Formation of the paradigm of financial management under the impact of the economic development megatrends

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UDC 06.044.5:336.012.23

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Urgency of the research. Modern socio-economic transformations, determined by the influence of the megatrends of economic development, are characterized by the prevalence of logistic systems, which are an integral part of the world economy and at the same time the driving force of activating all sectors for integration into the world economy.

Target setting. The formation of the efficient applied financial management mechanisms is determined by the perfection of theoretical approaches, which must be in line with modern highly dynamic changes and adapted to the megatrends of economic development.

Actual scientific researches and issues analysis. In Ukraine the certain issues of logistisation are devoted to the works of such scientists as M. Grigorak, O. Zborovska, S. Smerichevska, V. Omelchenko, L. Frolova, M. Chubanov.

Uninvestigated parts of general matters defining. Nowadays, the issues of financial management remain unresolved regarding to the development of a methodology oriented to take into account the influence of the megatrends of economic development, which determine the dynamic balance of economic systems, determine the need for integration of the directions of economic theories into new conceptual approaches to the financial management.

The research objective. The purpose of the study is to establish a functional relationship between the value of logistical chains and the cost of the company, as well as substantiation of the current provisions of the financial management paradigm taking into account the global megatrends.

The statement of basic materials. Based on the application of scientific methods of analysis and synthesis, the objective conditions for the development of financial management are substantiated and an approach to its modern paradigm is formulated. The necessity of extrapolating the additional megatrends (globalization, financialization, informatization, intellectualization, socialization) to additional logistisation is established and the expediency of formulating a new level of generalizations and unorthodox scientific approaches is substantiated.

Conclusions. The functional dependence between the value of logistical chains and the cost of the company is established, which reveals the applied nature of creating the value of logistical chains by maximizing the net financial flow in operational and increasing the value of companies in strategic periods.
### Keywords: financial management; megatrends of economic development; logistisation; paradigm; logistical system; financial flows.

**DOI:** 10.25140/2410-9576-2018-3(15)-104-112

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**Urgency of the research.** Modern socio-economic transformations, determined by the influence of the megatrends of economic development, are characterized by the prevalence of logistical systems, which are an integral part of the world economy and, at the same time, the driving force of activating all sectors for integration into the world economy. The specificity of the operation of logistical systems requires a gradual review of the policy of financial management, which should be done taking into account the possible types of financial flows, assessing their impact on the value of logistical chains and the ability of the last to ensure the growth of the value of the companies. Such circumstances determine the feasibility of substantiating paradigmatic changes and conceptual provisions of the financial management in macro- and micro-logistical systems.

**Target setting.** In the global economy, logistical systems play the role of the most effective market-oriented management method in the direction of cost optimization and are identified as one of the factors of economic growth. According to the experience of developed countries, the use of logistical systems can reduce the total logistical costs by almost 12-35%, transport costs by 7-20%, and the cost of loading and unloading work by 15-30%, accelerate the rate of circulation of material resources by 20-40% and reduce their reserves by 50-200%.

The dynamics of the index of logistical activity (LPI) suggests that in recent years from 160 countries Ukraine has moved from 102 to 80 in the integral ranking [1]. Comparing to the CIS countries, Ukraine is in a better position due to the impact of transit potential, the active introduction of information technology, and the improvement of warehouse and transport infrastructure. Comparing to developed countries, Ukraine is significantly behind, due to the inactive introduction of logistical approaches to the management of economic activity.

Under current conditions, characterized by the constant search for new financial opportunities by companies, financial flows become the key as they directly reflect current and future economic benefits. Thus, the principle of the creation, operation and development of logistical systems should be the idea of the ordering of financial flows, the basis of which is the presence of a set of logistical chains. In this direction, it is timely to concentrate the attention of researchers on the search for rational points of contact of the concepts of the financial management and logistical in the direction of ensuring the effective financial management.

**Actual scientific researches and issues analysis.** In recent years, the researchers from different countries have been devoting more and more papers to the issues of the financial management in logistical chains (supply chains, value creation chains).

