Global Logistics Systems

Annotation. Nowadays successful functioning in the foreign market is impossible without active application and continuous development of methods of the international marketing and tools of global logistics. This article is aimed at the study of the basic concept, importance and functions of globalization in the field of logistics. Consideration of the methodological and practical problems of building a global logistics systems on the basis of foreign experience. The article also reveals the main trends of globalization in the aspect of the use of logistics systems by transnational corporations and financial industrial groups.

The purpose of this research is to study the features of the formation of global logistics systems and their application as a tool for local business to enter the world economy.

The work is of high scientific and practical significance; the research presented in this article can be used in writing research papers, theses and master’s theses, and it can also be considered by business enterprises as recommendations for the application and continuous development of international marketing methods and global logistics tools.

As a result of the study, the main trends in the development of global logistics systems were identified, and recommendations were made to optimize global logistics processes in terms of improving the quality of the international economy and its components.

Key words: global logistics, global logistics systems, transnational corporations, financial industrial groups.

Introduction. Over the past decade, various domestic and foreign authors have conducted many studies in the field of globalization in the field of logistics, but the conditions are changing and few of these works fully correspond to the realities of the modern world and reveal the importance of the use of global logistics systems on the example of transnational corporations and financial and industrial groups, this indicated the rationale for the choice of this topic.

The relevance of the chosen research topic is due to the fact that today globalization has an impact on almost all aspects of our lives, there is a dynamics of the process of integration of business into the world economy. And without a methodological approach to the analysis of the functioning and study of the effectiveness of the applicability of global logistics systems, it is impossible to properly regulate this process. In addition, this research topic is relevant today due to the fact that it is global logistics systems that allow in modern conditions to find the most effective options and forms of organized commodity markets and material flows. For example, today there is a tendency to concentrate the main material and financial flows in the triangle: USA-Europe-China (Alesinkaya 2005: 121 ), and the competent construction of global logistics systems will help business companies to track all shipments in other countries of the triangle, which makes it possible to make operational decisions and focus on priority orders.

The object of this study is global logistics systems on the example of transnational corporations and financial and industrial groups. The subject of scientific work is the issues of application and construction of global logistics systems by companies in order to integrate into the world business and improve the level of the global economy as a whole.

The aim of the study is to study the most important aspects of globalization in the field of logistics, to identify effective ways of applying global logistics systems and to develop recommendations for their proper construction and functioning (Games H 2012:552). The achievement of this goal was carried out by solving the following main tasks:

* definition of logistics systems and their classification;
* identification of the importance of globalization in the field of logistics for the world economy, as well as the importance of global logistics systems for business;
* study of the scheme of activities of foreign enterprises, namely transnational corporations and financial and industrial groups, and their experience in the application of global logistics systems.

Material and methods. This study is based on the analysis of foreign works in the field of international and global logistics, marketing and international Economics, as well as on the study of the activities of large corporations and their experience in the use of global logistics systems. The main materials of the research were books and educational publications of foreign and domestic authors over the past ten years, scientific articles published in journals, as well as electronic resources.

The study raised a key question about the effective application of global logistics systems in the context of integration into the world economy. To solve this problem, methods of system analysis, methods of economic modeling, as well as prognostic methods were used. When using the method of system analysis, the basic concepts used in global logistics were analytically investigated, and the types of logistics systems were identified. The role of the modeling method is especially great in economic research, the modeling method allows solving the problems of further development of the economy by building its model in the future. In the field of logistics, the forecasting method is widely used to predict the development of logistics systems, which is quite successfully used to predict trends (in most cases, growth) in the field of material production and to study the processes of saturation of the market with goods and services (Waters D 2018: 416).

There are many ways to classify the logistics system proposed by domestic researchers. However, based on the needs of the business, all logistics systems can be classified according to such features as:
* Control object;
* Industry specialization of the company;
* Business sector (platform);
* Business level (concentration of capital and firm capacity).

On the basis of “object management” all logistics systems can be divide into the following groups:
1. Material (commodity) flows: logistics systems production (industrial) firms, wholesale trade companies, wholesale and retail companies;
2. Service flow: logistics systems of firms providing services;
3. Mixed BOS, in which there are main streams of two types.

Depending on the industry specialization of industrial companies, there are logistics systems of machine-building enterprises, metallurgical plants, construction enterprises, industrial enterprises, etc. for wholesale enterprises, one can distinguish, for example, logistics systems of industrial distributors, distributors of pharmaceutical products, distributors of food products, etc. Firms that provide services can also create their own logistics systems, for example, travel companies (tour operators), advertising agencies, Express or transport companies, banks, etc (Pettits S 2016:536).

