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Assessing the State of Logistics and Ways to Improve the Logistics Management in the Corporate Sector of the Russian Economy

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Abstract.

The article analyzes the efficiency of the Russian logistics on the basis of data from foreign and Russian researches. The tendency of the annual decrease of the greatest part of indicators of the Russian logistics that are natural for a number of post-Soviet countries in the world rating has been revealed. There is an attempt to explain why domestic logistics lags behind the world leaders. The reasons include the crisis phenomena in the economy and its technological underrun as compared with the economy of foreign partners. The results of the sectoral analysis of the current state of domestic logistics are shown. This analysis has revealed the top priority tasks of Russian companies in the logistics area, as well as the dynamics of the main indicators of the logistics activity of Russian companies. General problems and prospects of developing logistics processes of Russian companies are defined. The introduction of innovative technologies and solutions in the logistics processes based on the automation and informatization of logistics operations has been recognized as one of the main directions of development. Stable tendencies in the development of logistics that have an impact on their efficiency are revealed. Recommendations for the sustainable development of the domestic logistics sector are given. Based on analyzing the results of the conducted audit of logistics systems of companies from various sectors of the Russian economy, low values of the efficiency index of logistic systems of the largest Russian industrial holdings are determined, and their main reasons - low level of the logistics management and unsatisfactory condition of the logistics infrastructure – are defined. Main problems in the logistics management of large industrial holdings are characterized, and the ways to solve them are offered.

Keywords: logistics; logistics processes; logistics system; logistics management; management; corporate sector

JEL Classification: C60; C69

Introduction

Today the world is going through the period of the emergence of a fundamentally new economy based on intellect, the use of information and communication technologies, total technologization of all sectors of the economy where new market, sectoral and corporate structures occur and become competitive. One of the characteristic features of the new economy is a considerable increase in the consumption volume in the society and significant minimization of the costs companies bear when producing and selling products and services. The expanding range and increase in the availability of services, goods and distribution channels cause a rapid

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increase in the consumer demand. Under these conditions, a number of advantages of traditional companies - access to customers, technologies, labor power and capital – lose their power because the new economy opens equal access to almost all resources for companies. While in the old economy, to a great degree, the companies' success was predetermined by the knowledge of local market features, the new economy completely eliminates this advantage by introducing business processes automation, products standardization, new formats of communication and data transmission.

The current state of logistics and the prospects for its development directly depend on the development of the entire national economy that undergoes deep transformational processes including those related to managerial approaches to business organization. Many long-standing principles of the top executives' work that came from the old economy - quite acceptable for their time – start breaking the business development and, based on the detailed analysis, require to be reconsidered in favor of innovative solutions, increasing the level of technology and efficiency of business processes, including logistics.

The purpose of this article is to assess the efficiency of the Russian logistics in the context of global and national tendencies, to analyze the state of domestic logistics in the sectoral aspect, as well as to identify the problems of logistics management of large industrial holdings considered as flagships of the development of the Russian national economy under new economic conditions. Special attention is paid to the scientific substantiation of approaches to improving the organization of managing logistics systems of large corporate structures.

The urgency of the work is in the empirical analysis and development of methodological approaches to solving the problem on organizing business based on the concept of logistics, as well as in the full use of its opportunities related to the production and marketing processes. The introduction of the logistics concept will ensure the harmonious progress of the whole set of business processes, increase in the efficiency of the structural units' work, reduction of overall costs, decrease in the cost of production, expanding of the client base, maintaining of the sales market, improvement of the customer service quality, and strengthening of the company's business reputation. Thus, organizing management of material flows on the basis of logistic principles contributes to a 30-50% reduction in the level of reserves, with the time of products distribution reduced by 25-45%.

1. Methods

The research was theoretically based on scientific works on a wide range of problems related to the logistics activity of companies. The authors' conclusions were based on the generalization of the distinguished approaches of foreign researchers: Bowersox Donald J., Closs David J., Donald F. Wood, Barone A., Murphy P., Wardlow Daniel L., Stock James R., Lambert Douglas M. *et al.* The analysis of practical aspects of introducing new approaches to the organization of logistics in Russian companies was based on the works of national academic economists: Golubetskaya N.P., Merzlyak A.V., Plotkin B.K., Pleshits S.G., Sekerina V.D., and Shcherbakova V.V. Scientific works of Russian scientists Gvilia N.A., Demina V.A. *et al.* were used to develop ways on improving logistics management in the corporate sector of the economy.

Along with this, the issues on organizing logistics systems of companies under the conditions of technological production and management processes do not lose their urgency and require theoretical comprehension. Besides, based on assessing the efficiency of logistics, it is necessary to clarify the problematic areas of logistics systems of Russian companies, and above all, large integrated industrial structures. In the context of the economy globalization and extending of integration relations between Russian and foreign companies, the level of developing logistics systems in integrated corporate structures should comply with standard world practices, the ones demonstrated by foreign business partners. Consequently, theoretical analysis of the world's achievements in the area of logistics efficiency and assessment of the state of Russian logistics in the sectoral aspect will make it possible to formulate offers on ways to improve logistics systems of Russian corporations.

