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THE CORRELATION BETWEEN DIGITAL TECHNOLOGY AND DIGITAL COMPETITIVENESS

Abstract: *Globalization and internationalization create new opportunities but also new challenges for companies to operate on the market. Due to globalization we are witnessing new trends and new technologies where digitalization and digital transformation drastically affect and change the way organizations operate. Digital transformation of business is inevitable and is a key element of further development of the organization in today's modern environment and market. Being competitive, achieving and ensuring long-term competitiveness is impossible today without new digital technologies that create a precondition for achieving it. A systematic literature review was undertaken to provide an overview of digitalization and digital competitiveness, as well as the digital technologies that support them. The terms ("digitalization" OR "digital transformation") and ("digital competitiveness" OR "digital technology") were used to collect data. The papers were reviewed in order to determine correlation between digital technologies and digital competitiveness and impact of digital technology on digital competitiveness. Results indicate that digital technology ensures the creation of sustainable competitive advantage and leads to digital competitiveness.*

Keywords: *Information – Communication Technologies (ICT); Digitalization, Competitiveness; Digital Transformation; Digital Technologies; Digital Competitiveness; Business Market; Business*

1. Introduction

New digital technologies and innovations become an integral part of an organization's business processes. The task of new digital technologies is to facilitate and improve the company's business while increasing efficiency and effectiveness. Digital transformation of a business is rapidly expanding in the market and is embedding into all business processes. New business models that are the result of new digital technologies create new directions, methods and techniques of doing business and creating a better market position. Competing

in the market is unthinkable and unfeasible without new digital technologies. It is digital technologies that create recognition of a company on market, influence the creation of innovations and, in the long run, create and maintain long-term competitiveness. Digital business transformation is changing the way all organizations in all industries compete and operate in the global market. Under the influence of digitalization and digital transformation, access to knowledge and capital is facilitated by ensuring faster and easier transfer of new knowledge, technologies and capital. Companies' need to be ready and able to very easily and

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quickly transfer its traditional way of doing business to digital business, which means recognition, adaptation and implementation of new digital technologies into existing business processes by creating new digital business models to manage the organization. There are a large number of new digital technologies on the market that are growing and evolving every day, and it is necessary to choose those that will serve to increase productivity, create competitiveness and create long-term relationships with all stakeholders. Digitalization and digital transformation of business it is not an option but a requirement of the market and business if the company wants to survive and be competitive on the market. Economies and businesses that are ready to adopt and use digital technologies efficiently increase their productivity and increase their digital competitiveness.

Systematic literature review was conducted to provide an overview of the relevant areas of digital technologies and digital competitiveness. To collect data following phrases were used and that is (digital competitiveness) AND (digital technology). The collected papers were analyzed to review the representation of digital technologies in today's business operations and business process of a company that affect and influence on companies' digital competitiveness. This paper is sectioned into three parts. The first part of the paper is dedicated to understanding basic terms related to digital technologies and digital competitiveness. The second part is focused on used methodology with presented literature review. Lastly, the third part is a discussion and recommendations about the conducted research and conclusion. The goal of the paper is to present a systematic literature review of papers that present new digital technologies and digital competitiveness and its correlation in terms that application and use of new digital technologies generate digital competitiveness of a company.

2. Digital technologies and digital competitiveness

Being competitive means being different from others, innovative, flexible, resilient and adaptable to changes in the environment. Today, competitiveness is impossible to achieve without digital technologies and without the appropriate technological infrastructure. Competitiveness is the goal of every company, so the very concept of competitiveness is a subject of study throughout history, where all thoughts and reflections are conceived around innovation and technology as key factors in achieving competitiveness. The task of management is to achieve the set goals that will lead to competitiveness and raise competitiveness to a higher level while achieving sustainable competitiveness. New technologies provide a higher level of innovation for the company and are one of the key resources for creating a sustainable competitive advantage (Lopez Rodriguez and Garcia Rodriguez, 2005). Digital competitiveness is defined as the capacity of an economy to adopt and explore digital technologies leading to the transformation in government practices, business models and society in general.

In order to monitor the development of digitalization and related digital competitiveness, global digital competitiveness is measured at annual level. World Digital Competitiveness Ranking measures the capacity and readiness of 63 economies to adopt and explore digital technologies as a key driver for economic transformation in business, government and wider society. IMD (International Management Development) is focused and assesses the capabilities and readiness of economies to undertake the process of digital transformation. The IMD World Digital Competitiveness Ranking captures elements through three factors – knowledge, technology and future readiness. (Figure 1).

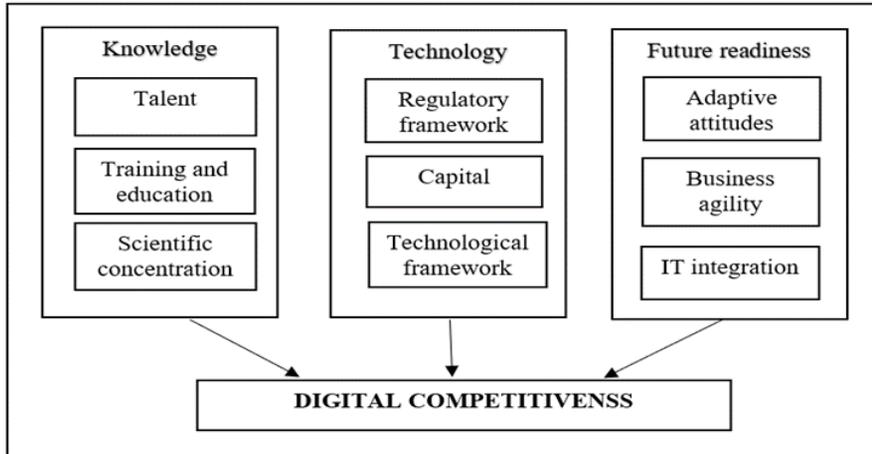


Figure 1. Digital Competitiveness Model

In addition to the IMD World Digital Competitiveness Ranking, the European Commission publishes the Digital Economy and Society Index (DESI) each year. The Digital Economy and Society Index (DESI) is a complex index that summarizes relevant indicators of European digital performance and monitors the development of EU Member States through digital competitiveness. The Digital Economy and Society Index (DESI) monitors the progress made by Member States in five main policy areas: (1) Connectivity, (2) Human Capital / Digital skills, (3) Use of Internet Services by citizens, (4) Integration of Digital Technology by businesses, (5) Digital Public Services (Digital Economy and Society Index, 2020). Further progress in encouraging the development of digitalization and digital business transformation is the “Digital Europe” program for the period 2021-2027, which aims to shape and support the digital transformation of European societies and economies and to build digital capacity. The five priority areas under the Digital Europe program are: (1) supercomputing, (2) artificial intelligence, (3) cybersecurity and trust, (4) advanced digital skills, (5) ensuring the widespread use of digital technologies throughout the economy and society

(European Commission, 2021). Investments in digitalization through this program will have an impact on digital infrastructure, digital transformation of small businesses, research in the field of digital technologies and as a support to the social economy to reap the benefits of digital transformation.

