Volume: 10 2023 Issue: 4 Pages: 615-624 ISSN 1339-5629

Digitalization, innovation and marketing in logistics

Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

https://doi.org/10.22306/al.v10i4.440

Received: 23 June 2023; Revised: 15 Sep. 2023; Accepted: 01 Nov. 2023

Digitalization, innovation and marketing in logistics

Hassan Ali Al-Ababneh

Irbid National University, Faculty of Administrative and Financial Sciences - E-Marketing and Social Communication, PO Box 2600, Irbid, Jordan, hassan_ababneh@inu.edu.jo (corresponding author)

Mahmud Agel Abu Dalbouh

Irbid National University, Faculty of Administrative and Financial Sciences - E-Marketing and Social Communication, PO Box 2600, Irbid, Jordan, M_agel_dlb@inu.edu.jo

Salem A. S. Alrhaimi

Sharjah Police Science Academy, Business Administration, P.O Box 29, 31 Block F Street, Sharjah - 2GIS, United Arab Emirates, 32223, salrhaimi@ps.ac.ae

Ibrahim Mahmoud Siam

Irbid National University, Faculty of Administrative and Financial Sciences, Entrepreneurship, PO Box 2600, Irbid, Jordan, I.Siam@inu.edu.jo

Tatyana Ibragimkhalilova

Donetsk National University, Faculty of Economics, Department - Marketing and Logistics, Universitetskaya Street 24, Donetsk, 283001, Ukraine, itv2106@mail.ru

Keywords: digitalization, innovation, marketing, logistics, efficiency.

Abstract: Global digitalization has caused a modification of the modern world market and the adaptation of business strategies of modern companies. The target of the research is to define the peculiarities of trends in the evolution of digitalization, innovation in marketing and logistics of modern companies. It is substantiated that the efficiency and competitiveness of a business are constructively related to the implementation of digital innovative technologies in the marketing and logistics system to optimize business processes and reduce management and operating costs. Based on scientific generalization, it is indicated marketing and logistics interaction and specific features of key aspects in influencing competitiveness. Based on structural and logical analysis, revolutionary technologies and innovations in the marketing and logistics system are highlighted for maximum automation of business processes of modern companies, based on which their development trends are determined. The need for a systematic approach to the consideration of marketing and logistics as inseparable elements of the continuous cycle of companies (production-promotion-sales-service-logistics) is put forward. Based on structural and logical analyze peculiarities of the implementation of the marketing logistics system of companies in conditions of digitalization and innovation, which can be applied in the forming a digital marketing strategy and managing the logistics system of companies in the long term.

1 Introduction

Modern business trends necessitate a flexible and adaptive approach to company management, which is the key to its effective operation in a highly volatile and uncertain environment. Global processes of digitalization and innovation in all areas of company activity, which are characterized by the ability to ensure competitiveness in world markets while maintaining their positions and improving them in the future. However, as part of maintaining a competitive position, modern companies conceptually need to expand the consumer segment and target audience by intensifying marketing and logistics processes through application of digital technologies and innovations that will ensure the execution of strategic business goals and objectives. The conceptual task of modern marketing is to analyze and consolidate the information received as a necessity for the effective functioning of companies in uncertain conditions. Taking this aspect into account, the issue of optimizing the management of business processes of modern companies through the use of digital technologies and innovations in

a marketing-logical system remains relevant and requires detailed study. Because of this, new challenges and tasks are formed in the global system management, which are aimed at developing economic systems, optimizing and improving the marketing and logistics system. The multifunctionality of management decisions in the marketing-logical system greatly complicates the process of information exchange between different systems and leads to increased contradictions between the production and organizational and economic systems. The resolution of the presented contradictions can be carried out by adapting marketing and logistics systems based on the implementation of digital technologies and innovations, which will be studied in more detail in this article.

Ensuring the efficiency of a company's activities in today's highly competitive global markets is characterized by the need to organize a marketing and logistics system in amenably with latest technology conditions and trends supporting strategic business goals and objectives. The company's competitiveness is inextricably linked with an effective marketing-logistics system, which provides the



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

entire chain of production of goods and services (production-promotion-sales-service-logistics) requires constant improvement based on digital innovative technologies. Taking into account the peculiarities of the intensity of the application of digital technologies and innovations, as well as the implementation of digital information flows in the concept of modern marketing and logistics, there is an urgent need to study this issue for the future improvement of approaches to management and argumentation of key trends in the evolution of the marketing and logistics system.

The relevance and necessity of the study is due to the fact that the intensity of the implementation of digitalization and innovation processes in the marketinglogistics system of companies requires argumentation of the features of their use, highlighting the relationship and development trends.

To achieve the goal of this study, it is inevitable to conduct a detailed study and analysis of the features in the application of a modern marketing and logistics system; argue the main role of digital technologies and innovations, followed by highlighting the relationship between them, ensuring the efficiency of companies. Because ensuring the efficiency of companies directly depends on the process of strategy formation and is based on versatile officials and trends in the modification of digital innovations in the marketing and logistics system, which requires detailed and in-depth research.

