

STUDIES OF THE DEVELOPMENT OF THE LOGISTIC SYSTEM OF OJSC "BELARUSIAN STEEL WORKS"

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The Belarusian Steel Works is a unique enterprise of the metallurgical industry of Belarus, which belongs to the category of modern factories of the European level. The article presents the results of the analysis of the logistics system of this enterprise, which revealed promising directions of development and ways to improve the logistics system.

Large-scale steel manufacturing and rolled steel production in Belarus has begun only after the creation of a steel works in Zhlobin. The Belarusian Steel Works is an enterprise of an incomplete metallurgical cycle, which includes the preparation of basic raw materials, steel smelting and the production of final products in the form of cast billets, long products and hardware (metal cord and wire).

The main goal of BMZ development is the development of the company's economy on the basis of innovative renewal, increasing economic efficiency, environmental safety, resource saving and increasing the competitiveness of products. In general, two strategic tasks are being accomplished. The first is an increase in the export of products. The starting material is scrap metal. And products with high added value are sold. The second task that is being solved is import substitution. To fulfill the tasks set, modernization of existing facilities of main and auxiliary production facilities, construction and commissioning of a number of new facilities is envisaged [1].

The main competitive advantages of BMZ:

- Strong positions in the world metal products markets;
- Favorable geographical location of the works;
- Professionalism of staff;
- High competitiveness of products;
- The current investment program;
- Wide production line;
- High consumer's reputation for the level of product quality;
- Own distribution network of seven joint ventures and nine distributors in Europe, America, CIS, Southeast Asia.

Enterprise services that perform logistic functions:

Basic:

1. Purchase (raw material management, logistics management, management of equipment procurement, chief power engineering department, chief electrician department, automation department).
2. Production (scrap yard, steel melting shops, steel wire shops, rolling mill, pipe-rolling shop).
3. Distribution (sales management, marketing department, warehousing, warehouses of finished products).

Key:

1. Compliance with standards (quality management department, technical control department, technical department, chief metrologist department).
2. Procurement management (main and auxiliary workshops, financial management, competition department).
3. Transportation (transport logistics department, railway workshop, technological vehicle shop, a subsidiary of the enterprise "Metallurgavtotrans", independent transport companies).
4. Inventory management (main and auxiliary shops, shop warehouses).
5. Management of order procedures (main and auxiliary workshops).
6. Management of production procedures (production management, main and auxiliary workshops).
7. Pricing (price department, management of planning and economic analysis, management of accounting, reporting and control).

Supporting:

1. Warehousing (warehouses of finished products of shops).
2. Cargo handling (container and packing department).

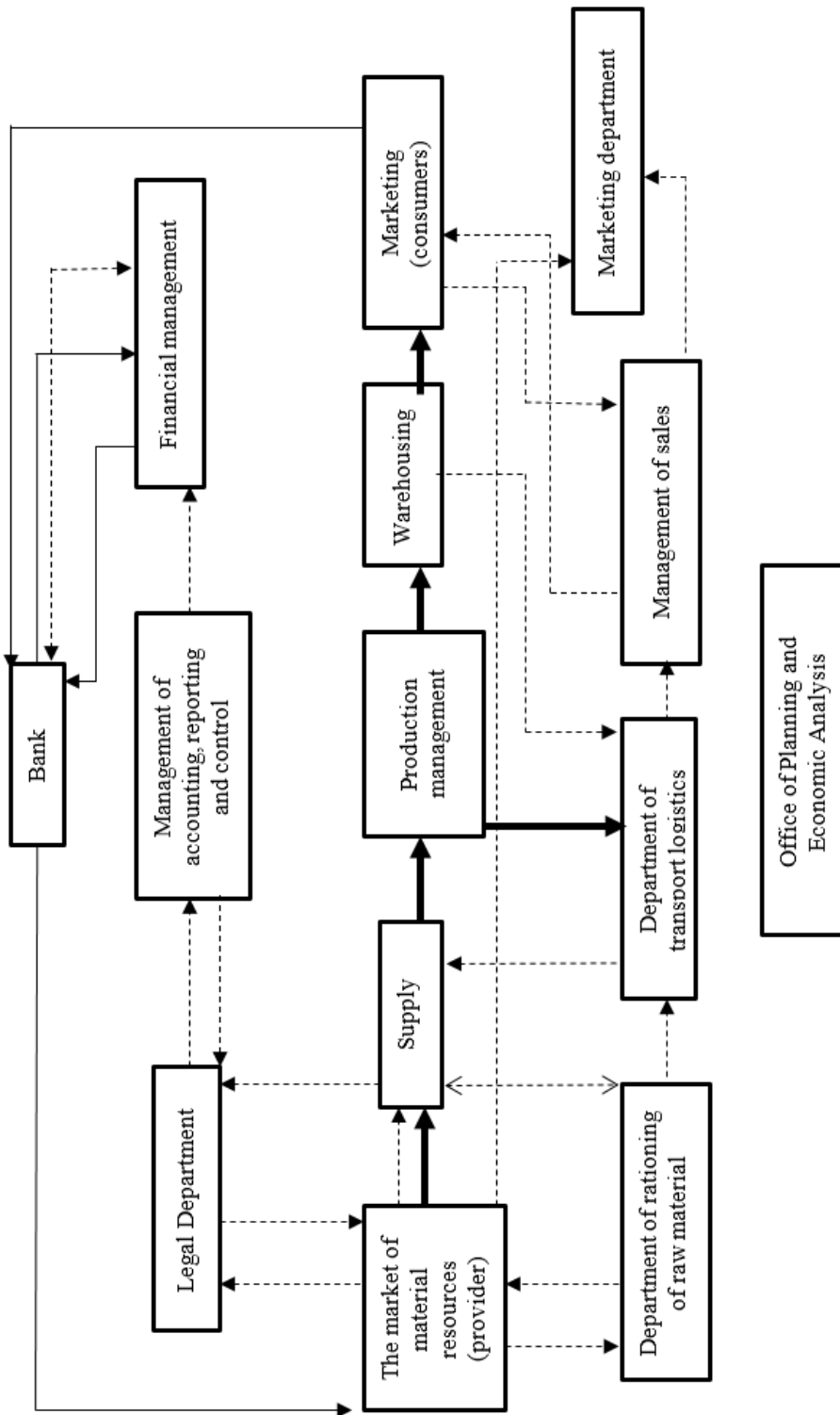


Fig. 1. – The traffic pattern basic flows in the logistics system and the supply chain

Conventional notation:

- ➡ Material flow
- ➡ Financial flow
- ➡ Information flow

Economics

3. Protective packaging.
4. Provision of spare parts and service.
5. Collection of returnable waste.
6. Information and computer support [2, p. 35].

The analysis of flows showed that in the field of procurement logistics the main problem is the raw material safety of the enterprise. We are talking about the stable supply of scrap metal. Due to the reduction in size and the reduction in the metal consumption of production, it is no longer possible to collect scrap metal in such quantities as the capacity of the plant was calculated for during construction. Belarus is forced to purchase metal abroad. The reason for this can be the low percentage of scrap metal delivery by the country's population.

In the field of transport logistics, BMZ faced challenges due to the lack of its own car fleet. Previously, they used mainly Russian wagons. But on the Russian railways there was a shortage of rolling stock, which led to the fact that the supply of raw materials to BMZ fell sharply, and the cost of the car for the transportation of products increased sharply. Taking into account that up to 55% of scrap metal is imported to BMZ from the territory of Russia and a decent volume of finished goods (armature) is shipped back in the wagons [3], the acquisition of its own car fleet will reduce downtime, more clearly predict their actions and not depend on any nuances in the work of the railway, delivering goods in guaranteed terms (Fig. 1).

In the field of production, an important issue for the enterprise is the quality of the raw materials supplied. Taking into account the high competition in foreign markets, the company needs to produce products of high quality. BMZ is forced to reduce the profitability of products. At the same time, the price still remains at a high level, which prevents the products from effectively competing, both on the domestic and foreign markets.

Thus, during the analysis it was revealed that the most attractive strategy for the company would be:

- 1) ensuring a high share of own raw materials;
- 2) creating its own car fleet;
- 3) increasing the number of branches and warehouses in Russia;
- 4) improving the quality of supplier selection.

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