

## Innovative Logistics as a Competitive Market Force

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### Abstract

*In modern economy the logistics becomes an important factor of organizations competitiveness increase. The logistics possesses innovative potential in management sphere, capable to increase managing efficiency of market subjects, and it defined the relevance of research. A research objective is theory and methodology development of market analysis that allowed to prove and expand competition model by means of innovative logistics as independent competitive force that in conditions of scientific and technical progress and quickly changing market helps the companies to give a comprehensive assessment to the competition and to keep leadership in the process of objectives achievement and strategy realization.*

**Keywords:** *logistics, basic logistics, innovative logistics, market, competitive forces, innovation, innovative activity, innovative activity, administrative innovation.*

### 1. Introduction

In modern conditions strategic planning becomes an actual direction of logistic systems development allowing to identify companies efficiency sources to form and put into practice the strategy focused on long-term competitive advantages creation. In turn, the logistics, in particular innovative logistics, forms sources of organizations efficiency. Application of innovative logistics principles and methods in companies activity is a strategic reference point in taking a competitive position on the market.

Using logistics methods the principle of freedom in a choice of partners allows organizations to save expenses significantly due to optimization of interconnected logistics fields (supply, production and distributions) which have a great influence on enterprise economy, defining its viability. Logistics, acting as a system integrator of physical advance processes of goods and services, provides the clearness of logistic processes, latest management tools application and decrease in cumulative expenses in deliveries chains that is a necessary condition to keep a leading position on the market. The logistics sets strategic reference points to which companies should try to achieve within corporate strategy purposes realization.

The powerful contribution to development of strategic planning issues and market research was brought by such scientists as Aaker (2007), Ansoff (2009), Mintsberg (2001), Porter (2005; 2006), Thompson and Strickland (2006), Faye and Rendell (2002), Kaplan and Norton (2006), Sergeyev (2005), Fatkhutdinov (2008), etc.

Works of Dybskaya's (2009), Kurbatova (2007; 2008), Novikova (2007; 2009), Sergeyev (2005; 2009), Lukinsky (2007), Bauersocks and Kloss (2008), Linders and Fearon (2006), Stock and Lambert (2005), Waters (2003) are devoted to logistics issues studying including innovative logistics.

Scientific elaborations of these scientists made a huge contribution to the development of strategic planning in logistics in theory and practice, but debatability of markets analysis issues specified a research subject within strategy development

### 2. Research Methods

Many scientists understand strategic planning companies strategy formation issues in different ways.

So, strategic planning, according to D Aaker (Aaker, 2007), is concentrated on a market environment in which the company carries out its activity. Thus, the attention is paid not only to forecasting, but also profound market studying, in particular competitors activity research and buyers needs. Thereby the company hopes to study present situation, and

also to foresee changes which can have strategic consequences.

G. Mintzberg denies a strategy concept as a plan which is formed at first in developer's head. He considers a strategy as set of different activity types which are carried out during certain time which include also supervision over the events happening inside and outside the company. G. Mintzberg does not insist on uselessness of planning, he only says that actions more important, than intentions. His idea about it, in our opinion, remains disputable. (Mintzberg, 2001: 533-538)

M. Porter sees the purpose of strategic planning in research of each competition component, assessment of major factors importance and presenting a full picture of market capacity. (Porter 2005; 2006)

According to M.R. Linders, H.E. Fearon, strategy is an action plan, intended for achievement of company specific long-term goals. Strategy has to be concentrated on key factors necessary for success, and main actions which need to be undertaken now to achieve future results. Thus, strategy is a process of company interaction with environment, long-term goals defining and business purposes achievement by means of productive and effective resources placement. (Linders and Fearon, 2006: 720)

R. S. Kaplan, D.P. Norpo tone consider strategy in a form of certain hypotheses about causes and effects from the point of view of consumer choice and market segments where the company intends to work, defining those critical internal business processes which should be perfected to make valuable suggestions for target consumer, and selecting individual and organizational opportunities is necessary for internal, client and financial purposes achievement. Such approach completely corresponds to M. Porter's works according to corporate strategy. (Kaplan and Norton, 2006: 33-40)

According to A.A. Thompson, A. J. Strickland, strategy represents the comprehensive management plan which strengthens company position on the market and provides efforts coordination, consumers attraction and satisfaction, successful competition and global purposes achievement. In other words, strategy is a competition methods combination and business organization directed on clients satisfaction and organizational purposes achievement. Process of strategy elaboration is based on careful studying of all possible development directions and represent itself a choice of general direction, mastered markets, served requirements, competition methods, attracted resources and business models. According to scientists opinion, the concept of business model (business model) is closely connected with strategy concept implying a way of receiving profit from company activity. (Thompson and Strickland, 2006)

Speaking about logistics, it should be noted that in Russia it is rather young science. In scientific literature there were two directions in logistics definition: one is connected with functional approach to merchandising, another reflects administrative aspect of logistics (tab. 1).

