

**Microeconomics**

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**DEVELOPMENT  
OF THE TRADE ENTERPRISE SUBJECTS  
LOGISTICS SYSTEM  
AND ITS UTENSIC-CRITERIAL  
CHARACTERISTICS**

**Abstract**

The main purpose of the publication is the development of theoretical approaches, systematization of the results of analysis and definition of measures for the formation of logistic systems of trade entrepreneurship subjects (trade enterprises), which belong to the small business sector.

The peculiarities of formation were identified and the problematic aspects of the modern stage of entrepreneurship development in Ukraine were identified. The existence of the logistic component in the general complex of the conduct of trading activity by the entrepreneurship subjects is determined.

The essence and ratio of concepts «system of logistic» and «logistics system» of the enterprise are determined. The objective of the logistics system organization as a complex, economic and technical and technological system cov-

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ering the logistics system of the enterprise is emphasized), personnel of the management services of the enterprise logistic activity, as well as legal, organizational, managerial and methodical principles of all these elements interaction of the system and its management, formed on the basis of the scientific and theoretical basis (theory) of logistics management.

The peculiarities of the functioning of small business entities in Ukraine and the averaged parameters of commodity flows in this sector of economy are investigated, factors of logistic flows organization specificity formation in the retail segment, which influence the requirements for the creation and operation of trade enterprises logistic systems and the choice of approaches to them, are determined.

The attention is drawn to the need to consider as the main factor in the formation of the trade complex system of logistic of operational and functional processes of logistics activities, which are carried out by a trading company in order to bring commodity flows to end buyers of goods. The necessity of determining the structure of the logistics system of the trading company is focused on taking into account the resources available from the dealer in order to create opportunities for organizational, economic, technical and technological interaction with other supply chain participants in which the given enterprise is involved, and simultaneously ensuring compliance of the goods sold with the requirements end buyers.

The key directions of logistic activity improvement of enterprises of trade – subjects of small (and micro) entrepreneurship, which are connected with technical and technological and infrastructure improvements within the enterprise logistics system, introduction of modern management technologies in the logistics management subsystem and logistics administration, are grounded, as well as the use of outsourcing capabilities of logistics functions and operations and the use of modern communication tools for the radical change of trade technologies, which will be reflected in the requirements for organizing a complex of logistics activities of retailers and, accordingly, logistic systems created by them.

*The purpose of the research* is to develop theoretical approaches, to systematize the results of the analysis of the essential characteristics and the composition of the trade company system of logistics, and to identify the main measures for the formation of the system of logistics of the subjects of trade enterprise (trade enterprises), which belong to the small business sector.

*Object of research* – subjects of trade enterprise – trade enterprises, which belong to the small business sector.

*The subject of the study* is theoretical and methodological principles of logistic activity organization and conceptual approaches to the construction of logistic formations in the conditions of integration processes.

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In accordance with the goal formulated, the main objectives of the study:

- on the basis of analysis of the most common scientific theories to determine mechanisms for managing them;
- to identify new approaches for identifying the essence of logistics, the content of logistics activities of trade enterprises and identify the actual problems of their construction;
- to formulate a conceptual approach, basic principles and applied principles of organization of logistic formations with the participation of small business entities;
- to develop scientific and practical recommendations on the construction of trade enterprises systems of logistics and their development taking into account the integration processes in the field of commodity circulation.

### **Key words:**

Business entity, trade entrepreneurship, trade enterprise, retail trade, logistic activity, logistics system, logistics system structure, logistic infrastructure, logistics center.

**JEL:** M20, L81.

### **Introduction**

The development of Ukraine's economy during its market transformations is associated with increased competitiveness and dynamic growth in the scale and effectiveness of the activities of numerous business entities. The development of entrepreneurship in a market economy is defined as one of the most important conditions for economic growth, which is capable of optimizing and structuring commodity and spatial markets, the proportion of demand and supply, mobilization of the main resources of the country's economy and, in general, the formation of a market environment. Entrepreneurship in Ukraine serves as an innovator, aspiration for the search and creation of new areas of activity, responsi-

bility, proactivity, self-renewal, mobility, flexibility, dynamism, commitment and readiness for risk, excellence and efficiency.

Establishment of entrepreneurship in Ukraine takes place under difficult conditions of simultaneous promotion of entrepreneurship development and periodic administrative pressure, as a result of which there are wavy processes of dynamic changes in the size and structure of the mass of business entities, migration from one organizational form to another, mass registration of business entities and such the massive closure of them (last time a massive reduction occurred in 2017).

Despite this, in the Ukrainian economy, entrepreneurs operate successfully in a wide variety of fields, which greatly expands the type of business structure and prospects for its development. – Economic expediency of the expansion of the type entrepreneurship typology is evidenced by the positive dynamics of the development of the general array of entrepreneurship subjects (despite the atypical failure of the quantitative parameters of the investigated sector in the segment of individuals-entrepreneurs in 2017). One of the most important characteristics of modern business development in Ukraine is the presence of favorable conditions for the development of trade business, which is understood as a specific type of entrepreneurial activity whose purpose is to generate profit through the systematic conduct of commodity-money and trade and exchange operations. Commercial entrepreneurship ensures the constant circulation of various types of goods, their movement from the sphere of production to the sphere of consumption, therefore it is defined as activity related to the purchase and sale of goods and services, as one of the most common forms of entrepreneurship – trade carried out by entities entrepreneurship – trade enterprises and individuals-entrepreneurs.

The aggravation of competition in the consumer and wholesale market results in increased requirements for the trade enterprise subjects in relation to their ability to satisfy the inquiries of retail and wholesale customers regarding the provision of goods in a given place and at a certain point in which demand is presented, subject to conditions that generally form the concept. complex of logistics. The trade in the functions of organization and technological support for the promotion of goods from producer to consumer covers the processes of systematic and large-scale movement in space and time of a large variety of commodity resources from their places of production to places of consumption. Activity of trade enterprises, organizing the movement of commodity and accompanying flows, in market conditions should be based on the principles of the logistics concept. The organization of the regular flow of material (flood) flows in the field of logistics involves the involvement of many business entities, the use of a significant number of production facilities, technical and transport vehicles, necessary for the application of material-adapted warehouse technology adapted to the specifics, and the formation of trade enterprises adapted to the requirements of the integrated logistics chain of systems of logistics. Particularly complex and

problematic are these processes, provided that they involve trading enterprises that are classified as small business entities. At the same time, the question remains about the essence and ratio of the concepts of «logistics system» and «system of logistics» of the enterprise.

*The purpose of the research* is to develop theoretical approaches, to systematize the results of the analysis of the essential characteristics and the composition of the trade company system of logistics, and to identify the main measures for the formation of the system of logistics of the subjects of trade enterprise (trade enterprises), which belong to the small business sector.

*Object of research* – subjects of trade enterprise – trade enterprises, which belong to the small business sector.

*The subject of the research* is theoretical and methodological principles of organization of logistic activity and conceptual approaches to the construction of logistic formations in the conditions of integration processes.

