

# COSTS MANAGEMENT IN DISTRIBUTION CHANNELS ON LOGISTICS BASES

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## Introduction

The latest scientific researches and examples of Ukrainian manufactures and enterprises show that competitiveness of goods produced and enterprise as a whole is heavily depends on how effective costs management is. As a consequence the necessity of creation effective costs management system on logistics bases appears. That system would not only increase the speed of material and financial flows but also contribute to reduction of resources in different connected levels of manufacturing and commodity delivering as well as making dependence on fixed and circulating capital lower.

The system described above must include a set of optimal managerial functions and base on logistics. That would allow enterprise react on all challenges quickly and adequately. Insufficient scientific research of this problem determines the relevance of that article.

## 1. The latest scientific works analysis and aim setting

Theoretic and methodological aspects of logistic costs operating in enterprise were reported on works of such foreigner and native science as: B. Anikin<sup>1</sup>, I. Bazhin<sup>2</sup>, D. Bauersoks, J. Kloss<sup>3</sup>, A. Hadzhynskyy<sup>4</sup>, A. Kalchenko<sup>5</sup>, E. Krykavsky, S. Niksic, M. Mamchyn, R. Sopilnyk<sup>6</sup>, M. Oklander<sup>7</sup>, I. Popovichenko<sup>8</sup> and others. Nevertheless, the subject of costs management in distribution channel on logistic bases is not fully covered and needs to be studied proper.

The aim of the article is to define an essence of costs management in distribution channel and to explain its types and gist.

## 2. Expenses for maintenance distribution channels and their structure

Sustainable development of enterprises requires important tasks of improving process of costs management to be solved.

That can be achieved by using modern logistics approaches to bring quality products to consumers sufficiently and timely with minimal expenses. As a result, it would lead to maximization of demand satisfaction and increase of enterprises profitability.

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<sup>1</sup> *Logistika* / pod red. prof. B.A. Anikina. M.: INFRA-M, 2002.

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<sup>3</sup> Donald J. Bowersox, David J. Closs *Logistical Management: The Integrated Supply Chain Process* / the Lane with English. 2nd edition. M.: Olimp-Business, 2005.

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<sup>5</sup> Kalchenko A.G. *Logistika: pidruchnik*. K.: KNEU, 2004.

<sup>6</sup> *Optimizuvannya logistichnix vitrat u sferi upravlinnya ximichnim pidpriemstvom* / S.M. Nikshich, E.V. Krikavskij, M.M. Mamchin, R.L. Sopilnik // *Logistika* [tekst] : [zb. nauk. pr.] / vidp. red. E. V. Krikavskij. L. : vidavnicтво Nacionalnogo Universitetu "Lvivska Politexnika", 2009.

<sup>7</sup> Oklander M.A. *Logistichna sistema pidpriemstva: monografiya*. Odesa: Astroprint, 2004.

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Sharing an idea covered in source<sup>9</sup>, we can insist that the complexity of logistics lies on:

- 1) Creation new potentials, additional utilities and values (values of accommodation, time and information);
- 2) Classes of service (order cycle, reliability, quality and flexibility of order);
- 3) Categories of efficiency that can be characterized by such factors: 1) amount of resources; 2) length of logistics continuity; 3) time to complete the order and quality of service; 4) size of consignments; 5) level of productive capacity; 6) time needed to satisfy customers complaints; 7) length of manufacturing process from ordering raw materials to finished product; 8) flexibility, adaptability and stability of all operation, etc.<sup>10</sup>
- 4) Usage of systematic approach to operative categories which is deriving from correlation of means and processes (reflected in expenses).

According to this approach expenses for distribution channels represents in the aggregate of all costs that include delivering products from place of manufacturing to place of consumption. In other words, expenses for distribution channels are total number of logistics and marketing expenses.

Logistics expenses are expenses on management and realization of logistics processes during transformations of cash and accompanying flows in distributional channels. As a rule, it is expenses for transportation, storing, processing of orders, preservation, etc. Marketing expenses are expenses connected with control over products on the market place and costs of products promotion (manufacturing, placing and spreading advertising materials, production of outdoor advertisement with logo of enterprise, promotions and tastings at the market place, purchase and installation of brand equipment ( for example, refrigerators, closets ) for preservation of products, etc.) (table 1)<sup>11</sup>.

**Table 1. The main expenses of an enterprise for distribution channels**

Expenditure items	General characteristics
1	2
<i>Logistics expenses</i>	
Working up orders	This costs covers preparation of finished goods to the transportation. Choosing customers, finding out about customer`s solvency, making decisions about products on sale, getting information about available stock of goods, delivering goods to storages, securing accounts, transportation of documents and payments and stocktaking are overseen on this level.

