

етапі подорожі. Це є одним із найважливіших проєктів цифрової трансформації для компаній, що займаються ланцюгом поставок. Принаймні половина компаній у всіх підсекторах мають таку можливість, коливаючись від 59% серед постачальників логістичних послуг до 55 % серед перевізників і 50 % серед вантажовідправників. Дана технологія дозволяє підвищити рівень оперативності управління та ефективність логістичних рішень. Цей перелік не є повним, він постійно доповнюється, адже задоволення потреб клієнтів у своєчасних послугах і товарах можливе саме за рахунок цифрової трансформації логістичних компаній. Тому питання цифрової трансформації логістичних компаній є актуальними і відіграють стратегічну роль для їх розвитку.

Список використаних джерел

1. Logistics sector prioritizes digital transformation, but needs technology leadership, skills.
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Vasylchenko M., PhD in Economics, Associate Professor
National University «Yuri Kondratyuk Poltava Polytechnic» (Poltava, Ukraine)

DIGITAL TRANSFORMATION IN THE LOGISTICS INDUSTRY: NEW CHALLENGES AND OPPORTUNITIES IN THE EVER-CHANGING GLOBAL WORLD

The latest worldwide events, including the pandemic COVID-19 and Russian Federation's war of aggression against Ukraine, have highlighted the weaknesses of global supply chains. For these reasons and others, most organizations were unable to forecast market demand and supply, as well as to meet delivery schedules consistently. The above-mentioned disruptions demonstrate the need for businesses to accelerate their digital transformation initiatives to increase their agility, flexibility and visibility to react to an ever-changing global world.

Despite the growing significance of digitalization, there is no single definition of this term because of its multidisciplinary nature. Many researchers [2; 4; 5] have studied this phenomenon of nowadays technological society at different levels and from various perspectives, but no one of these theories are able to capture the whole picture of digitalization. Consequently, it should be mentioned that this term can be defined as the integration of digital technologies into all processes of any business company, optimization of existing processes, and creation of new operational ones, which lead to the capability of offering more value to customers at less cost. Furthermore, the digitalization concept deals with those factors that are able to change the big picture and touch every stakeholder in the organizational chain, rather than simple digitalization of data process. It represents a cultural shift to more agile ways of further business development, powered by such modern technologies as artificial intelligence (AI), advanced analytics etc.

According to the recent report, entitled as "Digital Transformation Market by Technology (Cloud Computing, Big Data and Analytics, Mobility/Social Media, Cybersecurity, Artificial Intelligence, Deployment Type, Vertical (BFSI, Retail, Education), and Region – Global Forecast to 2025" [1], the global digital transformation market is expected to grow from USD 469.8 billion in 2020 to USD 1,009.8 billion by 2025, at a Compound Annual Growth Rate (CAGR) of 16.5% during the forecast period.

The digital transformation has become a necessity for any businesses as it makes them more flexible, agile and responsive to customers' needs in the future of the digital world, and logistics is no exception too. It has always been regarded of as a conservative industry, and while many companies have successfully implemented various digital transformation initiatives, the logistics industry is only just starting to move this significant direction as well.

Digitalization in logistics industry refers to the use of digital technologies able to improve the existing business processes, corporate culture, and the customer experience in order to meet the ever-

changing market and business requirements. Digitalization of the important logistics operations allows company resources to be optimized. As many companies save such resources as time and finance, they can invest these ones in the area of innovation and R&D to improve the customer experience in the future periods. Moreover, in addition to the costs reduction resulting from the resource optimization, they can also increase their earnings with the values they offer, i.e. speed, efficiency, and accurate timing. But despite their size, there is an opportunity for many interested companies not only to explore digital business models in logistics, but also to provide more value to their customers.

We strongly believe that in the case of Ukraine, the national economy should be shared in logistics and supply chain management as well. It seems appropriate at this juncture to take stock of current research efforts on the dynamics of a new sharing economy [3], to determine where we are now, how far we have progressed, and where we need to go in the future. But today it is very difficult to collect all the necessary data concerning the main players and stakeholders in the current Ukrainian logistics industry. However, due to the digital transformation process of the national economy, the logistics industry will learn to think via data analytic techniques with all its main stakeholders and ultimately will improve data-based decision-making processes by obtaining a data perspective. As a result, all the above-mentioned transformations will ensure that logistics stakeholders, whether large corporate or small and medium-sized enterprises, receive better and quality service. In its turn, customers will have the opportunity to choose service and capacity according to their needs.