In accordance with the goal formulated the main objectives of the study:

- on the basis of the analysis of the most widely distributed scientific theories to determine the essence and ratio of concepts «logistics system» and «system of logistics» of the enterprise and management mechanisms;
- to identify new approaches to identifying the essence of logistics, the content of logistic activities of enterprises of trade and identify the actual problems of their construction;
- to formulate a conceptual approach, basic principles and applied principles of organization of logistic formations with the participation of small business entities;
- to develop scientific and practical recommendations on the construction of system of logistics of trade enterprises and their development taking into account integration processes in the field of commodity circulation.

## **1. Literature review**

The work of B.A.Anikin, A.M.Gadzhinsky, D.Johnson, E.V.Krykavskiy, L.B.Mirotin, Y.M.Nerush, A.I. Semenenko, is devoted to the study of the field of logistics and the problems of its essence, content, typology of objects and mechanisms of logistic processes management, based on the theory of systems; consideration of these problems from the standpoint of organization theory prevails in the writings of V.I. Sergeev, R.R.Larina, M.A.Oklander, C.Scovronec,

Z.Sariush-Volskiy, S.V.Sarkisov; from the standpoint of the firm's theory, the aspects of the theory and practice of logistics are covered in the works of D.Bauersoks, J.Chapiro, D.G.Shatt, M.Veselevskiy, R.Patora, D.D Kostoglodov, V.N.Stakhanov; theories of logistic management – in the works of L.V.Frolova, N.M.Chuhray, V.Y.Nikolaichuk, S.N.Naglovskiy, V.S.Lukinskiy, I.E.Tashbayev; instead, the concept of inter-firm networks is reflected in the writings of J.R.Stok, D.M.Lambert, V.V.Dybska, A.N.Sterligova, M.Kristopher, A.A.Kyzym, P.A.Elyashevych, D.Korsten, Y.Petzl and others.

Modern economic science covers the achievements of many researchers in logistics issues in the field of empirical research, theoretical analysis and generalization of practical experience. The theoretical basis for the study of the features of the essence-conceptual content of logistics laid in the writings of leading foreign and domestic scientists B Anikin, D Bauersoks, A.Gadjynskiy, J.Johnson, V.Dybska, D.Closs, Ye.Krykavskiy, A.Kolobov, V.Kolodin, D.Lambert, O.Malikov, L.Mirotin, S.Naglovskiy, Y.Nerush, V.Nikolaichuk, M.Oklander, S.Sarkisov, A.Semenenko, V.Sergeev, J.Stok, A.Chudakov, N.Chukhraj, etc., in which developed the idea of the concept of logistics. The works of M.Grigorak, M.Denysenko, A.Kalchenko, V.Kolodiychuk, R. Larina, V. Perebiynis, N.Struk, N.Tyurina, G.Cherevko and others, are devoted to theoretical and practical principles of management of logistics activities of domestic industrial and agrarian enterprises. Theoretical and methodological aspects of the organization of logistic formations and management of the logistics complex of the enterprises of the sphere of turnover are covered in the works of such domestic and foreign researchers as A.Albekov, B.Yesenkin, M.Kirshina, D.Kochubei, M.Krylov, M.Christopher, B.Mizyuk, T.Moskvitina, Y.Nerush, K.Rutkovskiy, L.Frolova, and others.

Despite the availability of these developments, the issues of integrated research and scientific substantiation of the ways of organizing logistics of trading enterprises in the conditions of the transformation of the system of relations in the economy with the market priority of the consumer, providing inter-subjective interaction of participants of logistic formations in the conditions of the global information and telecommunication environment and the integration of economic processes are still not completely solved. The questions of the network organization of logistics with the participation of the trade entrepreneurship subjects; problems of the formation of the adapted to the specifics of the activities of small enterprises of logistic infrastructure and the development of logistic clusters, the directions of development of the systemic form of logistics, making it difficult for the subjects of trade enterprise to choose the optimal solutions. on strategic development issues are not sufficiently worked out. In this regard, the issue of creating a theoretical and methodological basis and substantiating practical recommendations for the enhancement of the formation and ensuring the effective functioning of systems of logistics of trade enterprises-small business entities remain relevant.

## **2. Research methodology**

### **2.1. Search for literature**

To determine the essence of the conceptual content of logistics and logistic activity, and to study the typology and structure of logistic formations, we analyzed the main theories of content and ways of creating mechanisms for managing logistic processes in the works of V.Dybska, Ye.Krykavskiy (2016); A.Semenenko; M.Oklander (2004), V.Sergeev (2005), J.R.Stok and D.M.Lambert (2005), L.Frolova (2004; 2005), G.Cherevko and N.Struk (2012), A.Chudakov (2001) etc., as well as the results of the systematization of terminology of logistics conducted by leading professional associations of logistics specialists, in particular the European Logistics Association (2006) and own researches (N.G.Mitsenko (2014), I.P.Mishchuk (2015)).

Theoretical and applied aspects of the organization of logistic activities and the construction of logistic formations involving the subjects of housing, which are characterized by complex organizational structure and large scale of activity (as a rule, these are large industrial enterprises, wholesale trade enterprises, retail trade enterprises of network type, transport and forwarding companies, etc.) have a sufficiently deep scientific background and practical testing. At the same time, there are practically no similar instruments for small business entities as a result of the survey and the results of the analysis carried out, which determines the relevance of their theoretical substantiation and practical training to the level of applied developments. The generalization of theoretical and applied approaches to the interpretation of the essence of logistics and logistic activity allows to distinguish key aspects in the interpretation of logistic terms, use them to form a systematic concept of building a system of logistics of the enterprise and organization of logistic formations, which allows to formulate adapted to the specifics of small commercial entrepreneurship variants of their organization logistics activities, mechanisms of its management and components of logistic support.

Thus, the theoretical study of the essence-conceptual content of logistics, its fundamental definitions and principles of organization of the main logistical processes within the limits of logistic formations with the participation of small business entities allows us to determine how the general approaches to the organization of logistics activities of trade enterprises, as well as the specific features of the formation of the necessary for the small business sector, mechanisms and tools for constructing logistic systems for the specified logistical participants economic complex processes in Ukraine.

## 2.2. Analysis

The specificity of the logistic activity of trade enterprises and its management through the prism of the formation of systems for evaluating the financial results of their activities, methodological support for a comprehensive assessment of the state of logistics management, the creation of logistics information systems are considered in their work by many scientists. At the same time, the definition of the system of logistics of the trade enterprise is identified with the notion of the logistic information system, and the logistical activity of the trading company itself – with the formation of a system of indicators of logistic activity and their optimization in the process of management by the subject of management, which, in our opinion, is not quite correct. In view of this, there is a need for a theoretical refinement of the essence and content of the system of logistic trading and management mechanisms created by enterprises.

The objective reason that necessitates the organization of logistics activities of commercial enterprises on the basis of the formation of the system of logistic is the orientation towards the system approach as a component of the concept of logistics and the basis of the tools for managing the logistics processes in the enterprises considered as industrial and commercial systems. In scientific literature and practice, the interpretation of the term «system» in general is ambiguous, despite the most widespread definitions of the system as a set of interacting elements that are in relationships and relationships with each other and form an integral entity, Chudakov A. (2001) or a set of ordered in a certain way of relations or elements connected with a definite sign. Given the large number of fundamental scientific works of specialists in the fields of philosophy, natural science, social reproduction, as well as on scientific and methodological disciplines (systems theory, organization theory, system analysis, etc.), which laid the scientific and theoretical basis for the formation and development of the category «system», within the limits of this research we will use the provisions that can be applied to the problems of logistics activity and creation of system of logistic.

