

**Lesson number 15.** Development of logistics business processes in modern conditions

**Purpose of the lesson:**

explore the development of logistics business processes in modern conditions

**Key words:** modern conditions, controlling business processes, supply chains

**Main questions:**

1. 3PLs providers
2. 4PL providers
3. "Kanban" and "Just in time"
4. The pricing problem
5. A rule, contain certain stages:

Currently, there is a tendency towards the development of logistics systems within a particular region. These tendencies dictate changes in the regional market for logistics servicing of commodity flows, first of all, the expansion of the range of services offered. Foreign authors D. Bowersox and D. Kloss talk about logistics as a process of meeting the need for the usefulness of time and place [1].

Undoubtedly, logistics caters to consumer inquiries related to the time and place of availability of products, as well as related services. The use of forms and methods of modern logistics is designed for productive, socially oriented and "transparent" forms of business and entrepreneurship - socially useful and legitimate forms and methods of management. The greater the degree of discrepancy between the group and personal interests of employees of enterprises, infrastructures and public ones, the more problematic the prospects for the logistics of such systems. Features of logistics business processes and logistics management in modern conditions The innovative development of the economy involves not only the use of new production technologies, but also new methods of decision-making and the rapid implementation of all management operations. There is an objective need to understand and study the essence of the role of logistics services for the Russian economy and, first of all, progressive forms of logistics service organizations and innovative methods of its management in the context of globalization of economic processes [2].

The introduction of modern logistics management at the enterprise helps to reduce costs and improve the quality of supplies - a decisive competitive advantage in the Russian market. Customer service is one of the most important functions of logistics. It is this function that gives meaning to the logistics concept not only at the distribution stage, but also in general. In this regard, outsourcing is becoming more and more widespread in world practice. In order to determine the feasibility of outsourcing a particular function, you need to consider it from the standpoint of four aspects: strategic focus, operational ability, financial benefit and opportunities for improvement within the enterprise. The concept of outsourcing is that there is no

need to use your own resources to organize logistics operations, which the company can entrust to an external partner, including transport organizations. The development of the logistics outsourcing market is influenced by four main factors: - the globalization of supply and distribution networks and the globalization of trade. Interregional and international cooperation between companies has contributed to the complexity of logistics supply chains. In this regard, the emergence of logistics providers is an important factor in improving the management of international logistics, especially for companies that do not have the necessary experience and competencies; supply chain management (supply chains).

ZPL providers can provide the necessary logistics resources without additional costs for salaries, maintenance of the automobile economy, storage facilities; - consumer pressure. One of the success factors for effective supply chain management is meeting the growing demands of buyers for order fulfillment and delivery; - the use of outsourcing as a business model of the organization. Typically, logistics providers (3PLs) acted as commercial organizations that provide services in the field of logistics, perform individual operations or complex logistics functions, and also carry out integrated management of the supply chains of an enterprise - a client. In logistics, there are many complex activities that can be outsourced, such as: management of incoming material flows, inventory management, packaging, transportation, just-in-time delivery, etc.

But before transferring this or that function to outsourcing, it is necessary to analyze all aspects of the enterprise, which will be affected by the transfer of functions (for example, control of supply chains, seasonal fluctuations in demand for products, etc.). As a rule, companies outsource important logistics functions (activities) and customer-oriented activities, as well as functions that are largely related to the transportation of goods and information technology. The growing expectations of client companies regarding the complexity of the services provided, the use of information technology, the individualization of logistics solutions and the improvement of the entire logistics chain of the enterprise, leading to an increase in the company's competitive advantages, contribute to the integration of logistics providers (through mergers / acquisitions).

The new type of providers became known as 4PL providers. Logistics providers are not only teaming up with similar companies. Many of them are joining forces with consulting companies and information technology providers. The 4PL provider is the integrator of the entire logistics chain of the enterprise. It manages its resources, capabilities, technologies and resources of value-added service providers, providing a complete and comprehensive solution to the company's logistics chain. The key to his success is to provide the best solutions for the client company, based on the achievement of the appropriate level of 3PL providers, technology providers and business process managers cooperating with him [3].

