

Digital Transformation, Digital Dividends, and Entrepreneurship in Promoting Economic Sustainability

Nathania Qoulan Syadida¹ ✉, Wulan Nur Afriani², and Muhammad Tajuddin³

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia¹; Universitas Sebelas Maret, Surakarta, Indonesia²; Universitas Gadjah Mada, Yogyakarta, Indonesia³

ABSTRACT

This study aims to analyze the relationship between digital transformation, digital dividends, and entrepreneurship in supporting economic sustainability through a Systematic Literature Review (SLR). The review examined ten scientific articles published over the last five years and retrieved through Google Scholar, based on their relevance to the research topic. The findings indicate that digital transformation plays a significant role in enhancing organizational efficiency, productivity, innovation, and competitiveness in the digital economy era. Furthermore, digital transformation generates various economic benefits known as digital dividends, including improved market access, transaction efficiency, economic inclusion, and the creation of new business opportunities. The study also reveals that entrepreneurship acts as an enabling factor that allows organizations to utilize digital technologies more effectively in generating sustainable value creation. The review demonstrates that the relationship between digital transformation and economic sustainability is not direct but is influenced by an organization's ability to generate digital dividends and foster entrepreneurial orientation. This study contributes to the literature by synthesizing and integrating these three concepts within a comprehensive economic sustainability framework while identifying future research opportunities for further academic development.

Keywords: *Digital Dividends, Digital Transformation, Economic Sustainability, Entrepreneurship, Systematic Literature Review.*

CORRESPONDING AUTHOR:

Nathania Qoulan Syadida
 Universitas Negeri Yogyakarta, Yogyakarta, Indonesia
contact: nathania345@gmail.com

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1. | INTRODUCTION

The development of the global economy in recent years shows that digital technology has become one of the key factors driving changes in economic structures, business patterns, and value creation mechanisms in various sectors. Digital transformation is no longer seen as a strategic choice, but rather as a need to increase efficiency, productivity, and competitiveness in an increasingly dynamic economic environment. Advances in information and communication technology have expanded access to markets, accelerated the flow of information, and created new opportunities for economic actors to develop business models that are more adaptive to environmental changes. In this context, digital transformation is an important element that determines the ability of an organization or business to survive and thrive in the digital economy era (Galindo-Martin et al., 2019; Fachrunnisa et al., 2020).

In addition to driving operational efficiency, digital transformation also produces various economic benefits known as digital dividends. The concept of digital dividends refers to the economic and social benefits obtained from the use of digital technology, such as increasing productivity, expanding market access, strengthening economic inclusion, and creating new jobs. The presence of digital technology allows businesses to reduce transaction costs, improve service quality, and expand consumer reach without significant geographical restrictions. Therefore, digital dividends are one of the important indicators in assessing the success of the implementation of digital transformation in supporting sustainable economic growth (Aminullah et al., 2022; Galindo-Martin et al., 2019).

On the other hand, entrepreneurship also has a very important role in encouraging economic development. Entrepreneurship not only functions as a mechanism for creating new businesses, but also as a source of innovation that is able to produce more competitive products, services, and business models. In an ever-changing economic environment, entrepreneurial ability is a factor that determines the success of business actors in identifying opportunities, managing risks, and developing adaptive strategies. A number of studies show that entrepreneurship has a positive relationship with improving business performance, economic value creation, and sustainable growth (Morales et al., 2022; Endris & Kassegn, 2022).

However, various challenges still hinder the optimization of the benefits of digital transformation and entrepreneurship on economic sustainability. Several studies show that limited digital competencies, low organizational readiness, and inequality of access to technology are still the main obstacles in the digital transformation process. In addition, the results of previous research also show diverse findings regarding the effectiveness of digital transformation in creating economic sustainability. Some studies have found a significant influence, while other studies show that the success of digital transformation is strongly influenced by supporting factors such as the quality of human resources, organizational capabilities, and entrepreneurial capabilities (Rupeika-Apoga & Petrovska, 2022; Zahoor et al., 2023).