Peter Kristofik, Jenny Kok, Syyben de Vries. Jenny van Sten-van't Hoff (2012), concluded after a thorough study that more revenue could be gained through the increased attention to the financial management of the supply chain, which requires the further development of research in the field of the short-term financial management and search tools for more accurate risk management [2, p. 142].

The issue of managing material, financial and information flows in logistical systems is being investigated by many world organizations within the European Logistical Association. The results of their research (2012) reflected the wording of the conclusion that logistical chains should work within a realistic financial structure, contribute to the development of society, should be funded and evaluated, reflect economic, social and environmental aspects [3]. This approach confirms the author's view that financial management should be determined by the new realities of the operation of companies in the form of logistical systems, which objectively determines the theoretical rethinking of existing scientific paradigms and the justification of the relevant categorical-conceptual apparatus in order to develop the modern concepts.

Rafael de la Vega and Aliza Knox, in their key research note, point out that outdated approaches to business financing do not justify the impact of the financial flows on increasing the efficiency of supply
chain management. The development of innovative approaches to financing determines the ability of the financial flows to accelerate, increase reliability, increase the level of predictability, which positively affects the functioning of logistical systems [4, p. 2].

D. Revathi Pandian (2013), while investigating the peculiarities of financial management of supply chains, considered that it is necessary to use an integrated approach to the application of financial management and logistisation procedures. The author focuses on the delineation of the concepts of "supply chain services" and "supply chain finances", but identifies the need for their consistent use, based on the assumption that Supply Chain Financing (SCF) more accurately relates to the provision of adequate funding in the logistical network. From the author's point of view, such funding allows to more effectively manage the relations with suppliers and buyers, accelerate cash flow, reducing the need for working capital during the operational cycle [5, c. 2].

Wei Loo (2013) also explores the processes of integrating material and financial flows in the supply chains in his dissertation, and presents a methodology for assessing the effect of individual company cash flows on the overall efficiency of the supply chain [6].

Some aspects of the evolutionary change in the paradigm of financial management by researchers are defined in a new direction in economics - financial logistisation [7; 8]. Therefore, the mechanisms of financial management in the logistical systems of companies (micro-logistical systems), as well as their association in macro-logistic systems, which are adequate in terms of complexity and structural diversity to contemporary global economic changes, play a special role.

In Ukraine, certain issues of logistisation are devoted to the work of such scientists as M. Grigorak, O. Zborovska, S. Smerichevska, V. Omelchenko, L. Frolova, M. Chubanov. However, the megatrends of global development are constantly updating new tasks before financial management of enterprises and their integration into logistical systems of different levels.

Uninvestigated parts of general matters defining. Due to the due diligence of researches of scientists, the issues of financial management remain unresolved for the time being regarding the development of a methodology oriented to take into account the influence of the megatrends of economic development, which determine the dynamic balance of economic systems, determine the need for integration of the directions of economic theories into new conceptual approaches of financial management, prove the expediency of developing mechanisms financial management based on nonlinear dynamic modeling and non-deterministic model and forecasting, create conditions for the formation of a modern model of financial management aimed at ensuring the liquidity, balance, intensity, sufficiency of financial flows in the context of logistical chains, which will ensure the harmonization of interests of both individual companies and society as a whole.

The research objective. The purpose of the study is to establish a functional relationship between the value of logistical chains and the cost of the company, as well as substantiation of the current provisions of the financial management paradigm taking into account the global megatrends.

The statement of basic materials. The development of financial relations in Ukraine and the rationale for a new economic course, aimed at implementing the association agreement with the European Union, require the development of modern methods of studying the architecture of financial management. The modern megatrends of global development determine the applied nature of the synthesis of various conceptual approaches to the development of effective mechanisms of the financial management, in particular: financial (involves the justification of financial indicators and the adoption of sound financial decisions), production (reflects the planning and is used to organize the production process), information and communication (synthesizes the overall content of management and provides the information and computer problem solving), marketing (recognized as a need to implement a strategic goal - the competition strategy in the markets of sales) and logistical (which defines the features of stream management and allows you to respond quickly to market signals) approaches. However, a significant disadvantage of modern economic science is the lack of an integrated methodology that would ensure the direction of the above-mentioned approaches in a single direction of the practical solution of the problems of the financial management taking into account the modern megatrends.
It should be noted that to the most important megatrends of the modern economic development, domestic scientists include globalization, financialization, informatization, intellectualization, socialization, and the modern financial manager, according to domestic researchers, becomes an integrator of the value of the company. In this case, the dominant paradigm of value determines the need for the formation of a new direction of financial management - value-oriented (or value-oriented) [9, p. 146].

