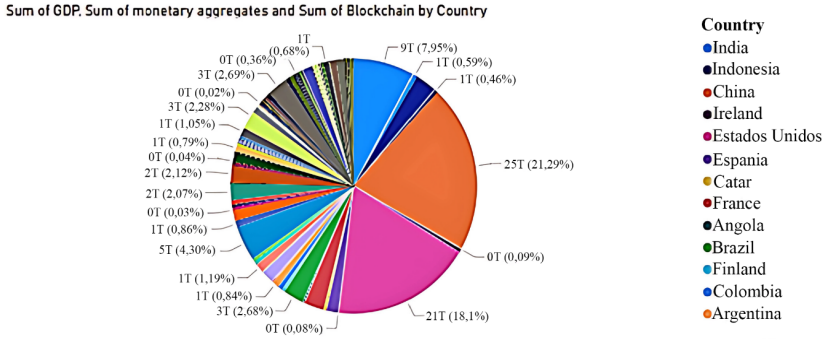


Figure 4. Sum of GDP, Sum of Monetary Aggregates, and Sum of Blockchain by Country

Source: author's development according to US Data using Microsoft Power BI

Figure 4 represents a pie chart that shows the distribution of these metrics across various countries. China holds the largest portion, accounting for 21.29% of the total. The United States follows closely with 18.1%. India and Indonesia show considerable shares at 7.95% and 4.39%, respectively. Other countries, including Ireland, Spain, Qatar, France, Angola, Brazil, Finland, Colombia, and Argentina, have smaller contributions, with each ranging from about 0.03% to 2.68%.

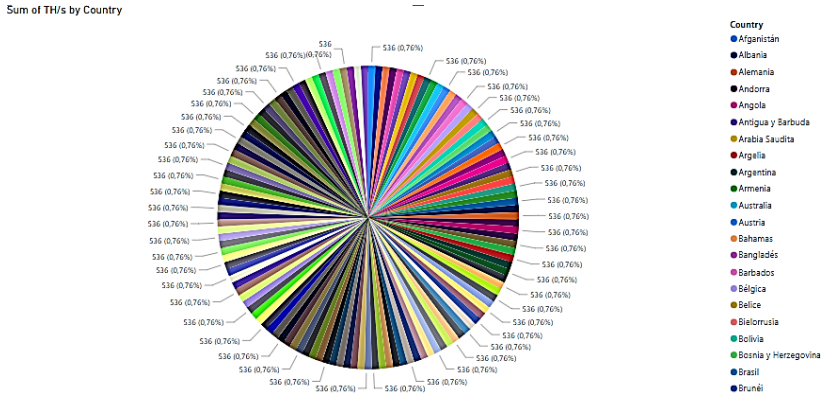


Figure 5. The ratio of blockchain tonekins by country

Source: author's development according to US Data using Microsoft Power BI

Figure 5 illustrates the distribution of blockchain tokens across various countries, presenting the relative proportions held by each. Developed using data sourced from the United States and visualized through Microsoft Power BI, this figure highlights differences in blockchain token adoption and ownership by country. The visual representation provides insights into which nations are leading in token deployment, showcasing notable disparities that reflect regional advancements in blockchain technology.