Digital technologies create a digital economy that is a key driver of innovation, economic growth and competitiveness (Bessonova & Battalov, 2021). Digital technologies facilitate access to new markets and open up new opportunities for collaboration with all stakeholders by accelerating the innovation process and making it sustainable (Bessonova & Battalov, 2021). In order to achieve two key goals, which are to improve efficiency and increase the range and quality of service, it is not enough to just implement digital technology, but to be explore and understand digital technology in order to achieve the stated goals. Without new innovative, digital technologies, there is no long-term and sustainable competitiveness. Precisely by recognizing, accepting and implementing new digital technologies, the technological and technical competence of the organization is created, which leads to the creation of the so-called digital competitiveness. In the new digital age, the use of data that are the result of the use of

new digital technologies as well as analytical skills in conducting business operations and company management has an important strategic role for the organization to achieve a competitive advantage (Medeiros & Macada, 2021). This affects changes in the business processes of the organization, changes existing business models and affects the adaptation and creation of new digital business models with the definition of corporate strategies based on new digital technologies and new digital business models. The digital transformation of the business model is based on three groups of strategic directions: “(1) operational and technological excellence (shifting the focus to improving the efficiency of the value chain and introducing new production technologies); (2) excellence in customer solutions (shifting the focus to creating high levels of products and services); (3) proximity to the customer (shifting the focus to presenting value to the customer)” (Averina et al., 2021).

Without new digital technologies, it is difficult to compete in today's modern environment. Digital technologies can be defined as tools but also as services, whereby as tools they create new innovations while as services they provide support and generate digital data (Averina et al., 2021). Long-term and related sustainable development is possible only with the growth of innovation, but also with the parallel implementation of digitalization and the readiness of companies to digital transformation of business in modern business conditions. Therefore, the concept of systematic competitiveness based on a sustainable competitive advantage is based on the innovation and implementation of digital technologies in the existing business processes of the organization. (Gumba et al., 2021). According to Medvedeva (2019) characteristics of digital business are: (1) individualized range of services, (2) the increase of competition, (3) the growing role of information, (4) increase of socialization of the population, (5) increasing self-service,

(6) increasing the transparency of management, (7) the transition to Industry 4.0.

Trends and related new digital technologies are accelerating and changing the way how companies operate and change the business processes of the organization, so we can state that data and information generated by information technology are the one that provide companies with a competitive advantage (Porter & Milllar, 1985). In order to achieve appropriate market competitiveness, the identification and implementation of appropriate technology requires: (1) which technologies to develop, (2) whether technological leadership should be sought in those technologies, (3) the role of technological licensing (Porter, 2008). Current market trends point to the following nine new and trending technologies in a global marketplace that are changing the way digital business is done: (1) artificial Intelligence (AI) and Machine Learning, (2) Robotic Process Automation (RPA), (3) Edge Computing, (4) Quantum Computing, (5) Virtual Reality and Augmented Reality, (6) Blockchain (7) Internet of Things (IoT), (8) 5G, (9) Cyber Security. For example, “with collecting and creating large amounts of data, organizations can, through the usage of AI, conduct different kinds of simulations which can lead to identifying future trends as well as the needs of stakeholders in the organizational environment” (Buntak et al., 2020). Technological transformation of an organization is a challenging and gradual process that requires changes at the organizational, institutional and structural level, so organizations need to be able to recognize the challenges and innovations of new technologies to adapt into business process transformations as quickly and efficiently as possible. The process of digitalization and digital transformation of business will have impact on value chain affecting efficiencies, reducing costs, and generating greater collaboration and innovation (Llopis-Albert et al., 2021).

A clear vision of investing in digital transformation is needed as well as a defined digital strategy in order to conduct a quality digital transformation process. The process of digital transformation changes existing business, changes business processes, and also affects key stakeholders (customers, employees) and changes their requirements and expectations. Willingness to accept, implement and use new technologies depends on the already mentioned digital strategy of the company but also depends on the level of digital maturity of the company. Therefore, digitally mature companies more easily and

quickly integrate digital technologies into their business processes and thus change traditional ways of doing business and switch to digital business models and thus successfully compete with companies that have low level of digitally maturity. Authors Ruël et al. (2020) explore the importance of digital business strategy emphasizing the importance of several factors: strategic alignment, IT competence, institutional trust, and organizational change readiness. A framework that provides that digital strategy is the result of the coherence of organizational strategy, structure, knowledge, culture, systems and processes is a research result by Ruël et al. (2020). Precisely defined and established digital strategy lead to the establishment of digital maturity.

3. Research approach

In this research, the systematic literature review was used to summarize past findings in a research field, in this case findings about digital competitiveness and digital technology and their impact on business process of a company.

Selection process of the papers for the systematic literature review is presented in figure 1. Relevant databases for this research were identified, and focus was on the peer-review journals that are cited in Scopus and WoS (SSCI and SCI papers). Tables 1 and 2 present search strategies in WoS (SSCI and SCI) and Scopus, with the period (2017 – 2021). Further step in search was using the scientific databases Web of Science (WoS) and Scopus in May 2021.

Through the first part of the search, WoS and Scopus were checked using keywords: “DIGITAL COMPETITIVENESS” AND “DIGITAL TECHNOLOGY”. The search was focused on peer-reviewed papers in journals in English language. This approach resulted in 2.139 hits (1.736 in Scopus and 376 in WoS).

In the next step, the search strategy was refined. Since digital competitiveness is applied in different areas of scientific research, research was limited to papers in the fields of business and economics and management and ICT technology. This criterion was related to Scopus subject areas and WoS categories (Table 1 and 2).

Table 1. WOS (SSCI, SCI) search strategy (2017-2021) (Author work, 2021)

Search strategy	Hits	Time span	Indexes
((digital competitiveness) AND (digital technology))	376	All years	SCIEXPAND., SSCI, A&HCI, ESCI
Refined by: DOCUMENT TYPES: (ARTICLE) AND PUBLICATION YEARS: (2021 OR 2020 OR 2019 OR 2018 OR 2017) AND WEB OF SCIENCE CATEGORIES: (BUSINESS OR MANAGEMENT OR ECONOMICS OR COMPUTER SCIENCE INFORMATION SYSTEMS)	49	2017-May, 2021 (last five years)	SCIEXPAND., SSCI, A&HCI, ESCI

Table 2. Scopus search strategy (2017 – 2021) (Author work, 2021.)

Search strategy	Hits	Time span	Indexes
(TITLE-ABS-KEY (digital AND competitiveness)) AND (digital AND technology)	1.763	All years	Scopus
AND (LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017)) AND LIMIT-TO (DOCTYPE, "ar") AND (LIMIT-TO (SUBJAREA,"BUSI")) AND (LIMIT-TO (LANGUAGE, "English"))	173	2017-May, 2021 (last five years)	Scopus

The Following Wos Categories are used: Business or Management or Economics or Computer Science Information Systems (Sci-Expanded, Ssci, A&Hci, Cpci-S, Cpci-Ssh, Bkci-S, Bkci-Ssh, Esci, Ccr-Expanded, Ic.). The following Scopus categories/areas are used: Business, Management and Accounting. This approach resulted in 222 hits (173 hits in Scopus and 49 hits in WoS).