The 4PL provider provides a combination of strategic supply chain management and operational management of implementation and implementation of strategic decisions. Moreover, a high level of services for the end customer is achieved by increasing the technological level of consultants, information technology providers and 3PL providers. Revenue growth is achieved by improving

product quality, product availability and customer service through the use of leading technologies. As 4PL providers focus on managing the entire supply chain, significant improvements in service quality can be achieved. A 15% reduction in operating costs can be achieved through improved operating efficiency, process expansion and reduced supply costs by fully outsourcing supply chain functions. Thus, although the concept of outsourcing has been developing for quite a long time and the outsourcing market is estimated at many billions of dollars, in Russia not enough attention is paid to it. Based on the above trends, we can conclude that the logistics market, and, in particular, logistics outsourcing has a powerful potential for development, both abroad and in Russia for the formation of new forms of economic management, in particular the formation of clusters in the transport industry. ... The proposal of a package of transport services is preceded by a study of the needs of the customers. In recent years, special logistics centers and other structures have begun to study needs in the transport of a number of industrialized countries. The purpose of the proposals being prepared is to ensure: an increase in the level of transport performance; observance of the terms of delivery of goods; increasing the reliability and regularity of transportation; safety of goods, etc. [4]. On the railways of developed countries, there are other organizations that provide logistics services in accordance with market requirements, for example, forwarding organizations that are responsible for the delivery of goods, including transportation from supplier to consumer, even in cases where the goods are transported in mixed messages. Currently, in order to improve the quality of customer service, forwarding organizations are building new terminals, which will have workshops for the maintenance of heavy vehicles. It is planned that some terminals will have their own railway line, and in order to reduce the time for customs formalities, it is planned to put into operation an electronic customs control system. It became very important for transport companies to exchange data on consignment notes from the consignor's computer to the carrier's computer and then to the consignee's computer, as well as the electronic transfer of securities, information about the location of goods and some other information. The distribution of production, supply and distribution programs that work strictly on schedule ("Kanban" and "Just in time") is the result of improving the methods of producing goods and delivering them to the market. The interrelation and interdependence of all logistic elements, including transport, necessitated an integrated approach to their further development, on the basis of which innovative transport systems for the collection and distribution of material products were formed. The emergence of regional transport companies on the market for collecting and distributing goods and transporting them to trade zones has reduced the competitiveness of industrial firms that own distribution centers and traditional transport organizations for the delivery of goods in small consignments. The latter, just like the trucking companies providing long-distance transportation, were forced to resort to more differentiated types of service. In addition, the new regional organizations for the collection of goods, having established their own prices and service standards, began to offer specialized services in this area of activity, aimed at satisfaction, information service, placing orders for production. In the near future, universal logistics companies will become the main form of

organizing intermediary and transport systems in many countries. Among the prerequisites of the organizational and economic plan influencing the formation of logistics service systems, it is necessary to highlight the strengthening, on the one hand, of competition, on the other, of the integration processes of the organizational structures of the business; increasing the number and changing relationships between product manufacturers and their business partners. It is important to take into account that the nature of competition is also changing, there is a transition from the competition of individual enterprises to the competition of unions, alliances, groups of enterprises in distribution.

The introduction of logistics service systems will optimize the profit of business partners. The emergence of a large number of commercial, trade, transport, forwarding, warehouse, information and other contractor enterprises entailed the complication of market relations, both between them and between manufacturers, contractors and consumers of products. This, in turn, requires the search for new forms of management, relations of coordination and integration of business partners - the formation of clusters of the transport industry, which can be successfully implemented in logistics service systems of various levels. The fundamental factor for the formation of logistics service systems is the factor of effective satisfaction of consumer requirements. The growing role of ensuring the required level of service, the tightening of consumer requirements for the level of service quality, stimulates the optimization approaches of specialists of manufacturing enterprises and contractors to the production and delivery of products. The effective implementation of such approaches is possible only on the basis of the synthesis of logistics service systems. increasing the efficiency of the entire logistics process, prevents overhead and duplication of actions [1].

Indeed, the implementation by the channel participants of scientifically based principles of forming stable partnerships, interaction marketing and integrated logistics allows you to get all the benefits from long-term cooperation, to flexibly and quickly solve all arising problems, to carry out joint actions on the quality of service and the level of customer satisfaction [5].

Research and surveys conducted among business structures show that the functions of joint activities of customers and suppliers (over 81%) should be integrated into SCM (Supply Chain Management). Finance (32%), sales (32%) and product development (24%) occupy a relatively smaller percentage of the integration of functions. In fact, in organizational terms, it is necessary to take into account and predict global trends in management development, which are dictated by the need for adaptation and the company's competitiveness in the global economic space. Thus, attention is paid to the fact that the elements of SCM are the corresponding structures that are interconnected by material, information and financial flows, moreover (companies) that are engaged in the extraction and processing of raw materials, manufacturing companies, retail and wholesale and end consumers.