In modern scientific sources, the division of systems into a large number of classification features is accepted, one of which may be suggested by L.Shimanovska-Dianyach (2012), the approach by which the systems are divided according to the way of occurrence, presence or absence of the material substrate, its type, degree of complexity, size and kind of system, etc. Thus, the types of biological, technical, socio-economic, ecological and industrial (production-economic) systems are distinguished by species. It is the construction of efficient production systems is the most common task of all business entities, including manufacturing and trading enterprises.

The basis for the creation and further development of production systems is the availability of an ordered set of interrelated elements, the joint operation of

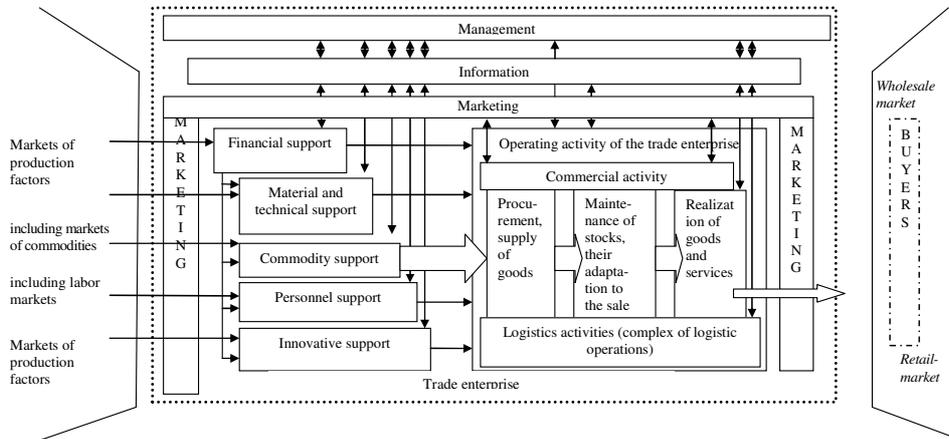
which for limited resources is aimed at the creation and realization of material products that meet the material needs of society and man and profit, Minko E. (2010). The characteristic features of the production system can include the composition of the elements (object, means of labor and direct labor process), the availability of material, technological, organizational, information and other links between the elements, the resources used (technical, technological, personnel, spatial, financial, informational, organizational and managerial), the nature of products and needs. Taking into account the latter, the creation of production systems takes place within the organizational boundaries of the trade enterprises. Manufacturing systems of trading enterprises can simultaneously (on various grounds) be identified as economic, living, social, human-machine, open, purposeful, stochastic, dynamic, regulated, aimed at satisfying the needs of end-users, etc.

Features aimed at satisfying the economic objectives of the subject of trade activity through and due to satisfaction of consumer demand and the corresponding nature of the main functional processes determines the specificity of the functional model of the trading company (Figure 1), which determines the content content of the corresponding production system of the trading company and its individual subsystems, including part of the subsystem of logistic support of the main operational activity of the trade enterprise, which is the goal of creating a system of logistics trade enterprises.

The term «system of logistic» in the scientific literature is used less often than the term «logistic system». The interpretation of these terms does not always coincide, which makes it necessary to specify the essence of the category «system of logistic» and its alignment with the category «logistics system», since, in our opinion, they are distinctive with each other. So, V. Kolodin (2011) believes that the system of logistic covers the entire material flow from the acquisition of raw materials to the supply of final products to the main consumer and the corresponding counter flow of information, which both manages the flow of materials, and registers it, however, in this version the information stream is conventionally called «demonized», is separated from the generator of management decisions, which in any enterprise are management services with appropriate specialists and decision-makers. As the analysis of this definition shows, the scientist does not refer to the system of logistic as only specialists of the logistics activities management services, but also as the regulatory, methodological, informational support of management processes, as well as human resources support of labor operations in the complex of logistics operations on the transformation of material and accompanying service, information, financial flows, and management of them. Out of sight, with such approach remain also financial and logistical processes.

Figure 1

**Functional model of the trade enterprise as a basis for the formation of the system of logistic**



At the same time, the micrologistic system is treated as a set of logistic chains of the enterprise, in which occur processes of technological, organizational, information interaction of elements, which include «material resources», «stocks», «production opportunities», «means of transportation on place», «warehouses», «means of communication and management», as well as «personnel», Kolodin V. (2011). So, we are talking about the elements of cybernetic model, that reflects the functioning of the enterprise as an economic system in aspects, related to the management of material flows, L. Boldyreva (2014), G. Cherevko and N. Struk (2012) pointed out the lack of correctness of such approach to the interpretation of the notion of «logistic system».

At the same time, it should not be discounted the possibility and expediency of displaying with the help of cybernetic modeling of the processes of the logistic system functioning as a real existent set of interrelated elements of the logistic chains formed by the subject (or several subjects) of economy, which interact among themselves for space, time, quantitative and qualitative and other transformations of material flows for the interests of their participants.

The central place in the logistic system of the enterprise, as well as in the system of higher level, which is the system of logistic, is played by the processes of the material flow, the necessary conditions of existence of which, firstly, is the availability of a certain (sufficiently significant) number of objects (elementary units of products, raw materials, commodities, etc.), over which certain actions

are carried out, that ensure their movement in space and time (logistic operations), secondly, the non-simultaneous execution of these actions during a sufficiently long period of time, as a result of which the processes of shifting of these objects acquire signs of repetition, cyclicity, systematicity and systemicity.

The operational task of logistic management consists in placement of raw materials, incomplete and finished products in the places of their receipt, manufacturing, consumption in such a way that the volumes of their stocks correspond to the needs of the appropriate enterprise – the participant of the integrated system, which is an intermediate consumer in the logistic chain, or a physical person – the final consumer, while keeping them at the same time would create the minimum possible costs associated with organization and management of flows in the integrated logistics system.