Analysis includes 222 papers(49 from WOS and 173 from Scopus). However, after merging all papers, 23 paperswere excluded

that were found in both databases. Therefore, 199 papers remained for the analysis. After reviewing the abstracts and keywords of all 199 papers, we eliminated papers that did not report the description of digital competitiveness and digital technology. We used the following criterion that the paper was considered relevant if it specifically covers the digital competitiveness and digital technologies and case study about digital competitiveness and digital technologies (figure 2).

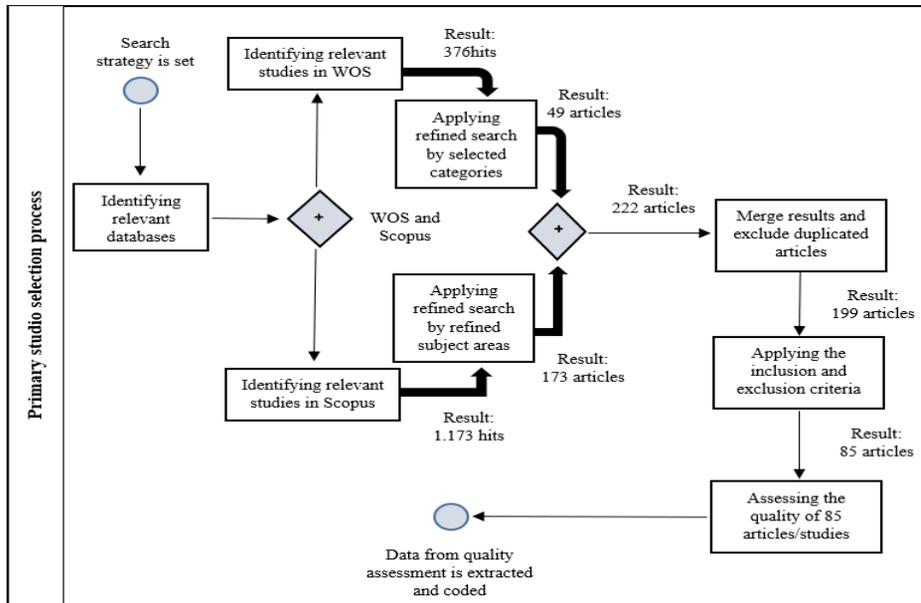


Figure 2. The selection process of the papers for the literature review (Author work, 2021) Finally, after applying this exclusion criterion 85 publications remained, and they represent the basis for further analysis. Next step was to extract and code relevant data of surveys (e.g. authors, title, and journal, year of publication, digital competitiveness, digital technology, digital transformation and digitalization) for further analysis.

4. Results

4.1. Analysis of papers with described digital technology and digital competitiveness

The objective of this work was (1) to study and explore the importance of digital technology and digital competitiveness and their impact on company competitiveness (2) to analyze and explore digital technologies innovations and novelty areas that are connected to digital competitiveness (3) to ensure a systematic review of the research literature in these fields. To achieve the set goals, numerous world literature was analyzed, which explores the field of digital technologies and its effect on digital competitiveness.

Many international types of research have dealt with and studied digital technologies

and digital competitiveness through various fields and industries. Numerous studies dealing with this topic have shown the impact of digital technology on digital competitiveness but also the degree of awareness and willingness of companies to recognize, adopt and implement new digital technologies. However, there is still a lack of research that correlates digital technologies to digital competitiveness, which is evident from the review of the researched literature.

Figure 3 depicts the annual number of publications from 2017 – 2021 in the amount of 222 articles. A growing trend of published papers is revealed. A growing trend in this area is from 2019 until 2021 where 176 articles were published regarding the digital competitiveness and digital technology, where most of the papers (79) were published in 2020.

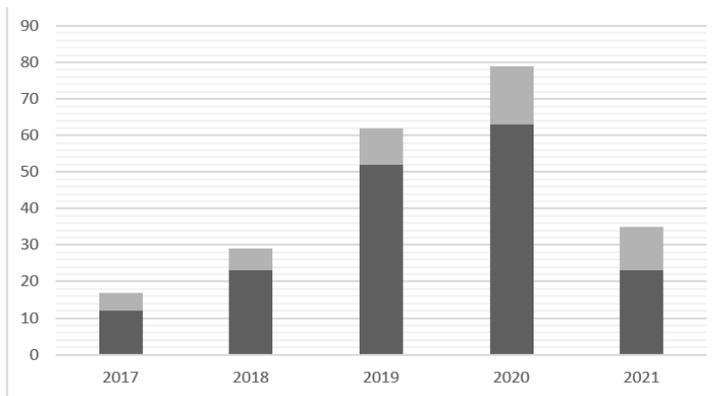


Figure 3. Number of papers published per year from 2017 – 2021. with digital competitiveness and digital technology (Author work, 2021)

It can be seen that the trend starts to grow from 2019. where research and writing about the importance of digital technologies and its connection and correlation with digital competitiveness is increasing. The consequence could also be a COVID-19 pandemic where the importance and significance of digitalization and digital technologies has been recognized.

Table 3 shows the industry-type presented in the case study. The largest number of the case studies (61) is not connected to any industry and deals with fundamental concepts of competitiveness and digital competitiveness in correlation with new digital technologies through the business processes of the company.

Table 3. Industry-type presented in the case study (Author work, 2021)

Industry-type	Case studies per industry	Paper ID
B Mining and quarrying	1	59
C Manufacturing	6	10, 11, 29, 30, 40, 41, 65,
D Electricity, gas, steam and air conditioning supply	3	44, 51, 56
F Construction	1	4,
I Accommodation and food service activities	3	8, 70, 73
J Information and communication	1	43
K Financial and insurance activities	2	1, 66
P Education	4	3,7, 24, 67
S Other service activities	3	6, 12, 54
V No industry / Not applicable	61	2, 5, 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 37, 38, 39, 42, 45, 46, 47, 48, 49, 50, 52, 53, 55, 57, 58, 60, 61, 62, 63, 64, 68, 69, 71, 72, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85
Total	85	

Table 3 shows that six (6) case studies is reported in Manufacturing, which is followed by the Education with four (4) case studies. Industries related to Electricity, gas, steam and air conditioning supply, Accommodation and food service activities, Other service activities (Supply chain) report only three (3) case studies.

Common to all industries is the fact that digitalization and new digital technologies have the effect of increasing overall productivity, efficiency and competitiveness no matter what industry it is. New technologies such as big data analytics, internet of things (iot), artificial intelligence (ai), cloud, e-commerce etc., will support the competitiveness of business process of each industry.