1.1 Review of scientific literature in the field of digitalization, innovation and marketing in logistics

The intensity of global digitalization is expressed by the implementation of digital technologies and innovations in all sectors of the world economy. However, globalization processes of integration into a single superior economic space are forcing the management of modern companies to radically review and improve existing approaches to organizing activities, which must necessarily be based on digital technologies and innovations, since their use can ensure the company's efficiency and achieve your strategic goals and business objectives. Considering the relevance of modernizing the existing management mechanism of modern companies and introducing digital technologies and innovations into the business processes of the marketing and logistics systems of companies, it remains necessary to search for basic scientific approaches and practical recommendations in this area to substantiate key trends and features of their development and subsequent application in long-term planning development. It is important to state that the basis this issue and represent the hypotheses of scientists in the field of digital technologies, innovation and marketing and logistics systems.

Noteworthy is the scientific approach of H. Alzoubi [1], which argues for the conceptual need to improve existing approaches to marketing and logistics of companies. This approach argues that changes to introduce and use new types of consumer goods and services, new production and

vehicles, markets and forms of organization in the industry are clearly related to innovation. It should be noted that this approach is specific and aimed at the specifics and characteristics of the industry, and not all areas of company activity, which is essential and significant in modern conditions and can only be considered for companies in this industry, as well as for other forms and types of activity, but it remains unclear The issue of determining the specifics and characteristics of the evolution trends of companies in economic activity segment has been resolved, which requires a more detailed and in-depth study.

The interpretation of the introduction of innovative ITtechnologies for the purpose of modifying management objects and ascertaining the economic, environmental, scientific and technical effect are considered in the scientific work of P. Adams [2]. This approach is based on studying the influence of technology and innovation on the object of company management, which will allow taking into account these factors when forming the company's strategy, but the essence of digital technologies and innovation and their impact on the marketing and logistics system of modern companies is not disclosed, which requires improving this approach and more detailed study.

Features and changes in the original structure of the production mechanism, the transition of its internal structure to a new state, with regard to products, technology, of production, professional means qualifications of the workforce, organization of logistics and sales; changes that have both positive and negative consequences, both economic and social of the introduction of innovations and advanced technologies are considered in the scientific research of S. Shao [3]. This approach is very interesting and relevant in modern conditions, but this approach justifies the clarification of the features of new technologies and innovations in the internal processes of the company. Based on this, taking into account the tendency in the modification of the global market and the need for business scaling to achieve maximum results, the issue of the need to implement digital technologies and innovations not only for internal but also for external business processes of companies is becoming relevant, which remains unresolved and requires further

Focusing on the features of the development and integration of marketing and logistics into a united system, as the basic practice of supply chains in markets in the scientific study of Dadzi K. [4]. This approach argues for the key role and complementary elements of the marketing and logistics system, which are determined by the efficiency of companies in the main markets by building an optimal supply chain. It should be noted that this approach will highlight the main theoretical aspects in the cooperation of marketing and logistics of a company in modern conditions for organizing an effective supply chain, however, the question of key tendency in the evolution of the marketing and logistics system under the



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

influence of digitalization and innovation remains open, which requires detailed research. Focusing on the fact that in highly competitive global markets there is a constructive relevance in the implementation of digital technologies and innovations in the field of marketing and logistics systems into the activities of companies, we should consider the scientific work of Granstrand O. [5]. This study focuses on an approach that states the process of practical application of innovation and leads to the creation of products and technologies that are better in their properties, focused on economic benefits and additional income, and covers the entire range of activities - from research and development to the marketing and logistics system. This approach is more adapted to modern business realities, but does not reveal the specifics and features of the implementation of digital technologies and innovations in the marketing and logistics system, which requires more detailed research.

Noteworthy is the scientific approach of Dana L. [6], who argues that the final result of creative work is obtained from investing in science and new technologies, in new forms of labor organization, service and management, including forms of control, accounting methods and planning the use of which is aimed at improving economic efficiency. A specific toolkit for entrepreneurs with which they use change as a chance to implement a new type of business or service. The presented concept conceptualizes the features of the use of new technologies and innovations in the performance of companies and their impact on the procedure for assessing impact factors and choosing alternative tools, but taking into account modern tendency in the global digitalization of all spheres of human life. However, the question of the features and specifics of digitalization, innovation in marketing and logistics remains unresolved, which requires a more detailed study. Conceptualizing the above, it should be noted that in modern scientific literature there is no single approach and view on determining the features of the use of digital technologies in the marketing and logistics system of companies, and there is also no justification for the role of digital technologies innovations that generate modern trends, which in turn confirms the relevance and necessity of this research.

Marketing and logistics: features of interaction and impact on the competitiveness of modern companies

The digitalization of global business is based on the introduction of innovation and causes increased competition, the formation and implementation of a logistics-marketing system and interactions, which is a factor in increasing the efficiency of companies. This is characteristic in that this interaction is the following:

- 1. Interrelated management concepts (logistics and marketing as a streaming market construct).
- 2. Logistics is the basis for the application of a marketing is the basis for developing, a logistics strategy and optimizing the logistics system.