The enterprise system of logistic is generally considered by us as a complex polystructural production and economic system, which as a subsystem combines in its structure:

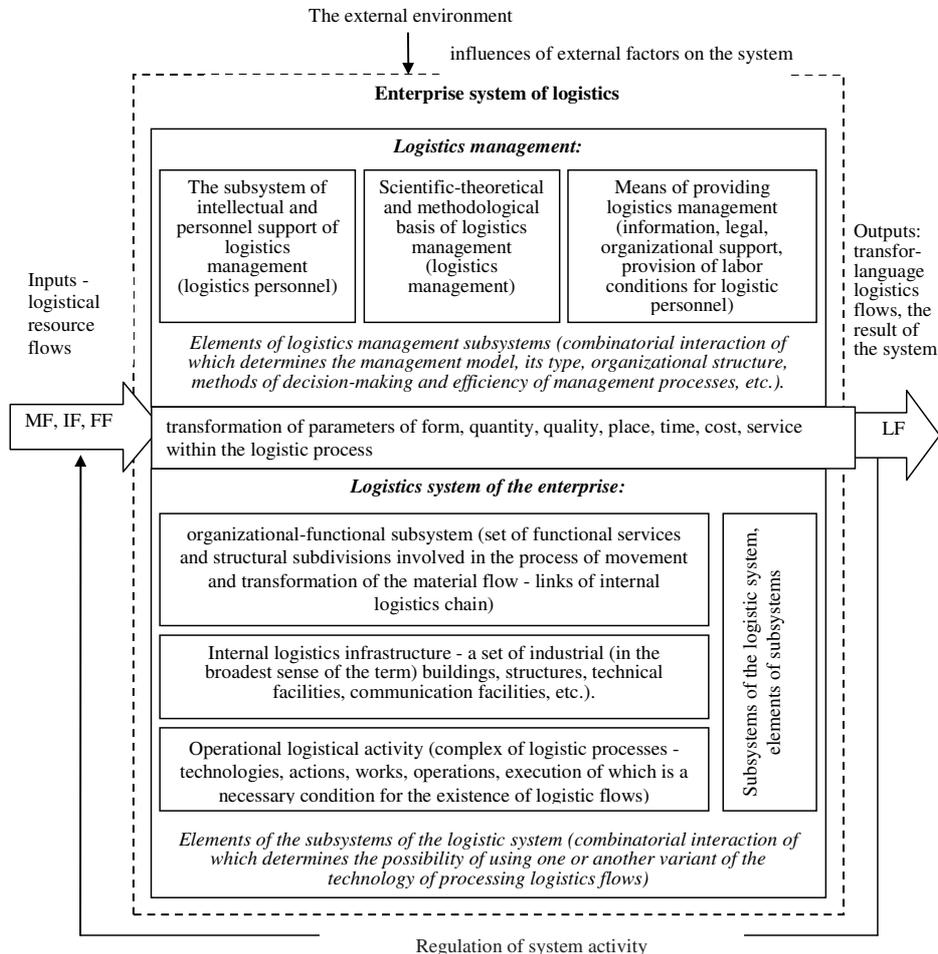
1) logistic system of the enterprise in the sense of its as a complex of: a) organizational units and services involved in the processes of transformation of the material flow within the organizational boundaries of the enterprise; b) existing production facilities, capacities, resources, which form the material basis of the logistic system and are used for space, temporal, quantitatively-qualitative and other transformations of a plurality of elements of the material (commodity) flow (as the central element of the logistic system of the enterprise); c) a set of technologies, actions, operations, the implementation of which ensures the possibility of existence of material flow as a process and its information and financial support;

2) a system for managing logistic activities and the development of a logistic system, covering the concepts used at the enterprise, the activities and activities related to the management of the corresponding logistic activity (which became a specific tools of applicable logistic management) together with the competencies (knowledge, skills) involved in the logistic processes of the personnel that implements or manages the logistics processes, as well as the corresponding legal, informational, financial, engineering, technical, sciences and methodical support for their implementation (Figure 2).

These subsystems are considered as an ordered set of interconnected and interacting elements that ensure the implementation of various types of relations and relationships in the aspects of organizational, economic, material (technological), technical, informational, financial, social, psychological structure, Yevtodieva T. (2011). At the same time focusing only on the issues of the functioning of one of the subsystems – the logistic system of the enterprise – as a single and fully-fledged organizational and economic mechanism for managing logistics, in our opinion, would not be sufficiently correct.

Figure 2

## Principal scheme of the enterprise logistics system



The enterprise system of logistic as its basis – the logistic system of the enterprise, depending on the type of activity may include various functional areas of logistic activities and related logistic operations and functions including: acceptance and shipment of material resources (products, goods), servicing of production, storage of goods (production, commodity stocks), customs clearance and customs clearance of goods, re-packaging of products, delivery of goods to consignees, etc.

Taking this into account, to the formation of the logistic company are involved its various units that support organization and management of material flows in so-called corporate boundaries for relevant areas of activity. System of logistic of the enterprise logically should cover the structural units involved or in the process of direct processing elements of the material flow that passes through the enterprise, or in the organization of this process, performing the functions of the so-called logistic management – planning, monitoring, management: service delivery, storage of materials, production units, service sales, stocks of finished products, dispatch service (service information processing and communication), the transport unit and so on. In trade enterprise list of these services is different due to absence of actual production units, instead of which the leading role is played by marketing and commercial areas service and departments, which is quite clearly manifested in the models of the organizational structure of retailers of network type.

At the same time, considerably greater complexity in the aspects of forming a system of logistics of an enterprise and organization of its logistical activity arise in case of necessity of construction of such systems for the enterprises that are subjects of small commercial enterprise.

As the analysis shows, in general in the sector of small business in Ukraine in 2017 there were 322920 small enterprises (95.5% of enterprises), including 278102 microenterprises (86.1% of small enterprises) (Table 1), while individual entrepreneurs in 2017 accounted for 82.0% of all small business entities in Ukraine and 84.0% of subjects microenterprises, which means the practical absence of any organizational structure responsible for organizing logistics processes in the entrepreneurial activity complex in this segment.

Table 1

**The dynamics of the number of small business entities in Ukraine**

**in 2013-2017** (Activities of subjects of large, medium, small

and microenterprises for 2017: Statistical Collection / State Statistics Service

of Ukraine. – K., 2018. – 516 p. URL: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua))

Type of business entity	Number of subjects over the years					2017 p. до 2013 p., %, ±
	2013	2014	2015	2016	2017	
Total for the economy:						
Subjects of small entrepreneurship, units.	1702201	1915046	1958385	1850034	1789406	105,1
including small enterprises, units.	373809	324598	327814	291154	322920	86,4

Type of business entity	Number of subjects over the years					2017 p. до 2013 p., %, ±
	2013	2014	2015	2016	2017	
– share in the total number of subjects, %	22,0	16,9	16,7	15,7	18,0	–4
Individual entrepreneurs, units.	1328392	1590448	1630571	1558880	1466486	110,4
– share in the total number of subjects,%	78,0	83,1	83,3	84,3	82,0	4
Subjects of microenterprise, units.	1637180	1859887	1910830	1800736	1737082	106,1
including microenterprises, units.	318477	278922	284241	247695	278102	87,3
– share in the total number of subjects, %	19,5	15,0	14,9	13,8	16,0	–3,5
Individual entrepreneurs, units.	1318703	1580965	1626589	1553041	1458980	110,6
– share in the total number of subjects,%	80,5	85,0	85,1	86,2	84,0	3,5
Subjects of the wholesale, retail trade, repair of motor vehicles and motorcycles, units.	890658	988694	989064	910413	837797	94,1
Subjects of small business, units.	886662	985378	986108	907536	834696	94,1
– share in the total number of subjects of small business in economy, %	52,1	51,5	50,4	49,1	46,6	–5,4
including small enterprises, unit.	106575	90842	90823	79432	86572	81,2
– share in the total number of small business entities in the sector, %	12,0	9,2	9,2	8,8	10,4	–1,6
Individual entrepreneurs, units.	780087	894536	895285	828104	748124	95,9
– share in the total number of small business entities in the sector, %	88,0	90,8	90,8	91,2	89,6	1,6
Subjects of microenterprise, unit.	868657	970587	974347	894778	820933	94,5
– share in the total number of small business entities in the sector, %	98,0	98,5	98,8	98,6	98,4	0,4