In an effort to reduce logistics costs, many companies are introducing concepts to optimize flow, inventory, time and, accordingly, costs, which leads to a decrease in the reliability and stability of the chain, as the vulnerability factor and the possibility of disturbances and deviations increase. These concepts are focused

on the information integration of enterprises in order to synchronize and update data on needs and stocks in chains, lead to an increase in the complexity of logistics business processes. Progress in supply chain management is largely associated with the study of supply chain uncertainty, which was a logical continuation of scientific developments on the problems of integration in supply chains, the creation of the concepts of "seamless" material flow and "lean manufacturing" focused on reducing uncertainty in the supply chain. Uncertainty (lack of information) occurs along the entire value chain. When considering the main functional areas of business organization, four main areas of uncertainty can be distinguished: production processes (business processes), supply, demand (distribution) and controlling. This decomposition will allow you to cover the entire value chain: product and prevent the emergence of uncertainty in a timely manner. The emergence of uncertainty in the company's production processes has a negative impact on the organization's ability to deliver products on time. The level of uncertainty can be set based on an understanding of the output parameters of the processes and the expected timing of operations (delivery). Also, if the delivery process of a particular product competes with other value-adding processes for resources, then the interactions between these processes should be studied and described. The tendency is that, as a rule, the territorial management of supply chains is outsourced - it is economically profitable. An important problem in the supply chain lies in the imperfect relationships between companies, leading to an increase in the price of the final product, which loses its price advantage over the competitor's product. Another problem is the incorrect ratio of costs and benefits.

The pricing problem can arise from partner pricing pressures. Therefore, we have to start looking for new partners, which implies new costs. Assessment of reliability and control of the supply chain In the supply chain, individual logistics functions, since they are outsourced, cannot be controlled and participate in logistics monitoring in the costs of the full value chain (the outsourcing company is interested in making its own profit, thereby increasing the total costs and price of products to service the end consumer); there must be a financial border beyond which it is impossible and economically unprofitable for an intermediary to go out, risking losing clients. In this regard, controlling is of great importance, which implies the implementation of information and analytical support for decision-making in management. Providing management with information about the current state of affairs of the company and forecasting the consequences of changes in the internal or external environment. In modern conditions, the ERP system is relevant - the system

The world trend in the market of logistics services is the creation of secure supply chains. This problem remains one of the key ones in the business management system. The international supply chain is the process from the production of export-oriented goods to their delivery to the recipient. This chain involves the manufacturer of the goods, exporter, forwarder, warehouse owner, customs representative, carrier, importer. In this regard, it can be said that the supply chain is a resource planning corporation, proposed by the analytical group Gartner Group. In a highly competitive civilized market, it is necessary to use CRM systems

- customer relationship management, since the main focus of organizations is not products, but customers. Currently, the emphasis in resource planning for logistics service organizations (based on ERP systems) is shifting to supporting and implementing supply chain management (SCM systems), customer relationship management (RM systems) and e-business (e-commerce systems) ... Thus, the tasks solved by controlling in the practice of economic activity in the context of integration processes, in our opinion, made it necessary to supplement the tasks of controlling with tasks in the field of logistics, and the supply chain is reliable as much as its weakest link is reliable, and it is often the logistics part or its elements are not reliable enough.

However, until recently, many Russian trading and manufacturing companies independently performed the functions of delivery, storage and customs clearance. This was due to the lack of quality logistics service offers. When designing and evaluating the supply chain, it is necessary to determine the utility function of the outsourcing organization. In practice, each organization can choose its own methodology. Experience shows that they may differ from each other, but, as a rule, contain certain stages:

1. Evaluation of alternative options for supply chains according to the parameters of groups of logistics business processes. For each parameter of the assessment of the alternative supply chain, the values of the membership function are determined, on the basis of which the morphological matrix is built and the general membership function is determined for each group of logistic business processes. Based on the matrix of fuzzy relations by the operation of intersection of fuzzy sets. An alternative option is evaluated, in which production (transportation, warehousing) is distributed among several links of the logistics chain, a morphological matrix is built separately for this option, and the values of the membership function for each parameter for each link separately are reflected.

2. Selection of the optimal supply chain option based on the criterion of optimality. Based on all the results of evaluating alternative options for logistics business processes, a final morphological matrix is formed, the rows of which are the general membership functions for each group of logistics business processes. Based on the maximum value of the obtained utility function, the optimal supply chain option is determined and logistics business processes are optimized

### **Questions**

1. Who are 3PL providers
2. What is special about 4PL providers
3. Describe the use of "Kanban" and "Just in Time"
4. What is the problem with pricing
5. Tell us about a rule that contains certain stages

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