3. Tools for achieving and maintaining competitive advantages.

It is important to note that the presented interaction creates new conditions and additional opportunities for increasing the value of the product, service and its offer for the consumer, which increases the degree of his satisfaction with the purchase and determines his readiness to become a regular customer of the company. This is a condition for achieving its competitiveness, increasing the level and strengthening of competitive advantages in the long term, as

well as bringing its strategic potential in line with the conditions of the external environment. The quality and completeness of the modification of logistics and marketing functions have a positive impact on the company's competitiveness in the global market. Marketing parsing determines and specification customer destitution; Logistics tools ensure synchronization turnover flow at the end of the forehanded period redress demand on the basis of exploration marketing. Since its target audience characterizes each market, therefore, the practical issues of ensuring competitiveness through the implementation of digital technologies and innovations should be related to the specific market and the company's

- 1. Resist the growing competitive pressure and neutralize the negative effects of an aggressive environment.
- 2. Return to the initial positive state and maintain their organizational integrity while showing the flexibility of the organizational and managerial structure.
- 3. To form a holistically dynamic equilibrium system that independently organizes the effective achievement of organizational goals and determines the guidelines for strategic development [7].

Modern business conditions are characterized by the fact that the specific interaction of marketing and logistics business stages in a company represents a wide range of activities that depend on suppliers of raw materials and their delivery to the end consumer, which provides goods or services in accordance with current needs. Logistics is the final element of efficiency, contrary to the relationship between the marketing and logistics systems. It is important to note that this allows us to talk about marketing logistics, as well how to state the logistics aspect of assessing the competitiveness of companies. When discussing the interdependence of marketing and logistics, it is conceptually necessary to emphasize the fact that the presented relationship between flow and market-oriented management concepts underlies marketing logistics - a system of planning (marketing) and organization (logistics) of presenting a product or service of the required quantity and quality according to the level of demand and time-price indicator. Marketing logistics ensures the organization of marketing and the implementation of logistics according to supply and demand. To achieve



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

consistency and proportionality between supply and demand, it is necessary not only to ensure the movement of commodity, communication and financial flows, but also to predict demand and improve relationships between companies and their counterparties. From the perspective marketing logistics, the consumer competitiveness. The consumer's perception of the brand determines its competitiveness to the extent of uniqueness and satisfaction of needs according to the gradation of their significance. Focus on the consumer underlies the justification and implementation of the company's competitive advantages, which are determined by the introduction of digital technologies and innovations in the activities of companies. It encourages the creation of customer value, attractiveness and usefulness [8]. Character of logistics in operation becoming and evolution. of a customer-oriented system is great. Since each company, based on the main characteristics, parameters and interests of its target audience, emphasizes its mission and vision for assessing competitiveness, its achievements are impossible without digital technologies innovations.

The relationship between logistics and marketing of modern companies is a complex and debatable issue. However, given this, it should be noted that there are different points of view: logistics is part of marketing; marketing is part of the logistics; logistics and marketing

belong to different areas; logistics and marketing have common areas.

According to many researchers, it is advisable to consider logistics and marketing as independent sciences, activities that have both common and specific areas for each of them [9]. Based on this, the author of the article, based on an in-depth critical analysis of scientific research and scientific generalization, argued that modern marketing and logistics closely complement each other in meeting consumer needs at reasonable costs. The primary functions are marketing, which answers the question "what is needed?"; logistics functions are secondary, it answers the question "how to do it?".

Marketing and logistics are equal parts of the company's unified sales system for its products. It should be noted that with the immediate implementation of a marketing and logistics system, not only sales efficiency increases, but also the functioning of the company in the ambush of the use of digital technologies and innovations, that designate the relevance of this research.

Noting the considered scientific approaches in the field of modification of marketing, logistics and implementation of digital technologies and innovations, the author of the article structures the key interactions of marketing and logistics companies to ensure competitive advantages in the global market, which are presented in Figure 1.

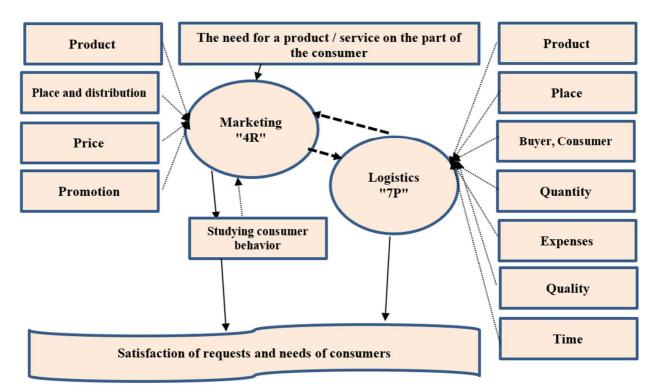


Figure 1 Key interactions between marketing and logistics companies for provision of competitiveness advantages in the global

Conceptualizing the presented, it should be noted that marketing and logistics are important sources, since their effective operation directly affects the quality of customer

service [10]. It is important to understand that the strength of the influence of logistics on the company's competitiveness largely depends on how efficiently and