**Table 1.** Standard logistics definitions

	Logistics as science	Logistics as a concept of object management	Logistics as process
1	2	3	4
<b>Functional aspect of logistics</b>	Logistics – science about planning, control and transportation management, warehousing and other material and non-material operations made in the course of bringing raw materials and materials to manufacturing installation, intra factory raw materials processing, materials and semi-finished products, bringing finished product to a consumer according to his interests and requirements, and also relevant information transferring, storage and processing	Logistics is a forecasting concept based on high reliability level achievement of delivery processes management and therefore this concept implementation provides to businessmen relative stability of their activity in the conditions of market environment uncertainty.	Logistics is a process of expenses planning, realization and control, materials movements and storages, semi-finished products and finished product, and also related information on goods delivery from production place to a consumption place according to client requirements.
<b>Managerial aspect of logistics</b>	Logistics is a science about concentration processes management, material distribution and movement, service, information and financial streams and these streams parameters optimization in micro or macroeconomic system to achieve stated objects.	Logistics is a concept of enterprises management, organizations and their associations based on rational systems application of resources production concentration / distribution and bringing finished product and services to an end consumer according to his interests	Logistics is process of production management, materials movement and storage, products and goods, and also information streams accompanying them by means of merchandising channels organization so current and future expenses are minimized on condition of highly effective (reliable) orders completion and delivery.

Thus, theoretical, methodological and information research base are scientific works of domestic and foreign scientists in the field of logistics, strategic planning, management, system analysis; special, instructive, methodical and scientific and technical literature. Conceptual provisions and conclusions of research are based on the principles of systemacity and adaptability. A methodological research basis is a set of general scientific and special methods of scientific perception.

### 3. Results

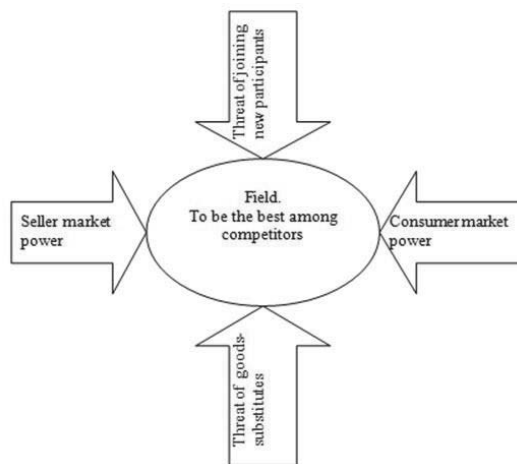
In scientific literature there were two directions in logistics definition: one is connected with functional approach to merchandising, another reflects managerial aspect of logistics.

In turn, many scientists divide logistics into two main types: basic and innovative. Basic logistics represents real-life in a certain period and also organized forms, methods and algorithms of stream management processes which are rather steady in this time period and they make logistics fundamentals as an activity field and science.

Innovative logistics is an actual component of logistics science and activity field corresponding to it which is urged to study necessity and possibility of progressive innovations introduction in organization of current and strategic stream management processes in economic and other public structures to identify and use additional resources by this management rationalization (optimization). (Kurbatov, 2007; Novikov, 2009). Thus, innovative logistics can be considered as an management innovation. The most important component of innovative logistics is strategic which represents science and practice of logistic potential accumulation of various stream management processes systems by long-term programs development of innovative transformations within planned paradigm of their strategic development.

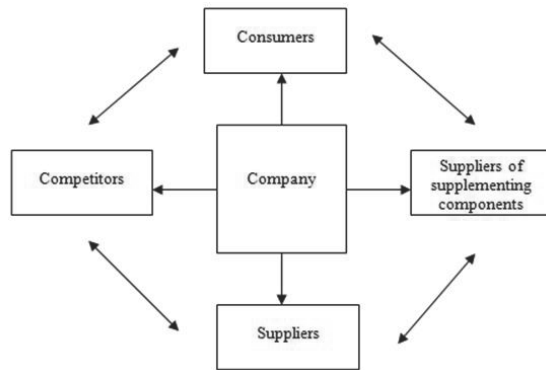
Strategic logistics gives the chance to develop constructive strategic development program of the company aimed at optimum organization of stream processes and long-term success on the market, which was determined by structurally functional (process) content of the company. It means that not only the structure of intra firm divisions, but also company mission become derivatives of strategic logistics solutions in its integration alternative in the future. Thus, according to scientists, modern economic development nature assumes the solution of all complex of interconnected tactical and strategic management tasks in required time mode on the basis of logistic system capacity use for goals achievement. The logistics in modern conditions becomes one of the most important components of strategic development of this or that structure and depends not only on paradigm definition of such development, but also substantially influences this choice.

