

Supply Chain Problems of Non-Food Consumer Goods in Bulgaria

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Abstract

In recent years, the supply chain of consumer goods has undergone significant changes as a result of globalization of markets, the development of e-commerce, the digitalization of logistics operations. The purpose of the report is based on summaries of the theory of supply chain management of consumer non-food products, to bring out new trends, taking into account the impact of the economic crisis in the context of the COVID-19 pandemic. Based on data from the National Statistical Institute, it is considered the development of wholesale and retail sales of non-food consumer goods in Bulgaria for the period from 2007 to 2019 and the ratio between wholesale and retail sales. The main factors influencing sales related to the supply of goods are summarized.

Keywords: supply chain, management in supply chain, category management, import, logistic, purchasing, online shopping, retail, wholesale.

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Introduction

The supply chain is a network of companies that are involved in the whole process and activities of moving goods and services from the producer to the final customer. Pre-planning and proper implementation of processes can contribute to high profits or large losses. The supply chain covers the path of the commodity, which begins with the extraction of raw materials, its distribution to multiple producers, the production of the commodity, the distribution of the commodity to the final customer and ends with the purchase of the commodity. The aim of the report is based on a summary of the theory of supply chain management of consumer non-food products to bring out new trends, considering the impact of the economic crisis in the context of the COVID-19 pandemic. The main problems and stages in taking strategic, tactical and operational decisions in the supply chain management process are subject to clarification.

1.Essence of the supply chain of non-food consumer goods on the Bulgarian market

The movement of goods from the producer to the final customer goes through a number of stages. The analysis of the theory in the field of supply chain allows to generalize of the processes and factors that influence the efficiency of the supply chain and can be a source of problems. At each stage, problems may arise in making and implementing decisions related to:

Proper planning of the quantity of the produced / distributed goods. This can be achieved through an analysis of previous periods, considering the current economic situation in the country. Planning is important not only on the basis of statistics from previous periods, but also in real time. Planning only on the basis of previous periods hides its risks of not considering the social and economic factors of the present, which determine the demand and purchasing power of consumers.

Inventory management. Inventories guarantee continuity of sales, but they also generate a number of costs and therefore must be maintained at an optimal volume, as for each type of product the quantities is pursuant by the turnover and seasonality of the product.

Proper planning of the delivery of goods. This process includes the timely planning of orders, considering the production time, transport time and warehousing operations. The main purpose is to have continuity of sales and will not miss the benefits from the trader and dissatisfaction of the customer. Good relationships with suppliers must be maintained, as in certain situations preferences can be used compared to their other customers.

The price level of the products. It is really important to calculate correctly the final sale price of the goods. It must be competitive in the first place, in line with market price levels, but at the same time it must bring profit to the producer or trader. It is necessary to pay special attention to the price of seasonal products and services. Usually at the end of the season, they are sold at big discounts, in many cases the purpose is to have with free funds for future investments.

The development and implementation of an appropriate competitive strategy. The company should have a competitive strategy for each group of goods, product category that it offers. The competitive strategy is formed on the basis of the analysis of the competitive environment, the main competitors and the competitive position of the product.

After-sales service. The trader's commitment to the commodity does not end with its sale. According to the Bulgarian legislation, each product has a minimum warranty of two years and the trader is obliged to assist the customer in case of a defect or other type of dissatisfaction after the sale of the product. (Blagoeva et al., 2008)

Consumer goods can be locally produced or imported from foreign producers. In both cases, the successful sales of a product are related to its quality parameters, price, place and time of sale. When forming the range, the trader first analyzes the target group of consumers for whom the product is intended, considering personal, cultural, economic and social factors (Marinov et al., 2013). The products are bought by the customers not because of the product itself but for the benefits that the products will deliver to the customer. The successful products are the right value for money.

At present, the import of goods from China and the Middle East is significantly hampered due to extended production times and the complex situation with container transport. The price of sea freight for a 40-foot container from China has risen about six times compared to September 2020, or from \$ 2,500 to \$ 15,000. This mainly predetermines the high jump in the prices of imported goods.