We believe that the rapid globalization of economic relations against the backdrop of the rapid development of information technologies leads to the emergence of a new megatrend - logistisation, which forms the basis of forming a new understanding of market mechanisms and activating the processes of exchange of experience and knowledge in the information environment. Particular attention should be paid to the implementation of innovations in the infrastructure of logistical chains to achieve a synergistic effect from enhanced partnerships and consistent management of material, financial, and information flows. The feasibility of attributing logistisation to the composition of the megacities of economic development is confirmed by the latest scientific research of Ukrainian scientists (2015), which substantiate the methodology of forming the educational and innovative potential of economy logistisation [10] and determine the main directions of logistisation of the national economy from the standpoint of the formation of intellectualised logistical systems (2017) [11].

Logistisation ensures the integration of financial relations on the basis of information exchange between logistical chain participants, active introduction of innovations, the most complete use of available and creation of new knowledge as factors of the formation of global logistical systems.

It should be noted that the current problem of logistisation attracts the attention of researchers. Thus, V. Omelchenko defines the key role of logistisation for the development of Ukraine's economy [12, p. 24]; summarizing the substantive aspects of the concept of logistisation, the researcher discovers three strategic directions (institutional, legal, innovative, and infrastructure). According to M. Chubanov, logistisation is a systematic multilevel modernization of management based on innovation-oriented logistical concepts that provide optimization of the entire set of flow processes [13, p. 22], which leads to the formation of a holistic logistical system, which is intended to provide, ultimately, the formation of a number of integration effects [14, p. 237].

For the efficient financial management in the conditions of logistisation of the economy it is necessary to study the means and instruments of its implementation - the logistical support of the financial management system. This situation is due to the fact that information flows in the logistical system are determined by the specific needs of financial management in the performance of certain functions of planning, regulation, analysis and control [15, p. 62]. The influence of these processes on financial flows is determined by V. Olgin and T. Odintsova. In their opinion, one of the functions of the logistical management in solving the practical problems is the planning, forecasting and control of financial flows [16, p. 241].

As a result of logistisation of the economy, the logistical systems, which are formed by enterprises and logistical networks, reflect the complete independence and legal independence of the enterprises that are part of them, are developing rapidly. Enterprises, creating logistical chains on the principles of complementarity and interdependence, get the opportunities for improving the efficiency of operation and development. Such efficiency improvement reserves lie in the combination of formal and informal procedures for the coordination of business activities of participants and access to partner resources to maximize the synergy effect of their use. The effect of logistical synergy in the financial management determines the result of the unity of all components of the logistisation flow and the functioning of the self-regulation model, which allows synchronizing material and financial flows, taking into account the nature and strength of the influence of the external and internal environment.

Taking into account the logistical features in the financial management requires the integration of all participants in financial relations into the logistical chains. The ability of the company's logistical system to generate the financial flows for different logistical chains is determined by the nature of the links with the external environment, the specifics of economic activity and the place in the hierarchy of such systems. The updating of the issues of improvement the financial management is determined by
the development of Ukraine's aspiration to integrate into world economic relations by joining the world's logistical systems. Suffice it is noted by L. Frolova [17, p. 9] that the preconditions for the emergence and improvement of mechanisms for logistical of all hierarchical levels of the economy are integration, informatization and globalization. Indeed, on the one hand, logistisation of the economy may be considered as a consequence of the development of globalization, informatization, intellectualization, caused by the formation of global systems, the emergence of the international level, and on the other – as the basis for such development, since market transformation in combination with globalization processes in international economic relations are provided by the achieved level of information technologies, the development of which causes the intellectualization of human activity.