Based on a review of the literature, most of the research still focuses on the effects of digital transformation on short-term business performance, such as increased sales and productivity. Studies that integrate digital transformation, digital dividends, and entrepreneurship in the perspective of economic sustainability are still relatively limited. In addition, research on the contribution of digital dividends as a mechanism that bridges digital transformation and economic sustainability has also not been widely done. Previous research conducted by Aulia et al. (2023) shows that digital transformation, digital dividends, and entrepreneurship have the potential to drive business sustainability, but a more comprehensive synthesis is still needed to understand the relationship between these variables in the broader economic context.

Based on these conditions, this study aims to systematically analyze the relationship between digital transformation, digital dividends, and entrepreneurship in encouraging economic sustainability. Through a systematic literature review approach, this study is expected to provide a more comprehensive understanding of the factors that support economic sustainability in the digital transformation era and identify research directions that still need to be developed in the future.

2. | LITERATURE REVIEW

Digital Transformation in Economic Development

Digital transformation is the process of integrating digital technology into various organizational and economic activities that results in fundamental changes in the way value is created, decision-making, and resource management. The development of information and communication technology has driven significant changes in the pattern of economic interaction, both at the individual, organizational, and economic system levels as a whole. Digital transformation is no longer seen as just the adoption of new technologies, but rather as a strategy that allows organizations to improve efficiency, productivity, and competitiveness in an increasingly dynamic environment. The ability to utilize digital technology is one of the important factors that determine the success of an organization in dealing with market changes and global economic developments (Fachrunnisa et al., 2020).

In the context of the modern economy, digital transformation provides various benefits, such as increased operational efficiency, acceleration of business processes, reduction of transaction costs, and expanded access to markets. Digital technology allows organizations to manage data more effectively resulting in more accurate decisions and responsiveness to market needs. In addition, digitalization also opens up opportunities for the emergence of new business models that are more flexible and innovation-based. Digital transformation has been proven to be able to improve the ability of organizations to create added value and strengthen competitiveness in the midst of increasingly complex competition (Galindo-Martin et al., 2019).

However, the implementation of digital transformation still faces various challenges. Limited digital competencies, low organizational readiness, lack of

technological infrastructure, and resistance to change are the main obstacles in the digitalization process. Several studies show that the success of digital transformation is not only determined by the availability of technology, but also by the organization's ability to develop human resources and build a culture of innovation that supports change. Therefore, digital transformation needs to be understood as a multidimensional process that involves technological, organizational, and human aspects simultaneously (Rupeika-Apoga & Petrovska, 2022; Zahoor et al., 2023).

Digital Dividends as a Driver of Economic Growth

Digital dividends are economic and social benefits that result from the effective use of digital technology in various economic activities. This concept developed in response to increasing digitalization in various sectors that not only results in technical efficiencies, but also creates a broader impact on productivity, well-being, and economic growth. Digital dividends can be in the form of increasing labor productivity, creating new jobs, increasing access to financial services, and expanding economic opportunities for the community and business actors. Thus, successful digitalization is not only characterized by a high level of technology adoption, but also by the ability to generate real benefits for economic activities (Galindo-Martin et al., 2019).

In the digital economy, the existence of digital dividends is an important factor that determines the success of digital transformation. Digital technology allows organizations to access information quickly, expand business networks, and increase efficiency in production and distribution processes. In addition, the use of digital platforms also encourages the creation of wider economic inclusion through more open market access and lower transaction costs. These conditions contribute to increased productivity and competitiveness which ultimately supports more sustainable economic growth (Aminullah et al., 2022).

However, the benefits of digitalization are not always evenly distributed. Gaps in access to technology, differences in digital literacy levels, and limited infrastructure are still factors that hinder the achievement of digital dividends optimally. Therefore, policy support, human resource capacity development, and strengthening the digital ecosystem are needed so that the benefits of digital transformation can be felt more widely. In other words, digital dividends depend not only on the technology itself, but also on the ability of various economic actors to utilize the technology productively and sustainably (Novitasari et al., 2022; Hosan et al., 2022).

Entrepreneurship and Economic Sustainability

Entrepreneurship is one of the main pillars in economic development because it plays a role in creating innovation, opening up new business opportunities, and encouraging sustainable economic growth. Entrepreneurship is not only related to the ability to establish a business, but also includes the capacity to identify opportunities, manage risks, and develop strategies that are able to create added value in the long term.

In an ever-changing economic environment, entrepreneurial capabilities are an important factor that allows organizations to adapt to technological changes, market dynamics, and increasingly complex consumer demands (Morales et al., 2022).