On the other hand, the price of raw materials has risen sharply over the past year. An example is the price of plastics, which has risen about twice as much worldwide and continues to rise. This situation is caused mainly by the Covid-19 pandemic and the impending energy crisis. As early as October 2020, there have been extended production periods of several months, a drastic increase in the price of materials. There is a shortage of containers, ships and staff to transport finished products. There are many situations in which it takes one or two months to load ready produced products from China. These problems have a detrimental effect, especially on trade in seasonal goods, as the season sales are missed and investment in inventories remains closed until next season. This situation makes the properly and clearly planning for future investments and covering of the current costs almost impossible. On the other hand, the electricity mode being introduced in China necessitates a reduction in factory production. This further prolongs and increases the cost of the production process. Raw material factories, such as aluminum and steel, cannot operate on a daily basis and have to cease operations for months, leading to higher raw material prices and shortages, even at high prices. Factories that produce parts for global corporations such as Apple Inc. and Tesla Inc. they also restrict their activities, and some divisions even stop the production. The whole situation leads to a shortage of raw materials and ready products (Ivanova, 2021).

In this difficult situation for trade between China and European countries, the alternatives for importing of consumer non-food goods into Bulgaria are the countries of the European Union, Turkey, Ukraine, Serbia and others. The problem is that not all goods are produced in these countries or even if they are produced, their price is significantly higher. An example is the price of granite products, which are nearly 2.5 times more expensive in Turkey than in China.

When deciding to import goods, all costs must be calculated correctly, including the after-

sales service, which remains at the expense of the trader. In case of a decision for import of goods, the trader bears the risk of:

- increasing the price of raw materials in the production process;
- increase of the logistics costs during the lead time, from the order to the delivery of the goods;
- difficulties in customs clearance and/or imposition of fair import prices under Bulgarian law, which may be higher than the invoiced prices. This further increases the price of the goods and leads to unforeseen costs when paying customs duties and VAT;
- correct labeling of the goods and compliance with Bulgarian regulations, instructions for proper use;
- mandatory certification of the goods and safety in its use;
- confiscation upon import or non-receipt of a permit for distribution at the Bulgarian market;
- defective goods, goods not corresponding to the ordered, hidden defects.

The practice in Bulgaria shows that the wholesale trade in consumer non-food goods is mainly with imported goods, mostly due to the lack of local production of such goods. Many of the Bulgarian hypermarket chains import a large part of the range themselves or make direct deliveries from local producers. Retail chains are vertically integrating and bypassing wholesalers by increasing their own profits and being able to offer goods at lower prices, including through competitive price wars in order to attract more customers.

The foreign chains operating in Bulgaria carry out their own import in large volumes through central distribution warehouses in Europe, from which they deliver the goods to their warehouses in the country or directly to the retail stores. The concentration of wholesale and retail activities and large volumes of delivery lead to a reduction in the level of costs for the delivery of goods, economies of scale are achieved – reduction in logistics costs, reduction in delivery price dictated by the large volume of purchased goods, reduction of all associated costs for the movement of a larger volume of goods to the final customer in different countries in Europe.

2. New trends in the supply chain management of consumer non-food goods

The increasing importance of the supply chain determines the attempts to continuously update the processes it covers in order to fully optimize it, reduce potential (human) errors and strive for full customer satisfaction. The main trends in the management of the supply chain can be summarized in the following areas:

Automation and use of artificial intelligence. Many of the operations in the supply management process can be performed by tasks that are used for certain parameters, and can also be performed by artificial intelligence. In this case, the software is programmed as an assistant that releases the person for more important tasks that the software would not be able to handle.

Digitalization. It is a process of using information in digital format. In this way, all actions remain as history or archive, easier access by company employees to information, the system becomes more mobile and easier to manage. The first most important step towards digitalization is the selection of appropriate software for the needs of the company and its adaptation. The digitalization of information in a company provides transparency and predictability for the future, which reduces the probability of errors and delays in the preparation of orders.

Cloud-based technologies. The introduction of cloud technologies ensures access to a large amount of information anytime and anywhere, which makes management extremely flexible and accurate in making decisions at any time.

