

DIGITALIZATION AND BUSINESS PROCESS: SCIENTIFIC BACKGROUND

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Abstract: The article is devoted to analysis and systematization of the scientific background concerning the impact of digitalization on business processes transformation in economy and its spheres.

Key words: digitalization, business processes, COVID-19, business transformation.

Nowadays economic development can be characterized by different concepts and its penetration in this sphere, but digital technologies take an important place in it. Digital influences almost every activity in the sphere of business including marketing, finance, production, etc. During the COVID-19 pandemic its significance is still growing and so far there is no reason for this trend to decline. Today we can even say that business can't work most effectively without adding digital technologies to it.

Current trends show that the sphere of digital is also influenced by a growing amount of information. As a result, scientists try to pay more attention to this topic, explore an impact of digitalization on business process. It leads to a rapid growth of articles or other scientific achievements that fully or partially reveal the topic of the connection between business processes and digitalization. Therefore, in our opinion, it is important to conduct a bibliometric review for a more complete disclosure of the topic. This will provide an opportunity to analyze the current approach to the further development of business processes and their dissemination, to trace the place of digitalization in the modern economy.

Systematization of literary sources showed that many domestic and foreign scientists devote their work to studying an impact of digital on constant development of business. But here it is possible to find as much various topics as it possible. For example, scientists Zhghenti T. and Chkareuli V. highlighted the necessity to increase technological awareness among society to overcome digital mistrust. The role of investment management in digital transformation was considered in the studies [1; 2; 3; 4].

The search requests "digitalization" rising worldwide. It stands to mention that the start of search interest was in 2013, while in 2021, it increased by 4.6 times. The rapid digital penetration provokes the transformation of the business processes. As a result, the business sector needed to invest more in analyzing the impact of digital development on the changes in demand, behavior, and preferences of consumers, etc.

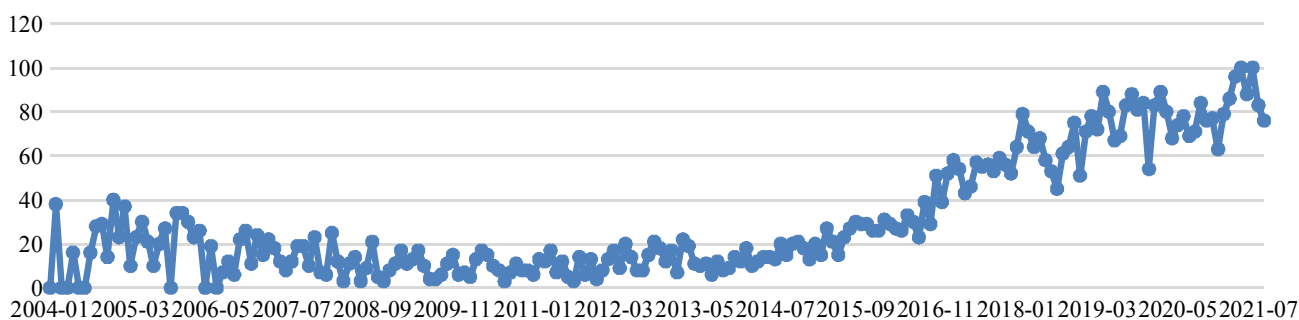


Figure 1 – The dynamics of search request "digitalization", 2004-2021 [5].

As we said, there are many scientists who are devoted to this topic and continue to work for its development in economy and science. The scientists from Russian Federation look like the most contributed to the exploring the investigation of business process digitalization (204 scientific articles). The second place is taken by the scientists from Germany – 170 articles, then UK – 86 articles, Finland – 85 articles, Sweden – 83 articles. Ukraine placed 13th place with 38 issued publications devoted to the investigated theme [6].

It is also important to mention about the co-authorship between scientists worldwide. We are sure that such a unity helps to get a fast and effective result that can lead from theoretical research to practical application. In this case, the VOSviewer software was applied [7Error: Reference source not found; 8; 9]. The co-authorship analysis by countries with limitation criteria of a minimum of 15 articles per country allowed building the network map. This map consists of 29 items (countries) grouped by 4 clusters, which indicate the close collaboration between the scientists. This analysis helped to find the strong collaboration between such countries as Germany, Finland, the USA, Austria, Denmark, Netherlands, Norway, Sweden, and Switzerland that together create one of the clusters. The number of articles that was published in co-authorship is 170. The second cluster concentrates on countries of Eastern Europe and Asia (Ukraine, Serbia, Romania, Slovakia, Czech Republic, Kazakhstan, Russian Federation and China). The third cluster identifies the collaboration between India, Indonesia, UK, Australia, Malaysia, and Spain. The fourth cluster demonstrates the strong research relationship between Canada, France, and Italy. At last, the fifth cluster shows the cooperation between the Polish, Portuguese, and South African scientists [6].

During the analysis of statical data provided by the Scopus database we came to the conclusion that this theme is multidisciplinary. It can be explored from different points of view, belong to different subject areas. It helps to uncover the topic from different angles, to find it in different fields of science and to assess the existing impact. However, most of the documents (15.2%) relate to "Business, Management and Accounting", "Engineering" and "Social Sciences" (14.7%). Then, 12,5% of papers were indexed in the subject area "Computer Science", while only 5.6% of articles were "Economics, Econometrics and Finance". Besides, other subject areas cover less than 5% of articles each [6].

Speaking about more specific fields of research, it is impossible to highlight even 10 the most popular. The variety of the topic shows a possibility to find something new in any cooperation of digitalization and business. For example, one of topic clusters covers 35 items showing the intense research interest in investigating the impact of information technologies on business development. The scientists primarily focused on small and medium enterprises. Besides, the issues of sustainable development and circular economy were considered.

The second cluster includes 27 items that indicate the research interest in the industrial revolution – Industry 4.0. The scientist devoted special attention to e-business development, fintech, big data development under globalization. Moreover, the changes in marketing, management, and regulation came to the fore. The third cluster determines the research in investigating the business process development under the COVID-19 restrictions. The particular focus is on the tourism sector [10], education, labor market, and digital economy. The fourth red cluster shows the research direction towards studying business model innovations, development of digital platforms, blockchain, and Internet of Things (IoT). At last, the smallest orange cluster indicates the research of digital transformation's impact on the public sector and culture.

Hence digitalization has a great impact on modern business process leading it to the next stage of development. And it can be proved by the theory and practice, but here we can be surer about theoretical part. Bibliometric analysis shows that this field of study becomes even more popular because of pandemic situation, especially, its influence of business. Based on the above findings, it could be concluded that the most prosperous research directions are the studies that addressed the digitalization of education, labor, and tourism sectors. In turn, special attention should be paid to investigating the digital platforms, blockchain, IoT, and the impact of digitalization on changes in culture and the public sector. Therefore, it is essential to conduct additional marketing research to investigate the changes in consumer behavior.

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