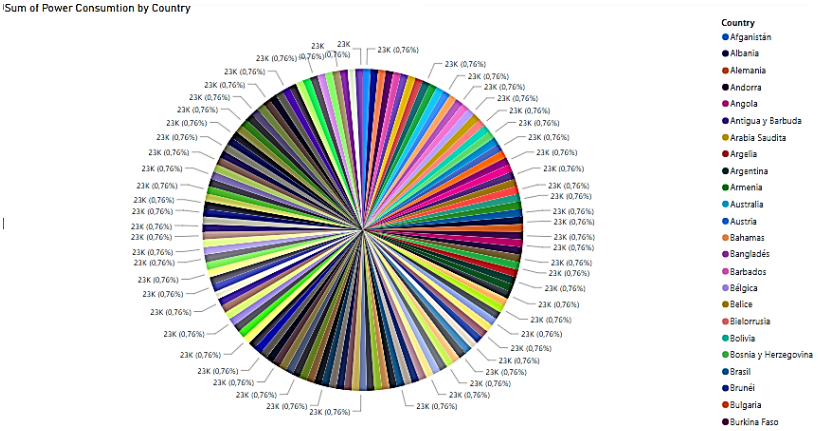


Figure 6. The ratio of total consumption by country

Source: author's development according to US Data using Microsoft Power BI

Figure 6 presents the ratio of total consumption across different countries, visually depicting the variations in consumption levels on a global scale. This analysis, developed from US data and illustrated using Microsoft Power BI, highlights the relative consumption patterns among nations. The figure allows for a comparative assessment of how different countries consume resources, products, or services, indicating trends in economic behavior and revealing which countries are leading or lagging in overall consumption. This visualization serves to underscore the interconnectedness of global markets and the disparities in consumption habits worldwide

If we compare the volume of payments or accounting of transactions carried out by business entities with all volumes of business operations in a particular country, then as of January 2024 (Figurea 8 and 9), the total amount of transactions in the world amounted to 536 billion USD. Doll. USA.

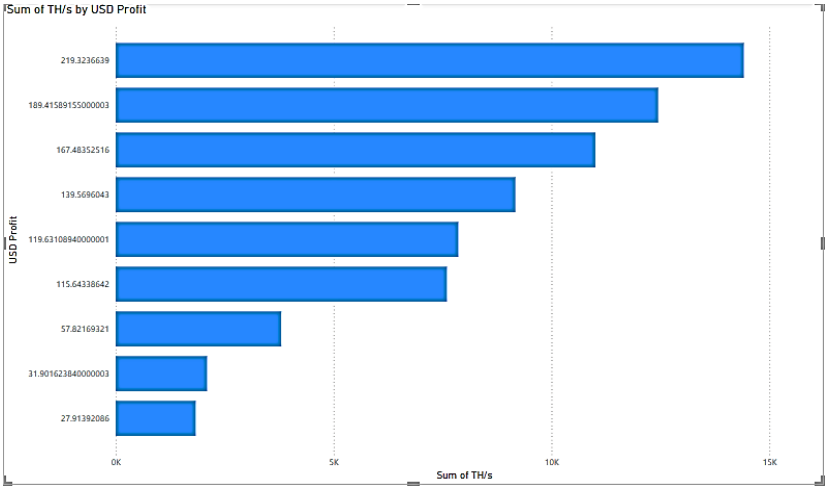


Figure 7. Detailing the ratio of blockchain tokinen to profits in US dollars

Source: author's development according to US Data using Microsoft Power BI

Figure 7 provides a detailed analysis of the relationship between blockchain tokens and their corresponding profits expressed in US dollars. Utilizing data sourced from the United States and visualized through Microsoft Power BI, this figure illustrates how the value of blockchain tokens translates into monetary gains. It highlights key trends, showcasing the profitability of blockchain investments and the economic implications of token utilization across different sectors. The visualization allows for an in-depth understanding of how

effectively blockchain tokens contribute to financial outcomes, emphasizing the potential for profit generation in the evolving digital currency landscape.