Improving relationships. In a small market like Bulgaria, competitors are known and monitored constantly. Any victory over a competitor is considered a success. But if competitors join

efforts in some area of their business, in some of the supply chain operations, it is possible that the final result will be a greater overall profit and therefore for each company- participant. The integration aims to reduce the strength of suppliers and direct customers in negotiations, to optimize costs, as well as to reduce risk and facilitate the coordination of individual processes (Dimitrova, V., 2016). The decision on integration is made after calculating the alternative to "produce or buy" and the strategic results. For example, if two companies that import products from China combine their orders with a Chinese supplier, they will most likely get a good price with the increased quantities of the order and reduced cost for the delivery of the goods. New technologies and, above all, digitalization lead to the emergence of new forms of product distribution, to the entry of new intermediaries and the change of relationships, incl. to the so-called co-opetition. Cooperation between market agents leads to the creation of a new market design (Dimitrova, V., 2013).

Attention to the environment. There is a growing consumer interest in the need to protect the environment. Companies need to adapt this trend strictly individually to their production and distribution in view of the long-term consequences. Such decisions, for example to switch to eco-packaging of the product, lead to the revision of a number of solutions, starting with the replacement of the raw material from which the packaging will be produced.

Recycling of products. The planet's resources are not inexhaustible and this requires the development and introduction of technologies for recycling products and waste materials. The trend is to move from the so-called linear supply chain to a circular supply chain, in which as much of the already unnecessary production as possible is recycled and used for re-production (Evans, 2021).

Usually the movement of goods and raw materials is from the producer to the final consumer. The need to protect the environment, reduce waste products and strive for maximum use of resources raises the need for the emergence. The process of moving goods from customers to the manufacturer is known as reverse logistics and its purpose is to create new value or separate waste. Part of the strategic decisions in the management of the supply chain should be related to the return of unusable goods, hazardous waste (after use of the goods) to the producer. In addition to caring for the environment, the benefits of reverse logistics and the reduction of production costs, saving energy and resources, optimizing the process in the supply chain, which brings both economic and social benefits. "De facto reverse logistics after the closure of the production approach and the study of logistics, including recycling, re-production and waste collection" (Dimitrova, V., 2017, p.16).

3. Development of the link in the supply chain of consumer goods in Bulgaria

Manufacturers, wholesalers and retailers are involved in the supply chain. The role of intermediaries is determined by many factors, the main of which are the type of product and the concentration of producers, wholesale and retail trade. With a low level of concentration in retail, the role of wholesalers is growing, while with the development of retail chains, the latter are increasingly engaging in wholesale operations.

Wholesalers are an important link in the marketing chain. The wholesalers:

- store and maintain inventories, thus ensuring security and continuity of the sales,
- transform the production range into commercial, make additional repackaging, labeling and other activities;
- have developed a network of customers;
- take the risk when purchasing the product from the manufacturer (whether domestically produced or imported), being responsible for hidden defects, slow sales of the product, proper storage and labeling.

The changes in the structure of the supply chain of consumer non-food goods can be represented by the change of the indicator for the unit of movement of goods – the ratio between the share of wholesale sales of consumer goods to the volume of retail sales. The sale of goods and

services and the realization of profit are the ultimate goals of every trader. The sales release funds for future investments, cover expenses for current periods.

The ratio between wholesale and retail sales shows what share of retail sales passes through wholesalers and is a subject of sale, without showing whether the goods pass through a wholesale warehouse. The increase of the coefficient is an indicator for the growth of the role of the wholesale trade and the opposite.

The calculation is based on sales of non-food consumer goods in Bulgaria from 2007 to 2019 according to NSI. The wholesale sales showed that in 2008 there was an increase, then a decrease in 2009 as the volume of sales reached the levels in 2007 due to the financial crisis in the country. This period is followed by a gradual increase of 22% in 2019 compared to 2009 (Figure 1). For the past almost two years, wholesale has been marked by the Covid-19 pandemic.

