

YASHIL

IQTISODIYOT va TARAQQIYOT

Ijtimoiy, iqtisodiy, texnologik, ilmiy, ommabop jurnal



ZAMONAVIY IQTISODIYOTDA YUQORI MUHANDISLIK TEKNOLOGIYALARINI ILMIY-AMALIY JORIY ETISH INNOVATSION TARAQQIYOT POYDEVORI

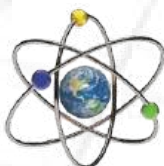
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“ZAMONAVIY IQTISODIYOTDA YUQORI MUHANDISLIK TEXNOLODIYALARINI ILMIY-AMALIY JORIY ETISH INNOVATSION TARAQQIYOT POYDEVORI”

MAVZUSIDAGI ILMIY MAQOLALAR TO‘PLAMI





THE ROLE OF DIGITALIZATION IN REGIONAL DEVELOPMENT AND THE UTILIZATION OF THEIR POTENTIAL FOR SUSTAINABLE DEVELOPMENT

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Abstract: The study examines the decisive role of digitization and its tools in regional development. Methodologically, the research uses a systematic, process-oriented approach and a dialectical method of scientific research. Highlighting key features of regional potential, the study analyzes the importance of digitization in promoting economic growth and achieving sustainable development goals.

Key words: development, digitalization, regional economic systems, potential, information and communication technologies.

Annotatsiya: Tadqiqot raqamlashtirish va uning vositalarining mintaqaviy rivojlanishdagi hal qiluvchi rolini o'rganadi. Metodologik jihatdan tadqiqotda tizimli, jarayonga yo'naltirilgan yondashuv va ilmiy tadqiqotning dialektik usuli qo'llaniladi. Mintaqaviy salohiyatning asosiy xususiyatlarini yoritib, tadqiqot iqtisodiy o'sishni rag'batlantirish va barqaror rivojlanish maqsadlariga erishishda raqamlashtirishning ahamiyatini tahlil qiladi.

Kalit so'zlar: barqaror rivojlanish, raqamlashtirish, mintaqaviy iqtisodiy tizimlar, salohiyat, axborot-kommunikatsiya texnologiyalari.

Аннотация: В исследовании рассматривается решающая роль цифровизации и ее инструментов в региональном развитии. Методологически в исследовании используются системный, процессуальный подход и диалектический метод научного исследования. Подчеркивая ключевые особенности регионального потенциала, исследование анализирует важность цифровизации в содействии экономическому росту и достижению целей устойчивого развития.

Ключевые слова: устойчивое развитие, цифровизация, региональные экономические системы, потенциал, информационно-коммуникационные технологии.

INTRODUCTION

Current challenges in regional development highlight the need to manage regional potential to enhance competitiveness, self-sufficiency, and reduce disparities in social, economic, and environmental development. The principles of sustainable development have shown that economic growth alone does not automatically lead to social progress, solve environmental problems, or reduce developmental asymmetries between regions. Regional potential is a complex system encompassing various areas such as natural, intellectual, industrial, labor, social, economic, creative, investment, cultural, educational, recreational, and tourism resources. Today, the primary driver for activating regional potential and achieving sustainable development principles is the digitalization of the economy. This, among other factors, calls for a more detailed study of the role of digitalization in regional development and the utilization of regional potential within the context of sustainable development.

LITERATURE REVIEW

The aim of the article by Suraeva et al. (2022) is to examine the impact of digital technologies on approaches to economic security. The researchers have developed a strategy for economic security in the regions and proposed measures to protect information security. Based on their findings, a system of measures to ensure the country's information security in the field of domestic policy was formulated.

In the article by Trubetskaya (2021), scientists analyze the key aspects of sustainable progress in the country through regional development factors. The authors demonstrated that digital technologies can significantly influence the economic and social conditions of a region. The article highlights that digitalization offers endless opportunities to enhance the efficiency of economic processes and increase the competitiveness of regions.



In the scientific work by Bahn et al. (2021), the authors analyzed the potential and current contributions of digital technologies in the agro-food sector. Their study highlights that digital agriculture shows promise in addressing key challenges faced by the agro-food sector in various countries. The authors assert that public policy should not only encourage the adoption of digital technologies in the Middle East and North Africa but also ensure equal access, transparency, data protection, and labor protection.

Digitization influences the development of all processes in the economic and social spheres, including the enhancement of economic security, as argued by Pestryakov et al. (2021). The researchers examine the digitization of a specific economic activity within a region. They analyze the indicators that determine the economic security of the region and identify associated problems. Based on their analysis, the authors provide recommendations for addressing these issues and calculate the benefits of implementing certain digital technologies.