Research results were formalized and generalized by using general scientific methods of cognition: the dialectical method, the analogy method, analysis and synthesis, and also by using special methods of empirical cognition: analysis of economic and statistical indicators, comparative analysis and expert assessments.

2. Results

2.1 External assessment of the Russian logistics efficiency

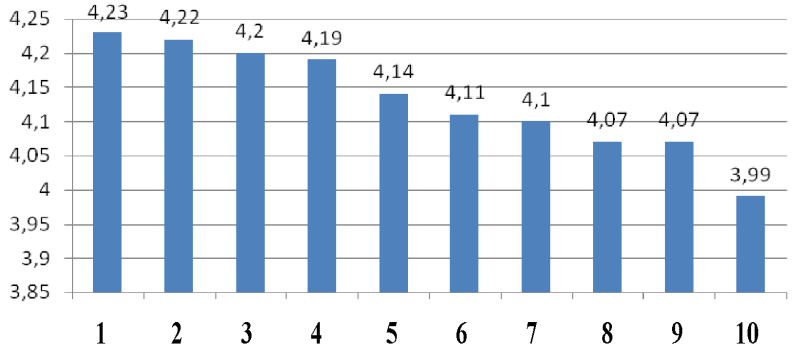
To assess the efficiency of the Russian logistics, it is necessary to turn to the results of the survey made by the World Bank's Logistics Performance Index (LPI) (Index of the Russian Logistics Inefficiency 2016). It was carried

out in 2016 and covered 160 countries. Countries in terms of logistics efficiency are ranked every two years (according to the five-point scale). Ranking is based on the results of a survey of international and national logistics companies assessing the main characteristics of the logistics system: customs clearance, the quality of the logistics infrastructure, simplicity and cost of supply, competence and quality of services, the ability to track and control cargo and deliveries frequency.

We will note that compared to other countries experts specified the worsening of the Russian position in logistics from the logistics infrastructure and to the work of the customs service. Moreover, in terms of the logistics development the arrears of our country from other countries become the annual tendency which inevitably causes the loss of customers by domestic companies.

The top ten leaders of the rating (Figure 1) include mainly European countries - Luxembourg, Sweden, the Netherlands, Austria, as well as Asian states - Singapore and Hong Kong. Germany has been confidently holding the first position since 2007. It also manages to increase the overall LPI level every year - from 4.10 points in 2007 up to 4.23 points in 2016.

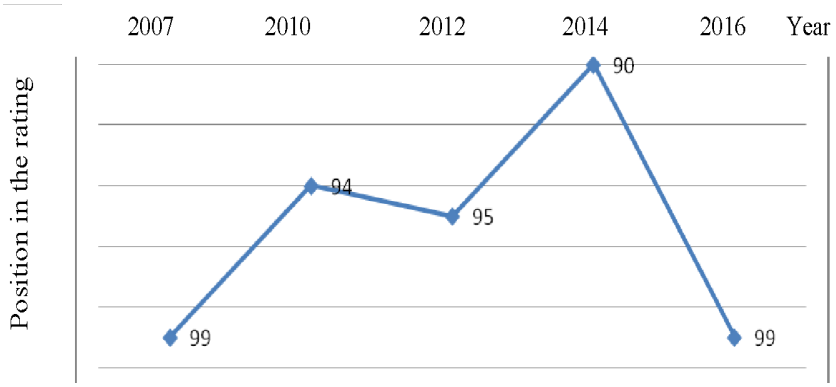
Figure 1. Countries Leading by Index of Logistics Efficiency for 2014-2016: 1 – Germany; 2 – Luxemburg; 3 – Sweden; 4 – Netherlands; 5 – Singapore; 6 – Belgium; 7 – Austria; 8 – Great Britain; 9 – Hong Kong; 10 – USA



The authors of the research note that the gap between the countries that are leaders of the rating and the outsider countries has been increasing every year. It is probably because of the political and economic instability that makes the supply chain unpredictable, increases transportation costs, and creates a lot of risks for suppliers and customers. The top ten of the worst countries for logistics include Syria with an index of 1.6, Haiti (1.72), Somalia (1.75) and Mauritania (1.87).

According to the results of 2016, Russia holds position 99 in the general list, has 2.57 points, and shares low positions with the Comoros, Nigeria, Bosnia and Herzegovina, and Iran. For the assessment to be objective, it is necessary to note the instability of the value of the Russian logistics index: as compared to 2007, in 2016 the indicator increased by 0.2 points (from 2.37 to 2.57), and as compared to 2014, it decreased by 0.12 points (from 2.69 down to 2.57). In other words, as compared to other countries in the 2016 rating, Russia returned to the position of 2007, although in 2014 it held position 90 (Figure 2). At the same time, the experts grouped the countries by their level of income and economic development, and noted that Russia had great potential among other countries of its group but it did not use its capabilities, despite of its rich natural resources.