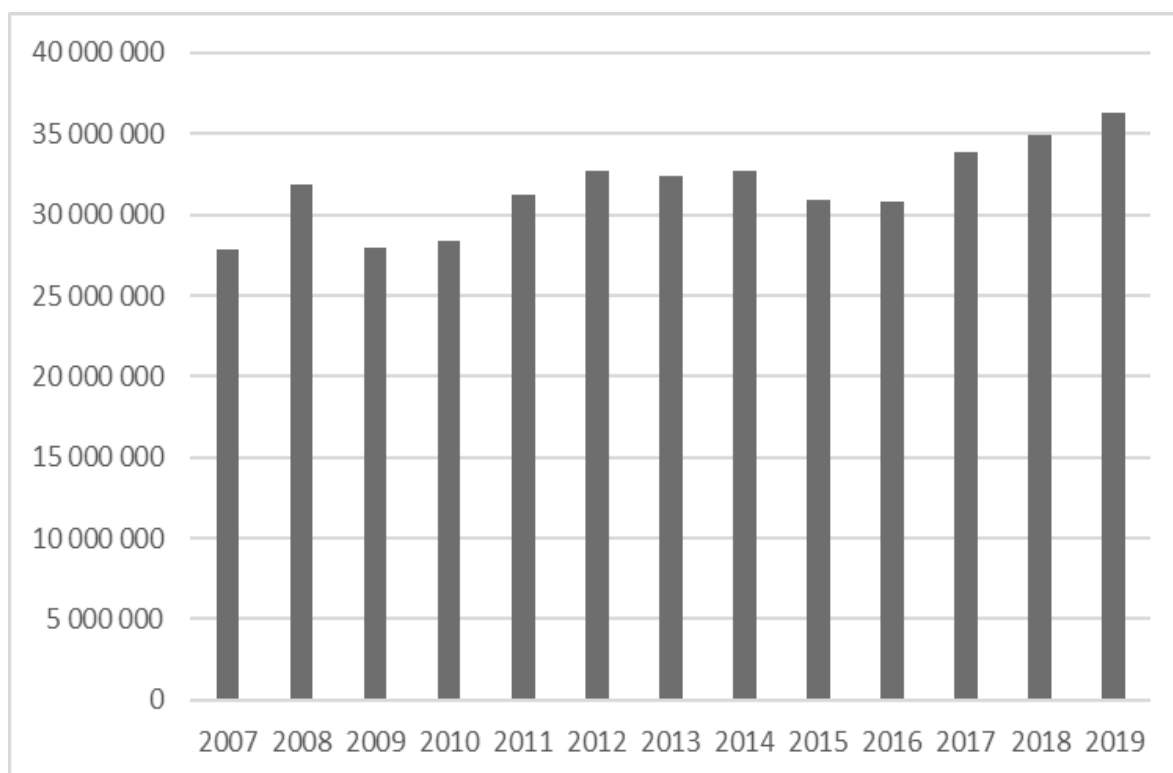


Figure 1. Wholesale sales of consumer non-food products in Bulgaria in the period 2007 - 2019

Source: according to NSI data and the author's own presentation

In addition to delays in the production of goods, massive price increases and difficult logistics, especially through sea transport, the way of communication between traders and producers has changed, personal meetings are increasingly avoided, negotiations are held online, many product fairs were canceled, electronic communication is increasingly intensified.

For their part, retailers sell to their customers both through an established store network and through the ever-increasing online trade. In a pandemic environment, online sales are increasingly expanding, avoiding face-to-face meetings between sellers and buyers, as customers are increasingly looking for safer, contactless options for buying goods. This requires retailers to offer more and more conveniences and services for online orders. Customers, in turn, get used to and like the convenience of online shopping. The trend in retail trade is expected to be in the coming years to the increasing penetration of online commerce and its integration with traditional offline

commerce, or the transition to the so-called omnichannel commerce, in which all means of communication are offered as a single channel.