The article by Unbehaun et al. (2021) explores the impact of digitalization on rural and industrialized regions, focusing on enhancing quality of life. It emphasizes that these processes are transformative and hinge on regions' capacity to address challenges such as modernizing their industrial infrastructure, upgrading skills, mitigating job losses in key sectors, and enhancing overall welfare and living standards. The authors argue for the importance of these regions in contributing to national economic productivity while striving for inclusivity and sustainability in societies.

Furthermore, the article adopts interdisciplinary perspectives to analyze regions undergoing industrial and digital transitions, aiming to achieve sustainability amidst global shifts like decarbonization and ongoing technological advancements.

RESEARCH METHODOLOGY

A significant number of scientists focus their research on higher education in the context of digitalization, recognizing it as a priority for the sustainable development of regions. These studies examine priority areas for enhancing universities' adaptability to the digital economy. The authors analyze the role of higher education in the development of the digital economy and how it adapts to these new conditions.

For a comprehensive exploration of the spatial aspects of sustainable regional development, a systematic approach is highly suitable. Applying a systems approach enables researchers not only to analyze a region's potential within broader and more localized systems simultaneously but also to evaluate the effectiveness of digital influences on spatial development in alignment with sustainability principles. The systems approach facilitates the simultaneous study of a diverse array of subsystems within the regional economy, considering their varied characteristics and interrelationships, while also accounting for the influences of the external environment.

ANALYSIS AND RESULTS

The potential of a region reflects its ability and readiness to leverage these resources to improve social, economic, and environmental development. Readiness is indicated by the presence of certain opportunities within regions and the sufficiency and balance needed to transform potential into actual resources. Capacity involves the incentives necessary to convert potential into effectively utilized resources for regional development. Each type of regional potential has its unique characteristics and conditions for use, contributing to sustainable development goals.

A systematic approach to understanding the role of digitalization in regional development and harnessing their potential within sustainable development is enriched by employing a process-oriented approach. This is crucial as the subject of study involves complex and interconnected developmental processes. The process approach enables the integration of multifaceted actions aimed at achieving desired outcomes for regions. The interconnectedness of these processes and actions yields overall positive results, fostering not only the adoption of digitalization but also enhancing the engagement of regional potential towards achieving sustainable development goals.

The dialectical method plays a fundamental role in studying the impact of digitalization on regional development and the utilization of their potential within sustainable development frameworks. This method allows for a comprehensive examination by identifying and integrating aspects such as the whole and its parts, primary and secondary factors, regularities and contingencies, as well as abstract concepts and concrete manifestations in regional development.

The objective of this study is to establish the theoretical and methodological principles that underpin the role of digitalization in regional development and the effective utilization of regional potential within contemporary sustainable development contexts.