Type of business entity	Number of subjects over the years					2017 p. до 2013 p., %, ±
	2013	2014	2015	2016	2017	
including microenterprises, units.	93166	80028	80647	69356	76235	81,8
– share in the total number of subjects, %	10,7	8,2	8,3	7,8	9,3	–1,4
Individual entrepreneurs, units.	775491	890559	893700	825422	744698	96,0
– share in the total number of subjects, %	89,3	91,8	91,7	92,2	90,7	1,4

During 2013-2017, the number of such problematic entities in the small business sector increased by 10.4% (small business entities) and 6.1% (microenterprises), while the number of small enterprises decreased by 50,9 thousand units, and subjects of microenterprise – by 40,4 thousand units respectively, which means a potential reduction of the capacity to create at least elementary organizational support for the flow of material flows in the case of involvement of actors in the sector.

Subjects of small business are mainly focused on trade activity, where in 2017 51.0% of individual entrepreneurs, 26.8% of small enterprises and 27.4% of micro enterprises from their total number in the national economic complex of Ukraine were concentrated. In this sector, the share of enterprises is even lower than the overall economic indicators – among small business enterprises – 10.4% in 2017, among subjects of microenterprise – 9.3%. Such a structure of the general array of business entities in the trade sector means the maximum fragmentation of logistics flows and the problem of their organization in the context of attracting mostly natural persons-entrepreneurs. – This is all the more important that small businesses in trade have a significantly higher share in the volume of material flows, formed by the processes of sales of products (Table 2).

Apparently, small enterprises in the wholesale and retail trade and repair of vehicles provide almost 30% of all sales (goods, services) of economic entities for this type of economic activity, which is 5% more than the total economy indicator. Somewhat smaller is the gap between these indicators and the group of microenterprises (in 2017 – 14.5% vs. 12.1%), although here the representatives of the trade sector dominate the averaged subjects of the economy, and therefore they play a more important role in ensuring the flow of product sales.

Table 2

**The share of small and micro enterprises in the total volume of sold products (goods, services) of economic entities in 2013-2017**

(Activities of subjects of large, medium, small and microenterprises for 2017: Statistical Collection / State Statistics Service of Ukraine. – K., 2018. – 516 p. URL: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua))

Years	Volume of sold products, million UAH		Share of volume of sold products (goods, services) of economic entities by their size in the total volume of sales, %			
			small business entities		of which are the subjects of micro-enterprise	
	Total	Wholesale and retail trade; repair	Total	Wholesale and retail trade; repair	Total	Wholesale and retail trade; repair
2013	4334453,1	1782399,7	21,6	28,4	10,6	14,7
2014	4459702,2	1795659,9	22,0	29,3	10,9	15,1
2015	5556540,4	2159334,1	23,7	30,1	12,0	15,7
2016	6726739,8	2628672,0	24,5	30,6	12,1	14,5
2017	8312271,9	3351185,8	24,9	29,8	12,7	15,2

A sample analysis of the characteristics of the activities of small business entities and their material and technical base showed that the bulk of such traders focuses their activities on retail sales in stores, retail trade networks, and retail markets; their activity in the wholesale trade is much lower.

According to the State Statistics Service, in Ukraine, as of January 1, 2018, there were 32,662 stores of retail enterprises with a total retail space of 7031 thousand sq.m.; except for them 6643 units. semi-stationary objects of the retail trade network (2854 kiosks and 3789 gas stations) (State Statistics Service of Ukraine. URL: <http://www.ukrstat.gov.ua/>). The total number of stores is dominated by non-proprietary stores (19101 units, 58.5%), retail space of which is 3864 thousand sq.m. (55.0%); grocery stores make up 41.5% (13561 units). and their trading area (3167 thousand sq.m.) is 45.0% of the total shopping area of stores. The analysis shows that the majority of small enterprises and retail entrepreneurs are oriented towards retail trade mainly in grocery stores (11582 units, or 85.4% of retail trade network of food products) and non-food stores in specialized stores ( 18620 units, or 97,5% of objects for the sale of non-food products).

The quantitative parameters of retail trade network objects belonging to small business entities are characterized by considerably lower than average indicators of the size of the trading area (the average retail space of one non-specialized retail shop for food products in the sector of small enterprises is 69.3 sq.m., compared to 249,3 sq.m. on the whole of the group of such stores, the average retail space of one specialized non-food retail shop in the sector of small enterprises is 56.4 sq.m., compared with 95.4 sq.m. in total for this group), though the average is formed primarily due to 20% of stores that have retail space larger than average. Even lower is the value of these indicators for small businesses engaged in retail trade in rural areas. Another problem is the dominant location of most shops (26.5 thousand units) in cities, while in rural areas only 6.2 thousand units function. shops belonging to the subjects of trade business-legal entities. Information on the quantitative parameters of shops belonging to individuals-entrepreneurs in the official statistics system is generally not available in the open access, and therefore can only be determined roughly.

Most of the objects of the retail retail network of small businesses operate on the morally obsolete technologies of selling goods through the counter of service, without using electronic cash registers (ESR) and non-cash payment forms. To a large extent, the problems of the activities of small business entities are connected with the system of organization of commercial communications established in recent years, focused on a combination of poorly systematized wholesale purchases of goods from wholesale companies and local producers and the supply of goods by well-known brands through the distribution companies, as well by the personal participation of owners-small business entities in the implementation of procurement and delivery of goods. As the results of sample surveys of stores show, this led to a low level of planning and controllability of the processes of forming the range of goods and goods supply of trading facilities, an increase in the number of supplies of goods in each trading facility against the background of insignificant (so-called blocks, pallets) amounts of goods packaging, the small cost of each batch of goods and its low completeness (due to the narrow specialization of distributors). The consequence of such a system of supply is the growth of transport costs associated with the logistics of goods, especially – in shops and other objects of the dispersed retail chain of small businesses, located in rural areas. The above-mentioned actualizes the task of forming the scientific-theoretical and applied principles of constructing the system of logistics adapted to the specific conditions for the conduct of trade activity of such subjects of small business.

The system of logistics of a trade company, taking into account the above, in our opinion, is a complex, specially organized economic and technical-technological system, covering the logistics system of the trading enterprise (in the sense of its as a set of structural units of the enterprise – subjects of logistics processes of transformation the input, internal and output commodity and associated flows of the enterprise, in conjunction with the trading objects, warehouses, means of communication and management involved in it, other elements

of the logistics infrastructure of the trade enterprise and the complex of current processes carried out by the enterprise related to the flow of goods), personnel of the management of logistics activities of the trading enterprise, as well as legal, organizational, managerial and methodical principles of interaction of all these elements of the system and its management, formed on the basis of the scientific and theoretical basis (theory) of logistics management.

