A basic element of supply chain management is the holistic or system view. Following this perspective supply chain management has to analyse the supply chain as a whole and must not only concentrate on details or specific elements. The configurational approach is one method for realizing this. The article analyses how the configurational approach can be applied in SCM of steel goods.

Key words: metallurgical enterprise, supply chain, lean and agile, Poland

INTRODUCTION

The economic development, creation of new enterprises or merging with the existing ones lead to an increase in competition on the market [1]. Peer pressure that influences contemporary functioning enterprises causes that they are forced to search for more sophisticated ways that will enable them to develop and remain on the market. Enterprises that aim to maintain their position, especially those which want to increase the market share, are forced to use a growing number of new and advanced techniques to manage and plan supply chains [2]. In order to meet new challenges posed by the market, companies must concentrate their efforts on achieving better logistics capacity that enables faster production modification, so that it could fully satisfy customer requirements. Supply chain management constitutes the highest form of economic management within a given enterprise. An effective supply chain, ability to adjust an offer to market requirements and collaboration with partners allow a given company to make better use of its potential.

“The promised benefits that effective supply chain management can create for all the collaborating parties: reduced costs and increased revenues, improvements in delivery, dependability and service quality [3]”.

The purpose of this article is to present and analyse the processes that occur in supply chain of steel goods on the basis of one of Polish companies, mediating in selling steel goods. The main issue described in this article is supply specification as well as the processes of adapting the enterprise to market requirements in the context of configuration of supply chain of steel goods.
K. DOHN: THE CONFIGURATIONAL APPROACH IN SUPPLY CHAIN MANAGEMENT (SCM) OF STEEL GOODS

THE CONFIGURATIONAL APPROACH

The configurational approach displaced contingency theory as the dominant perspective in the literature on change in the 1980s. This perspective is characterized by its “holistic” view of organizations, which are conceived as “composed of tightly interdependent and mutually supportive elements such that the importance of each element can best be understood by making reference to the whole configuration” [10].

An early research on the configurational approach in supply chain is presented by M. L. Fisher [11]. Based on the ‘type of product’ and ‘demand predictability’, Fisher classifies products into functional products that have predictable demand and innovative products that have unpredictable demand. In his discussion, a SC configuration focusing on physically efficient processes is considered the most appropriate for functional products and a market-responsive-process SC configuration is most suitable for innovative products.

In turn, by A. Neher [12] the configurational approach describes organizations as commonly occurring clusters of attributes of strategy, structure, process and context. Each type of configuration is characterized as a set of variables which fits together including internal aspects of the organization as well as the external environment/context. It is assumed that the parts of a socioeconomic system take their meaning from the whole and cannot be understood in isolation.

The application of the configurational approach to supply chain management will lead to a better understanding of the relations between the numerous elements of supply chain management, which is an important step towards a supply chain theory.

SUPPLY CHAIN MANAGEMENT OF STEEL GOODS – THE CONFIGURATIONAL APPROACH

The analysis of supply chain of steel goods was performed in a metallurgical company. The surveyed company offers a wide range of carbon steel goods from largest Polish manufacturers. Except for domestic products the company offers products imported from the European Union, the East and Asian countries. The main domestic customers include enterprises in construction, mining and heavy industry as well as companies in shipbuilding, energy and, for several years, gas industry. The company is headquartered in Southern Poland whereas its 8 branches are spread across the country.

Thanks to the wide range of available products the analysed company outstands among other steel distributors. This constitutes one of the company’s greatest value, since the availability of products in one place, which considerably reduces transport costs, is of great importance for contractors. The possibility of batch picking is often more essential for the customer than the price, which, in case of small amounts, may change. A wide range of product is additionally extended to the possibility of own specialized transportation to the outlined place under the conditions defined in the purchase agreement.

The implementation of a potential order starts from bidding. After receiving an inquiry, a suitable offer is prepared, which depends on the kind of material as well as inventory or possibilities to receive material within a given time. If the goods and purchase conditions much the customer expectations, an order is placed and this, in turn, starts the phase of order processing (Figure 1).

Depending on where the offered product is placed, order processing can be performed in three configurations that is, sales from a warehouse, transit sale from smelter or transit sale from a competitive supplier (Figures 2, 3, 4).

Figure 1 Order processing – stages from an inquiry to an order

Figure 2 Configuration 1 – sales from stock

Figure 3 Configuration 2 – transit sale from smelter

Figure 4 Configuration 3 – transit sale (competition)
3. Possessing only one main warehouse hinders the supply of materials to remote places because the growth in the served area results in necessity to extend the transport routes.

4. From the perspective of functioning and development of supply chain in the analysed company, opening other warehouses would be a favourable solution. This would enlarge the storage space at a central point and reduce the cost and time of transport.

CONCLUSION

As a result of research conducted it was stated that:

1. Trading in steel goods is a very specific area of trade. Steel belongs to materials widely used in many branches of industry around the world and the variety of products, semi-finished and finished products is very wide. Wholesales that want to build, maintain and expand their position on the market are forced to adapt their offers to different customer requirements. According to [13] metallurgical companies still have problems trying to transform the increasing sales of products into profits.

2. Gathering the whole material in one warehouse is essential for supply completion. This allows to co-pack materials during loading without the necessity to reload it in other places. However, the company development generates the need to create greater inventories which, in turn, requires better transport capacity.

REFERENCES


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Note: The responsible translator for English language is M. Pakula, Tarnowskie Gory, Poland