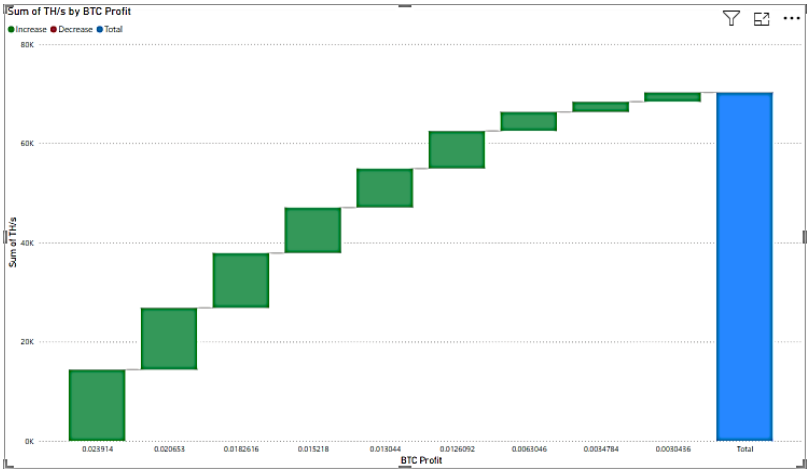


Figure 8. Detailing the ratio of blockchain tokinen to bitcoin profits

Source: author's development according to US Data using Microsoft Power BI

Figure 8 offers a comprehensive examination of the ratio of blockchain tokens to profits derived from Bitcoin investments. Developed from US data and visualized using Microsoft Power BI, this figure highlights the comparative profitability of various blockchain tokens relative to Bitcoin, the leading cryptocurrency. The visualization elucidates how different blockchain tokens perform in terms of profit generation, allowing for a nuanced analysis of their financial viability. By contrasting these ratios, the figure underscores the potential advantages and risks associated with investing in alternative blockchain tokens compared to Bitcoin, providing valuable insights into the cryptocurrency market's dynamics.

Figure 9 presents an analysis of the ratio of blockchain tokens to global consumption projected for the year 2024. Utilizing data from the United States and visualized through Microsoft Power BI, this figure illustrates the relationship between the adoption of blockchain tokens and their impact on overall global consumption patterns. The visualization highlights how the proliferation of blockchain technology may influence resource utilization and economic behavior on a worldwide scale. By detailing these ratios, the figure provides insights into the potential shifts in consumption driven by the integration of blockchain solutions, emphasizing the transformative effects of digital currencies on global markets and consumption trends in the near future.

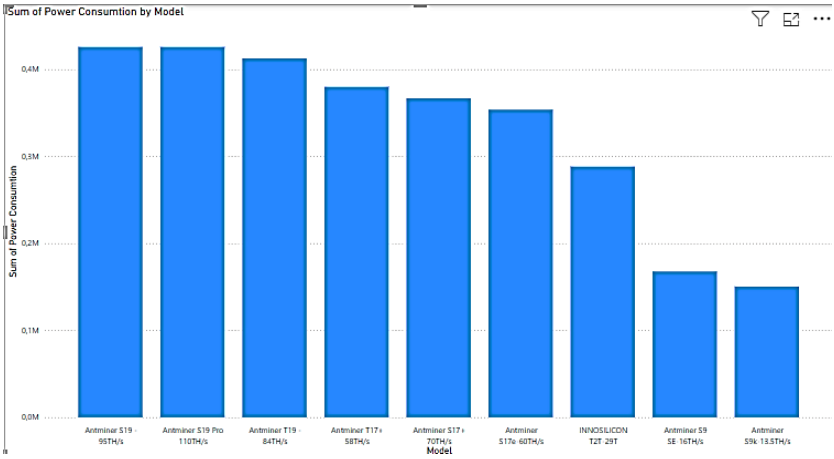


Figure 9. Detailing the ratio of blockchain tokinen to global consumption for 2024

Source: author's development according to US Data using Microsoft Power BI

In Ukraine, blockchain technology is gradually gaining popularity, and at this time there is an increase in interest in it from both business and the government and the public. However, accurate data on the number of transactions is not always collected and published on a regular basis.

We will develop an economic and mathematical model of the impact of blockchain on the volume and structure of the monetary base of a particular country. Let *MB_t* be the volume of the country's monetary base at time *t*, *MB_t-1* be the volume of the country's monetary base at the previous time *t-1*.

Then we can formulate a model of the impact of blockchain on the volume of the monetary base as:

$$MB\_t = MB\_t\text{-}1 + Delta\ MB\_блокчейн. \quad (1)$$

Where *Delta MB_ blockchain* is a change in the volume of the monetary base caused by the introduction of blockchain. This change can be positive or negative, depending on the specific circumstances and the implementation of blockchain projects.