4.2. Influence of digitalization and digital technologies on company competitiveness

Digitalization and digital technologies are a prerequisite for success and competitiveness in the market. They provide greater visibility and recognition, create new and faster ways of doing business, thus contributing to the efficiency and effectiveness of business (Table 4.) New digital technologies facilitate and ensure faster flow of information but

also faster and easier data collection for business decisions. Due to digital technologies, a number of processes are automated, faster and more efficient, thus affecting the competitiveness of companies. Digital technology becomes the most important factor in the growth of competitiveness.

How digitalization and digital business transformation is involved in all industries is also shown by the research of authors Moldabekova et al. (2021) who observe the effects of technological readiness and innovation on logistics performance and come to the realization that investing in innovation and technological progress affects the logistics efficiency of countries which is a key prerequisite for industry 4.0 and thus logistics 4.0. Also, trend of usage of new technologies is visible in field of hospitality where Internet of Things (IoT) presents great opportunities by enabling novel applications for customization and personalization of the services. Authors Mohamed and Noorliza (2021) explore importance of ERP system in education industry where they prove imperative needs of ERP systems as strategic systems of their competitiveness.

Table 4. Effect of digitalization and digital technologies on company competitiveness (Author work,2021)

Digitalization	Paper ID	# of papers
Competitive advantage according to digitalization and digital transformation of business	1, 2, 6, 12, 14, 17, 18, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 43, 44, 45, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85	65
Digital technologies	Paper ID	# of papers
E – commerce	4, 52, 61, 73	4
ERP system	7	1
Internet of Things (IoT)	8, 37, 41, 43	4
Big data Analytics	11	1
Digital manufacturing technologies (DMTs)	10, 37	2
Digital twins	37	1
Artificial intelligence (AI)	24, 37, 38, 41, 43, 53	6
Business intelligence (BI)	85	1
Robotic Process Automation	15, 37, 43	3
Virtual Simulation (VS)	11	1
Cybersecurity	11	1
Augmented Reality (AR)	11	1
Technology support (mobile technologies, multichannel trade, technologies, social networks, big data and business analytics, cloud technologies, dialog interfaces)	31, 66, 11	3

Authors Gillani et al. (2020) prove that implementation of digital manufacturing technologies (DMTs) has a significant impact on firm performance in terms of flexibility, design, delivery, and quality performance and enhancing the competitiveness of firms.

The author Rossato and Castellani (2020) explore the implementation of digitalization in business process of the observed firms and prove that digitalization: “(1) improved the efficiency and effectiveness of their business processes, (2) enhanced the understanding of customer experience, (3) supported their craftsmanship and the transmission of the knowledge included in the entrepreneurial path, (4) increased the awareness of the cultural value of the firms’ heritage and (5) allowed for the development of cutting-edge design skills by experimenting with content on different digital platforms and devices.”

The importance of digitalization and new technologies is also shown by the research of the authors Pini et al. (2018) who prove that the growth of export activities and increase in export is correlated with more advanced digital technologies that are part of the organization's business processes thereby gaining a competitive advantage.

Factors (from an organizational perspective) that are crucial to achieve Industry 4.0 compliance and digital transformation from the aspect of a company are strategy, organizational fit, competitiveness, operations and human resources (Nwaiwu et al., 2020). In order to be part of Industry 4.0, companies are undergoing a process of digital business transformation, which is a prerequisite for achieving competitive advantage, but also the ability to make optimal decisions (Venkateswaran, 2020).

Authors Jovanović et al (2018) examine the importance of digitalization in the context of a key factor for sustainable growth and development of society, examining the correlation of DESI index and other composite indices that measure sustainability components. The authors observe how the digital performance of the EU affects the main elements of sustainable development: economic, social and environmental. Due to their research it is obvious that digitalization and new technologies contribute to sustainable development which ultimately creates a sustainable competitive advantage. Jovanović et al. (2018:922) also states that “higher digitalization level is in a relationship with economic development through higher competitiveness, innovativeness, and entrepreneurial activities, where also GDP is higher in more digitalized countries”. The development and diffusion of new technologies affect the transformation of globalization, which directly affects production efficiency, performance, economic growth and competitiveness (Stroiko et al., 2021).

“Due to the fact that innovation is characterized by a high degree of

uncertainty, the development of technological support for collecting data, which are the basis for obtaining new knowledge, is of great importance. Thus, countries that have high-tech data transmission channels have an advantage in the innovation environment, which ensures their sustainable development” (Burdina et al., 2019). The development of new digital technologies enables and facilitates companies to connect with all stakeholders at different levels, which means changing the already mentioned way of doing business, better communication and interaction with all users.

4.3. Factors that are linked to digitalization and create digital competitiveness

Today, there are many elements and factors that condition and create the preconditions for the digital transformation of business. There are also factors and elements within the company that are closely related to digitalization and create the preconditions for its successful implementation thus leading to digital competitiveness (Table 5).

Table 5. Factors that are linked to digitalization and create digital competitiveness (Author work, 2021)

Factors /Elements/ Methods	Paper ID	# of papers
Firm agility	2, 26, 77, 78	4
Changes in workforce qualification structure /required skills in the current accelerated digital transformation	3, 9	2
Benchmarking tools	5, 37	2
Lean methodology	11	1
Digital servitization (complementary digitalization capabilities, relation-specific digital assets, digitally enabled knowledge-sharing routines, partnership governance)	13, 41	2
Innovativeness, quality, marketing and logistics activities	16	1
Total Quality Management	42	1
Digital literacy /education (digital skills and competences)	43, 46, 63, 68, 74	5

Authors Škare and Soriano (2021) investigate firm agility through dynamic panel data modeling on the example of fifteen EU advanced economies and prove that link between the national/industry level of digitalization and firm agility is

statistically robust and essential. The author Balog (2020) explore aspects of the agile way of working that affect competitiveness due to the application of new digital technologies, proving that employees are

more motivated, efficient and committed in the agile team than in the classic hierarchy.

Conditioned by the constant and accelerated development of new digital technologies, Industry 4.0 will require the creation of new jobs, which will demand new, especially digital skills and abilities. The research conducted by the authors Grenčíková et al. (2021) on the sample of 350 companies in Slovakia point out that the changes in the qualification structure of the workforce (related to Industry 4.0) should have a positive effect on increasing the competitiveness of company and increasing production efficiency. The authors Barna and Epure (2020) also investigate youth unemployment in Romania in order to discover the causes of unemployment but also to recommend the necessary skills for jobsconditioned by the digital transformation of business.

In order to achieve a competitive advantage, it is necessary to develop and implement a unique behavioral strategy using its own competitive advantages (Vasin et al., 2021). To present the application of benchmarking in the context of developing competitiveness, the authors Vasin et al. (2021) consider models and decision-making methods related to the management of a company's competitiveness through a benchmarking tool as a key for improving innovation efficiency of a company. Lean methodology combined with digital technologies contributes creating a competitive advantage (especially for manufacturing companies) (Valamede & Akkari, 2020).

