

UDC 658.81

**THE DISTRIBUTIONAL MANAGEMENT OF READY-MADE PRODUCTS
IN THE LOGISTICAL SYSTEM ON BREAD-BAKING PLANTS
OF THE EAEU MEMBER-COUNTRIES**

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One of the key factors of the stable development of food industry of the Republic of Belarus is the creation of the effectively working economic links between a producer and a consumer as well as the formation of civilized environment for product selling of native producers and the improvement of the whole merchandising system. This article examines "The enhancement of distributional management of factory ready-made production on the example of a branch of Novopolotsk bread-baking plant JSC "Vitebskhlebprom" (the Republic of Belarus) and CJSC "Samara bakery plant" (the Russian Federation).

In the present-day conditions bread-baking plants make 75% of bread and bakery goods of the total production in the Republic of Belarus and supply more than 7 million people with its production [10]. Nevertheless the demands of free market economy, the optimization of all kinds of costs, the increase of the competitiveness of enterprises and their goods, the demand of the organization for the effective distributional production management are still the questions to open. A need to create new forms and methods of distributional management of ready-made production has appeared, in particular in the usage of the instruments of distributive logistics.

In the present-day conditions the use of logistical approach to the management of an enterprise makes it possible to have a more quick reaction to the changes in the conditions of the factory's activity environment.

In logistics distribution is defined as physical, appreciable, substantial contents of this process. Objective laws connected with the distribution of ownership are also taken into consideration, but they are not the main subject of the survey and optimization. The main subject of the study in distribution logistics is the rationalization of the process of physical distribution of the available stock of materials. How to pack a product, which route to direct, if the net of warehouses is necessary or if an intermediate seller is needed – these are the main tasks that are solved by distribution logistics [1].

If we take into consideration the concept of distribution, we can give the following definition: distribution logistics in bread-baking branch is understood as the process of management of physical distribution of bread-baking products from the sphere of production with the aim of the most complete satisfaction of the needs of consumers with the minimal costs.

It is also important to know what the supply chain means. It is a range of organizations, people, technologies, processes, information and resources which are involved in the merchandising of a product or service from a supplier to a customer [2]. So, the process of the production of goods finishes with their sales. That is why this phase of the life circle of products is a kind of evaluating, as you can judge about the accuracy of the factory's strategical policy and the effectiveness of all its parts on the basis of the fact how easy and profitable the sale of produced goods is. Creation of stable, flexible and effective structure of merchandising of the production from a consumer to a supplier in the process of realization of external economic activity is one of the most important and difficult task of a factory.

One of the questions solved by distributional logistics is the planning distribution channels. A distribution channel is a path which the goods follow from a producer to a final consumer.

The following commercial flows are formed inside the sales channel:

- a flow of ownership;
- a physical flow is a movement of goods along the channel from a producer to a final customer;
- a flow of orders being formed sequentially along the channel from a final customer to a producer;
- a financial flow, coming from a customer;
- a flow of information from a producer to a customer and vice versa [3].

The sale of bakery goods is directly influenced by a specific character of the goods, to be exact, the selling by the date is not very long (for bread and bakery goods it is less than three days, for confectionery it is 15-20 days). It limits the possibilities to widen the territorial borders of market sale, influences the production size greatly, as they are formed by the weekly changing orders.

In this survey two bread-baking plants have been analyzed. They are CJSC "Samara bakery plant" (the Russian Federation), which takes leading positions in the market of Samara district in the production of puff bakery goods and cakes [4] and the branch of Novopolotsk bread-baking plant JSC "Vitebskhlebprom" (the

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Republic of Belarus), which produces the goods in necessary amounts, range and quality, taking into account a more complete guaranteeing of people's demand for bakery and other goods [5].

In this research paper the analysis has been made with the help of the method of mathematical statistics of the influence of product sales structure through the trade channels on the receipts from the sold goods and on the financial result for CJSC "SBP" and the branch of Novopolotsk bread-baking plant JSC "Vitebskhlébprom". relevant interconnections and objective laws have been applied for the realization of sale amount forecasts of the production of the analyzed plants and the dynamics of functional effectiveness of retail logistics at the bread-baking plant.

In the theory and practice of economical analyses the estimation aggregates of structural shifts have an important role.

The K. Gataev's integral coefficient of structural shifts [6] is represented in the formulae 1:

$$K_{\text{int}} = \sqrt{\frac{\sum (d_2 - d_1)^2}{\sum d_2^2 + \sum d_1^2}}, \quad (1)$$

where d_1 is a unit weight during the basic period;

d_2 is a unit weight during the reporting period.

The represented coefficient is based on the difference between the unit weights, nevertheless it takes into account the value of the unit weights of both periods.

A. Salai suggested using another overall index of structural shifts (formula 2) [6]:

$$I_s = \sqrt{\frac{\sum \frac{(d_2 - d_1)^2}{(d_2 + d_1)^2}}{n}}, \quad (2)$$

where n is the number of gradations.

To improve the analyzed criteria and to eliminate their shortcomings the index of Ryabtsev is used – I_R (formula 3) [7]:

$$I_R = \sqrt{\frac{\sum (d_2 - d_1)^2}{\sum (d_2 + d_1)^2}}, \quad (3)$$

The tables 1 and 2 show the results of the calculations of CJSC "SBP" and the branch of Novopolotsk bread-baking plant JSC "Vitebskhlébprom".