To expand this model, it is possible to take into account the factors influencing the change in the volume of the monetary base due to the introduction of blockchain, such as:

– Issuance of digital currency: the introduction of blockchain-based digital currencies may lead to an increase in the monetary base, as new units of digital currency will be created;

– Operational Costs and Efficiency: The costs of blockchain operations (such as transaction costs) and implementation efficiency can influence changes in the monetary base.

– Impact on the financial system: A change in the governance and structure of a country's financial system due to the introduction of blockchain can have an impact on the level of liquidity and the amount of money in the system.

This model can be supplemented and adapted according to the specific conditions and circumstances of the country, as well as changes in blockchain projects and regulation.

To build a regression model of the impact of blockchain and other factors on the GDP of a particular country based on the Cobb-Douglas model, we first need to formulate the Cobb-Douglas model itself. The Cobb-Douglas model is used to describe a country's production function and usually looks like this:

$$Y = A \cdot K^{alpha} \cdot L^{beta} \quad (2)$$

where:

– Y is the gross domestic product (GDP),

– A – technological progress,

– K – capital,

– L – labor,

– *alpha* and *beta* – elasticities of production by capital and labor, respectively.

Now let's add to this model the influence of blockchain and other factors, such as blockchain investment, workforce, and other economic factors. The result will be a regression model:

$$ln(Y) = beta\_0 + beta\_1 \cdot ln(K) + beta\_2 \cdot ln(L) + \\ + beta\_3 \cdot Blockchain + beta\_4 \cdot Other\ factors + varepsilon \quad (3)$$

where:

– Y is the gross domestic product (logarithm),

– K – capital (logarithm),

– L – labor (logarithmized),

– *Blockchain* is an indicator of the impact of blockchain,

– *Other factors* – other economic factors,

– *beta_0, beta_1, beta_2, beta_3, beta_4* – коефіцієнти регресії,

– *Varepsilon* – model error.

To calculate the Blockcain indicator, we will carry out a three-stage modeling of all types of impact of blockchain technology on the available statistical data for the period 2000–2023, the results are presented in Table 2.

Table 2

Three-stage modeling to determine the aggregate indicator of the impact of blockchain on the monetary base and GDP (calculation for 123 countries for the period 2000-2023)

Model 1: OLS, based on observations 1-123
Dependent variable: monetary aggregates

	Factor	*Century. Error*	*t-statistics*	*p-value*
const	8.57272e+09	2.68730E-05	3,190e+014	<0,0001
THs	−1.22467e+08	3.88488E-07	−3,152e+014	<0,0001
Blockchain	65,7117	0,000000	5,588e+016	<0,0001
Country	2.03486E-08	4.07525E-08	0,4993	0,6185
MBCUSD	−5.99714e-09	7.25947E-09	-0.8261	0,4104

Statistics based on weighted data:

Middle Hall. Changes.	1.97e+10		Century. Vidkh. hall. Changes.	8.04e+10
Sum sq. m. Residues	2.92e-08		S.P. regression	0,000016
R-Square	1,000000		Skorig. R-square	1,000000
Log. Plausible.	1188,440		Crete. Akaike	-2366,879
Crete. Schwartz	-2352,818		Crete. Hennan-Quinn	-2361,168

Model 2: MZNK, based on observations 1-123 (n = 123)
Missed or incomplete observations excluded: 1
Dependent Variable: Blockchain
The variable used as a set of weighting factors: GDP

	Factor	*Century. Error*	*t-statistics*	*p-value*
const	-412179	600563	-0.6863	0,4938
monetaryaggregates	0,0152184	1.41066E-06	1,079e+004	<0,0001
Country	4914,87	9782,92	0,5024	0,6163

Statistics based on weighted data:

Sum sq. m. Residues	9.76e+26		S.P. regression	2.86e+12
R-Square	0,999999		Skorig. R-square	0,999999
F(2, 119)	58674037		P-value (F)	0,000000
Log. Plausible.	-3670.924		Crete. Akaike	7347,849
Crete. Schwartz	7356,261		Crete. Hennan-Quinn	7351,265