In order to explore the factors of competitiveness, the author Decyk (2020) explore the areas of innovativeness, quality, marketing and logistics activities proposed by innovative companies through which competitiveness is achieved in relation to others in the environment and based on the knowledge and digital economy. In the process of digital transformation and industry 4.0 important role plays TQM

shown by the research of authors who represent the model of the relationship between human resources and TQM in creating a new digital business model according to the challenges of industry 4.0 (Kiselakova et al., 2020). Authors Santoso et al. (2020) prove how important digital literacy is which moderates the relationship between innovative work behavior and business performance.

5. Discussion

In this paper, the importance of digitalization and digital transformation have been highlighted as well as a systematic literature review on the topic of digital technology and digital competitiveness. This paper provides an overview of digital technologies and digital competitiveness but also explores its correlation. The results of the presented systematic literature review indicate that new modern and digital technologies are imperative for doing business and for achieving digital competitiveness on the global market. New modern and digital technologies affect the business process of a company by increasing operational efficiency and excellence.

The idea of the paper was to provide a brief and clear overview about digital technology and digital competitiveness which are clearly correlated and create radical changes and benefits for each organization. Although digital technologies are not new phenomenon, its growth and development change how companies operate. As benefits of this research, we can point out also some recommendations for further research. This research deals with and explores areas of digitalization and digital transformation with special emphasis on digital technologies and digital competitiveness and its correlation. As a recommendation for further research in this area it would be desirable to deal only with digital technologies and innovations in terms of studying the development of new digital technologies and the most commonly

used while separately looking at digital competitiveness both at the company level and at the level of economy.

6. Conclusion

Being regionally and globally recognizable while achieving market competitiveness is the goal of every organization. In today's modern and contemporary business conditions, its realization is not possible without new modern and digital technology. Therefore, it is up to companies to recognize,

implement and constantly invest in new digital technologies and to adapt into business new digital business models so that they can achieve and maintain long-term and sustainable competitive advantage in the market that will lead to digital competitiveness. The COVID-19 has demonstrated the importance of digitalization and digital technologies to increase resilience as well as the ability to adapt to new digital technologies that will affect the speed of recovery.

References:

- Averina, T. Barkalov, S., Fedorova, I., & Poryadina, V. (2021). *Impact of digital technologies on the company's business model*. 22nd International Scientific Conference on Energy Management of Municipal Facilities and Sustainable Energy Technologies
- Balog, K. (2020). The concept and competitiveness of agile organization in the fourth industrial revolution's drift, *Strategic Management*, 25(3), 14-27
- Bessonova, E., & Battalov, R. (2021). Digitalization as a tool for innovative economic development. *Economic Annals-XXI*, 186(11-12), 66-74
- Burdina, A. A, Nikolenko, T. Y, & Semina, L. V. (2019). Role of digital economy in creating innovative environment. *International Journal of Recent Technology and Engineering*, 8(3), 6477-6483.
- Buntak, K., Kovačić, M., & Mutavdžija, M. (2021). Application of Artificial Intelligence in the business. *International journal for quality research*, 15(2) (2021), 403-416.
- Decyk, K. (2020). Competitiveness factors in the innovative enterprises in the north-east voivodships in Poland. *Business: Theory and Practice*, 21(2), 503-518
- Gillani, F., Chatha, K. A., Sadiq Jajja, M. S., & Farooq, S. (2020). Implementation of digital manufacturing technologies: Antecedents and consequences. *International Journal of Production Economics*, 229, 107748. <https://doi.org/10.1016/j.ijpe.2020.107748>
- Grenčíková, A., Kordoš, M., & Navickas, V. (2021). The impact of Industry 4.0 on education contents. *Business: Theory and Practice*, 22(1), 29-38
- Jovanović, M., Dlačić, J., & Okanović, M. (2018). Digitalization and society's sustainable development – Measures and implications, *Zbornik Radova Ekonomskog Fakulteta u Rijeka*, 36 (2), pp. 905-928
- Llopis-Albert, C., Rubio, F., & Valero, F. (2021) Impact of digital transformation on the automotive industry. *Technological Forecasting and Social Change*, 162(C), <https://doi.org/10.1016/j.techfore.2020.120343>
- Medeiros, M. M. D., Maçada, A. C. G. (2021). Competitive advantage of data-driven analytical capabilities: the role of big data visualization and of organizational agility. *Management Decision*. <https://doi.org/10.1108/MD-12-2020-1681>

- Mercan, S., Cain, L., Akkaya, K., Cebe, M., Uluagac, S., Alonso, M., & Cobanoglu, C. (2020). Improving the service industry with hyper-connectivity: IoT in hospitality. *International Journal of Contemporary Hospitality Management*, 33(1), 243-262.
- Moldabekova, A., Philipp, R., Satybalidin, A. A., & Prause, G. (2021). Technological Readiness and Innovation as Drivers for Logistics 4.0. *Journal of Asian Finance, Economics and Business*, 8(1), 145-156.
- Nwaiwu, F., Duduci, M., Chromjakova, F., & Otekhile, C. -A. F. (2020). Industry 4.0 concepts within the Czech SME manufacturing sector: An empirical assessment of critical success factors. *Business: Theory and Practice*, 21(1), 58-70.
- Porter, M.E., Millar, V.E. (1985). How information gives you competitive advantage. *Harvard Business Review*, 63(4), 149-160.
- Porter, M. E. (1985). *Competitive advantage*. New York: The Free Press.
- Porter, M. (1990). The Competitive Advantages of Nations, International Business, *Harvard Business Review*, 71-91.
- Porter, M. E. (2008). *Konkurentnska prednost: Postizanje i održavanje vrhunskog poslovanja*. Zagreb: Masmedia
- Pini, M., Dileo, I., & Cassetta, E. (2018). Digital reorganization as a driver of the export growth of italian manufacturing small and medium sized enterprises, *Journal of Applied Economic Sciences*, 13 (5), pp. 1373-1385
- Rossato, C., Castellani, P. (2020). The contribution of digitalisation to business longevity from a competitiveness perspective. *TQM Journal*, 32(4), 617-645
- Ruel, H., Rowlands, H., & Njoku, E. (2020) Digital business strategizing: the role of leadership and organizational learning. *Competitiveness Review*, 31(1), 145-161.
- Santoso, H., Abdinagoro, S. B., & Arief, M. (2019). The role of digital literacy in supporting performance through innovative work behavior: The case of Indonesia's telecommunications industry. *International Journal of Technology*, 10(8), 1558-156.
- Stroiko, T., Nazarova, L., & Danik, N. (2021). Transformation of Economic Processes on The Basis of Digitalisation. *Baltic Journal of Economic Studies*, 7(1), 102-106.
- Škare, M., & Soriano, D. R. (2021). A dynamic panel study on digitalization and firm's agility: What drives agility in advanced economies 2009–2018. *Technological Forecasting and Social Change*, 163, 120418. doi: 10.1016/j.techfore.2020.120418
- Valamede, L. S., & Akkari, A. C. S. (2020). Lean 4.0: A new holistic approach for the integration of lean manufacturing tools and digital technologies. *International Journal of Mathematical, Engineering and Management Sciences*, 5(5), 851 -868
- Vasin, S. M., Gamidullaeva, L. A., Finogeev, A. G., Mkrttchian, V. S., & Berezin, A. A. (2021). The use of benchmarking tool to improve efficiency of company's innovation activities in the conditions of digital economy. *International Journal of Process Management and Benchmarking*, 11(2), 151-177.
- Venkateswaran, N. (2020). Industry 4.0 solutions - A pathway to use smart technologies / build smart factories. *International Journal of Management*, 11(2), 132-140