Given the fact that financialization provides for the generation of profits through financial channels [18, p. 9], the creation of logistical chains provides channels of movement of the financial, material, information flows. Logistisation as the most important factor in accelerating the movement of financial resources involves a certain stage of implementation of the principles and methods of logistisation. Reflecting the integration of all the components of the company into a single system of cross-flow financial flows management to achieve the desired result with minimal time and resources, logistisation prompts looking for ways to optimize business operations and processes. System responses to changes in the laws of functioning and development of financial management under the influence of the megatrends can only be obtained on the basis of a paradigm that adequately reflects new realities. The formation of a new paradigm involves a qualitatively new type of thinking, a deep refresh of the methodology and the conceptual apparatus of science [19, p. 76]. The modern paradigm of financial management must take into account the features and capabilities of logistical systems based on the creation of a new philosophy of financial management in the context of logistical chains.

Possibilities of self-organization of logistical systems ensure the harmonization of financial relations while ensuring a rational flow of financial flows between logistical chain participants. Therefore, modern approaches to the financial management should be developed taking into account criteria of optimality of financial flows in the context of logistical chains. On the one hand, they should take into account the interests of all participants in financial relations on the basis of creating their value characteristics from co-operation, on the other hand, - to determine the value of financial relations within logistical systems through the formation of conditions for their development under the influence of the growth of the value of enterprises (such as micro-logistical systems or as an element of macro-logistical systems).

It is necessary to integrate the fundamental provisions of logistisation and models of the financial management in the direction of forming a scientific vision of the need for coordinated management of the static and dynamic state of financial resources. The first step in integrating the financial management and logistisation is the emergence in the system of economic sciences of a new direction - the financial logistisation. The rational formation and the use of financial resources in logistical systems for a certain date (within static approaches) requires the formulation of an appropriate methodology that will form the basis for ensuring efficient management of their movement - the financial flows (as a result of the application of dynamic models). The financial flow is the main factor that enables the integration of all elements of the logistical system in the logistical chain to ensure its value and increase the cost of the enterprise. The harmonization of financial and material flows in logistical chains serves as the main reserve for improving the efficiency of the logistical system.

In the logistical systems of enterprises, new conditions for the establishment of financial relations are created, in which effective management of the financial resources is possible in case of delimitation of the notion of value. The integration of modern scientific directions and practical use at enterprises shows [20] that logistical as a megatrend of economic development dictates the clarity in the delimitation of the concepts of value and cost. The main components of the theory of financial management are the value of the logistical chains and the value of the enterprise, which through its complex interaction determine its genesis and conceptual approaches.
The value of the logistical chain reflects the ability to meet the needs of its participants in accordance with expectations on the basis of synergistic effects determined by interaction in the process of ensuring the rational flow of financial flows. The peculiarity of such a value is that it is characterized by the aggregate influence of the value of the formed logistical chain for the enterprise, personnel, each participant, representatives of logistical infrastructure and society.

Providing the necessary value of the logistical chain is possible in the following cases: obtaining the appropriate level of utility of all its participants on the basis of creating opportunities for generating financial flows; creating value for staff through the formation of a corporate culture and maximum manifestation of competencies; formation of confidence among representatives of the logistical infrastructure about the benefits and opportunities for their expansion; providing value to society through compliance with environmental requirements. As a result, the value of the logistical chain is determined by the cumulative impact of its values for owners, personnel, logistical chain participants, representatives of logistical infrastructure and society. In this direction, it is important to substantiate the micro- and macro levels of social, infrastructural, and environmental perceptions that are actively determined within the framework of the formation of global financial architecture.

The value of a company operating in the form of a logistical system reflects the performance of the operation, which is due to the ability to generate the financial flows through the logistical chains. The dependence of the value of a company operating in the form of a logistical system on the value of logistical chains should be described as the following:

$$ VCO_{(t)} = F(VLC_{1(t)}, VLC_{2(t)}, \ldots, VLC_{n(t)}) $$

where $VCO_{(t)}$ is the value of a company operating in the form of a logistical system in time; $VLC$ and $(t)$ - the value of the $i$-th logistical chain in time; $n$ - the number of formed logistical chains.