Economic sustainability refers to the ability of an organization or economic system to maintain performance and growth in the long term without sacrificing the ability to face future challenges (Elsawy & Youssef, 2023). In this perspective, entrepreneurship has a significant contribution because it encourages the birth of innovations that can increase efficiency, productivity, and competitiveness. Organizations that have an entrepreneurial orientation tend to be more adaptive to changes in the environment and are better able to take advantage of opportunities that arise from technological developments and changes in market needs (Endris & Kassegn, 2022).

The development of the digital economy has further strengthened the relationship between entrepreneurship and economic sustainability. Digital transformation provides opportunities for business actors to create new business models, expand markets, and increase the effectiveness of resource management. However, various studies show that the successful integration between entrepreneurship and digital technology is greatly influenced by the level of digital literacy, innovation ability, and organizational capabilities in managing change. Therefore, entrepreneurship is seen as a strategic factor that can strengthen the influence of digital transformation and digital dividends on economic sustainability in the long term (Putritamara et al., 2023; Zahoor et al., 2023; Aulia et al., 2023).

3. | RESEARCH METHOD

This research uses the Systematic Literature Review (SLR) approach to identify, evaluate, and synthesize various research findings related to digital transformation, digital dividends, entrepreneurship, and economic sustainability. The SLR approach was chosen because it is able to provide a comprehensive and systematic understanding of the development of knowledge in a research field through the process of searching, selection, evaluation, and synthesis of literature that is transparent and replicable. This method also allows researchers to identify research gaps, patterns of relationships between variables, and future research development directions based on previously published empirical evidence.

The literature review process is carried out through several stages that refer to the principle of systematic review. The first stage is to identify literature by searching for scientific articles indexed by Google Scholar using a combination of keywords such as "digital transformation", "digital dividends", "entrepreneurship", "economic sustainability", "business sustainability", and "digital economy". Searches are limited to articles published over the past five-year period so that the results of the study reflect the latest research developments and are relevant to the context of the rapidly evolving digital economy. In addition, the article used must be available in the form of a complete

manuscript, published in a reputable scientific journal, and have a direct connection to the research focus.

The second stage is the process of screening and article selection. Articles that have common themes, duplicate data, or do not have a strong relevance to the research objectives are eliminated from the analysis process. Next, a quality assessment stage is carried out to ensure that each article used has an adequate theoretical and empirical contribution to the research topic. From this process, ten main articles were obtained that met the inclusion criteria and were used as a source of analysis, including research by Novitasari et al. (2022) which discussed the relationship between digital transformation, digital dividends, entrepreneurship, and business sustainability.

The final stage is data extraction and synthesis of findings. The data obtained from each article was analyzed qualitatively by identifying key concepts, research variables, empirical findings, and relevant theoretical implications. The results of the analysis were then grouped based on the main themes of the research to produce a more structured understanding of the relationship between digital transformation, digital dividends, entrepreneurship, and economic sustainability. Through this approach, the research is expected to be able to provide a comprehensive overview of the development of existing studies as well as identify research opportunities that are still open to be developed in the future.

4. | RESULTS

The results of the literature review show that digital transformation has developed into one of the main determinants in the formation of competitiveness and economic sustainability in the digital era. Almost all of the studies analyzed place digital technology as a strategic factor that can increase operational efficiency, expand market access, and strengthen organizational capabilities in dealing with increasingly dynamic business environment changes. Digitalization allows organizations to obtain information faster, improve the quality of decision-making, and optimize the use of their resources. This condition makes digital transformation one of the important foundations in efforts to create sustainable economic growth (Galindo-Martin et al., 2019; Fachrunnisa et al., 2020).

Analysis of various studies shows that the benefits of digital transformation are not only limited to increasing the internal productivity of organizations, but also contribute to the formation of a more inclusive economic ecosystem. The use of digital technology is able to connect economic actors with a wider market, reduce geographical barriers, and create collaboration opportunities that were previously difficult to realize through conventional mechanisms. The presence of digital technology also accelerates the innovation process through easy access to information and knowledge needed in the development of new products and services. Thus, digital transformation becomes an instrument that not only increases efficiency, but also strengthens organizational adaptability in dealing with economic uncertainty (Aminullah et al., 2022).