Statistics based on initial data:

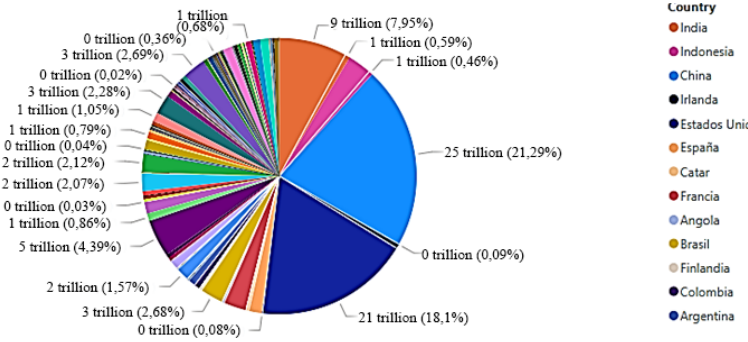
Middle Hall. Changes.	3,00e+08		Century. Vidkh. hall. Changes.	1.23e+09
Sum sq. m. Residues	5.80e+15		S.P. regression	6978648

Model 3: Least modulus method, based on observations 1-123 (n = 122)
Missed or incomplete observations excluded: 1
Dependent Variable: Blockchain

	Factor	*Century. Error*	*t-statistics*	*p-value*
const	5.86144e+07	2.30742e+07	2,540	0,0124
Country	-732695	291425	-2,514	0,0133
GDP	6.29614E-05	6.81581E-05	0,9238	0,3575

Median Hall. Changes.	11065176		Century. Vidkh. hall. Changes.	1.23e+09
Sum abs. Pohibok	3.14e+10		Sum sq. m. Residues	1.71e+20
Log. Plausible.	-2569,233		Crete. Akaike	5144,466
Crete. Schwartz	5152,878		Crete. Hennan-Quinn	5147,883

Visually, by country, the impact of blockchain according to this model is presented in Figure 11.



Country	Сума для GDP	Сума для monetary aggregates	Сума для Blockchain
Francia	3048000000000	73200568000	1 113 966 243,82
Angola	203868000000	65217280000	992 476 567,04
Brasil	3128000000000	61284170000	932 622 499,06
Finlandia	275545000000	54127900019	823 718 382,49
Colombia	754645000000	45125177332	686 714 948,64
Argentina	986134000000	30376619800	462 271 400,12
Guatemala	152734000000	26748863000	407 064 197,13
Armenia	39613000000	25827831700	393 047 942,81
Canadá	1832000000000	25684000000	390 859 112,00
Costa Rica	109260000000	25631000556	390 052 566,46
Australia	1279000000000	23502660300	357 663 484,45
Austria	484698000000	20526603000	312 373 844,45
Усього	**114322526000000**	**2421049891548**	**36 767 125 131,48**

Figure 10. The impact of blockchain on the structure of the monetary base and GDP of countries

Source: author's development based on panel data for the model

This model allows you to assess the impact of blockchain and other factors on a country's GDP, taking into account their relationship with capital and labor by modifying the Cobb-Douglas model.

Conclusions

The discussion of the research findings reveals that while digital transformation offers numerous benefits, it also requires careful management to mitigate associated risks. The cybersecurity threat landscape is continually evolving, necessitating the implementation of robust security measures to protect digital infrastructure. Governments and businesses must work together to develop comprehensive cybersecurity strategies that address these challenges and ensure the resilience of digital systems.

The digital transformation of the global economy represents a profound shift in the mechanisms by which economic activities are conducted, with significant implications for businesses, governments, and societies at large. This transformation is characterized by the widespread adoption of digital technologies, which are reshaping traditional economic structures and creating new opportunities for innovation and growth. However, alongside these opportunities, numerous challenges emerge that must be carefully navigated to fully realize the potential benefits of digitalization.