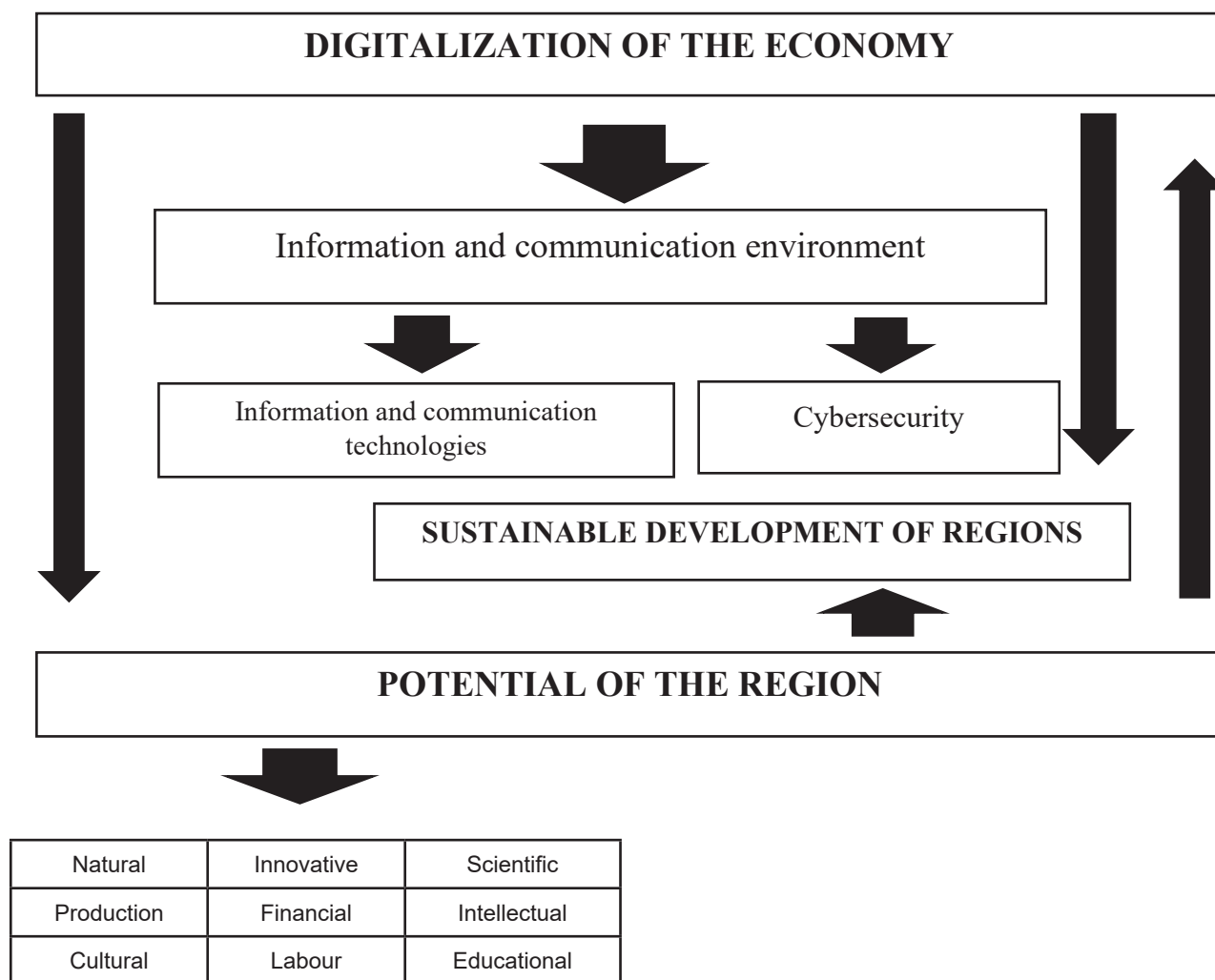


Figure 1. Relationships of digitalization with sustainable development and potential of regions.

The development of a specific area involves mechanisms and tools aimed at achieving sustainable development goals. By maximizing the region's potential in sustainable development, competitiveness is increased, and social, economic, and environmental development is ensured. Digitalization plays a crucial role in activating regional potential, as depicted in Figure 1.

Figure 1 illustrates the relationships between digitalization, sustainable development, and the potential of regions. Digitalization involves the introduction of modern information technologies across all sectors, the advancement of e-democracy, and the utilization of e-government tools. These initiatives enhance the efficiency of regional actors and establish transparent communication systems among businesses, government entities, and households. E-government tools streamline access to administrative services, improving social life quality and stimulating entrepreneurial activity.

The effectiveness of digitalization in regional development hinges on the current information and communication environment supported by information technologies and cybersecurity. This environment facilitates the adoption of modern technologies, software products, specialized networks, and systems. Key indicators of its functionality include enhancing regional economic competitiveness, fostering beneficial relationships among regional actors, promoting transparency in government relations, and reducing economic opacity and monopolies in market relations.

To optimize the information and communication environment (Figure 1), the following actions are essential:

- Sustainable development of regions
- Digitalization of the economy
- Utilization of regional potential
- Information and communication technologies
- Cybersecurity

This framework illustrates how integrating digitalization into regional development strategies can unlock the

potential of all territories, fostering sustainable growth and transparency in economic and social interactions.

Conclusion. In conclusion, the role of digitalization in regional development cannot be overstated. It serves as a powerful catalyst for sustainable growth by unlocking the full potential of regions worldwide. Through digitalization, regions can enhance their competitiveness, foster innovation, and improve the quality of life for their inhabitants. By leveraging digital technologies, such as the Internet of Things (IoT), artificial intelligence (AI), and data analytics, regions can optimize resource utilization, streamline processes, and create new economic opportunities.

Furthermore, digitalization enables regions to address pressing sustainability challenges by promoting more efficient resource management, reducing environmental impact, and advancing renewable energy solutions. By harnessing digital tools for monitoring, planning, and decision-making, regions can better understand their ecosystems and implement targeted interventions to promote sustainability.

However, to fully realize the benefits of digitalization for sustainable development, it is essential to address digital divides, ensure equitable access to technology, and promote digital literacy among all segments of society. Additionally, policymakers must implement supportive regulatory frameworks and incentives to encourage investment in digital infrastructure and innovation.