System of logistic of a particular trade enterprise is formed under the influence of special conditions and factors of the micro-logistic environment of direct influence, which determine the possibilities for using the enterprise elements of the foreign market infrastructure, availability of separate elements of logistic potential, application of technologies for the implementation of certain logistic processes, etc. The specific composition of the system elements is determined by the general and logistic strategy of the enterprise and the factors of the internal and external micro-logistic environment.

The specificity of trade enterprises is associated with a high degree of dependence on the supply chain organizers, which limits their ability to choose technologies for processing the material flow at the stage of its movement within the organizational boundaries of the trade enterprise, tools and instruments of work, directions of flows, etc. More important is to select within the trade enterprise a logistic structure that will allow using available resources, to create organizational, economic, techno-technological interactions with other supply chain participants in which the given trade enterprise is involved and at the same time ensure compliance of sold goods to the requirements of end buyers.

The basis of the formation of the trade enterprise system of logistic in this regard should be defined a complex of operational and functional processes of logistics activities carried out by the trade enterprise in order to bring the flow of goods to end buyers. The main functional areas of the trade enterprise activity in this area are the provision of processes for the space movement of commodity mass in the system of commodity distribution, the formation of infrastructure objects for wholesale and retail trade, the implementation of a complex of domestic and warehouse trade and technological operations and their information support (documenting the operations of receipt or release of goods), execution of goods storage operations, their preparation for sale, quantitative and qualitative transformations of commodity parties, development of own transport economy of trade enterprises and organization of transportation of commercial cargoes by involved transport, organization of logistic services of consumers by providing corresponding accommodations.

The survey conducted by us of 23 managers of small trade enterprises (based on the principles of a small sample) made it possible to determine the priority of certain functional units of the logistic system (Table 3), which should be taken into account when forming such a system and its functioning.

Table 3

**Priority of separate functional blocks of system of logistics for its formation**

Functional block of system of logistics	Relevance of the block, %
<i>Managerial</i> – the logistics management toolkit, which ensures the efficient operation of the logistics system.	13,9
<i>Organizational (administration)</i> – managerial decisions that effect the functioning of the logistics system and the enterprise as a whole.	11,3
<i>Institutional-legal</i> – normative-legal regulation of logistic processes, development of the system of contractual relations between counteragents	10,4
<i>Techno-technological</i> – material and technical and technological support for organization of stream processes at the enterprise of trade, its sufficiency, quality and conformity to the needs of organization of logistic processes.	15,7
<i>Infrastructure</i> – the formation of market logistics infrastructure in the area of the enterprise.	10,4
<i>Financial and economic</i> – availability of financial resources for the creation of technical and technological base and the formation of commodity resources.	9,6
<i>Information</i> – information support of traffic flow, informational substantiation of managerial decisions.	12,2
<i>Personnel</i> – knowledge, skills and experience of personnel in the field of formation and functioning of the logistics system, management of logistics processes	8,7
<i>Service</i> – availability of logistic services, opportunities of logistic outsourcing.	7,8

The leading role in the projected system of logistics of a trade enterprise is played by tasks related to the sphere of logistic management and which are connected with: – the formation of the logistics system of the trade enterprise; – the choice of the organizational form of the logistics management service at the enterprise, the definition of its place and authority in the management structure of the trading enterprise, the regulation of the rights and duties of the personnel of such service; – planning and control of the organization of procurement logistics (processes of wholesale purchases and delivery of purchased commodity resources to the trade company or its individual objects); – controlling the flow of

goods through the choice of forms and methods of commodity transfer; – development of inventory management system; – organization of logistic information system; – management of sales processes (as an element of sales activity); – management, control and optimization of logistics costs.

The specified complex of tasks should be solved at the stage of forming the system of logistics and adjusted as the system operates – with the changing conditions of activity of the subject of small commercial entrepreneurship. The determining condition for the quality management of these processes should be the proper level of administration of the logistics system – a complex of managerial functions and procedures that are performed by the subjects of large and medium entrepreneurship by the personnel of the logistics management company in order to implement strategic, tactical and operational goals managed by the logistics management company logistics systems. Instead, in a small trading enterprise, this administrative function is usually based exclusively on the owner-manager of the relevant trading company, which should use as much as possible its knowledge of the theory and practice of logistics and logistics management as well as the opportunities that it provides to it in the region the activity of logistic infrastructure is a combination of material and technical objects that are means of spatial-temporal conversion of logistic streams and which include: a/ material the technical and technological base of the enterprises involved in the production and circulation of these processes, as well as b/ objects of the general market infrastructure of the economy, are classified in the segment of its logistic infrastructure. Among the diversity of objects of logistic infrastructure, logistics centers and logistic clusters are the most attractive for small business entities.

The experience of foreign countries shows that the logistics center in its modern version is a warehouse complex, which receives goods from the enterprises-manufacturers or from wholesale trade enterprises and distributes them to smaller parties to customers (wholesale and retail trade) through their own or their commodity network, and thenecessary elements of which are: automated systems of inventory accounting of inventories; multi-level racks for storage of goods; modern means of mechanization of loading and unloading operations and transport and warehouse operations; ...; covered heated warehouses ... with a «working height» of a ceiling of 6 m or more; ...; access roads of automobile, railway and other types of transport; cargo and container terminals for processing large-scale freight containers, Mishchuk I. [2015].

In turn, logistic centers can potentially be key elements of the so-called logistics clusters – integration association of industrial, agricultural, commercial enterprises that interact with localized in a particular area of transport companies, participants of foreign trade, logistics service providers, owners of bonded warehouses, local authorities and research and educational institutions, sharing existing infrastructure and joint communication networks in the process of realizing their own goals on the basis of simultaneous competition in certain industries and joint activities in other areas, which to create a joint network of terminals, ware-

houses, a single database, unified approach to the formation of transport rates and tariffs for warehouse logistics services to support traffic and transport infrastructure (necessary for providing centralized delivery of goods in dispersed network of retail facilities), and thus , increase investment attractiveness and sustainable development of the region.

### **3. Research results**

The conducted theoretical analysis testifies the necessity of activating the activities of small business entities in order to ensure high results of trading activity by creating and further functioning of its own system of logistics, organized taking into account the specificity of logistics flows.

Obviously a necessary condition for the implementation of such a task for trade enterprises, including small business entities, should be the development of the configuration of the system of logistics (and its basis – the logistics system of the trading company), the organizational structure of the logistics service, an integrated logistics information system, a strategic logistics plan, developed a system of indicators for assessing the implementation of strategic tasks and monitoring the implementation of the logistics plan, calculation of the corresponding aggregated indicators of the trade company system of logistics and its individual levels. In the case of solving this task for subjects of trade microenterprises (especially in retail trade), this task should include the identification of a specific specialist who would be authorized to be responsible for all issues of logistics organization and interaction with partners in logistics chains.

Accordingly, for the needs of the management of the trade enterprise system of logistics, the personnel of the service (or designated specialist) responsible for organizing logistics at the enterprise must have a clear understanding of the complex conditions in which the activities are carried out on the implementation of the processes of physical movement and management (legal, informational, financial, engineering and technical support), as well as be able to use a combination of techniques, algorithms and principles for the implementation of such activities, which act in the form of its scientific and methodological support greedy

To ensure such a situation, it is logical to consider the use of the basic model of the trade enterprise system of logistics, shown in fig. 2, adapted to the potential of the subject of small business, its target priorities and special conditions of the micro-logistic environment of the enterprise.

