

3. Безробіття в Україні: чому кількість офіційно безробітних зменшилася та яка буде ситуація на ринку праці після війни [Електронний ресурс]. - Режим доступу: <https://www.slovoidilo.ua/>
4. Про організацію трудових відносин в умовах воєнного стану [Електронний ресурс].- Режим доступу: <https://zakon.rada.gov.ua/>

DIGITALIZATION OF LOGISTICS IN THE ERA OF INDUSTRY

4.0

Makovoz Oksana

Dr.sc.(Econ.), associate professor,

professor of department of management

National technical university «Kharkiv polytechnic institute»

Kharkiv, Ukraine,

Researcher, Dresden Technical University

Dresden, Germany

To date, it is extremely important for companies to ensure the rapid transformation of their management and operating systems to possible changes in external operating conditions. The ability to such a transformation is determined by a variety of factors: resource, organization, communication, technological, which in the totality of influences and relationships constitute the institutes of logistics systems. Under the conditions of network management, logistics systems with their material, financial, information and service flows are a special object of investigation.

These conditions of successful functioning not only apply to individual companies and associations that are now the most important economy, but also gain exclusive importance for these participants in economic relations, given the growing role and importance of logistics in general for the global economy.

Both Internet of Things (IoT) and Big Data Analytics (BDA) are innovations that already caused a significant disruption having a major impact on organizations. To reduce the attrition of new technology implementation, it is critical to examine the advantages of BDA and the determinants that have a detrimental or positive impact on users' attitudes toward information systems [1, p. 196].

The conduct a systematic literature review that explores how Industry 4.0 technologies can enable collaboration mechanisms. The review shows that information sharing and joint planning and decision-making are the most common collaboration mechanisms studied. Simultaneously, the Internet of Things, Blockchain, and Cloud Systems are the most discussed technologies to enable those mechanisms [2, p. 2].

Enterprise digital transformation is the utilization of emerging technologies as the basis for solutions to improve the way information transferred and communicated between enterprises and increase the efficiency and effectiveness of communication among members. Consumer behavior will be radically changed by the business model innovations brought about by digital transformation, and accomplishing a successful digital transformation also necessitates specific assets and capabilities. Introduction of new business models like 'product-as-a-service', digital platforms, and pure data-driven business models [3, p. 889-896].

The Internet of Things (IoT) vision enables multiple of resource-constrained embedded devices, objects, and humans to connect together through the Internet protocol for a ubiquitous data exchange. Logistics is considered to be a key player poised from this vision to achieve the full visibility and transparency through leveraging the pervasive interconnectivity to collect reliable and safe real-time data. In addition, the valuable information extracted and transformed from the IoT data can be exploited to create intelligent services and applications to improve the logistics activities as well as the overall performance of logistics operations. Although the goal of logistics operations is to obtain the efficiency and sustainability, adoption of IoT in this domain might impose a paradox [4, p. 111].

Against this background, at present Industry 4.0 is the main concept of dealing with these challenges in manufacturing. Lacking a comparable covering concept in logistics, this study aims to stringently unify diverse approaches in research to a Logistics 4.0-framework in order to generate a new picture of the state of logistics research [5, p. 18].

It is planned to process data using modern information technologies and programs. Scientific research on this subject will help to solve important problems in the field of further research into the provisions of institutional theory in the market dimension and the introduction of public authorities into management activities in the reform of the institutional mechanism for the regulation of logistics systems and technologies.

References:

1. Moumtzidis, Ilias, Maria Kamariotou, and Fotis Kitsios (2022). Digital Transformation Strategies Enabled by Internet of Things and Big Data Analytics: The Use-Case of Telecommunication Companies in Greece" *Information* 13, no. 4: 196. <https://doi.org/10.3390/info13040196>
2. Gebhardt, M., Kopyto, M., Birkel, H., & Hartmann, E. (2021). Industry 4.0 technologies as enablers of collaboration in circular supply chains: a systematic literature review. *International Journal of Production Research*, p. 1-29.
3. Verhoef, Peter C. & Broekhuizen, Thijs & Bart, Yakov & Bhattacharya, Abhi & Qi Dong, John & Fabian, Nicolai & Haenlein, Michael (2021) Digital transformation: A multidisciplinary reflection and research agenda," *Journal of Business Research*, Elsevier, vol. 122(C), p. 889-901.
4. Hoa Tran-Dang , Nicolas Krommenacker , Patrick Charpentier & Dong-Seong Kim (2020): The Internet of Things for Logistics: Perspectives, Application Review, and Challenges, *IETE Technical Review*, p. 93-121.
5. Winkelhaus, Sven & Grosse, Eric. (2020). Logistics 4.0: a systematic review towards a new logistics system. *International Journal of Production Research*. 58. p. 18-43.