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Appendix A: List of selected papers

Paper ID	Paper reference
1	Kolodiziev, O., Krupka, M., Shulga, N., Kulchytsky, M., Lozynska, O. (2021). The level of digital transformation affecting the competitiveness of banks, <i>Banks and Bank Systems</i> , 16 (1), pp. 81-91
2	Škare, M., Soriano, D.R. (2021). A dynamic panel study on digitalization and firm's agility: What drives agility in advanced economies 2009–2018, <i>Technological Forecasting and Social Change</i> , 163, art. no. 120418, DOI: 10.1016/j.techfore.2020.120418
3	Grenčíková, A., Kordoš, M., Navickas, V. (2021). The impact of industry 4.0 on education contents, <i>Business: Theory and Practice</i> , 22 (1), pp. 29-38
4	Khahro, S.H., Hassan, S., Zainun, N.Y.B., Javed, Y. (2021). Digital Transformation And E-Commerce In Construction Industry: A Prospective Assessment, <i>Academy of Strategic Management Journal</i> , 20 (1), pp. 1-8
5	Vasin, S.M., Gamidullaeva, L.A., Finogeev, A.G., Mkrtychian, V.S., Berezin, A.A. (2021). The use of benchmarking tool to improve efficiency of company's innovation activities in the conditions of digital economy, <i>International Journal of Process Management and Benchmarking</i> , 11 (2), pp. 151-177
6	Moldabekova, A., Philipp, R., Satybalidin, A.A., Prause, G. (2021). Technological Readiness and Innovation as Drivers for Logistics 4.0*, <i>Journal of Asian Finance, Economics and Business</i> , 8 (1), pp. 145-156
7	Mohamed, S.M.S., Noorliza, K. (2021). Explaining the Competitive Advantage of Enterprise Resource Planning Adoption: Insights Egyptian Higher Education Institutions, <i>Journal of Information Technology Management</i> , 12 (4), pp. 1-21
8	Mercan, S., Cain, L., Akkaya, K., Cebe, M., Uluagac, S., Alonso, M., Cobanoglu, C. (2020). Improving the service industry with hyper-connectivity: IoT in hospitality, <i>International Journal of Contemporary Hospitality Management</i> , 33 (1), pp. 243-262
9	Barna, C., Epure, M. (2020). Analyzing youth unemployment and digital literacy skills in romania in the context of the current digital transformation, <i>Review of Applied Socio-Economic Research</i> , 20 (2), pp. 17-25
10	Gillani, F., Chatha, K.A., Sadiq Jajja, M.S., Farooq, S. (2020). Implementation of digital manufacturing technologies: Antecedents and consequences, <i>International Journal of Production Economics</i> , 229, art. no. 107748, https://doi.org/10.1016/j.ijpe.2020.107748
11	Valamede, L.S., Akkari, A.C.S. (2020). Lean 4.0: A new holistic approach for the integration of lean manufacturing tools and digital technologies, <i>International Journal of Mathematical, Engineering and Management Sciences</i> , 5(5), pp.851 -868
12	Volkova, I., Mikhaylova, A., Shevchenko, M. (2020). Digital supply chain and its impact on the competitiveness of economy in countries and regions, <i>International Journal of Supply Chain Management</i> , 9 (4), pp. 553-560
13	Kamalaldin, A., Linde, L., Sjödin, D., Parida, V. (2020) Transforming provider-customer relationships in digital servitization: A relational view on digitalization, <i>Industrial Marketing Management</i> , 89, pp. 306-325
14	Ruel, H., Rowlands, H., Njoku, E. (2020). Digital business strategizing: the role of leadership and organizational learning, <i>Competitiveness Review</i> , 31 (1), pp. 145-161
15	Viale, L., Zouari, D. (2020). Impact of digitalization on procurement: the case of robotic process automation (2020) <i>Supply Chain Forum</i> , 21 (3), pp. 185-195
16	Decyk, K. (2020). Competitiveness factors in the innovative enterprises in the north-east voivodeships in Poland, <i>Business: Theory and Practice</i> , 21 (2), pp. 503-518
17	Grabowska, S. (2020). Smart Factories in the Age of Industry 4.0, <i>Management Systems in Production Engineering</i> , 28 (2), pp. 90-96
18	Rossato, C., Castellani, P. (2020). The contribution of digitalisation to business longevity from a competitiveness perspective, <i>TQM Journal</i> , 32 (4), pp. 617-645