Of great importance for the construction of the logistics system is the business sector (business platform) in which the company operates. Currently, there are mainly two sectors: business to business (B2B) and business to customer (B2C). Depending on the business sector (i.e. who is the final consumer of the company’s products or services – another business organization or individual consumer), different priorities, key factors, logistics strategies, concepts and technologies are formed. The business sector has a significant impact on the company’s corporate information system and information and computer support of logistics.

Finally, depending on the capacity of the company, the concentration of capital and access to international markets and resources distinguish global logistics systems, formed mainly by transnational corporations and financial and industrial groups. The link of the logistics system will be considered functionally (structurally) separate division of the company or legally independent enterprise, organization, institution, which are one of its three parties in logistics, considered as a whole within the logistics system, implementing one or more types of logistics activities.

The allocation of part of the logistics system is determined by the lowest level of decomposition of the logistics system and the necessity to isolate an operation or set of operations to optimize resources, automate management, modeling business processes, making the operation a particular artist or technical device, forming system of accounting, control and monitoring of logistics plan.

Review of the main literature (Okpara J 2008:344). This research is based on the fundamental works of foreign authors in the field of logistics over the past decade. For example, Donald Waters’ book Global Logistics And Distribution Planning: Strategies for Management provides a wealth of useful insights and practical information on all current and future trends in logistics and distribution. Author Donald waters, former member of the logistics Institute and currently a member of the Canadian logistics management Association. In his work, he considers
strategies for the development of international logistics for Western and Eastern Europe, the Far East and North America. It is noteworthy that the work clearly spelled out strategies for the development of logistics, but not investigated the practical side of the theories put forward. A completely different approach from the authors of the book “Contemporary Logistics” Paul R. Murphy Jr. and A. Michael Knemeyer, who in their work explore modern logistics from a managerial point of view. In this paper we can see how the theory “comes to life” thanks to timely, practical and fascinating coverage of the basics of logistics.

**Literature review.** The works of such foreign authors as Timm Gudehus, Herbert Kotzab (Comprehensive Logistics) [4], Regina Neubauer (Business Models in the Area of Logistics: In Search of Hidden Champions, their Business Principles and Common Industry Misperceptions), Cathy Macharis, Sandra Melo, Johan Woxenius, Tom van Lier (Sustainable Logistics) were also used as reference literature, James H. bookbinder (global logistics), Thorsten blecker, Wolfgang Kersten, Christian lüthje (innovative process optimization methods in logistics: emerging trends, concepts and technologies). These works contain the basic concepts, different views of different authors on a particular system of logistics and are generalizing, which served as a General theoretical basis for this study.

In the works of authors John Mangan and Chandra L. Lalwani “Global Logistics and Supply Chain Management”, as well as Stephen Pettit and Yingli Wang “E-Logistics: Managing Your Digital Supply Chains for Competitive Advantage” questions of interaction and close relationship of logistics systems and supply chain (supply chain) are investigated. In this work the authors define global logistics systems and link them with supply chain management. However, in our opinion, global logistics systems include a much larger number of links, and this concept should be considered from a broader point of view. The textbook of authors Gareth R. Jones, Jennifer M. George and others “Contemporary Management” is intended for teachers and students of higher educational institutions of economic specialties and reveals modern trends of management development from the point of view of application of global logistic systems. It is obvious that an integral part of any business is a well-functioning management tool, and to achieve this goal, logistics systems are widely used, however, in our opinion, the authors are limited to only one side of the entire functionality of logistics systems, and this article reveals all areas of application of logistics systems, including enterprise management.

To begin the study, it is necessary to understand what is global logistics and what is the importance of globalization in this area. In our opinion, it is possible to consider global logistics from several sides, on the one hand, it is undoubtedly a process. The process of building a supply chain from the manufacturer through the supplier to the consumer. On the other hand, global logistics is a science that has the methods, knowledge and skills to solve complex strategic tasks and manage the processes of creating and implementing logistics chains and systems. With the establishment of new trade agreements designed to improve the exchange of goods, services and technology across borders, the global manufacturing environment has undergone its own revolution. And the main drivers of this growth are:

- global market;
- new technology;
- global costs, and
- other factors, such as the global network of suppliers, currency fluctuations, etc.

So how does globalization affect logistics? Multinationals need logistics management partners who are present around the world to help them adapt supply chains and maximize the benefits of tariffs, regulations and standards in new trade zones. It is no longer about working with a few logistics firms, but about consolidating partnerships with a few diligent and well-established suppliers. In the global market, manufacturing firms are increasingly looking for partners with experience in local culture, communications and logistics in key foreign regions. They also select firms that can handle all aspects of logistics, be aware of new trends and technologies and offer flexibility at every stage. Globalization has become an integral part of success in any sector, and companies of any size compete for their positions in foreign markets in addition to local ones (Nozdreva R 2005: 990). Logistics companies must adapt quickly to these changing conditions if they are to gain market influence, survive and outperform their competitors.