However, the results of the study show that the success of digital transformation is still greatly influenced by various supporting factors. Several studies have identified that the limitations of digital literacy, low organizational readiness, and lack of technological infrastructure support are the main obstacles in the implementation of digital transformation. These barriers cause not all organizations to benefit equally from the digitization process. In fact, in some cases, the adoption of technology that is not supported by the readiness of human resources actually results in low efficiency and is unable to create a sustainable competitive advantage. These findings show that digital transformation is not just a process of technology adoption, but a comprehensive change that requires simultaneous organizational readiness (Rupeika-Apoga & Petrovska, 2022; Zahoor et al., 2023).

Literature review also shows that successful digitalization will result in various economic benefits known as digital dividends. Various studies explain that digital dividends include increasing productivity, expanding market access, creating new jobs, increasing transaction efficiency, and strengthening economic inclusion. From the perspective of economic development, digital dividends are an indicator that digital technology is not only used technically, but has also generated real added value to economic activities. The higher the organization's ability to utilize digital technology, the greater the opportunity to obtain sustainable economic benefits (Galindo-Martin et al., 2019).

Other findings show that digital dividends serve as a mechanism that links digital transformation with economic sustainability. Digital technology creates opportunities for increased efficiency and productivity, while digital dividends represent the tangible benefits gained from the process. In other words, digital transformation results in operational changes, while digital dividends reflect the economic impact that arises as a consequence of those changes. This relationship explains why organizations that successfully carry out digital transformation generally have a higher level of productivity and competitiveness than organizations that have not done digitization optimally (Ghobakhloo & Iranmanesh, 2021).

In addition, several studies show that the success of obtaining digital dividends is greatly influenced by the quality of the digital ecosystem that supports economic activities. Technology infrastructure, internet access, digital literacy, policy support, and innovation capabilities are factors that determine the effectiveness of the use of digital technology. When these factors are adequately available, digitalization is able to generate significant economic impact. On the other hand, if the digital ecosystem is still weak, the benefits of digital transformation tend to be limited and unable to make maximum contributions to sustainable economic growth (Aminullah et al., 2022; Aulia et al., 2023).

The results of the study also show that entrepreneurship has a very important role in bridging the relationship between digital transformation and economic sustainability. Entrepreneurship allows organizations to take advantage of the opportunities that arise

from the development of digital technologies through the creation of innovations, the development of new business models, and the improvement of adaptability to changing environments. In the digital economy, the success of an organization is not only determined by the availability of technology, but also by the ability of business actors to identify opportunities and convert those opportunities into sustainable economic value (Morales et al., 2022).

Various studies show that organizations that have an entrepreneurial orientation tend to be more responsive to technological developments than organizations that are less innovative. Entrepreneurial orientation encourages the courage to take risks, the ability to explore new opportunities, and the willingness to make the strategic changes necessary in the digital transformation process. Therefore, entrepreneurship is a factor that strengthens the effectiveness of digitalization in improving organizational performance and sustainability (Endris & Kassegn, 2022).

Other findings suggest that the relationship between digital transformation and entrepreneurship is complementary. Digital technology provides various new opportunities for business development, while entrepreneurship is a mechanism that allows these opportunities to be optimally utilized. The integration of the two results in the organization's ability to create innovation sustainably, expand markets, and increase resilience to external environmental changes. In this context, digital transformation and entrepreneurship cannot be seen as stand-alone factors, but rather as mutually supportive components in creating economic sustainability (Putritamara et al., 2023).

One of the important findings of this study is that there is still a significant research gap in the previous literature. Most research focuses more on the influence of digital transformation on organizational performance in the short term, such as increased productivity, sales, or operational efficiency. Meanwhile, research that specifically examines the relationship between digital transformation and long-term economic sustainability is still relatively limited. This condition shows that the sustainability dimension has not fully received adequate attention in research on digitalization (Martins et al., 2022).

In addition, most research still places digital dividends as a consequence of digitalization without examining in depth its role as a mechanism linking digital transformation to economic sustainability. In fact, understanding the function of digital dividends is essential to explain how digital technology produces economic benefits that can be sustained in the long term. These limitations point to the need for the development of more comprehensive conceptual models in future research.