<sup>9</sup> *Ekonomichna enciklopediya: u trox tomah*. T. 2 / redkol.: S.V. Mochernij (vidp. red.) ta in. K. : Vidavnychij Centr "Akademiya", 2001.

<sup>10</sup> *Logistika: teoriya ta praktika* / V.M. Kislij, O.A. Bilovodska, O.M. Olefirenko, O.M. Solyanik. Sumi : vid-vo SumDU, 2010.

<sup>11</sup> Ilyashenko S.M. *Scientific and methodical approach to formation of optimal structure of innovative products distribution channels* / S.M. Ilyashenko, O.A. Bilovodska / The contemporary problems of management – value-based marketing, social responsibility and other factors in process of development - micro, meso and macro aspect : monography / Edited by H. Howaniec, W. Waszkielewicz. – Bielsko-Biala: University of Bielsko-Biala Press, 2014. – P. 139-154. <http://essuir.sumdu.edu.ua/handle/123456789/35806>.

1	2
Transportation of finished goods	<p>Sum of transporting costs depends on type and means of transport. Products can be carted by: river, sea, air, road or railway transport. Taxes for all means of transport mentioned above vary according to specific characteristics of the rout.</p> <p>Costs on railway transportations are usually calculated according to quickness of transportation, length of the distance, quickness of dispatch and type and standards of carriage; costs on overland transport may change proportional to the distance, size of baggage, carrying capacity of the vehicle, total cargo weight, time used, type of the vehicle and the area of transportation.</p> <p>Costs on river transportations usually calculated by steamship line. Market conditions, nature of cargo, transporting conditions form taxes for sea transportations. Weight and amount of baggage are the key factors while calculating the price for air transportations.</p> <p>Who is delivering goods is not less important than any other factors. When wholesaler or retailer convey goods by their own efforts manufactures are not responsible for their products any more.</p>
Storing	<p>Goods can be stored on rented stores or directly on the place of production. Expenses for storing are usually depends on amount of goods and space needed for its placement. They also include heating, energy and water supply and any other payments for goods preservation. The more goods the bigger expenses.</p> <p>Payments for loading and unloading goods, insurance, costs associated with unpredictable situations (deterioration of goods, robbery, etc.) are also included into storing expenses.</p> <p>In case of direct transportation of goods to the market place no expenses to the storing appear.</p>
<i>Marketing expenses</i>	
Promotion	Expenses for promotion (advertisement) of goods include: producing, placing, spreading advertisement, conducting tastings and demonstrations at the market place; buying and installation of furniture and any other costs connected with promotion and public relations.
Sells management	<p>Expenses for sells management includes wages for managers, general corporate expenses for sales and marketing, disaggregated by commodity groups, client service, compensations and returns , unplanned goods delivery and overheads( partnership with clients, agencies) which varies from the level of sails.</p> <p>Expenses for merchandizing, marketing studies and control over goods distribution are also need to be taken into consideration while calculating costs. More attention to these aspects should be paid to unspecified retail shops. Direct financial payments from particular agents (delay of payments, insurance, redundancy in case of not paying) and general expenses (calculate in proportion to particular goods sales are also counts.</p>
Other costs	That section includes rewards and bonuses to the stuff, expenses for repairing and any other expenses that can appear.

Source: own elaboration.

We cannot omit to mention that structuring of costs is variable, due to the possibility of generating expenses conflicts by conflicts of goals (on the one hand, for example, packaging costs can be attributed both to the logistics and marketing costs; on

the other hand, there is a dependence of logistics costs on logistics solutions and expenditures, such as ordering costs, transportation costs, maintenance and manufacturing costs).

### **3. Logistics and marketing expenses reports and their influence on success of enterprise**

One of the most important aspects of the company success is perfecting expenses report as its accurateness influences heavily on the whole logistic system of the enterprise. Accurate and clear record of expenses allows to work out all benefits of concrete logistics activities.

M. Oklander stressed on his works the necessity to single out accounting and statistical reports as an independent expenditure item from other categories of expenses. Importance of such decision is explained by the accounting standards that depict all elements of logistics in reports and registers<sup>12</sup>.

An author supports statement of M. Oklander and claims relevance of singling out marketing expenses as an independent expenditure item. That would not necessarily mean changing monitoring standards on manufacture but only improving form 2 “financial results report”. Such a small change in reports standards would not certainly cause any inconvenience and allow each company to figure out how effective logistics and marketing policy on his company are. That improvement, in addition, would demonstrate impact of those business instruments on sales.