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

competently logistics interacts with the company's marketing activities. It is also worth noting that the marketing and logistics concept is not universal for any company and can be diverse, which is determined by the specifics and type of activity of the company. It requires changes and improvement through the implementation of digital technologies and innovations based on the field of activity of each company and its strategic goals and business objectives. Due to the presence of strong competition in the global market, which forces companies to revise existing approaches to organizing activities repeatedly, modern companies must maximize the use of the full marketing and logistics concept. Nevertheless, world practice says that in the near future this approach will become more widespread. This conclusion is also supported by the fact that modern business is forced to exist in conditions of uncertainty and a constantly changing economy, which means that companies are constantly looking for new solutions and ways to strengthen and consolidate their positions in the market, which are possible with the help of modern digital technologies and innovations. Based on the above, we can conclude that logistics and marketing activities are capable of complementarity. At the same time, being implemented synchronously within the framework of the marketing and logistics concept, they establish an effective solution to business problems related to organizing company strategy and achieving business goals. Appliance of marketing tools in logistics system management operations creates most significant and favorable ground for the development of financial stability and economic activity of companies. Thus, it is impossible for companies that develop only marketing or only logistics to achieve a leading position in the modern world market. The growth of profitability and efficiency leads to a constant search for mechanisms based on innovative digital technologies and their constructive infusion into the business of companies. Based on the above, it should be noted that marketing is "planning", "implementation", "control" over the physical flows of materials and finished products, from points of origin to points of destination, in order to satisfy consumer needs. Ensuring the efficiency and competitiveness of companies is possible only based on meeting the needs of customers. Marketing allows you to track and determine the demand that has arisen and answers the questions: what product is needed, where, when, in what quantity and what quality. Logistics - provides the physical promotion of the demanded commodity mass to the consumer [11].

Logistics integration allows the delivery of the required product or service to the right place and time at minimal cost. Marketing is aimed at market research, advertising, psychological impact on the buyer and other factors. Logistics, in the first place, is aimed at creating technically and technologically related systems for transporting materials through commodity distribution chains, as well as systems for monitoring their passage. Based on the main results, it should be noted that marketing and logistics communications interweave, which makes it difficult to separate the spheres of interests of business areas. Arguing the presented specific interactions of marketing and logistics and their impact on the competitiveness of modern companies, it is important to state that leadership and competitive positions in the global market today are acquired by those who are competent in the field of logistics and marketing, own your methods, effectively integrate and apply them in practice in the process of company management. However, given the trends in the modification of digitalization and changes in innovation, digital technologies are necessary to optimize the business processes of companies and increase the efficiency of marketing and logistics. The evolution of the digital economy and globalization lead to a radical revision of existing methods and approaches to modern business management, which requires a more detailed study and study of the specifics of digital business transformation, which will highlight the main aspects and its role in the marketing and logistics system.

Methodology

Peer review process

To implement the research and determine the features in the development of digitalization, innovation and their implementation in the marketing and logistics systems of companies, various sets of methods and tools were used. The need for this study is determined by the inefficiency of management companies in the global market, which are characterized by high costs of organizing activities and minimal profitability. All this is because the global digitalization of the global economy is characterized by the growth of new technologies and management approaches that are based on innovation and require their application in the marketing and logistics system of companies. To achieve this goal and confirm its relevance, the author of the article conducted a critical analysis of the features of the development of approaches and methods in the field of digitalization and innovation and their implementation in marketing and logistics, and also expressed an opinion on, based on structural and logical resolution, the key aspects of the use of new technologies, such as internal business processes of companies, as well as external ones when interacting with counterparties. Based on a critical resolution of scientific research, it is shown that there is no single approach to organizing an effective marketing and logistics system and identifying key development trends in the context of digitalization and innovation, which confirms the relevance and necessity of this research. Based on structuring and scientific generalization, key approaches to organizing the marketing and logistics system were conceptualized, which made it possible to identify their key interactions to ensure the competitive advantages of modern companies in the global market in current conditions.

Structuring and scientific generalization made it possible to justify the need to use digital technologies and innovations to ensure business efficiency. An analysis of the features of trends in the digital transformation of



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

modern business made it possible to argue for key trends in development based on a statement of the main digital technologies and innovations being introduced in all sectors of the world economy. This led to the identification of the main directions and most promising niches of digitalization of the world economy. Attention is focused on digital technologies and innovations, which are reflected in the marketing and logistics systems of modern companies. Main excellence and flaws of application digitalization, innovations in the marketing-logistics system of modern business are highlighted. Theoretical hypotheses of the features of interaction between the marketing system and logic have been formed, as well as scientific and practical recommendations for the implementation of digitalization and innovation in the marketing and logistics system of companies, which represent a detailed description of modern trends that can be used in practice in the formation of a company's marketing and logistics system.

3 **Result and discussion**

Modern market conditions are conditioned by a global transformation, which consists in implementation of methods for the inculcation of digital technologies and innovations in the business processes of companies. Digitalization is used to change and improve business operations, making it scalable, efficient and more profitable.

It is important to state that the transformation digital of business is aimed at improving the quality of customer

service using digital technologies and innovations. Not so long ago, the introduction of social networks in the business sphere could be called a revolution, but in modern conditions this is not enough and many companies need modern technologies to improve management methods and brand promotion. With the revolutionary transition from analog to digital business strategies, companies are gaining significant competitive advantages.

However, decisive action is needed, and some of the new processes are launched quickly and efficiently, while others can lead to long-term transformations, and even provoke deterioration in short distances. A rational approach to digital transformation and the introduction of effective tools will help to digitalize the company and expand its opportunities in the global market.