The study also found that previous research on the effectiveness of digital transformation still showed inconsistencies. Some studies have found that digital transformation has a strong influence on improving organizational performance and sustainability, while others show that it depends on factors such as digital competence, leadership quality, and organizational capabilities. These differences indicate that the relationship between digital transformation and economic sustainability is complex and

requires a more integrated analytical approach (Fachrunnisa et al., 2020; Zahoor et al., 2023).

Overall, the results of the systematic literature review show that digital transformation, digital dividends, and entrepreneurship are three interrelated elements in shaping economic sustainability. Digital transformation serves as a driver of change and efficiency, digital dividends are a representation of the economic benefits generated, while entrepreneurship acts as a catalyst that allows digital technology to be utilized productively and innovatively. The combination of these three factors has the potential to produce more adaptive, inclusive, and sustainable economic growth. These findings also strengthen the argument that future research needs to develop models that integrate these three variables in a more comprehensive analytical framework to explain the dynamics of economic sustainability in the digital age (Aulia et al., 2023; Morales et al., 2022).

5. | DISCUSSION

DISCUSSION

The results of the systematic literature review show that digital transformation has developed from just a technological instrument to a strategic factor that affects economic sustainability in the long term. These findings indicate that the success of organizations in dealing with the dynamics of the modern economy is not only determined by the ability to adopt technology, but also by the ability to integrate such technology into business processes and organizational strategies. In this context, digital transformation serves as a foundation that allows for increased efficiency, flexibility, and competitiveness needed to maintain the sustainability of economic activities. These findings are in line with research by Galindo-Martin et al. (2019) which affirms that digital transformation is one of the main drivers of economic growth through increased productivity and the creation of new economic opportunities.

This study also shows that the benefits of digital transformation do not appear automatically, but are realized through digital dividends resulting from the effective use of technology. Digital dividends act as a representation of the economic benefits obtained from digitalization, such as increasing productivity, transaction efficiency, expanding market access, and strengthening economic inclusion. Thus, digital dividends can be understood as a mechanism that explains how investment and adoption of digital technology generates sustainable economic impact. These findings strengthen the argument of Aminullah et al. (2022) who stated that the success of the digital economy is greatly influenced by the ability of the digital ecosystem to generate real benefits for economic actors.

In addition to digital transformation and digital dividends, this study found that entrepreneurship has a very important position in strengthening the relationship between these two variables and economic sustainability. Entrepreneurship allows organizations to identify opportunities that arise from technological developments and turn them into innovations of economic value. The ability to innovate, take risks, and

adapt to environmental changes are factors that determine the extent to which digital technology can be used productively. Therefore, entrepreneurship not only plays a supporting factor, but also as a catalyst that accelerates the conversion of digital transformation into sustainable economic benefits (Morales et al., 2022).

The findings of this study also provide an explanation for the inconsistency of previous research results regarding the influence of digital transformation on economic sustainability. Various studies show that the success of digital transformation is greatly influenced by contextual factors such as the quality of human resources, organizational capabilities, technological readiness, and entrepreneurial orientation. This explains why some studies have found a strong impact, while others have shown a more limited effect. In other words, digital transformation cannot be separated from an organization's capacity to manage change and take advantage of the opportunities that arise from technological developments (Zahoor et al., 2023).

Based on the results of the study, it shows that economic sustainability in the digital era is formed by a mutually reinforcing relationship between digital transformation, digital dividends, and entrepreneurship. These three factors form a mechanism that enables organizations to create added value in a sustainable manner, increase resilience to environmental changes, and strengthen adaptability to face future economic challenges. These findings support the results of research by Novitasari et al. (2022) who emphasize the importance of integration between digital transformation, digital dividends, and entrepreneurship in creating business sustainability in the digital economy era.

6. | CONCLUSION

This study aims to analyze the relationship between digital transformation, digital dividends, and entrepreneurship in supporting economic sustainability through the Systematic Literature Review approach. The results of the study show that digital transformation is a strategic factor that is able to increase efficiency, productivity, competitiveness, and organizational adaptability to changes in the increasingly dynamic economic environment. However, the success of digital transformation is not only determined by the level of technology adoption, but also by the organization's ability to leverage the technology to generate real economic benefits.