Figure 2. Dynamics of Positions of Russia in the Rating by the Index of Logistics Efficiency for 2014-2016



The main problem that worsens Russian indicators in almost all rating criteria is still low efficiency of the customs clearance process. According to this indicator, Russia descended from position 133 down to 141 (the point estimation decreased from 2.20 down to 2.01) and is found approximately on the same level as Congo, Turkmenistan, Iraq and Eritrea. The researchers note that temporary and other expenses for border crossing are three times higher in those states that have low indicators of the customs clearance procedures as compared to the top ten countries. Besides, physical inspection of cargo is more common here which is considered an ineffective measure of customs control (Johnson, Wardlow, Wood and Murphy 1999). Moreover, not only the reform of the customs system, but also the improvement of the work of control veterinary and phytosanitary bodies are of great importance. According to the authors, the work of such bodies is often not automated, and the main emphasis is made on improving the work of only border and customs authorities.

It was noted that Russia had worsened its positions by other criteria, too. For example, the level of quality of trade and transport infrastructure decreased (in Russia this indicator descended by 17 points). The organization of international transportation and prices for it (decrease from 102 down to 115) was complicated. The indicators improved only by one criterion - the quality and competence of providing logistics services. The index itself changed slightly - from 2.74 up to 2.76 points, but Russia went down from position 102 to position 115.

Based on the analysis of the data on the time required for the international transportation of goods, Russia displayed some of the worst indicators for delivery terms. According to the respondents' estimates, shipping via sea ports and airports averages 5 days for export and 7 for import, and across the land border - 5 days for export and 14 days for import.

The time for the customs clearance as compared to the estimate of 2014 grew considerably: in 2014 the time for passing the customs without inspection was 1 day and 3 days in case of inspection, and in 2016 they increased up to 3 and 5 days, respectively. Approximately the same indicators are displayed by African countries - Madagascar, Congo, Chad, and Sudan.

The assessment of the level of logistics environment development in different countries showed that in Russia the services of seaports and airports were expensive - the high and very high levels of prices were noted by almost 90% of the respondents. In addition, another 55.6% of the respondents indicated high prices for rail transport.

The respondents did not assess the quality of the Russian infrastructure as high. Thus, 89% of the respondents rated the level of the roads development as low and very low, 56% also estimated the quality of seaports and railways.

It is important to note that in the 2016 rating of logistics efficiency Russia is not the only country that has worsened its positions. The same tendencies are demonstrated by Belarus that due to the customs clearance criterion had descended from position 99 down to 120, as well as Armenia that descended from position 92 down to 141 (due to the customs clearance and complication of the organization of international supplies). At the same time, other Russian partners in the EEA improved their rating positions. First of all, it is necessary to mention Kazakhstan that has ascended from position 88 up to 77 due to the improved efficiency of the customs clearance and improvement of the quality of trade and transport infrastructure. Kyrgyzstan also raised its rating and ascended from position 149 up to 146. Despite of the fact that its indicators had worsened by all criteria, the overall rating was affected by a strong fall in the performance of other countries.

The above results of the research are often a subject of the discussion and criticism from those who do not agree with the rating data based mainly on assessing large companies. At the same time, according to experts, worsening of the rating positions of Russia was expected due to the economic crisis and growth of the tax burden that considerably complicated the life of those who performed foreign economic activity. As a result, the Russian logistics happened to be in the state of stagnation while other countries implement IT technologies into their work, and develop new solutions.

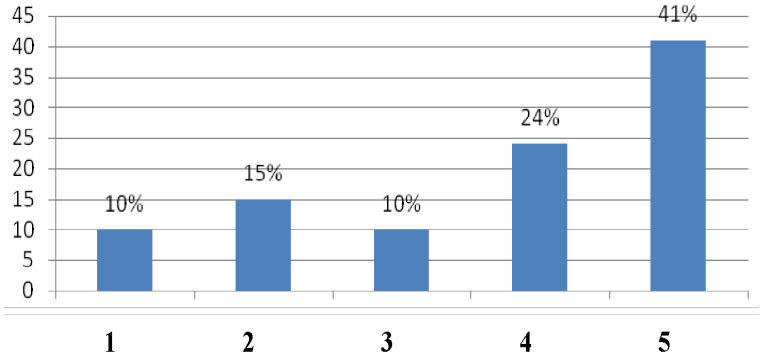
2.2. Modern state of Russian logistics: Sectoral analysis

To analyze the retrospective and to assess the current state of logistics in Russia, as well as to determine prospects for its development, we will turn to the research that was made in 2016 by the Coordination Council for Logistics, together with researchers from the Moscow Road Institute (Demin 2016) and became annual in the last 9 years. The results of the research are based on the analysis of statistical information, expert assessments, as well as data obtained by surveying managers of more than 400 productions, raw materials, trade and logistics companies in the following industries: engineering, energy and oil and gas industry, electronics and

telecommunications, goods of daily demand, food, retail trade, full outsourcing of all logistics processes, transportation, expedition, customs, medicine and pharmaceutics.