Digital transformation on a global scale is expanding at an intense pace and is characterized by the development of a new phase with the active use of innovation, artificial intelligence, machine learning, remote seating, online assistants and consultants, and many other tools. Digitalization and innovations in the marketing and logistics system are interconnected and ensure the optimization of business stages and increase their efficiency for the company as a whole. Based on this, on the basis of scientific generalization and critical analysis of scientific approaches [12-13], the author substantiates the conceptual impact of digitalization, innovation on marketing and logistics of modern companies, which is shown in Figure 2.

The impact of digitalization, innovation on marketing and logistics of modern companies

- Intensity of development of interaction between suppliers and customers;
- Order portfolio management using online tools;
- Development of artificial intelligence and its inculcation in the business processes of companies;
- Use of cloud technologies;
- Flexible management, analytical data and forecasts;
- Innovations in e-marketing strategy and supply chain management;
- Automation of business processes with the help of digital technologies and innovations.

Marketing Logistics

E-commerce;

- Internet platforms and aggregators;
- Internet advertising and SEO- search engine optimization of company websites;
- SMM, SERM web promotion and brand reputation management in social networks and the Internet;
- Big Data, Blockchain, and marketing analytics.

Electronic Data Interchange (EDI);

- Satellite technologies (GPS);
- Automated inventory and warehouse management systems (WMS);
- 3D printing;
- Organization of deliveries by drones;
- **Unmanned deliveries**;
- Blockchain;
 - Big Data and logistics activity analytics;

Figure 2 Conceptual impact of digitalization, innovations on marketing and logistics of modern companies



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

It is important to state that, in contrast to the identification of features of the development and integration of the marketing-logistics system into the basic practice of supply chains in basic markets in scientific research [4], in Figure 2 states that the key task of digitalization and innovation of modern business is to simplify the management process and increase its efficiency by optimizing costs, business processes and automation

It should be noted that the accentuated influence of digitalization and innovation on the marketing and logistics system of modern companies should be considered in more detail in terms of digital technologies and innovations, which are conceptualized by the author of the study based on an in-depth structural and logical analysis of scientific works and approaches [13-14], which allowed to argue the key ones.

The classification of key digital technologies and innovations in the field of marketing, logistics, their features and characteristics are presented in Table 1.

Focusing on the influence of digitalization and innovation on the marketing and logistics of modern companies, conceptualized by the author of the study, it should be noted that the global modification of digital technologies and their application in marketing and logistics processes largely ensures autonomy, speed accelerates their implementation and reduces the cost of infrastructure and operational components. Financial and analytical planning, inventory and supply chain management, simplifies the process of managing the company as a whole. It is important to state that the greatest effect comes from an integrated approach to the implementation of digitalization and innovation in all business processes of the company from all sides, using all relevant digital tools, means and channels. The presented digital modification affects all sectors and niches of the global economy, including the marketing and logistics systems of current companies.

It should be noted that the digital transformation of modern business is a complex and lengthy process that requires the involvement of specialists, time and financial costs. The argumentation of key business goals under the influence of innovations is highlighted in a scientific study [12], where it is considered that the key drivers of marketing are innovations and information technologies and information flows, but the issue of their comprehensive influence on the marketing and logistics systems of companies, taking into account modern trends, is not addressed, which requires in-depth analysis and conceptualization of the main aspects. Based on this, it should be stated that digitalization and innovation in business ensure the achievement of many strategic business goals of modern companies: 1) Optimization of company costs; 2) Stay ahead of competitors by introducing new technologies and improving the quality of service and products; 3) Leadership positions of the company and formation of the company's brand image; 4) New opportunities for consumers; 5) Improving the

efficiency of business processes; 6) High-quality planning of production, logistics and service.

It is important to note that the intensity of the application of digitalization, innovation and their implementation in the marketing and logistics system of current companies hinge from economic evolution of a particular country and company, the general policy of the state and the strategy of the company and the global world market as a whole. Arguing the technologies and innovations classified by the author of the study, their implementation in the marketing and logistics system of modern companies has a significant potential for increasing productivity and, ultimately, raising the standard of living.

Despite the fact that the impact of new technologies and "general purpose" innovations, such as artificial intelligence, block chain, Big Data, on productivity has not yet fully manifested itself in the global space, numerous literary sources demonstrate a positive correlation between the introduction of established digital tools and the performance of companies [15]. Based on the presented, it should be stated that the implementation of digital technologies and innovations in the marketing-logistics system of current companies ensures the intensification of evolution processes and the emergence of new forms and tools for organizing business processes by automating, optimizing and improving them in terms of quality, service and maintenance.

Digital technologies and innovations in marketing determine the development and implementation of renewed forms of web promotion using innovative channels that can increase the reach of the target audience, increase brand awareness on the Internet and significantly increase sales. As for the logistics part of the companies' activities, the cost of production directly depends on it, which occupies a share of about 20 to 60%. To reduce it or increase the competitiveness of the company, you should constantly work on improving the logistics component. The modern global market requires the full provision of the consumer with logistics services and often logistics is transformed into a completely new model, where supply chains are based on digital technologies and innovations.