In essence, digitalization holds immense promise for driving regional development and advancing sustainable development goals. By embracing digital transformation and harnessing the potential of digital technologies, regions can build more resilient economies, promote inclusive growth, and create a better future for generations to come.

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MUNDARIJA

Muhandislar – taraqqiyot tayanchi	4
Sadoqat Siddiqova	
Исследование влияние азотсодержащей добавки на процесс окисления битумов	9
Юлдашев Норбек Худайназарович	
Ziyorat turizmining iqtisodiy, ekologik va ijtimoiy ta'siriga oid muammolar yechimida terminologiyaning ahamiyati.....	14
Malohat Jo'rayeva, Shavkat Bafojev	
Eksploatatsiya davrida kompressor moylarining ishlashi va fizik-kimyoviy xususiyatlari o'zgarishining o'ziga xosligi	19
Xo'jaqulov Aziz Fayzullayevich	
Tabiiy gazning oltingugurtli qo'shimchalarining fizik-kimyoviy xossalarini tadqiq qilish	24
Muxtor Jamolovich Maxmudov, Ramazonov Bahrom G'afurovich	
Автоматическое формообразование пневматических опалубок бикубическими сплайнами.....	30
Ядгаров Ўктам Турсунович, Ахмедов Юнус, Асадов Шухрат Кудратович	
Optimizing the efficient transport of mass from alternative energy sources and the process of heat and mass exchange during the processing of spices	37
Khayrullo Djurayev Fayzievich, Mizomov Mukhammad Saydulla ugli	
The role of digitalization in regional development and the utilization of their potential for sustainable development	44
Jafarova Khilola Khalimovna	
Разработка новых структур и способов выработки комбинированного трикотажа с повышенной формоустойчивостью на базе интерлочного переплетения	48
Гуляева Г.Х., Мукимов М.М., Каримова Н.Х.	
Кислотная активация навбахорской бентонитовой глины	53
Хужакулов Азиз Файзуллаевич, Хотамов Кобил Ширинбой угли	
Mustaqil ta'limni tashkil etishda raqamli texnologiyalardan foydalanish metodikasini takomillashtirish.....	58
Murodova Zarina Rashidovna	
Kislorodli birikmalar asosida olingan antideetonatsion kompozitsiyalarning ai-80 avtomobil benzinini detonatsion barqarorligiga ta'sirini tadqiq qilish	66
Saloydinov Aziz Avazovich	
Buxoro viloyatining investitsion jozibadorligini oshirish yo'llari.....	70
Akramova Obida Qosimovna	
Исследование механико-технологических параметров глубокого рыхления почвы подпахотного горизонта.....	77
Н.С.Бибутов, Ф.Ю.Хабибов, Ш.М.Муродов	
Разработка экспериментальной установки энергосберегающего измельчителя фруктов и овощей для производства сок с мякотью.....	85
Ф.Ю. Хабибов, Х.Х. Ниязов	
Туризм: типология и классификация.....	95
Малохат Мухаммадовна Жураева, Марупова Гульноз Умарджоновна	
"Yashil energetika"ni rivojlantirishni rag'batlantirishning me'yoriy ko'rsatkichlarini ishlab chiqish.....	99
Sadullayev Nasullo Ne'matovich, G'afurov Mirzoxid Orifovich, Ne'matova Zuxra Nasullo qizi	
Umumiy ovqatlanish korxonalarida xizmat ko'rsatish sifatini oshirishda diversifikatsiyalangan milliy hunarmandchilik mahsulotlaridan foydalanishning ahamiyati.....	108
Ruziyeva Gulinoz Fatillolevna, Raximova Dilorom Sulaymonovna	
Polimerlar ishlab chiqarishda hamda ularni qayta ishlashda hosil bo'ladigan chiqindilardan samarali foydalanish jihatlari.....	114
Raxmatov Sherzod Shuxratovich, Sadirova Saodat Nasreddinova, Niyozova Rano Najmiddinova, Axmedov Hafiz Ibroimovich	
Kichik quvvatli, energiya samarador shamol turbinalari ko'rsatkichlarining tahlili.....	118
I.I. Xafizov, F.F. Muzaffarov, M.Sh. O'ktamov	



Анализ ингредиентов пищевых продуктов с помощью нейронной сети	127
Мухамадиева Зарина Баходировна	
Dizel moylarini reologik xossalarini tatqiq qilish	132
Xo'jaqulov Aziz Fayzullayevich, Toshov Mavzuddin Sa'dullo o'g'li	

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