The analysis of the logistics tasks solved by respondent companies made it possible to identify the main of them (Figure 3). First of all, it is necessary to mention the introduction of management systems in companies, such as SCM, ERP, WMS, TMS, as well as the managers' focus on improving the level of logics services rendered to customers for a set of parameters - timeliness, reliability, stability, and accuracy. At the same time, the priorities of companies dynamically change every year. Thus, in 2013 the majority of companies focused on solving the top priority problem on forming their own logistics infrastructure (creation of lorry fleets, warehouses, distribution centers). The task to optimize the company's expenses was on the second place, and in 2014 it became the most important among the main directions of the companies' development.

Figure 3. Priority of Logistics Tasks in 2015: 1 – Optimization of expenses; 2 – Improvement of the customer logistics services; 3 – Creation of own objects of the logistics infrastructure; 4 – Introduction of management systems; 5 – Miscellaneous

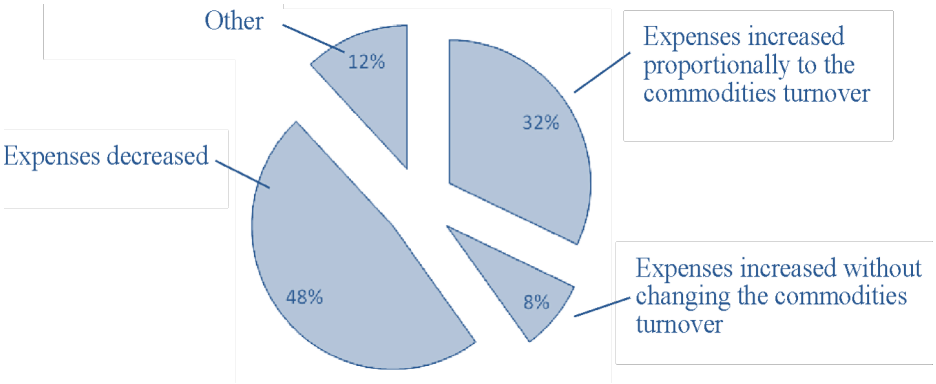


The traditional issue of the research is the change in the number of staff employed in logistics. For the first time over the recent years of the research a negative trend has been revealed. It was in 2015 when 51% of the respondent companies suffered the staff reduction. Thus, up to 20% of the staff was fired in 76% of the respondent companies; from 20% up to 40% of the staff was reduced in 16% of respondent companies, and from 40% up to 60% - in 8% of respondent companies. In 2013-2014 the decrease in the number of staff in respondent companies was considerably lower. We will note that in 2015 the reduction was related not only to employees of the operational level but also to managers. A great part of the respondents specified latent layoff in the form of considerable changes on the level of wages and other working conditions that caused "voluntary" dismissals. In the official statistics such changes cannot be identical to the term "layoff" but in most cases employers have pursued the goal of voluntary dismissal of employees when conditions changed.

According to the results of 2015, the majority of the respondent companies (60%) recorded a decrease in the volume of commodity flow, while 40% noted its increase. The shown negative indicators of 2015 were the first significant decrease in the volume of commodity flows of respondent companies since 2009. The results of the assessment made in 2014 were positive – the companies demonstrated the increase in the commodity flow despite of worsening of macroeconomic indicators. However, despite of the negative tendencies of 2015, the majority of respondents (76%) were optimistic about the nearest and medium term and planned to considerably increase the volume of the commodity flow within 1-2 years. At the same time many companies consider the crisis phenomena in the Russian economy, above all, as an opportunity to expand their market share by strengthening their own competitive advantages and weakening the competitive positions of other actors of the industry.

Along with the decrease in the volume of goods flow, 48% of respondents noted that in 2015 logistics expenses had been reduced (Figure 4).

Figure 4. Changes of Expenses for Logistics in 2015



The estimation of logistics expenses in the products cost allowed stating that in 31% of cases their value is on the level of up to 5%, and 29% of respondents noted the level of logistics expenses from 5 to 10%. According to the research, 45% of respondents indicated that the maximum expenses in the logistics system were allocated to transportation, storage and handling, and 35% of respondents noted that customs clearance made up the minimum expenses.