Basis of company strategy development, according to M. Porter (Porter, 2006), is companies adaptation to the competitive environment in which following main forces confront: suppliers, consumers, goods substitutes, new market participants and competitors. Influence of these forces on company position on the market is possible to represent schematically (fig. 1).



#### 1. Forces managing competition in branch (Porter, 2005: 45)

There is also other point of view determining competitive forces on the market reflected in L. Faey and R. Rendell's work. It is a model of pure (total) value.



**Figure 2.** Model of pure value (Faey and Rendell, 2002: 278)

Model of pure value shows the important role played by suppliers of supplementing components which represent the sixth competitive force on the market i.e. by people or structures at which consumers buy additional goods or services or to whom suppliers sell additional initial components, they influence business success or failure significantly. The role of such suppliers specularly reflects rivals position (including new participants, goods substitutes and acting competitors). From the point of view of demand they increase buyers desire to pay for certain production. From the point of view of suggestion they reduce the price required by suppliers for initial components. According to scientists, suppliers of supplementing components meet in many business fields. But they are especially important when business types create absolutely new ways of some actions implementation or there to combine various systems types which separately work well, there are necessary standards allowing to coordinate them with each other.

According to scientists big benefit from serious approach to suppliers of supplementing components is shown that it adds a cooperation coordinate to competitive forces model of M. Porter. In this context scientists give an example which opens an essence of this coordinate: The Windows operating system of Microsoft corporation works more effectively at computers with Pentium microprocessor of Intel company. But even in these conditions Microsoft and Intel can not consider each other if they work on model basis of M. Porter. However common sense makes us assume that these companies have to treat each other as important market participants (Porter, 2005).

In our opinion, suppliers division into two components and their allocation in two different competitive forces is inexpedient, as all suppliers can threat competitive fight and influence interaction strategy definition including strategic partners presented in this model as suppliers of supplementing components.

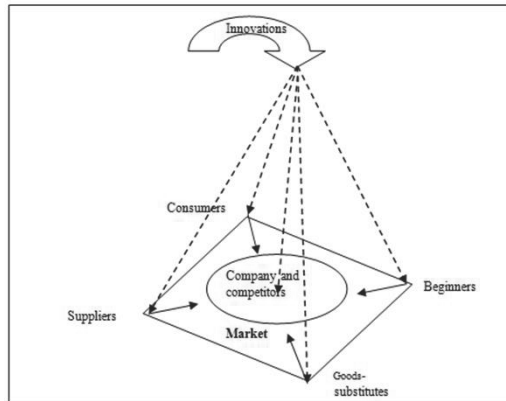
Thus, our point of view favors the model of five forces offered by M. Porter. Thus, in our opinion, a competition model presented to scientists could be added with the innovations which are an important competitive force in modern economy and they create barriers to enter the market.

Companies innovative activity is possible to present in a form of actions system for scientific and intellectual potential use to receive new or improved goods and services, their production ways to increase competitiveness and enterprise market positions strengthening.

According to R. A. Fatkhutdinov, innovation is a resulting effect of novelty introduction to change management object and to receive economic, social, ecological, scientific and technical or other effect. (Fatkhutdinov, 2008).

T.A. Ilyina defines innovation as result of ideas, researches, development transformation in a new, improved or changed scientific and technical or social and economic decision, which purpose to find economic content and to be demanded in society (Ilyina, 2006). Innovations are attracted in production actively only when demand increase requires sharp increase in output, i.e. to implement innovative activity economic conditions are priority. Thus economic effect takes often economic subject who did not necessarily create an innovation, but applied it. This hypothesis, according to T.A. Ilyina, coordinates economy innovative opportunities growth with market requirements, new branches emergence and old branches reconstruction. Driving force of modern innovative economy is competition based on new goods launching, as well as new technology inventing, a new raw materials source finding, new organization type setting up. This competition provides resolute expenses reduction or quality improvement, drives companies out of the market which did not follow a way of innovative updating. Goods and services producer has to feel in a competitive situation even then when he is a monopolist as the competition on innovations basis creates potential threat to business, starts the process of creative

destruction in economy. Thus, a driving force of modern market is innovations acting as the result of companies innovative activity owing to their innovative activity. Innovations introduction has impact on market opportunities of the companies. Thus innovations can keep or destroy these opportunities. Therefore, in competitive fight that company wins which uses innovations in commercial activity, creating additional barriers for competitors to enter the market. Summing up the result, it is possible to present forces managing competition on the market (fig. 3).