Such items in statistics reports will make monitoring logistic processes easier. As all enterprises regardless their size and specialization would be obliged to submit such reports annually.

To analyze influence of expenses on changes of sales and income, both regression and index correlation methods can be used.

*Index method* allows to study how different functions of logistics and marketing are connected.

*Method of regression and correlation* helps to understand stochastic interconnections.

Using such methods we are enabled to estimate influence of factors by comparing concrete sums. Below example of calculating how marketing and logistics expenses influence on company's profitability is given.

Declining model of connection (as a linear formula):

$$Y = a_0 + a_1 x_1 + a_2 x_2 + \dots + a_n x_n, \quad (1)$$

Y stands for profit or an amount of goods implemented,

$x_n$  –marketing or logistics costs,

$a_n$  – regression coefficient.

Y can also stand for financial gain, price of products sold or any other financial indicators, whereas (x) means expenses for logistics and marketing. Regression coefficients ( $a_1, a_2, \dots, a_n$ ) show when and how much each item of expenditure influences on total sum of expenses. In the same time correlation, dispersion, variation index and other indexes of correlation helps to reveal links between results and factors. In

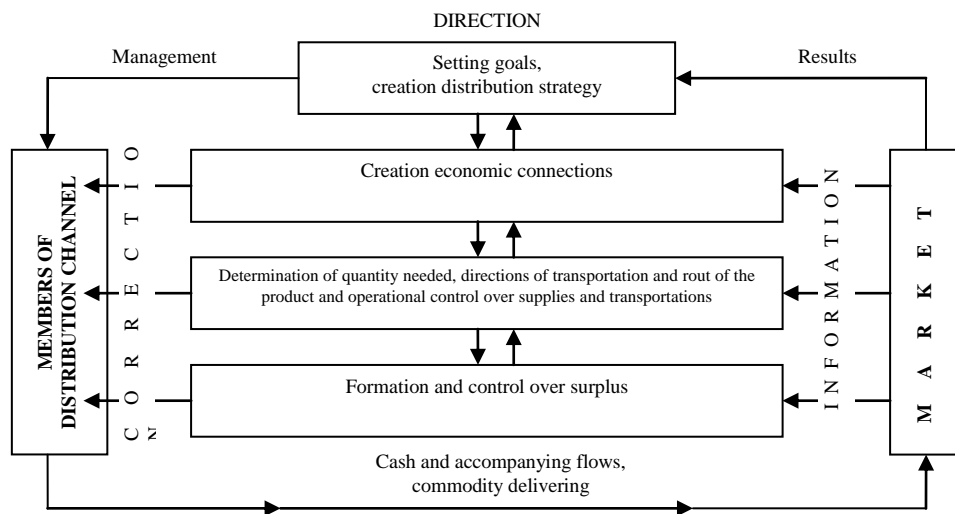
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<sup>12</sup> Oklander M.A. *Logistika: pidruchnik*. K.: Centr Uchbovoi literaturi. 2008.

addition, using method of regression and correlation we can predict with scientific accuracy how this factors are going to change in the future. Corresponding to such predictions we can plan work for the future to make business more profitable.

#### 4. Control over expenses in distribution channel

*Control over expenses in distribution channel* is identified as an interrelated target complex of activities. Participants of that process improve procedure of commodity turnover and any expenses connected with in order to raise effectiveness of manufacturing and find optimal price for services. Evidently, that control over expenses demands creating and fulfilling in life wise solutions and guldens while realizing them. General scheme of control over expenses is given on the picture 1.



**Figure 1. The most important means of cost management on distribution channel**

Source: own elaboration.

There are three subsystems on the system of costs management in distribution channels: functional (includes planning, regulation and control), organizational, and motivational.

*Planning* of expenses is usually carried simultaneously with marketing planning. Computation of possible overall costs is needed for making reasonable decisions and fixing prices after implementation of taken decisions. *Regulation* in costs management means quick elimination of fails and mistakes during brining plan to life. *Control* over expenses form feedback and it involves both analyzes and accounting. Foremost functions of accounting are observation, rating and registration any information about wasted resources. Information from the accounting monitoring is used while completing further tasks. Transitive analysis aimed at the current regulation of the costs plan. Achieved results then compared with the previous plan, any deviations are fixed and taken into consideration in future job. Final analysis associates with the evaluation of implementation of plan in general. After proper analyze global improvements to the system of cost management in the channel of distribution should be made.