Furthermore, the issue of data privacy cannot be overlooked. As digitalization continues to advance, there is a growing need for regulations that protect individuals' privacy rights while allowing for the beneficial use of data. The development of international standards for data protection is crucial to ensure that digital transformation does not come at the cost of individuals' privacy.

In addition to addressing these challenges, it is essential to focus on ensuring that the benefits of digital transformation are equitably distributed. The digital divide remains a significant barrier to inclusive economic growth, particularly in developing countries where access to digital technologies is limited. Bridging this gap requires investments in digital infrastructure, education, and skills development to empower individuals and communities to participate in the digital economy.

One of the most significant opportunities presented by digital transformation is the ability to enhance efficiency and productivity across various sectors of the economy. By leveraging advanced technologies such as artificial intelligence, big data analytics, and the Internet of Things (IoT), businesses can optimize their operations, reduce costs, and improve decision-making processes. This technological advancement has led to the emergence of new business models, such as platform-based economies, which facilitate more

efficient resource allocation and create new value propositions for consumers and producers alike.

Moreover, digital transformation is democratizing access to global markets, particularly for small and medium-sized enterprises (SMEs). The reduction in barriers to entry and the ability to reach global audiences through digital platforms are enabling SMEs to compete with larger corporations on a more level playing field. This trend is fostering greater economic inclusion and diversity, as businesses from different regions and sectors can participate more fully in the global economy.

However, the rapid pace of digital transformation also presents significant challenges, particularly concerning data privacy, cybersecurity, and the digital divide. The increasing reliance on digital technologies has raised concerns about the protection of personal and sensitive information, as cyber threats become more sophisticated and pervasive. Additionally, the unequal distribution of digital infrastructure and skills across different regions and populations exacerbates the digital divide, potentially leading to greater economic inequalities.

The labor market is also undergoing significant changes as a result of digital transformation. While new technologies create opportunities for high-skilled jobs, they also pose a threat to traditional employment, particularly in sectors that are susceptible to automation. This shift necessitates the development of new educational and training programs to equip the workforce with the skills needed to thrive in a digital economy.

In conclusion, the digital transformation of the global economy presents both challenges and opportunities. The integration of digital technologies has the potential to drive economic growth, innovation, and sustainable development. However, it also raises significant concerns regarding cybersecurity, data privacy, and inequality. To maximize the benefits of digital transformation, it is essential to adopt comprehensive strategies that address these challenges and promote inclusive development. Future research should focus on exploring the long-term implications of digital transformation and identifying best practices for managing its impact on the global economy.

To harness the benefits of this transformation, it is crucial for policymakers, businesses, and society to address the associated risks and to promote inclusive and sustainable digital growth. Future research should focus on exploring the long-term impacts of digitalization on economic structures, the role of regulation in managing digital risks, and the strategies for ensuring that the benefits of digital transformation are equitably distributed across society. This multifaceted approach will be essential in navigating the digital future and in fostering a global economy that is both competitive and inclusive.

Blockchain technology has great potential to change the structure of a country’s monetary base, providing efficiency, transparency, and new

opportunities for managing the financial system. However, the successful implementation of this technology requires careful analysis of risks and challenges, as well as the development of effective regulatory strategies.

The analysis found that blockchain technologies have significant potential to transform traditional international business models by ensuring transparency, security, and efficiency of transactions. The results of the study demonstrate the potential benefits of using blockchain to change the structure of international business, including reducing transaction costs, increasing transparency and openness, improving security, and restoring the trust of market participants. The study highlights the need to carefully address issues related to the regulatory environment, data privacy, scalability, and energy efficiency for the successful implementation of blockchain technologies in Ukraine's financial sector. Based on the results obtained, specific recommendations are formulated on strategic directions for the use of blockchain technologies to change the structure of representation of international business in Ukraine, including the development of relevant legislation, the creation of infrastructure and support for innovative projects. The results of the study confirm the significance and relevance of the introduction of blockchain technologies in the financial and credit system of Ukraine and provide the basis for further scientific and practical research in this area.

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