The greatest value is obtained in the case when within the logistical system the optimum value of all logistical chains is achieved. At the same time, the level of optimality is determined by the limit on which the increase in the number of logistical chains of the company does not necessarily ensure the growth of the cost of the enterprise. This is due to the fact that the financial management should be carried out in logistical chains of different value, varying in price, and also not all logistical chains formed provide a rational flow of financial flows.

- thus, the modern paradigm of the financial management should be determined taking into account the impact that the operation of logistical systems, on the one hand, should ensure the value of logistical chains, and on the other hand, their composition should contribute to the increase in the value of companies participating in logistical systems. This vision allows us to argue that under the influence of the megatrends of economic development, the paradigm of financial management reflects the feasibility of combining value and value theories on the new level, as well as integrating their key positions. The financial management under the influence of the megatrends of economic development determines the need for the presentation of the triad "financial flows - the value of logistical chains - the value of the company." The substantiation of these components of knowledge of the modern financial management, which dynamically and substantially changes, is the initial principle of ensuring the conformity of the theory with the new realities. In this regard, the main directions of content of the modern paradigm of the financial management are:
- the adaptation to the global megatrends of economic development, which determines the dominance of the concept of the value-oriented management as the basis of the value-oriented financial management;
- the compliance with the conditions of functioning of the modern economic systems, where financial instability requires priority consideration of the financial flows, and on the basis of them, material and informational;
the company's focus on creating the value of logistical chains due to the growth of the net financial flows and the achievement of the mission as a result of development with a rise in value;
- the expediency of forming concepts of joint creation of the value by participants of logistical chains, which requires their involvement as full participants in the development of the final product, which determines the possibility of increasing the value of companies;
- the presence of a synergy effect that manifests itself in creating the total value of logistical chains by maximizing net financial flows in operational and increasing the value of the enterprise in strategic periods;
- the possibility of transition to all levels of the economic system due to the synergistic effects of logistical chain participants in the search for logistic compromises and minimization of costs for business operations;
- the priority of the adaptive financial management for logistical chains in the direction of providing liquidity, balance, sufficiency, intensity of financial flows;
- the formation of a single information space for the financial management through the integration of logistical chains into logistical networks;
- the acceptability of financial decisions in the conditions of adaptation to logistical infrastructure and taking into account the internal possibilities and external influences;
- the volatility and loyalty of the financial management as the result of an integrated combination of the financial management and logistical methodology.

The identified features of the evolution of the financial management paradigm are scientifically sound and capable of positively affecting the operation of companies in the form of logistical systems. However, despite the rapid desire to maximize the value of logistical chains and the value of companies, managers, implementing the effective financial management mechanisms, should take into account the requirements of cost-effective production, corporate culture, and socially responsible business.

**Conclusions.** Under the influence of the megatrends of the economic development (globalization, financialization, informatization, intellectualization, socialization, logistical) there are some significant changes in the functioning of companies in the form of logistical systems that determines the feasibility of developing the new methodological principles of the financial management. They should be based on the triad of "the financial flows - the value of logistical chains - the value of the company" that is the basis for the development of the global logistical systems based on the value of logistical chains and the growth of the value of companies that may be their participants.

The scientific principles of the paradigm under the scheme "the financial flows - the value of the logistical chains - the value of the company" are considered. They create some theoretical preconditions for further study of the methodology of financial management and implementation of regulatory policy through a set of principles, methods, functions, tools, levers, procedures and regulatory mechanisms that with goals, strategy, tasks of development of the national economy. They should be specified by realizing the practice of the financial management under the influence of the megatrends of the economic development and the interactions of macro-logistical systems with the global logistical systems.

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Received for publication 03.05.2018

Роботу виконано в межах фундаментальної науково-дослідної роботи (№ 645/20 «Архітектоніка фінансової системи як інструмент суспільного розвитку» 0117U000506)