The majority of respondents noted that in 2016 they intended to increase the volume of using services of logistics operators (46%) or would start using them (9%). However, the majority of respondents also noted that there were a number of problems that prevented from constructive cooperation with logistics operators. The main problems are the following:

- low quality of the provided logistics services in the form of the non-compliance with the terms of services provision, the lack of prompt feedback, the untimely response to inquiries, the under-use of the full potential of cargo flows control systems,
- frequently changing service rates after concluding the contract,
- low transparency of price formation,
- unwillingness to implement new it solutions,
- stagnancy of the approach to forming offers on servicing companies with non-standard goods, *and*
- uneven development of the regional infrastructure, which causes different levels of service quality throughout the whole supply chain.

A considerable number of the respondents (81%) specify the introduction of innovative technologies and solutions into logistics processes as the main direction of the company's development. These are implementation of control systems for processes automation that make it possible to reduce their labor intensity and minimize the risk of a human error, implementation of advanced technologies in organizing the work of warehouse units by increasing the products' storage density, speed and accuracy of operations, the implementation of technologies in transportation to improve control and operative administration by moving transport in the context of multifactority of tasks.

The majority of companies (46% of respondents) set the following main task for the nearest two years: to improve the level of logistics service for customers. 21% of the respondents plan to focus their efforts on optimizing expenses and implementing management systems.

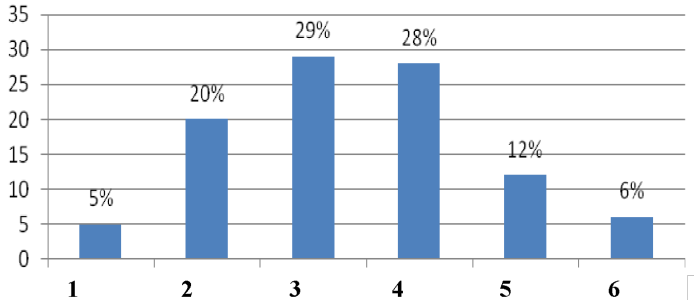
According to the respondents, the optimization of logistics processes is possible on the basis of a comprehensive approach that integrates the automation of logistics processes (SCM, WMS, TMS, *etc.*), use of outsourcing, introduction of the "Lean Production" concept and innovative technologies, motivation of personnel to improve labor productivity, development of new transport and technological schemes, and centralized management of goods distribution and infrastructure.

The participants of the research noted that the recent years had also seen stable tendencies in the development of logistics (Figure 5), which had a great impact on the efficiency of processes and would continue their impact in the future. The respondents specified the following tendencies:

- Optimization of expenses throughout the supply chain,
- Increase in the customers' requirements to logistics services,
- Improving the quality of PL providers' work,
- Increase in the volume of high quality logistics infrastructure, implementation of TMS and WMS management systems,
- Reduction of import,

- Introduction of new KPI for better control over the situation,
- Surplus of warehouses,
- Control over expenses at all stages of the logistics chain, and
- High competition among carriers.

Figure 5. Main Tendencies in Logistics for 2014-2016: 1 – Outsourcing; 2 – Improvement of PL providers' work quality; 3 – Optimization of expenses in the whole supplies network; 4 – Introduction of the WMS system; 5 – Customized approach to a customer; 6 – Frequent changes in the geography of cargoes transportation



Summarizing the results of surveying respondents and taking into account the opinion of the expert and scientific community (Sekerin 2011, Shcherbakov and Merzlyak 2013), it is possible to identify the main problems affecting the efficiency of logistics processes in the country. Among numerous problems it is necessary to specify the following: instability of the macroeconomic situation on the national and global level; sanctions restrictions and their consequences in the form of the turnover decrease; difficulties in approbating the "Platon" system; low level of professional training in logistics; decrease in the level of consumers' and clients' payment capacity; unsatisfactory condition of the logistics and road infrastructure; low level of the cargo safety; high cost of the borrowed funds; low demand for electronic document management in companies; and lack of established rules and standards for the organization of logistics business processes.

Thus, based on the results of the research, it is possible to formulate the main recommendations that are urgent for the sustainable development of the logistics sector. First of all, this is the formation of professional competencies of specialists involved in logistics processes; the relation of KPI to staff motivation; improvement of data quality; introduction of a system of normative-reference information, tariffing logistics operations; comprehensive automation of logistics processes; introduction of "Lean Production"; and optimization of parameters of goods flows and stocks (turnover, irregularity, frequency of lots).

2.3. Problems of logistics management of large industrial holdings and ways to solve them

According to the results of international (Wood, Barone, Murphy and Wardlow, 2002) and Russian researches (Plotkin and Pleschits 2016), the state of logistics systems in Russia does not comply either with the best practitioners or today's requirements. Such statement makes it urgent to raise the issue on improving the efficiency of logistics processes in Russian companies, first of all, in corporate sector companies because they are the first to suffer difficulties when conducting logistics operations on the international market and often in the country. Thus, large industrial holdings of the oil and gas industry, metallurgy, and the chemical industry hold position 10 among 12 different sectors of the Russian economy. They are between the machine-building industry and the agricultural sector and far behind pharmaceuticals industry, aircraft manufacturing, production of auto components and consumer goods.