19	Cavallo, A., Sanasi, S., Ghezzi, A., Rangone, A. (2020). Competitive intelligence and strategy formulation: connecting the dots, <i>Competitiveness Review</i> , 31 (2), pp. 250-275
20	McCauley, B., Nguyen, T.H.T., McDonald, M., Wearing, S. (2020). Digital gaming culture in Vietnam: an exploratory study, <i>Leisure Studies</i> , 39 (3), pp. 372-386
21	Sundaram, R., Ziade, J., Quinn, E. (2020). Drivers of change: An examination of factors that prompt managers to enforce changes in business, <i>International Journal of Management</i> , 11 (5), pp. 22-30
22	Sopiyah, F.R., Yulinda, Meliani, Y. (2020). Community readiness as a business plan to its digital era competitiveness, <i>International Journal of Management</i> , 11 (5), pp. 351-357
23	Inshakova, A.O., Frolova, E.E., Rusakova, E.P., Kovalev, S.I. (2020). The model of distribution of human and machine labor at intellectual production in industry 4.0, <i>Journal of Intellectual Capital</i> , 21 (4), pp. 601-622
24	Vodenko, K.V., Lyausheva, S.A. (2020). Science and education in the form 4.0: public policy and organization based on human and artificial intellectual capital, <i>Journal of Intellectual Capital</i> , 21 (4), pp. 549-564
25	Manakhova, I., Levchenko, E., Bekher, V., Bystrov, A. (2020). Quality of human resources and personnel security risk management in digital economy, <i>Quality - Access to Success</i> , 21 (175), pp. 74-79
26	Bammert, S., König, U.M., Roeglinger, M., Wruck, T. (2020). Exploring potentials of digital nudging for business processes, <i>Business Process Management Journal</i> , 26 (6), pp. 1329-1347
27	Medina, L., Cano-Kollmann, M., Alvarez, I. (2020). International connectivity in the generation of information and communication technology (ICT) in Spain, <i>Competitiveness Review</i> , 30 (3), 355-371
28	Harini, S., Gemina, D., Yuningsih, E. (2020). Leveraging SMEs performance of sustainability: Creativity and innovation based on hr competency and market potential in the era of ir 4., <i>International Journal of Entrepreneurship</i> , 24 (1), pp.1-12
29	Dutta, G., Kumar, R., Sindhwani, R., Singh, R.K. (2020). Digital transformation priorities of India's discrete manufacturing SMEs – a conceptual study in perspective of Industry 4.0, <i>Competitiveness Review</i> , 30 (3), pp. 289-314
30	Nwaiwu, F., Duduci, M., Chromjakova, F., Otekhile, C.-A.F. (2020). Industry 4.0 concepts within the Czech SME manufacturing sector: An empirical assessment of critical success factors, <i>Business: Theory and Practice</i> , 21 (1), pp. 58-70
31	Gerasimenko, V.V., Razumova, T.O. (2020). Digital competencies in management: A way to superior competitiveness and resistance to changes, <i>Serbian Journal of Management</i> , 15 (1), pp. 115-126
32	Kuznetsov, V.V. (2020). Effect of digitalization on the competitiveness of money transfer operators in the national payment system, <i>International Journal on Emerging Technologies</i> , 11 (2), pp. 674-677
33	Burr, W., Ihring, L., Bosler, M. (2020). Digital Innovation in Incumbent Firms: An Exploratory Analysis of Value Creation, <i>International Journal of Innovation and Technology Management</i> , 18 (2), pp. 1 – 22.
34	Wood, R.C. (2020). Guiding the Emergence of Excellent Large Digital Systems (2020) <i>IEEE Engineering Management Review</i> , 48 (1), pp. 71-76
35	Tovma, N., Ussabayev, A., Baimukasheva, Z., Tyurina, Y. (2020). Marketing ensuring of the competitiveness of the Republic of Kazakhstan regions in the transition to the digital economy, <i>Management Science Letters</i> , 10 (7), pp. 1575-1586
36	Götz, M., Jankowska, B. (2020). Adoption of industry 4.0 technologies and company competitiveness: Case studies from a post-transition economy, <i>Foresight and STI Governance</i> , 14 (4), pp. 61-78
37	Venkateswaran, N. (2020). Industry 4.0 solutions - A pathway to use smart technologies / build smart factories (2020) <i>International Journal of Management</i> , 11 (2), pp. 132-140

38	Bencsik, A. (2020). Challenges of Management in the Digital Economy (2020) <i>International Journal of Technology</i> , 11 (6), pp. 1275-1285
39	Aaldering, L.J., Song, C.H. (2020). Of leaders and laggards - Towards digitalization of the process industries, <i>Technovation</i> , https://doi.org/10.1016/j.technovation.2020.102211
40	Martinelli, E.M., Farioli, M.C., Tunisini, A. (2020). New companies' DNA: the heritage of the past industrial revolutions in digital transformation, <i>Journal of Management and Governance</i> , https://doi.org/10.1007/s10997-020-09539-5
41	Qvist-Sørensen, P. (2020). Applying IIoT and AI - Opportunities, requirements and challenges for industrial machine and equipment manufacturers to expand their services, <i>Central European Business Review</i> , 9 (2), pp. 46-77
42	Kiseáková, D., Hairul, Gallo, P., Gallo, P., Čabinová, V., Onuferová, E. (2020). Total quality management as managerial tool of competitiveness in enterprises worldwide, <i>Polish Journal of Management Studies</i> , 21 (2), pp. 195-209
43	Santoso, H., Abidinagoro, S.B., Arief, M. (2020). The role of digital literacy in supporting performance through innovative work behavior: The case of Indonesia's telecommunications industry, <i>International Journal of Technology</i> , 10 (8), pp. 1558-1566
44	Kershenbaum, V., Guseva, T., Pantelev, A. (2019). Digital technologies in strategic problems and operational tasks for import substitution of oil and gas facilities, <i>International Journal of Mathematical, Engineering and Management Sciences</i> , 4 (5), pp.1208-1217
45	Burdina, A.A, Nikolenko, T.Y, Semina, L.V (2019). Role of digital economy in creating innovative environment, <i>International Journal of Recent Technology and Engineering</i> , 8 (3), pp. 6477-6483
46	Trisiana, A. (2019). Innovation design development of citizenship education model on characters of Indonesian communities in digital media era and technology revolution, <i>International Journal of Recent Technology and Engineering</i> , 8 (2 Special Issue 9), pp. 322-328
47	Ferreira, J.J.M., Fernandes, C.I., Ferreira, F.A.F. (2019). To be or not to be digital, that is the question: Firm innovation and performance, <i>Journal of Business Research</i> , 101, pp. 583-590
48	Utomo, P., Simatupang, B. (2019). The role of alliances formation in organizational ambidexterity and firm competitiveness: An empirical study in Indonesia digital startup firms, <i>International Journal of Scientific and Technology Research</i> , 8 (8), pp. 1404-1409
49	Kodolova, I.A., Yusupova, L.M., Nikonova, T.V., Agliullina, Z.I. (2019). The dynamics of innovation development for enterprises of the Republic of Tatarstan in the conditions of supply chain management and digital economy, <i>International Journal of Supply Chain Management</i> , 8 (4), pp. 550-556
50	Ukolov, V.F., Cherkasov, V.V. (2019). Concept digitalization apparatus: Interaction of real and virtual sectors of economy, <i>International Journal of Supply Chain Management</i> , 8 (4), pp. 879-883
51	Beilin, I.L., Homenko, V.V., Aleeva, D.D. (2019). Digital modeling of economic processes and supply chain management in the formation of cooperative relations in the petrochemical cluster of the region, <i>International Journal of Supply Chain Management</i> , 8 (4), pp. 532-537
52	Nikulin, R., Bagautdinova, N. (2019). Formation of the company's competitive advantages in the supply chain management and digital economy, <i>International Journal of Supply Chain Management</i> , 8 (6), pp. 820-824
53	Medvedeva, A.M. (2019). Artificial intelligence as a new tool for growth of innovation and competitiveness of the digital business, <i>Espacios</i> , 40 (35), art.no.8
54	Sharifullin, A.G., Safina, G.R., Fedorov, V.A., Kurzhanova, A.A. (2019). Digital economy for the supply chain as indicator of competitiveness of the cities, <i>International Journal of Supply Chain Management</i> , 8 (5), pp. 249-252