Accordingly, for the creation of such a system, a set of actions on the analytical assessment of all components of the logistics system of the trading company (both retail and wholesale) should be performed as: 1 / logistics system in the sense of its technical and technological system, which should provide a com-

plex of transformations of logistic flows with their predictive parameters, 2 / logistics management system – as a) personnel of the logistic management of the trading company; and b) the legal, organizational, managerial and methodological principles of interaction in the seven elements of the system.

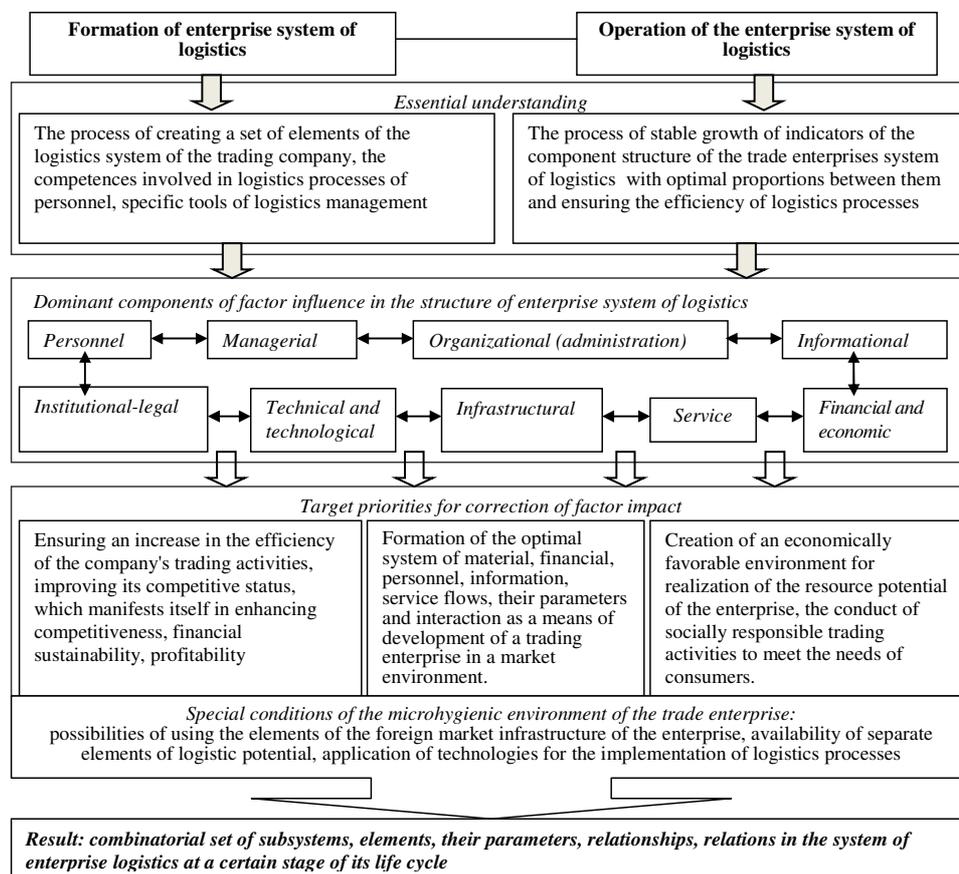
At the same time, priority should be given to analyzing those components that define the basis system of logistics, that is, elements of technical and technological and infrastructure blocks, which determine the possibilities, methods and constraints in the choice of technology for processing material (commodity) flows. Therefore, it is logical to study the availability of trading facilities, warehouses, communication facilities and management, other elements of the logistics infrastructure of the subject of small business or access to their use (under certain conditions).

Taking into account the role of warehouses in the transformation of commodity flows that is decisive for small retail trade objects and found out in other studies, Sergeev V. (2005), Mishchuk I. (2015), the absence of premises of such functional purpose in a large number of stores, an important direction in ensuring the transformation of assortment-quantitative parameters of commodity flows for retail trade should be the development of a warehouse network of wholesale trade enterprises (both independent wholesalers and distributive types). It is their involvement in the processes of moving from commodity producers to the objects of the retail trade network for the majority of small business entities that specialize in the implementation of most non-food products and those food products that are characterized by complexity of assortment and low inventory turnover, should be the main option the organization of logistics chains, which through the implementation of centralized supply of goods will deprive small retailers of necessity inclusive ting in the main part of logistics functions of procurement and warehouse logistics.

At the same time, the aggravation of the problems of logistic support of trade activities of small businesses causes the need for its reformation on the bases of using the tools of logistic management and integration into the systems of regional logistics by creating logistic centers, the location of which would allow to switch from traditional supplies from the regional center to deliveries from warehouses of inter-district significance close to the consignees due to dislocation in one of the transport nodes servicing Ilka located next to rural areas. This variant of the organization of logistics flows can be even more attractive in terms of reducing logistics costs due to the merger in the logistics center of supply from several distribution companies on the basis of the so-called cross-docking, which will allow one vehicle to deliver batches of goods to all trading objects (even those belonging to different subjects of small commercial business) of a certain geographical area in the maximum assembled range.

Figure 3

**Formation and functioning of the logistics system of the enterprise of trade on the basis of a factor-conceptual approach**



In our opinion, the creation of such logistics centers can be exploited by the potential of the consumer cooperatives system of Ukraine, where, to date, cooperative wholesale companies have survived, which in most cases should be transformed into logistic centers serving the enterprises of the retail trade of consumer cooperatives the relevant regions or regions based on the application of a system of centralized import of goods from their warehouses into each cooperative store, but, along with this, would provide logistics services to all to other interested small business subjects of the respective region (while gaining addi-

tional advantages due to the effect of increasing the scope of activities). – The proposed option can be implemented also within the framework of implementation of development projects of logistic clusters, in which logistics centers are one of the key elements of TLC (Transport and logistics cluster URL : <https://www.google.com.ua/search?q=Західноукраїнський+транспортно+логістичний+кластер&tbm=isch&source>).

Along with this, the prospective direction of increasing the efficiency of logistics activities of small business entities may be the use of the so-called logistics outsourcing in the areas of transportation and freight forwarding, warehousing and storage of goods, financial and economic services and logistics marketing.

Improving the logistics management processes and administering the system of logistics of wholesale and / or retail companies, in turn, requires active steps to introduce modern information technology, combined with the introduction of modern technical means for obtaining information on commercial and logistic processes. In particular, we consider the necessary condition and an effective tool for managing commodity flows in trade to be the use of information technology for the collection, processing, use of information on the sale of goods in the shops of small businesses in the context of their management decisions on the procurement of goods from suppliers and, in the case of their implementation in the systems of electronic commerce using the model «B2B». For this purpose, an objectively necessary prerequisite is to become a conscious decision of small business entities on the use in their activities of modern, adapted to the application in this area of ESR models, the cost of which can be distributed in time through the organization of leasing schemes for the purchase of equipment. Using ESR with the connection of the payment terminal to perform cashless payments, connecting external devices (scales, modem, barcode scanners, payment terminals, money boxes, PCs) will allow controlling the flow of goods in the so-called section. SKU (actually SKU is the unit of one product group, brand, variety in one type of package of one dimension, capacity, color, etc., which allocates goods) in each trading facility in real time and significantly improve the quality of commercial solutions, the competitiveness of each sub- thing.