The audit of logistics systems of a group of the largest Russian industrial holdings (Demin 2015) led to understanding the main reasons for such a low indicator. They can be conditionally structured into 2 groups: a low level of logistics management and unsatisfactory state of the logistics infrastructure. We will analyze the main problems of the logistics management of large industrial holdings and define possible ways to solve them, which can considerably increase the efficiency of the entire company.

The key performance indicators used to assess the state of the companies' logistics management (Bowersox and Closs 1999) include the level of general logistics expenses and the level of logistics service. Both parameters are defined by calculating the low-level performance indicators. Thus, the level of general logistics expenses is assessed by calculating expenses indicators: by types of activity, by separate nomenclature groups, by reducing to the cargo unit, by the location of formation in the logistics chain (purchases, warehousing, transportation, *etc*.) (Beamon and Ware 1998). The integrated assessment of these indicators has a critical

impact on the general index of logistics systems efficiency in large industrial holding structures that show the low quality of their logistics. Due to this, it is important to define the main reasons of this situation.

First of all, the main reason for the arrears of large industrial holdings according to the general index of logistics systems efficiency is the insufficient level of professional competence of logistics specialists in these companies (Veselovsky, Abrashkin, Aleksakhina and Pogodina 2015). This problem is the most typical for large holding companies of the oil sector and the metallurgical industry. They turn out to form the most conservative segment of the domestic economy. This statement is based on the revealed high degree of resistance to any kind of innovations offered by the operating staff and management of the middle management level. Thus, during the audit it was revealed that in a considerable number of enterprises employees openly criticized on the current difficulties in their divisions and explained them by the low level of their achieved indicators. However, when discussing the introduction of innovative approaches to solving problems, these employees demonstrated strong resistance and referred to the accumulated industry experience (Innovative Management of Logistics Systems, 2010). As a result, the level of managing supply chains and internal logistics of the company slightly exceeds the one that used to be 3 decades ago. Only some logistics processes can be estimated as close to the standard practice. Even considerable transformations made in the organizational structure, modernization of infrastructure and management system that require large investments do not give the expected result. For example, the functionality of such control systems as SAP is often used by 10 to 15% and is reduced mainly to accounting goods distribution and does not cover management and automated planning (Gvilia 2014).

Among the main problems found in the logistics management of large industrial holdings, first of all, it is necessary to single out the problems related to managing the parameters of material flows. Table 1 shows characteristics of these problems (Demin 2015).

Table 1. Problems in Logistics Management of Large Industrial Holdings

Ser. No.	Problem	Characteristics and the impact on the logistics system	Offered ways to solve
1.	Unbalanced interrelations of counteragents in the supply chain	Low level of consistency that is characteristic of the interaction of counteragents and structural subdivisions of the company, reduces the stability and reliability of the supply chain, and increases operating costs.	Implementation of a supply chain management system based on the mechanisms of synchronization and informatization of logistics processes
2.	Unreasonable planning of logistics processes without using standardized information about material flows	Wide nomenclature (tens of thousands titles) of the production holding and, along with this, the many companies' lack of reference books of commodity-material values that include weight dimensions, cause a sharp decrease in the quality of management and planning of logistics processes.	
3.	High irregularity of material flows	In large industrial holding structures, the coefficient of irregularity of material flows is 4, which is much higher than that in other industries. This coefficient is inversely proportional to the load of the service aggregates (transportation means, production and storage equipment, *etc.*) needed to promote and process the material flow. Thus, if the material flow irregularity factor is 4, the load factor of the service aggregates will be 0.25. It points at the load within 25%, and 75% of the resources are not involved and are in the holding mode.	
4.	Inconsistency of the reserves level with the period of turnover	In the reality ensuring the reliability of the supplies chain is often limited to the creation of such stocks, where the volume is not comparable to the actual needs. In the course of logistics audit, the stock often reveals considerable inventories that have been unclaimed for 1-2 years. At the same time, expenses for maintaining the stock cause a significant increase in the overall logistics expenses. At the same time, the deficit of stocks causes even higher losses. Therefore, it is necessary to balance the excess and deficit of stocks.	Implementation of a stock management system to determine the optimal stock size that is sufficient for uninterrupted production activities and includes the safety resources stock