55	Nosova, S.S., Makar, S.V., Yarasheva, A.V., Kilchukova, A.L., Medvedeva, A.M. (2019). Strategy of innovation territorial clusters in the aspect of the growth of the russian digital economy competitiveness, <i>Espacios</i> , 40 (43), art. no. 10
56	Alexandrova, T.V., Prudsky, V.G. (2019). On the conceptual model of oil and gas business transformation in the transitional conditions to the industry 4.0, <i>Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration</i> , 27 (46), pp. 5-17
57	Demenko, O.G., Savina, N.P. (2019). Program for the development of the digital economy: Challenges and prospects, <i>Espacios</i> , 40 (25), art.no.7
58	Maratovich, G.N., Nailevich, K.B., Alexandrovich, K.I. (2019). Cluster analysis of the Russian regions by the human capital development and digital resources factors, <i>International Journal on Emerging Technologies</i> , 10 (2), pp. 225-231
59	Alvarez, A., Fernandez, E., Prokofeva, E.N., Vostrikov, A.V. (2019). The building of effective systems of training and development for mining engineers with the basis of digital technologies, <i>Eurasian Mining</i> , 2019 (1), pp. 49-52
60	Utomo, P., Budiastuti, D. (2019). Practiced culture toward firm competitiveness performance: Evidence from Indonesia, <i>Pertanika Journal of Social Sciences and Humanities</i> , 27 (1), pp. 113-124
61	Bilan, Y., Mishchuk, H., Samoliuk, N., Grishnova, O. (2019). ICT and economic growth: Links and possibilities of engaging, <i>Intellectual Economics</i> , 13 (1), https://doi.org/10.13165/IE-19-13-1-07
62	Ukolov, V.F., Rudolph, K., Ostrovskaya, A.A. (2019). Adaptation of the enterprises of the real economy sector to supply chain management and digitalization in the conditions of the development of virtual relations, <i>International Journal of Supply Chain Management</i> , 8 (2), pp. 1109-1116
63	Habanik, J., Grecikova, A., Krajco, K. (2019). The impact of new technology on sustainable development (2019) <i>Engineering Economics</i> , 30 (1), pp. 41-49
64	Jovanović, M., Dlačić, J., Okanović, M. (2018). Digitalization and society's sustainable development – Measures and implications, <i>Zbornik Radova Ekonomskog Fakulteta au Rijeci</i> , 36 (2), pp. 905-928
65	Pini, M., Dileo, I., Cassetta, E. (2018). Digital reorganization as a driver of the export growth of italian manufacturing small and medium sized enterprises, <i>Journal of Applied Economic Sciences</i> , 13 (5), pp. 1373-1385
66	Hausladen, I., Zipf, T. (2018). Competitive differentiation versus commoditisation: The role of big data in the european payments industry, <i>Journal of Payments Strategy and Systems</i> , 12 (3), pp. 266-282
67	Bogoviz, A.V., Gimelshteyn, A.V., Shvakov, E.E., Maslova, E.V., Kolosova, A.A. (2018). Digitalization of the Russian education system: Opportunities and perspectives, <i>Quality - Access to Success</i> , 19 (S2), pp. 27-32
68	Ragulina, J.V., Suglobov, A.E., Melnik, M.V. (2018). Transformation of the role of a man in the system of entrepreneurship in the process of digitalization of the Russian economy, <i>Quality - Access to Success</i> , 19 (S2), pp. 171-175
69	Nipo, D.T.A., Bujang, I., Hassan, H. (2018). Global digital divide: Reassessing the evidence behind ICT and its contribution to trade among the ICT haves and have-nots in developing economies, <i>Journal of Business and Retail Management Research</i> , 12 (3), pp. 47-58
70	Gómez, L.M.R., Fernández, L.R., Navio-Marco, J. (2018). Application of communication technologies (ICT) within the tourism industry in the European Union, <i>Tourism</i> , 66 (2), pp. 239-245
71	Butera, F. (2017). Technology, organisation and work in the Fourth Industrial Revolution: The renaissance of socio-technical design, <i>Industria</i> , 38 (3), pp. 291-316

72	Mueller, S.C., Bakhirev, A., Böhm, M., Schröer, M., Krcmar, H., Welpel, I.M. (2017). Measuring and mapping the emergence of the digital economy: a comparison of the market capitalization in selected countries, <i>Digital Policy, Regulation and Governance</i> , 19 (5), pp. 367-382
73	Boedirachminarni, A., Nuraini, I., Widayat, Suliswanto, M.S.W. (2017). Strategies for increasing the competitiveness of food commodities in the digital era, <i>International Journal of Economic Research</i> , 14 (13), pp. 37-48
74	Cahyadi, A.; Magda, R. (2017). Digital Leadership in the Economies of the G20 Countries: A Secondary Research, <i>Economies</i> , 9 (1), https://doi.org/10.3390/economies9010032
75	Stroiko, T.; Nazarova, L.; Danik, N. (2021). Transformation of Economic Processes on The Basis Of Digitalisation <i>Baltic Journal Of Economic Studies</i> , 7(1), pp. 102-106
76	Laitsou, E.; Kargas, A.; Varoutas, D. (2020). Digital Competitiveness in the European Union Era: The Greek Case, <i>Economies</i> 8 (4), Article Number: 85, https://doi.org/10.3390/economies8040085
77	Goncalves, D.; Bergquist, M.; Bunk, R.; Alange, S. (2020). Cultural aspects of organizational agility affecting digital innovation, <i>Journal of Entrepreneurship Management and Innovation</i> , 16 (4), pp. 13-46
78	Balog, K. (2020). The concept and competitiveness of agile organization in the fourth industrial revolution's drift, <i>Strategic Management</i> , 25 (3), pp. 14-27
79	Uskov, V. S. (2020). Scientific and Technological Development of the Russian Economy in the Transition to a New Technological Order, <i>Economic and Social Changes-Facts Trends Forecast</i> , 13 (1), pp. 70-86
80	Weresa, M.A. (2019) Technological competitiveness of the EU member states in the era of the fourth industrial revolution, <i>Economics and Business Review</i> , 5 (3), pp. 50-71
81	Banhidi, Z.; Dobos, I.; Nemeslaki, A. (2019). Comparative Analysis of the Development of the Digital Economy in Russia and EU Measured with DEA and Using Dimensions of DESI <i>Vestnik Sankt-Peterburgskogo Universiteta-Ekonomika-St Petersburg University Journal of Economic Studies</i> , 35 (4), pp. 588-605
82	Banhidi, Z.; Dobos, I.; Nemeslaki, A. (2020). What the overall Digital Economy and Society Index reveals: A statistical analysis of the DESI EU28 dimensions, <i>Regional Statistics</i> , 10 (2), pp. 42-62
83	Kolodynskyi, S., Drakokhrust, T., & Bashynska, M. (2018). The Innovative Infrastructure of Economic Development in The Framework of International Digital Transformation. <i>Baltic Journal of Economic Studies</i> , 4(4), pp. 166-172
84	Domazet, I.; Zubovic, J.; Lasic, M. (2018). Driving Factors of Serbian Competitiveness - Digital Economy and ICT, <i>Strategic Management</i> , 23 (1), pp. 20 - 28
85	Ilyes, C.; Szekeres, B. (2017) The Impact of the Digital Economy on Controlling <i>Strategic Management</i> , 22 (3), pp. 44 - 51