We believe that a significant simplification of the processes of forming the system of logistics of trading enterprises in terms of the organization of financial flows can be achieved thanks to the participation of retail traders-small and micro-entrepreneurs in the E-Receipt project, which involves the use of modern gadgets (PCs, tablets, smartphones) as cash devices and the refusal of the use of billing technologies with the use of expensive in acquisition and maintenance of the second generation ESR with connection to the internet for transfer of fiscal reports to the correspondence control bodies (Electronic checks from gadgets instead of cash registers URL : <https://ru.slovoidilo.ua/2018/06/19/infografika/biznes/elektronnye-cheki-gadzhetov-kassovyx-apparatov>).

It should be noted that the list of possible directions for ensuring the processes of creating and improving trade enterprises systems of logistic – small and micro enterprises – is not limited by the above recommendations, since, along with retail traders in this sector, there are also wholesale traders (the specifics of which in this article the authors did not investigate in detail), and therefore further research should be related to the deepening and systematization of scientific methodological and applied principles of formation similar systems and developing mechanisms to manage them.

### **Conclusions**

In the conditions of a transitory economy in Ukraine, the role of the small and micro-entrepreneurship sector, which provides a significant share of the gross domestic product, innovative development and creativity of the technologies of business, self-realization of the economically active part of the population and the formation of the middle class in Ukraine, is substantially increasing. The development of small entrepreneurship in Ukraine takes place in a wide variety of fields, but one of the most promising and attractive for its initiators is commercial entrepreneurship, which can be carried out both in the wholesale and retail trade of business entities – trade enterprises and individuals-entrepreneurs.

The achievement of the goals of the trade business is ensured through the implementation of the acts of sale of goods and the implementation of a complex of work on the continuous, systematic circulation of various types of goods, their movement from the sphere of production to the sphere of consumption on the basis of the flow organization, which means the enterprises trading complex of logistics activities.

The highest level of organization of the trade company logistic activity organization is achieved by providing within the limits of each subject of the conduct of trading activity and in the circuits of their interaction with other entities of the management of the system of logistics (respectively, the micro and macro-economic level), a complex production-economic and the technical and technological system, an ordered set of subsystems and elements which forms an integrated unity and interacts with the aim of achieving the objectives of the organizer of such a system (or its participant – trade enterprises) through the organization, implementation and management of logistics flows and processes necessary for the implementation of the main (for the trade enterprise – trade) activities. The features of such a system are the complexity of the structure, a clear hierarchy of relations between managerial and managed subsystems, an organizational focus on the objectives of the enterprise in the field of logistics.

The trade enterprise system of logistics is formed on the basis of a combination of the existing logistics system of the trading company and the logistics management system, the specific composition of which is stipulated by the general and logistic strategy of the enterprise, factors of the internal and external micro-logistic environment. The basis of the formation of the trade company system of logistics should be its functional model, which systematically combines resource flows and a set of main activities of the enterprise through the implementation of logistics processes in the complex of commercial and logistic activities. It is proposed within the trade enterprise to choose such a structure of the system of logistics, which will allow, using available resources, to ensure the conformity of the goods sold to the requirements of wholesale and final customers.

The study of the parameters of the development of small commercial entrepreneurship has revealed a number of shortcomings in the organization of a complex of basic and ensuring processes of small trade enterprises, related to the scale of their trade activity and the level of development of material and technical base, imperfect organization of economic relations, primitivization of the trade and technological process, and his technical support.

The revealed problems cause the need to use the latest tools for logistics management and integration into regional trading logistics systems. This requires further development of tools and techniques for implementing the logistics approach in the areas of information and trade logistics.

## References

1. Krykavskyy, Je.V., Pokhylchenko, O.A., Fertsh M. (2016). *Logistics and Supply Chain Management*. – Publishing House of Lviv Polytechnic – (Series «World of Marketing and Logistics»). – 514 s.
2. Oklander, M.A. (2004). *Logistic system of the enterprise*. – Odesa, Astroprynt,.- 312 s.
3. Sergeev, V. I. (2005) *Corporate logistics: 300 answers to professional questions*. URL : <http://biblio.royalwebhosting.net/chto-takoe-logisticheskaya-37970.html>
4. Stok, Dzh.R., Lambert D.M. (2005). *Strategic logistics management*. – M: INFRA-M, 2005, XXXII.- 797 s.
5. Cherevko, Gh. V. , Struk N. S. (2012). *Improvement of management of material and information flows of enterprises of agroindustrial complex on the principles of logistics*. – Ljviv : Ligha-Pres, 2012. – 352 s.
6. Chudakov, A. D. (2001). – *Logistics*. – M. Publishing House «RDL». – 480 p.

7. Supply Chain and Logistics Terms and Glossary. URL : [www.logisticsservicelocator.com/resources/glossary03.pdf](http://www.logisticsservicelocator.com/resources/glossary03.pdf)
8. Mitsenko, N.Gh. (2014) *Integrated systems of enterprises and consumer co-operation organizations: theoretical foundations and prospects of development.*- Ljviv : Publishing House of Lviv Academy of Commerce. – 414 p.
9. Mishchuk, I. P. (2015). *Formation of logistics systems of trade enterprises: theory and practice.* – Ljviv : Publishing House of Lviv Academy of Commerce. – 452 p.
10. Shimanovska-Dianych, L. M. (2012) *Management of the development of personnel of the organization: theory and practice.* – Poltava : PUET. – 402 s.
11. Min'ko, E. V., Min'ko A. E. (2010). *Organization of commercial activity of an industrial enterprise* . – M. : Finance and Statistics. – 608 s.
12. Kolodin, V. C. (2011). *Logistics systems in production and commercial activities / Izvestia IGEA.* – № 6 (80). – S. 99-104.
13. Boldyreva, L. M. (2014) *Formation of logistic systems as a direction of improvement of economic development / Scientific Herald of Kherson National University. (Economic Sciences).* – Vol. 7, Part 1, p.172-175.
14. Evtodieva, T. E. (2011). *Characteristic features of organizational forms of logistics in a neo-economy* – Samara : Publishing House of SSEU, 2011. – 168 s.
15. Activities of subjects of large, medium, small and microenterprises for 2017: Statistical Collection / State Statistics Service of Ukraine.- K., 2018. – 516 p. URL: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua)
16. State Statistics Service of Ukraine. URL : <http://www.ukrstat.gov.ua>
17. Transport and logistics cluster URL : <https://www.google.com.ua/search?q=Західноукраїнський+транспортно+логістичний+кластер&tbm=isch&source>
18. Electronic checks from gadgets instead of cash registers URL : <https://ru.slovovidilo.ua/2018/06/19/infografika/biznes/elektronnye-cheki-gadzhetov-kassovyx-apparatov>