This study found that digital dividends play a role as a form of benefits generated from the digitalization process, both in the form of increasing productivity, expanding market access, transaction efficiency, and strengthening economic inclusion. In addition, entrepreneurship has proven to have an important contribution in optimizing the use of digital technology through the creation of innovation, the development of new business models, and the improvement of organizational capabilities in identifying and utilizing economic opportunities.

Based on research that has been conducted, digital transformation, digital dividends, and entrepreneurship are three interrelated components in shaping economic sustainability. The integration of these three factors allows for the creation of more

adaptive, innovative, and sustainable economic growth. The study also shows that there are still opportunities for further research to develop a more comprehensive conceptual model of the mechanisms of relationships between these variables in a variety of different economic and organizational contexts. Thus, the results of this research are expected to be the basis for the development of academic studies and the formulation of economic development strategies in the digital era.

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Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement

Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

- Aminullah, E., Fizzanty, T., Nawawi, N., Suryanto, J., Pranata, N., Maulana, I., ... & Budiatri, A. P. (2024). Interactive components of digital MSMEs ecosystem for inclusive digital economy in Indonesia. *Journal of the Knowledge Economy*, 15(1), 487-517.
- Aulia, M. R., Hendra, J., Safitri, E., & Bawono, A. (2023). Keberlanjutan UMKM di Jawa Barat di Tinjau Dari New-era Business: Transformasi digital, dividen digital, dan kewirausahaan. *Jurnal Bisnisan: Riset Bisnis Dan Manajemen*, 5(1), 01-15.
- Elsawy, M., & Youssef, M. (2023). Economic sustainability: Meeting needs without compromising future generations. *International Journal of Economics and Finance*, 15(10), 23-31.
- Endris, E., & Kassegn, A. (2022). The role of micro, small and medium enterprises (MSMEs) to the sustainable development of sub-Saharan Africa and its challenges: a systematic review of evidence from Ethiopia. *Journal of Innovation and Entrepreneurship*, 11(1), 20.
- Fachrunnisa, O., Adhiatma, A., Lukman, N., & Ab Majid, M. N. (2020). Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility. *Journal of Small Business Strategy*, 30(3).
- Galindo-Martín, M. Á., Castaño-Martínez, M. S., & Méndez-Picazo, M. T. (2019). Digital transformation, digital dividends and entrepreneurship: A quantitative analysis. *Journal of business research*, 101, 522-527.
- Ghobakhloo, M., & Iranmanesh, M. (2021). Digital transformation success under Industry 4.0: a strategic guideline for manufacturing SMEs. *Journal of manufacturing technology management*, 32(8), 1533-1556.
- Hosan, S., Karmaker, S. C., Rahman, M. M., Chapman, A. J., & Saha, B. B. (2022). Dynamic links among the demographic dividend, digitalization, energy intensity and sustainable economic growth: Empirical evidence from emerging economies. *Journal of Cleaner Production*, 330, 129858.
- Novitasari, A. T. (2022). Kontribusi umkm terhadap pertumbuhan ekonomi era digitalisasi melalui peran pemerintah. *JABE (Journal of Applied Business and Economic)*, 9(2), 184-204.
- Martins, A., Branco, M. C., Melo, P. N., & Machado, C. (2022). Sustainability in small and medium-sized enterprises: A systematic literature review and future research agenda. *Sustainability*, 14(11), 6493.
- Morales, V. J. G., Garrido-Moreno, A., Lockett, N., & Martín-Rojas, R. (Eds.). (2022). *Entrepreneurship and Digital Transformation: Managing Disruptive Innovation in a Changing Environment*. Frontiers Media SA.
- Putritamara, J. A., Hartono, B., Toiba, H., Utami, H. N., Rahman, M. S., & Masyithoh, D. (2023). Do dynamic capabilities and digital transformation improve business resilience during the COVID-19 pandemic? Insights from beekeeping MSMEs in Indonesia. *Sustainability*, 15(3), 1760.
- Rupeika-Apoga, R., & Petrovska, K. (2022). Barriers to sustainable digital transformation in micro-, small-, and medium-sized enterprises. *Sustainability*, 14(20), 13558.
- Zahoor, N., Zopiatas, A., Adomako, S., & Lamprinakos, G. (2023). The micro-foundations of digitally transforming SMEs: How digital literacy and technology interact with managerial attributes. *Journal of Business Research*, 159, 113755.