Digitalization has touched nearly every aspect of modern businesses and industries, including supply chains. Therefore, some new solutions for track and trace using both radio frequency identification (RFID) and GPS, have enabled enterprises and organizations to transform the existing supply chain structures into more flexible, open, agile, and collaborative digital ones. Unlike the previous supply chain models, built on both paper-based and IT-supported processes, the digital ones enable business process automation, high organizational flexibility, and digital management of corporate assets.

Ukraine has very significant advantages in terms of carrying out this digital transformation. All launched initiatives, such as public targets, ministry practices, and the rapid digitalization of the paperwork process in business, contribute to the transformation of the logistics industry at all. However, the operational capability of the Ukrainian logistics industry players is quiet strong. In addition, with its total market size and feature of being a critical transit on logistics routes around the world, Ukraine has a real chance to become a full-fledged logistics centre than ever before.

On the basis of the above considerations, it's reasonable to assume that the entire global economy is now through the digital transformation. Modern digital technologies are those tools that are able to make this process real and possible. Thus, the importance of digital technologies in the existing logistics industry is obvious for everyone. However, there are some enterprises currently bypassing the active implementation of digital technologies, and perhaps the time has come to change their positions as well to enjoy the many benefits of digitalization era. A large amount of enterprises can now widely use digitalization to change the existing business processes, as well as to incorporate new prospective initiatives, and even redesign their customer experiences to quickly respond to market demands and different dynamic business scenarios.

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Gryshko V.V., PhD in Economics, Associate Professor; Gruba V.V., student
National University «Yuri Kondratyuk Poltava Polytechnic» (Poltava, Ukraine)

HOW DIGITAL TRANSFORMATION IS CHANGING THE LOGISTICS INDUSTRY

Internet and Technology have seen significant acceptance today. Emailing, internet shopping, online ticket booking, music and movie downloads, and other such activities have become the norm. To put it another way, our lives have been digitally altered. With everything happening online, one may have predicted the demise of the logistics industry. However, the logistics business has gradually caught up with the trend. More than 85 million products & documents are delivered on any given day [1], demonstrating the logistics industry's digital transformation.

Digital transformation isn't just one big thing. Often, companies only think about organisational change and don't realise that there are also four types of digital change in the process: Business process transformation, Business model transformation, Cross domain transformation, Organisational transformation.

Business process transformation: Blockchain, Internet of Things (IoT), Artificial Intelligence (AI) & Machine Learning, Supply Chain Digital Twins, Deep data, and other technologies offer valuable new ways to streamline or rethink common tasks, leveraged by supply chain and logistics companies to reinvent their business processes. This change helps logistics firms in accelerating innovation, making better decisions, engaging customers throughout their journey, incorporating organisational flexibility, and increasing automation [2].

Digital twin: a virtual representation of hundreds of logistics positions, assets, stocks, and warehouses, employs advanced analytics and AI to stimulate the operation of a supply chain, including all of the complexity that contributes to vulnerabilities and hazards.

Blockchain: enables the integration of diverse business streams, such as logistic providers, shipping lines, and carriers, onto a single platform. Utilizing IoT, supply chains may perform mechanical and technological maintenance, inventory control, fleet tracking, and enhance logistics operations.

AI & ML: aid in addressing governance issues and long-standing data silos in supply chains, enabling more visibility and integration across the varied and remote network of stakeholders. Integration of digital logistics platform provides interconnected systems that enable logistic service providers to conduct effective operations and give a smooth client experience.

Big Data and analytics: by gaining insights into how demand will evolve, analyzing big data may help predict adjustments and manage inventory shortages more effectively. This will also help the industry better manage its workforce by preventing overtime, rush periods, and exhaustion, thereby reducing unnecessary overhead costs and increasing the competitiveness of logistics companies.

Business model transformation: A business model transformation isn't just about improving one part of an organization's operations. Instead, it's about improving how the business creates and delivers value. As part of this change, the way services and solutions are delivered could switch from physical interactions to a completely digital experience. Thus, overhauling the traditional business