**Figure 3.** Forces managing competition on the market

From a presented figure 3, as a result of market subjects innovative activity, suppliers innovative activity of consumers, potential competitors, goods substitutes producers intensifies and it reflects in new competitive force emergence on innovations market. So the innovations used by competitors are reflected on the market stronger, and, therefore, they are the most dangerous. Thus, in conditions of scientific and technical progress and quickly changing market it is possible to keep leadership on the market only in case innovations application in enterprise activity. All market subjects can apply innovative development: existing or potential competitors, suppliers or consumers. Owing to novelty goods suggestion to the market by main or potential competitor, an enterprise can miss potential consumers, profit, and as a result to lose in competitive fight. At innovations introduction to enterprises suppliers or consumers it is possible to feel pressure from their part.

Therefore it is necessary to monitor grocery, technological and important, competitors management innovations of (existing and potential), suppliers and consumers.

Competitive forces, barriers and risk factors which take part in enterprise strategy formation, are considered in table 2.

**Table 2.** Competitive forces and risk factors at enterprise strategy formation.

No n/n	Competitive forces	Risk factors and barriers to enter on the market	Strategic actions
1	2	3	4
1	Beginners	Economy on the scale	Vertical integration
		Differentiation of goods and services	Growth of output, market research, field service.
		Need for capital investments	Complex of advancement application
		High constant expenses	Advanced technologies application, governmental subsidies.
		Access to long-standing distribution channels	Economic communications establishment with suppliers and consumers (sales channels expansion)
2	Suppliers	Goods and services differentiation (uniqueness), lack of goods substitutes	Suppliers market analysis of inventory items
		A small amount of suppliers in a certain market segment	Establishment of partnership with key suppliers
		Integration threat of consumer business	
		Consumers are not a key segment for suppliers	
3	Consumers	Consumers concentration, purchases	Segmentation of consumers market

		implementation in large volumes Commonality of acquired goods, existence of goods substitutes Suppliers goods and services are a component of consumers products (price plays a crucial role) Suppliers goods and services influence quality of consumers products Supplier goods and services do not save consumer means (quality plays a major role) Threat of integration into supplier business	Level increase of consumers maintenance service Advance complex application (advertising, stimulation of sales, etc.) Goods and services quality improvement Decrease in goods and services prime cost Labor productivity increase
4	Goods (services) - substitutes	Ability to the best ratio of price and quality Production in a profitable market segment	Advance complex application Quality improvement of goods and services Differentiation of goods and services
5	Competitors	A large number of competitors and their approximate equality Slow growth of a market segment aggravating fight Sale of the same goods and services The output increases rather fast rates Exit barriers from the market are high	Price competition Advance complex application Improvement of goods and services quality Differentiation of goods and services
1	2	3	4
6	Innovations	New or advanced goods release by competitors	New strategy elaboration Mutually advantageous, partnership with suppliers and consumers Strategic and adapting innovations application, including methodological device of innovative logistics

As we can see from the table, the potential of a certain market segment will depend on influence power of suppliers, consumers, existing and potential competitors, goods substitutes and innovations, and also on barriers to enter the market. Strengthening market position can be expressed in establishment of mutually beneficial relations with suppliers and consumers, differentiations of goods and services due to advance complex application, and also by means of latest developments use in the sphere of management, equipment and technology at goods production and rendering services. Innovations classification is e, but within this work we take into consideration management innovations. Thus, allocating innovations as an independent competitive market force, we should note that logistics possesses an innovative potential in the management sphere, capable to increase efficiency of market subjects managing. So the main reference point in logistics is quality of ultimate consumers service.

## Conclusion

Logistic system efficiency of competitive strategy is defined by protection efficiency against competitive forces influence, compensation possibility of competitive pressure and ability to create steady competitive advantages.

The understanding of competitive pressure basic factors will provide a strong base for a strategic action plan which can be presented as follows:

- 1) logistic system positioning to ensure protection against competitive forces influence;
- 2) influence on competitive forces arrangement due to strategic maneuvers to strengthen a company position on the market;
- 3) forecast of determining competitive forces factors, timely response to them at the expense of a strategy choice.

To make a logistic system balance strategic and operational opportunities, it has to take into account an external and internal situation and correct its position to achieve desirable results. Such approach leads to that fact that company environment analysis and interpretation are a key factor of its strategic success.

So, the main goal is market position defining when strategy is developed where the company will be protected from competitive forces influence or will be able to have impact on them.

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