**Material and Methods.** To the definition of logistics systems, in our opinion, must be approached from the point of view of methods of systematization, as logistics system is a complex of different units of the company (its structural divisions), suppliers, customers and logistics intermediaries, are interrelated and United by a common logistics process management to implement corporate strategy and business model. Therefore, when using the methods
of systematization, it is necessary simultaneously with the consideration of this complex as a whole, to consider each element in detail. This helps to determine on what basis a particular logistics system is classified. Global logistics systems are formed depending on the capacity of the company, the concentration of capital and access to international markets. In particular, in the global scope, logistics systems are created by transnational corporations and financial and industrial groups. The global logistics system is able to organize the effective movement of goods to the international production complex, and from it-through many intra-national distribution networks-to consumers around the world. The global logistics system as a complex concept includes the entire spectrum of the world’s mining, processing, production, transport, financial and other systems, combined for a more efficient distribution of world resources and management of global opportunities.

Global logistics requires close and complex cooperation between multiple business partners. Shipping companies, airlines, Railways and trucking companies transport goods. Global delivery services manage the movement of goods. Real estate logistics companies own and manage facilities that are important hubs for transportation, management and storage, while a variety of service providers provide the software, security, manpower and business intelligence that support the global logistics system (Neubauer R 2011: 393).

A transnational Corporation (hereinafter-TNC) is a huge company that does business in several countries. Such companies can provide jobs and enrich the country’s economy. As an example of such companies, we can cite the well-known: IKEA, Nestlé, Unilever, Siemens, etc. TNCs use global logistics chains and channels in their business, primarily for the purpose of reasonable distribution of goods.

A high degree of concentration of scientific and technical potential in one hand contributes to ensuring the monopoly position of large corporations in the world market.

By expanding the range of functions and services, corporations are naturally transformed into financial and industrial groups (hereinafter-FPG), which are more typical of the CIS countries than the West.

FPG has established itself as a more perfect organization of industrial and financial capital, which is able to preserve and ensure the further development of competitive industries, give a new impetus to developments, allow, using the assistance of the state (through the system of privileges in the field of taxation, transfer to trust management of stakes in regional ownership of enterprises; investment tax credit, preferential lease or transfer for temporary gratuitous use of property owned by the state, etc.) to its participants to find and win their place in the internal and external economic environment. A characteristic feature of the development of financial and industrial groups is their multi-sectoral focus, which allows you to quickly respond to changes in market conditions. The main purpose of the FPG is to create favorable conditions for investment activities through the use of effective investment mechanisms, distribution of responsibility, operations on the domestic and foreign securities market.

Results and Discussion. In practice, there are often problems in the application of logistics systems by companies, this includes:

* High overhead costs for global supply chain and logistics management;
* High inventories and lost sales as companies struggle to match supply and demand in a long supply chain;
  * High costs for expedited transportation;
  * High level of variability of time of receipt;
* Reactive rather than proactive logistics management;
* The gap between incoming international traffic and domestic transport operations ( ).

Based on the above, we can conclude that the use of logistics systems for business is not so simple, and to achieve the goal of reaching the global level of the economy it is necessary to have special skills and technologies. In our opinion, today only a few companies can competently apply automated global logistics processes. As a result, mechanical processes are still present in most organizations. Logistics staff typically spend too much time on the low-cost activities needed to move cargo and do not devote enough time to developing more effective plans and approaches to ensure continuous improvement. The reality is that global logistics is much more complex than domestic transportation. Implementation requires dozens of references: according to many estimates, there can be up to 25-30 transfer points in a complex global movement involving multiple parties with highly varying levels of technology ( ). Thus, we believe that automation is one of the most important steps to the effective application and functioning of global logistics systems. Global logistics is highly dependent on information technology. Not only to track shipments, but also to move products around the world, large amounts of data are also created-Big Data. This information should be used in the construction of new and cheaper trade routes, avoiding conflict regions.
Conclusion, it should be emphasized once again that for most industries and for many companies, the ability to achieve and maintain the superiority of global logistics systems will be a significant factor in determining their overall corporate success. And thus, the globalization of logistics systems allows: to create a large number of transnational companies that use global logistics chains and networks in business; to influence international trade, socio-political and economic relations between countries; to create favorable conditions for the export and import of necessary products; and to remove unnecessary obstacles and restrictions in the access of economic entities to markets.

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