Organizational aspects of the costs management system are connected with identification of expenses and finding who are responsible for paying them. Motivational aspects of costs management oversee encouraging participants of the distribution channel not to exceed set plan of expenditure but try to minimize them as much as possible. Thus, stimulation of the distribution channel includes following steps:

1. *Gathering information about expenses and challenges in marketing channel* (studying the problem, questing stuff of agents and suppliers, carrying pan-polls, modulation possible scenarios of behavior either clients or stuff, setting the frames of acceptable behavior).

2. *Choosing optimal methods of satisfying needs of channel participants, solving problems, setting goals, equating actual and planed costs and creating methods of stimulation* (solving problems connected with choosing economic and uneconomical methods to stimulate members of the marketing channel.)

3. *Ensuring continuous leadership in order to control stimulation of work of both individual participants and entire channel* (search for informal leader and, if possible, empowering him with responsibilities of formal leader (unity of formal and informal leader features in one person) or singling out informal and formal leaders in order to synchronize their actions in channel).

4. *Stimulating participants of the channel using selected methods, satisfying their needs and solving their problems* (achievement of high motivation of workers, improvements of relationship between participants of the distribution channel and increase in productivity) All that will reduce expenses and increase profitability of the channel as a result.

5. *Receiving rewards for increase of productivity, achieving set goals, realization of company's strategies, reducing expediters.*

Realization needs and problems of each participant of the distribution channel and understanding peculiarities of the whole system will lead to decline of expenditure and make management of channel more successful as a result.

However, workers should be especially careful while analyzing prompting factors. On the authority of the majority of scientists who studied that question, we can claim that punishing for overspending instead of rewarding for reduction of expenses and following the plan would be ineffective. It is explained by natural wish of stuff to protect themselves from possible troubles what can be achieved by overestimation of costs at the stage of planning. System and its characteristics are usually specified at the same time and unite in the subsystem.

As it was mentioned above, costs management oversees planning possible expenses in accordance to the field of their appearance beforehand. Managerial structure of the company, corresponding to mordent tendencies, presents complex of responsibility centers. Responsibility centers are fields of activities within which individual responsibility for obeying set rules is established. It empowers participants of channels with concrete obligations such as keeping plan of acceptable level of expenditure. Three centers according to their specialization can be distinguished: center of expenses, earning center and centers of investments. Centers of expenditure are mostly organized directly on place of its functioning. Organization of costs management in responsible centers involves regulation and normalizing functional subsystems of management costs<sup>13</sup>.

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<sup>13</sup> <http://ubooks.com.ua/books/000148/inx16.php>.

General logistics positions are:

1. Using principals of systematic approach (optimization of material flow at the company and at any other departments of the channel) ;
2. Complexity while achieving goals;
3. Flexibility and mobility according to changes of tasks or functions;
4. Dynamics (Costs management must be mobile, aimed at advancement and combine production, purchasing and sales operations.);
5. Rhythm and continuity of logistic processes; synchronization of all logistic processes and effective resources usage;
6. Using proper technologies and equipment according to the specific of manufacture;
7. Humanism and insurance of appropriate work conditions;
8. Calculation of logistics expenses in the whole distributional channel ;
9. Improvement of service;
10. Ability of logistics systems to change if any changes outside appears.

Corresponding to points above, we can assert that logistics concept of cost management in the distribution channel is the most comprehensive and systematic of any other and bases on the momentary situation at the market. Approaches aimed at the consumer requirements, actions of competitors and suppliers are the basis and prerequisite of all actions (tactical, operational and strategic) and decisions in logistics.

### Summary

The necessity to increase profits of the national enterprises much depends on macroeconomic stability and purchase ability of consumers and determine social and economic environment of the whole country. In these circumstances solving the problem of the effective cost management can be achieved by using modern logistics approaches to form chain of material resources distributional channel in commodity turnover. Such system at enterprise is, out doubt, a great advantage which makes company more competitive. Definition of costs management is given by author of this article and includes author's definition of expenses for its supply in the distribution channel. Scheme of main methods of costs management is produced and evidences for relevance of subsystems that ensures realization logistics basic principles and effectiveness of distributional channel functioning are given. Author claims that effective managerial decisions are strongly connected with those systems and subsystems. Taking into consideration everything mentioned above, author believes that further researches should be aimed at creating an effective mechanism of costs management. While creating such mechanism profitability expenditure of each logistic function and reduction of possible risks for all participants in the distribution channel should be taken into consideration.

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