5.	Groundlessness of decisions on the frequency and size of the lots to be accepted and shipped	One of the reasons for increasing labor intensity and resource intensity is the groundlessness of making decisions on the frequency and size of the lots to be accepted and shipped. Thus, the cost of shipment of 1 m^3 of products from a warehouse will cost the enterprise: about RUB 80 as the whole pallet and up to RUB 800 as individual units.	Feasibility of decision making by calculating the periodicity and optimality of the size of lots to ship, taking into account the needs of end users and total operating costs.
6.	Inefficient configuration of the company's logistics network	Increase in the level of risks in the network structure of supply chains and the growth of operating expenses occur due to the ungrounded decisions on the number and location of suppliers, warehouses, service centers	Use of modern simulation and virtual technologies in modeling the logistic network of the enterprise
7.	The lack of a link between staff motivation and key performance indicators	Increase in expenses and decrease in the level of reliability of the company's logistics system arise from the biased and ungrounded nature of decisions that do not take into account the relation of the staff motivation and key performance indicators	Implementation of a balanced system of staff motivation that takes into account the assessment of key performance indicators and the company's expenditure budget

The survey of problems in the area of logistics activities of large industrial holdings allows us to confirm that their common determinant is the low competence of personnel. Therefore, the improvement of the professional training, first of all, that of decision makers on a wide range of logistics issues will eliminate the existing problems and bring the efficiency of logistics of large industrial holdings to the level of the most advanced industries in this respect. To do this, it is possible to use the following options: to attract new highly qualified specialists to key positions or to improve the level of professional competence among working employees.

The implementation of the first option can be considered as little feasible because in the context of high competition among employers for highly professional specialists, the number of the latter remains limited. Moreover, the entry of a new specialist into an established team that has its own corporate culture often comes with strong opposition to adopting and implementing the offered solutions. In this situation one such new specialist, even highly competent and having powers of the head of a structural unit, is often unable to establish a more efficient operating procedure (Fombrun and Stanley 1990).

It is necessary to recognize the second option as more efficient because it makes it possible to systematically assess the existing problematic area of the company's logistics, to formulate solvable tasks on the basis of using the existing HR potential of the company. To implement this option, it is necessary to carry out rapid diagnostics of the company's logistics system, to define the most acute problems, to prioritize tasks to eliminate or minimize the negative impact of critical factors on achieving high logistics and company performance (Stock and Lambert 2001). In addition, it is necessary to certify personnel to identify "problem areas" in the competence of each employee. The next step should be the organization of corporate training in the form of trainings, seminars, internships and other accessible forms. It will allow shortly changing the mentality of employees that has been developed over long years of work in terms of the methods and techniques used, and mastering and efficient implementing innovative methods and technologies of work, using the company's existing and previously rejected tools.

Thus, the improvement of the efficiency of logistics processes should be based on critical analysis of the achieved indicators, description of the problem area in logistics, the choice of optimal solutions for the company, with the systematic and continuous improvement of the competence of all employees of the company as one of them.

3. Discussion

In the era of globalization, increasing production in the European Union, the North American continent, the Asian region and growing cargo flows between them, the quality of Russian logistics management (Dahlgaard-Park 2011) is more and more important. Above all, it is related to the corporate sector that is more integrated into the world economic space.

The conducted research and the results of scientific researches made by a number of scientists (Kyj 1987, Seth, Geshmukh and Vrat 2005) revealed a number of modern tendencies of the customer-oriented logistics that were typical for the Russian and global markets. First of all, it is necessary to single out the following:

- growth of mass goods flows that requires "door-to-door" delivery,

- improvement of the customers' requirements related to the low level of tariffs, delivery time, efficient use of vehicles during operation, maintaining the safety of goods and their quality when transporting and performing the entire range of operations (reloading, transshipment, storage) of the loads' movement,
- steady need of clients both for transport services and for comprehensive logistics services, and
- customers' requirements to quickly provide information about the order status and the cargo location when it is being moved.

The compliance of logistics with the modern trends requires implementation of new innovative approaches to organizing logistics processes. One of them is the introduction of electronic forms of interaction that corresponds to the tasks of forming e-economy in Russia (Veselovsky, Gnezdova, Romanova, Kirova and Idilov 2015). The electronic type of running business becomes a new philosophy of a large corporate sector that requires serious modernization of the management system within the company. The electronic basis of business that covers the logistics system is now interpreted as the most important asset of the company. It makes it possible to manage all its resources (human, financial, marketing, *etc.*), to model opportunities and development scenarios, to support decision-making, to use a wide range of analytical tools, to improve the customer service and to reduce expenses, to identify new distribution channels, as well as to go beyond the boundaries of the company – to manage supply chains and customers (Sawhney, Wolcott and Arroniz 2006). For Russian companies that have a low level of logistics systems informatization, the transition to the e-business model is a difficult but at the same time vital task, with the solution that allows achieving and maintaining the competitive state of the Russian economy in the global technological economic space.