The implementation of digital technologies and innovations ensures the achievement of a number of strategic business goals: 1) Reducing equipment downtime and increasing production volumes; 2) Acceleration of production design processes and delivery of products to the consumer; 3) Reducing the cost of field testing through the introduction of digital twins and visual modeling tools; 4) Increasing the level of transparency of operations and reducing costs throughout the supply chain management cycle; 5) Reduction of energy losses during technological operations. It should be noted that in the modern conditions of the functioning of companies, the most popular technologies and innovations are wireless communications, artificial intelligence, including computer vision, speech technologies, decision support





Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

systems, and distributed registry systems, virtual or augmented reality solutions.

Table 1 Classificati	on of key digital technologies and innovations in marketing and logistics of modern companies
TECHNOLOGIES	CHARACTERISTICS OF THE IMPLEMENTATION OF INNOVATION
AND INNOVATIONS	TECHNOLOGIES
MARKETING	
	The branch of the digital economy with financial and commercial transactions that are
	carried out using computer networks, and the processes associated with such
ELECTRONIC	transactions. These technologies have found their application in the following industries:
COMMERCE	electronic information exchange (Electronic Data Interchange, EDI), electronic movement
COMMERCE	of capital (Electronic Funds Transfer, EFT), electronic commerce (English e-trade),
	electronic money (e-cash), electronic marketing (e-marketing), electronic banking (e-
	banking), electronic insurance services (e-insurance).
	A set of actions to raise the position of the company's website in the results of search engines
SEARCH ENGINE	for certain user requests, in order to increase network traffic (for information resources),
OPTIMIZATION	potential customers (for commercial resources) and subsequent monetization (revenue
	generation) of this traffic.
ARTIFICIAL	Technologies that improve marketing strategies and increase conversions based on business
INTELLIGENCE	acceleration, personalization, machine learning and consumer insights.
SOCIAL MEDIA	A set of measures to use social media as channels for promoting companies or a brand and
MARKETING (SMM)	solving other business problems of companies in modern conditions.
ADVERTISING (PPC)	An advertising model used in digital marketing in which an advertiser places ads on websites
601	and pays their owners for a user clicking on a placed banner (text or image).
CONTENT	A set of marketing techniques based on the creation and / or distribution of information
MARKETING	useful to the consumer in order to gain trust and attract potential customers through the
GE A D GIVEN GD VE	implementation of digital technologies: websites, chats, and blogs, video and audio tools.
SEARCH ENGINE	An approach to organizing a company's strategy that shapes and influences the public
REPUTATION	perception of the company, individuals, or others on the Internet, which helps shape a
MANAGEMENT	positive public opinion about the business, its products, and services.
(()()())	
(SERM)	New competituities for adventions. Ensuring the metaction and missay of consumer data
(SERM)	New opportunities for advertisers. Ensuring the protection and privacy of consumer data,
(SERM) BLOCKCHAIN	the anonymity and independence of transactions available to individual users, gives
	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies
	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience.
BLOCKCHAIN	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general
	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments,
BLOCKCHAIN	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience.
BLOCKCHAIN	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS
BLOCKCHAIN BIG DATA	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by
BLOCKCHAIN	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw
BLOCKCHAIN BIG DATA 3D-PRINTING	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products.
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with
BLOCKCHAIN BIG DATA 3D-PRINTING	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation.
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT)	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management.
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL INTELLIGENCE	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for improving the company's logistics processes.
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL INTELLIGENCE ROBOTIC PROCESS	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for improving the company's logistics processes. Business process automation technology based on metaphorical software of robots (bots) or
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL INTELLIGENCE ROBOTIC PROCESS AUTOMATION	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for improving the company's logistics processes. Business process automation technology based on metaphorical software of robots (bots) or artificial intelligence workers. A distinctive and main feature of RPA robots is the ability to
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL INTELLIGENCE ROBOTIC PROCESS AUTOMATION (RPA)	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for improving the company's logistics processes. Business process automation technology based on metaphorical software of robots (bots) or artificial intelligence workers. A distinctive and main feature of RPA robots is the ability to use the user interface to collect data and control applications without human intervention. Technologies that provide a direct or indirect representation of the real world through elements of computer reality perception.
BLOCKCHAIN BIG DATA 3D-PRINTING INTERNET OF THINGS, (IOT) CLOUD TECHNOLOGIES ARTIFICIAL INTELLIGENCE ROBOTIC PROCESS AUTOMATION (RPA) AUGMENTED	the anonymity and independence of transactions available to individual users, gives consumers more control over how, when and with whom they deal. These technologies allow you to ensure a continuous marketing process with your target audience. A variety of large volumes of data that are stored on digital media. These include general market statistics and personal data of users: information about transactions and payments, purchases, movements and preferences of the audience. LOGISTICS Additive manufacturing expands the manufacturing process, shortens supply chains by printing products to order and reducing stocks of finished products. Delivery of raw materials by 3D printing logistics companies at delivery points instead of finished products. An approach to transferring data between physical objects ("things") that are equipped with built-in mechanisms and technologies for interacting with each other. It is assumed that the company of such networks is able to rebuild processes to minimize human participation. Providing high-speed network access, expanding physical resources, infrastructure scale and efficient supply chain management. Optimization of internal processes, eliminates the human factor and errors, speeds up work with a partner, helps to quickly get a comprehensive analysis and recommendations for improving the company's logistics processes. Business process automation technology based on metaphorical software of robots (bots) or artificial intelligence workers. A distinctive and main feature of RPA robots is the ability to use the user interface to collect data and control applications without human intervention Technologies that provide a direct or indirect representation of the real world through

Volume: 10 2023 Issue: 4 Pages: 615-624 ISSN 1339-5629



Digitalization, innovation and marketing in logistics

Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

The use of unmanned technologies in e-commerce is also relevant - this is not just a tribute to fashion, but a necessary condition for survival in a highly competitive market. In addition, the e-commerce and logistics market today is faced with a large shortage of personnel, which strengthens the role of these technologies [16].