Table 1 – Calculation table of structural and dynamic analyses of the receipts through the distribution channels of SBP (2016 to 2015)

Channels	d_1	d_2	$d_2 - d_1$	$(d_2 - d_1)^2$	$d_2 + d_1$	$(d_2 + d_1)^2$	4/6
Trading networks	69,0	74,0	5,0	25,0	143,0	20449,0	0,001
Wholesale	13,5	8,0	-5,5	30,3	21,5	462,3	0,065
Retail	10,5	10,0	-0,5	0,3	20,5	420,3	0,001
Others	7,0	8,0	1,0	1,0	15,0	225,0	0,004
TOTAL:	100,0	100,0	0,0	56,5	200,0	21556,5	0,072
K. Gataev's coefficient of structural shifts						0,072	
A. Salai's overall index of structural shifts						0,134	
Ryabtsev's index						0,051	

Note: the personal research based on the data of the plant.

Source: [8].

The structure of distribution channels of the products of SBP is noted for its heterogeneity. So, the obvious leader is the channel "Trading networks", which takes almost 75% of the revenue. Its part is increasing and in 2016 it reached 74%. A considerable decrease in the amount of wholesale customers (from 13,5 to 8% during the analyzed period) hasn't influenced the company's financial state. It is stable – the plant has regular profits, though they are not very high (in 2015 they were 2197 RUB) [8].

The changes in the structure of receipts are not considerable, which confirms the value of Ryabtsev's index. In many ways it is caused by the stability of such trade channels as "Retail" and "Other customers". Their part is average and makes almost 20%.

So, the active development of own trading networks gives SPB an opportunity to have a small but stable annual after-tax profit.

Table 2 – Calculation table of structural and dynamic analyses of the receipts through the distribution channels of the branch of Novopolotsk bread-baking plant JSC "Vitebskhlëbprom" (2016 to 2015)

Channels	d_1	d_2	$d_2 - d_1$	$(d_2 - d_1)^2$	$d_2 + d_1$	$(d_2 + d_1)^2$	4/6
A	1	2	3	4	5	6	7
Wholesale	29,8	32,5	2,7	7,3	62,3	3881,3	0,002
Trading networks	25,8	30,3	4,5	20,3	56,1	3147,2	0,006
Retail	33,6	26,1	- 7,5	56,3	59,7	3564,1	0,016
Others	10,8	11,1	0,3	0,1	21,9	479,6	0,0
TOTAL:	100,0	100,0	0,0	83,9	200,0	11072,2	0,024
K. Gataev's coefficient of structural shifts						0,123	
A. Salai's overall index of structural shifts						0,178	
Ryabtsev's index						0,087	

Source: the personal research based on the data of the plant [9].

The structure of the distribution channels of the products of the branch of Novopolotsk bread-baking plant JSC "Vitebskhlëbprom" is not noted for great changes. The value of Ryabtsev's index doesn't outnumber 0,137. In 2015 the channel "Retail" was on the first place (33,6%) and the channel "Wholesale" took the second place (25,8%). In 2016 the situation changed – "Wholesale" (32,5%) and "Trading networks" (30,3 %) took the leading place. For other customers the index varies not more than 11%.

This bread-baking plant has the following tendency – the decrease of the influence of retail trade causes the company's unprofitability. The orientation of a low cost price segment has failed.

Within the study the reconstruction of operational control of the company's sales is suggested by using the performance indicators of functioning of the sales logistics of the bread-baking plant for four components of this system functioning.

1. A financial component includes the increase of profitability, the expense reduction, the increase of a company's share in a segment;
2. A client's component includes the degree of customer's satisfaction increase due to the widening of the goods range and the level of service increase of as well as the attraction of new customers;
3. A component of business processes includes bread-baking goods delivery in-time, the purchase of high-quality materials;
4. A training component includes the development of a strategic sphere of competence, the increase of the staff's qualification and the complacency of the staff.

An active absorption of a new market niche (production of frozen half-finished products, wormed before the salling) will lead to an active interaction of a plant with trading networks, which will positively influence sales volume. The profitability of sales will increase, that means that the plant will overcome unprofitability, as a result the effectiveness of sales logistics will increase [11].

Effective organization of logistical distributional system ensures the company with a sheer reaction on the customers' needs, as the company's distributional logistics interacts with them directly.

As we suppose, while building a distributional system of bread-baking plants of the EAEU member-countries we need to solve a number of tasks:

1. Introduction of management organizational structures, creating distributive logistical functions among different departments of the company.
2. Formation of the strategy and tactics of physical production distribution on different levels of distributional channels.
3. Organization of the effective system for stimulating all members of a supply chain.

All the tasks mentioned above will increase the effectiveness of each sphere of the logistical system of plants, the turnover of current asserts, the decrease of the terms of introduction of new kinds of products in the production process.

It is also important to be orientated on how the Samara bakery plant organizes its activity and to take as an example the available ideas.

The data of improvement can help Novopolotsk bread-baking plant to bridge many problems at present, avoid problems in the future and also find new markets as well as to get a bigger profit from selling their own production.

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