Conclusion

In the context of deep transformations of the national economy that affect, first of all, its technological basis, as well as its integration into the global economic space, the issue of Russian companies' survival under the new economic conditions is urgent. Above all, this problem affects the domestic corporate sector, namely large industrial corporate structures that experience a high level of competition on the technologically developing global market. The survival success and sustainable development of corporations are determined by a combination of factors produced both by the external business environment of the company and its internal situation. In the group of internal factors of the company's success it is necessary to recognize one of the most important ones. This is the rationality of constructing a logistics system that can link together and improve the efficiency of the interaction of basic functional areas of the business organization - supply, production, marketing, distribution, and sales organization. At the same time, well-organized logistics management can solve a wide range of problems related to the synchronization and informatization of logistics processes, optimization of the reserves management system, the feasibility of management solutions, the introduction of electronic logistics operations and a balanced staff motivation system.

References

[1] Beamon, B.M. 1998. Ware T.M. A process quality model for the analysis, improvement and control of supply chain systems. *International Journal of Physical Distribution and Logistics Management,* 28: 704-715.

[2] Bowersox, D. J. and Closs, D.J. 1999. *Logistics Management: The Integrated Supply Chain Process.* New York: The McGraw-Hill Companies, pp. 635.

[3] Dahlgaard-Park, S.M. 2011. The quality movement: Where are you going. Total Quality Management. *Special Issue: The Best of Europe*, 23(5-6): 453-516.

[4] Demin, V.A. 2015. Otsenka effektivnosti logisticheskogo menedzhmenta krupnykh promyshlennykh kholdingov [Assessing the Efficiency of Logistics Management of Large Industrial Holdings]. *Logistics,* 1 (98): 50-53.

[5] Demin, V.A. (n. d.). *Razvitiye logistiki v Rossii: sovremennaya situatsiya, prognoz, klyuchevyye zadachi i prioritety kompaniy* [Logistics Development in Russia: Current Situation, Forecast, Key Tasks and Priorities of Companies]. Available at: http://www.rostransport.com/article/11851/. (accessed September 30, 2017)

[6] Fombrun, C. and Stanley, M. 1990. What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33 (2): 233-258.

[7] Gviliya, N.A. 2014. *Funktsional logistiki v vertikalno integrirovannykh korporatsiyakh* [Functionality of Logistics in Vertically Integrated Corporations]. *Bulletin of the ASTU. Series: Economy*, 3: 104-108.

[8] *Indeks neeffektivnosti rossiyskoy logistiki – 2016 [*The Index of Inefficiency of Russian Logistics - 2016]. Available at: http://xn--b1ae2adf4f.xn--p1ai/economics/logistics/39078-indeks-neeffektivnosti-possiyskoy-logistiki-2016.html. (accessed September 30, 2017)

[9] *Innovatsionnyy menedzhment logisticheskikh sistem: kollektivnaya monografiya.* [Innovative Management of Logistics Systems: Collective Monograph]. Executive Editor Doctor of Economic Sciences. (2010). Saint Petersburg: Publishing House of the St. Petersburg Academy of Management and Economics, pp. 368.

[10] Johnson, J. C. 1999. *Contemporary Logistics* (7th Edition). New York: Prentice Hall, pp. 586.

[11] Kyj, M.J. 1987. Customer Service as a Competitive Tool. *Industrial Marketing Management,* 16: 225-230.

[12] Plotkin, B.K. 2016. *Stanovleniye i sovremennaya transformatsiya logistiki* [Formation and Modern Transformation of Logistics]. Saint Petersburg: Publishing House of St. Petersburg State Engineering University, pp. 150.

[13] Sawhney, M., Wolcott, R.C. and Arroniz, I. 2006. The 12 different ways for companies to innovate. *MIT Sloan Management Review,* 47 (3): 75-81.

[14] Sekerin, V.D. 2011. *Logistika* [Logistics]. Moscow: KNORUS, pp. 240.

[15] Seth, N., Geshmukh, S.G. and Vrat, P. 2005. Service quality model: A review. *International Journal of Quality and Reliability Management*, 9(22): 913-949.

[16] Shcherbakov, V.V. and Merzlyak, A.V. 2013. *Informatsionnaya logistika v teorii i biznes-praktike* [Information Logistics in Theory and Business Practice]. Scientific Editor Doctor of Economic Sciences. Saint Petersburg: Publishing house “Petropolis”, pp. 190

[17] Stock, J. R. and Lambert, D. M. 2001. *Strategic Logistics Management* (4th Edition). Boston: McGraw-Hill/Irwin, pp. 872 p.

[18] Veselovsky, M. Y., Abrashkin, M. S., Aleksakhina, V. G., and Pogodina, T. V. 2015. Features of State Regulation of the Economy in Terms of Its Transition to Innovative Way of Development. *Asian Social Science,* 11(1): 288-296.

[19] Veselovsky M. Y., Gnezdova J. V., Romanova J. A., Kirova I.V. and Idilov I. I. 2015. The Strategy of a Region Development under the Conditions of New Actual Economic. *Mediterranean Journal of Social Sciences,* 6(5)3: 10-317.

[20] Wood, W. *et al.* 2002. *International Logistics* (2nd Edition). New York: AMACOM, pp. 457.

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