Also important is the introduction of robots and unmanned technologies, which relate not only to the process of delivering goods and services, but also to the entire logistics chain, which includes sorting and warehousing. Dark stores, which are small warehouse stores that are inaccessible to ordinary customers but are used by market participants to quickly complete orders within the city to organize fast and high-quality logistics, have taken active distribution. Arguing the presented in this study, it should be noted that the intensity of digitalization processes, innovations in marketing and logistics of modern companies in many cases depends on many factors that can stop these processes, namely:

- 1) Lack of necessary infrastructure. First, the company needs to deal with internal issues and develop a fundamentally new approach to conducting marketing and logistics activities. Infrastructure is the foundation for digital technology and innovation, and without it, digitalization is difficult to achieve.
- 2) Lack of the necessary budget. Digitization involves an impressive financial investment. Before implementation, the company should analyze its financial capabilities and assess all possible risks.
- 3) Lack of competencies. The company's staff may have a low level of digital maturity, which is often the reason for rejection of change.
- 4) Internal objections. Changes in the traditional way of working of the staff are often perceived negatively, especially if the question arises of the need to increase the level of knowledge, skills and abilities. Demonstrating the benefits of digital technologies for staff and learning from successful cases of other organizations. This will help minimize the backlash.
- 5) The risk of reducing the number of jobs. With digitalization, the risk of unemployment is growing, because many professions are becoming irrelevant due to automation and robotization of processes.
- 6) Information security risks. It is necessary to think about digital security and take measures against possible hacker attacks and theft of digital data [17-18]. Based on the foregoing, it should be noted that global supply chains are under constant improvement based on the use of digital technologies and innovations. Innovative technological development in marketing, logistics and transport companies is no longer just a goal, but a necessary condition for survival in the global competitive market. Modern business is at the beginning of a new logistics modification, which is associated with the intensification of digitalization and innovative processes in all areas of company activity, and in the near future - a significant part of companies' business processes will be automated and robotic.

4 Conclusions

Digital transformation of business on a global scale is due to the need to modify approaches and management methods. The study is based on the substantiation of trends in the modification of digitalization, innovations in marketing and logistics of companies that ensure operational efficiency. The processes of global digitalization of all sectors of the world economy are caused by the variability of the external environment and the use of digital technologies and innovations, which optimize operation and their maximum automation. An important element of the study is a systems approach to substantiate the operation of digitalization and innovation of the marketing and logistics system, which represents all stages of the company's functioning.

The results obtained made it possible to achieve the set goal in terms of substantiating the features in digitalization, innovations in marketing and logistics of modern companies based on the use of analysis. The key scientific approaches and foundations for the development of theoretical aspects of the application of digital technologies and innovations into the practical activities of companies are highlighted. Based on critical analysis and scientific generalization, the need to increase attention to the processes of intensity of modification of digital technologies and innovations in all spheres of human life is argued. This led to the conceptualization of key theories and justification for the lack of approaches and methods for applying digital technologies and innovations in the marketing-logistics system, which confirmed the relevance and need for detailed research. A critical analysis of existing approaches to organizing the activities of companies based on the evolution of digital technologies and innovations allowed us to confirm that existing approaches and methods do not correspond to the realities of business functioning and are targeted and nonspecialized, depending on the type of the company. Based on this, the author highlights the conceptual relationship of the marketing and logistics system and the features of the application of digital technologies and innovations, which provide a competitive attitude in global market and allow scaling the business, increasing sales and brand awareness.

The key interactions between marketing and logistics of companies to ensure competitive advantages in the global market are identified. This made it possible to formulate the theoretical prerequisites for creating a company strategy in such a way that it is systemic and inseparable from marketing and logistics. The important aspects and features of the modification of digital technologies in the global economy are argued, based on which the main strategic business goals are identified, the achievement of which is possible by the use of digital technologies and innovations in the company's marketing and logistics system. The main directions of development of digital technologies and innovations and their impact on the business processes of modern companies are substantiated. Based on the results obtained by the author, the conceptual impact of digitalization and innovation on



Hassan Ali Al-Ababneh, Mahmud Agel Abu Dalbouh, Salem A. S. Alrhaimi, Ibrahim Mahmoud Siam, Tatyana Ibragimkhalilova

the marketing and logistics system of modern companies is considered. Based on this, the author classifies key digital technologies and innovations in the marketing-logistics of current companies, describes in detail the most popular technologies and innovations depending on the field of application. It is shown that the modification of digital technologies in the world and their application in marketing and logistics processes ensure autonomy, speed up their execution, reduce the cost of infrastructure and operational components, financial and analytical planning, inventory and supply chain management, and also simplify the process of managing the company as a whole. The results of the study and the developed scientific and practical recommendations were applied in the formation of the company's strategy and further planning of its longterm modification, taking into account the introduction of digital technologies and innovations into the marketinglogistics system.

