

**Ramanauskas Julius,**  
**Doctor of Habilitation, Professor of Management**  
*Klaipeda University (Klaipeda, Lithuania)*

**THEORETICAL ASPECTS OF THE SUPPLY CHAIN  
MANAGEMENT SYSTEM**

Nowadays logistics have contributed to the development of global trade. Due to new trends, logistics providers, both globally and locally, are forming influential partners to manage and deliver supply chain services that help manage information and data before or with the flow of materials and goods [1].

S. Chopra, P. Meindl, K. Rutkowski, T. Nakonechna and A. Rodnikov were engaged in research of theoretical approaches to definition of the concept of «supply chain». They believe that “the supply chain is made up of all involved parties, which act directly or indirectly, when executing a customer request. In every organization where the company is a product manufacturer, the supply chain includes all the functions associated with receiving and completing a customer request (new product development, marketing, operations, distribution, finance and customer service).”

Menzer believes that there are three degrees of complexity in the supply chain: the simple supply chain, the extended supply chain, the final supply chain. The final supply chain includes all organizations involved in all flows of goods, services, finances and information from end suppliers to end consumers. In addition, the final supply chain covers functional intermediaries such as research firms, financial and logistics providers. The supply chain may have varying degrees of complexity associated with the number of members and the diversity of business processes, but it is always a central organization. This organization can manage the entire supply chain, and even if its organization is not perfect, the supply chain exists as a fact in the business environment [2].

Demand-oriented supply chains must operate as tightly integrated networks. All stakeholders need appropriate visibility into what consumers want and what they buy – for example, materials inventory decisions need to be aligned with demand signals

that can change very quickly. The supply chain is not linear: all parties need an understanding of real-time consumption and new purchasing patterns. DCM emphasizes that consumers, not businesses, operate a demand-chain management system, which means companies need complete, accurate, and out-of-the-box visibility of customer trends – a «pull-out» technology that differs sharply from the traditional commodity-based «chain» on incomplete and possibly inaccurate market valuations.

Today there are two types of logistics systems – «push» and «pull». The first system envisages «ejecting» a previously scheduled batch of tangible objects into subsequent operations (processes) and it cannot predict the amount (volume) of these objects at a given time. The «pull» system has the opposite principle of action. If the «ejection» system receives at the «output» what is included at the «inlet», in the «extrusion» system the business process includes what is required at the «output». In practice, this means that in the latter case, the objects in the material flow arrive at the right amount at the right time [3].

One of the most promising models for strategic supply chain decision making is known as the SCOR modeling system. 70 leading industry members, distributors, and solution providers have developed a management tool that is not suitable for a «reference supply chain operations model».

The SCOR model is a process designed for waste evaluation, standards setting and continually improving. It is a recurring structure of ongoing engagement and discovery designed to describe all the business operations involved in the stages of customer satisfaction.

The SCOR model does not attempt to explain every business process or activity. As with all business models, there is a specific area to which the SCOR model applies, including the following segments:

- interaction with the client: the whole process of customer relations, from entering the order through a paid account;
- product agreements: the entire product, from the supplier to the client of the customer, including equipment, consumables, bulk products, etc.;

- interaction with the market: from understanding demand, to fulfilling every order.

Thus, various logistically organized operating systems are used in the world practice, the main function of which is to coordinate the activities of the units in time in order for the products to be manufactured in the required volume at a given time.

#### **References:**

1. Aksyonov, K., Bykov, E., Aksyonova, O., Goncharova, N., &Nevolina, A. (2013a). Decision support for a fuel company using simulation of logistical processes, In 2013 IEEE 8th Conference on Industrial Electronics and Applications, 1718-1722.
2. Bowersox D. J. (2009). Logistical Management. The Integrated Supply Chain Process. N.Y.: McGraw-Hill Companies Inc. – 375p.
3. Velychko, O., &Velychko L. (2017). Management of inter-farm use of agricultural machinery based of the logistical system «BOA». Bulgarian Journal of Agricultural Science, 23(4), 534-543.