References

- [1] ALZOUBI, H., ALSHURIDEH, M., KURDI, B., AKOUR, I.: Does BLE technology contribute towards improving marketing strategies, customers' satisfaction and loyalty?, The role of open innovation, *International* Journal of Data and Network Science, Vol. 6, No. 2, pp. 449-460, 2022. https://doi.org/10.5267/j.ijdns.2021.12.009
- [2] ADAMS, P., FREITAS, I., FONTANA, R.: Strategic orientation, innovation performance and moderating influence of marketing management, Journal of Business Research, Vol. 97, pp. 129-140, 2019. https://doi.org/10.1016/j.jbusres.2018.12.071
- [3] SHAO, S.: Environmental regulation and enterprise innovation: a review, Business Strategy and the Environment, Vol. 29, No. 3, pp. 1465-1478, 2021. https://doi.org/10.1002/bse.2446
- [4] DADZIE, K., DADZIE, C., WANG, H.: The integration of logistics and marketing practice into baseline supply chain practices in the emerging markets, Journal of **Business** & Industrial No. *Marketing*, Vol. 38. 367-383. pp. https://doi.org/10.1108/JBIM-01-2022-0002
- [5] GRANSTRAND, O., HOLGERSSON, M.: Innovation ecosystems: A conceptual review and a new definition, Technovation, Vol. 90-91, No. February-March, pp. 1-12, 2020.
 - https://doi.org/10.1016/j.technovation.2019.102098
- [6] DANA, P., SALAMZADEH, A., MORTAZAVI, S., HADIZADEH, M.: Investigating the impact of international markets and new digital technologies on business innovation emerging in markets, Sustainability, Vol. 14, No. 2, pp. 1-15, 2022. https://doi.org/10.3390/su14020983
- [7] ZAHRA, A., LIU, SI, S.: How digital technology promotes entrepreneurship in ecosystems, Technovation, Vol. 119, No. January, p. 102457, 2022. https://doi.org/10.1016/j.technovation.2022.102457

- [8] MOLDABEKOVA, A.: Digital technologies for improving logistics performance of countries, Transport and Telecommunication Journal, Vol. 22, No. 2, pp. 208-216, 2021. https://doi.org/10.2478/ttj-2021-0016
- [9] KIZIM, A.: Specifics of choosing the modern communication technologies in Marketing and Logistics Based on innovative approaches, Dilemas Contemporáneos: Educación, Política y Valores, Vol. 7, No. 1, pp. 1-19, 2019.
- [10] BARDAKÇI, H.: Benefits of digitalization in international logistics sector, International Journal of Social Science and Economic Research, Vol. 5, No. 6, pp. 1476-1489, 2020. https://doi.org/10.46609/IJSSER.2020.v05i06.009
- [11] PARFENOV, A.: Transformation of distribution logistics management in the digitalization of the economy, Journal of Open Innovation: Technology, Market, and Complexity, Vol. 7, No. 1, pp. 1-13, 2021. https://doi.org/10.3390/joitmc7010058
- [12] DWIVEDI, A., PAWSEY, N.: Examining the drivers of marketing innovation in SMEs, Journal of Business Research, Vol. 155, p. 113409, 2023. https://doi.org/10.1016/j.jbusres.2022.113409
- [13] LI, L.: Big data and big disaster: a mechanism of supply chain risk management in global logistics industry, International Journal of Operations & Production Management, Vol. 43, No. 2, pp. 274-307, 2023, https://doi.org/10.1108/IJOPM-04-2022-0266
- [14] D'ATTOMA, I.,IEVA, M.: The role of marketing strategies in achieving the environmental benefits of innovation, Journal of Cleaner Production, Vol. 342, p. 130957, 2022.

https://doi.org/10.1016/j.jclepro.2022.130957

- [15] WONG, D., NGAI, E.: Supply chain innovation: Conceptualization, instrument development, and influence on supply chain performance, Journal of Product Innovation Management, Vol. 39, No. 2, pp.132-159, 2023. https://doi.org/10.1111/jpim.12612
- [16] ELLRAM, L., MURFIELD, M.: Supply chain management in industrial marketing-Relationships matter, Industrial Marketing Management, Vol. 79, No. May, pp. 36-45, 2019.
 - https://doi.org/10.1016/j.indmarman.2019.03.007
- [17] AL-ABABNEH, H.: Marketing and logistics: features of functioning during the pandemic, Acta logistica, Vol. 8, No. 2, pp. 175-187, 2021. https://doi.org/10.22306/al.v8i2.22
- [18] PRAJAPATI, D.: A clustering based routing heuristic for last-mile logistics in fresh food E-commerce, Global Business Review, Vol. 24, No. 1, pp. 7-20, 2023. https://doi.org/10.1177/0972150919889797

Review process

Single-blind peer review process.