Online order service is difficult to be predicted, as customers have the opportunity to shop 24/7, not just during the opening hours of physical stores. On the other hand, customers of online commerce buy fewer products in one purchase than customers in a physical store. Needs and customers must always come first. The delivery of the goods should be able to be controlled by the customer and delivered to a place convenient for him, as well as have the option to change the delivery address. All these and other specifications of online orders make the order for purchase in a physical store more expensive. The importance of speed of execution and optimal use of resources is crucial in the constant change. (Aryapadi, 2020) Expand more e-commerce, retailers are implementing to facilitate the service of online orders.

In order to be possible smooth and temporary movement of the goods from the trader to the customer, when ordering online, an appropriate form of the so-called electronic logistics for the specific supply chain. E-logistics is the part of logistics that supports e-commerce. An organization should be established between partner companies with different functions in the state supply chain of a certain company. E-logistics means not only the movement of material flows (goods and raw materials) in e-commerce, but also the use of information technology and systems at each level that support logistics processes. It is becoming more widespread on information platforms for shared information, through companies seeing market changes in a global manager, not only in accordance with their own company, and you have the opportunity to respond to time by changing the product or service it offers (Vassilev, 2017).

Data on retail sales of consumer non-food products in Bulgaria for the same period show a significant decline in 2009. But unlike wholesale sales, which recovered in 2010, retail sales recorded a larger decline in 2010. Retail sales growth started in 2011 and continued to fluctuate until 2019, when retail sales were 34% higher than in 2009 (Figure 2). For the period 2009-2019 the level of inflation in Bulgaria according to NSI data is minimal, respectively the change in the prices of consumer goods is minimal for the considered period.

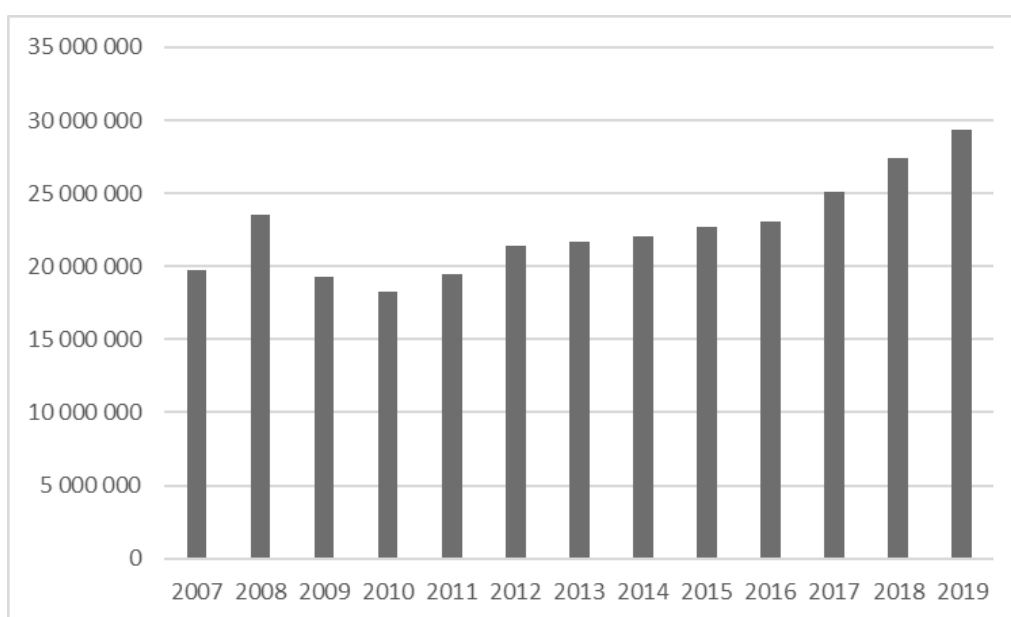


Figure 2. Retail sales of consumer non-food products in Bulgaria in the period 2007 - 2019

Source: according to NSI data and the author's own presentation

The efficiency and effectiveness of the supply chain is determined by its organization. The fewer channels the product passes through until it reaches the final customer, the more efficient it is considered to be the channels for its realization. Information about this is carried by the ratio between wholesale and retail sales. The lower its value, the smaller part of retail sales are subject to resale in wholesale. The ratio is calculated by referring the total wholesale turnover to the retail turnover of consumer goods. (Figure 3)

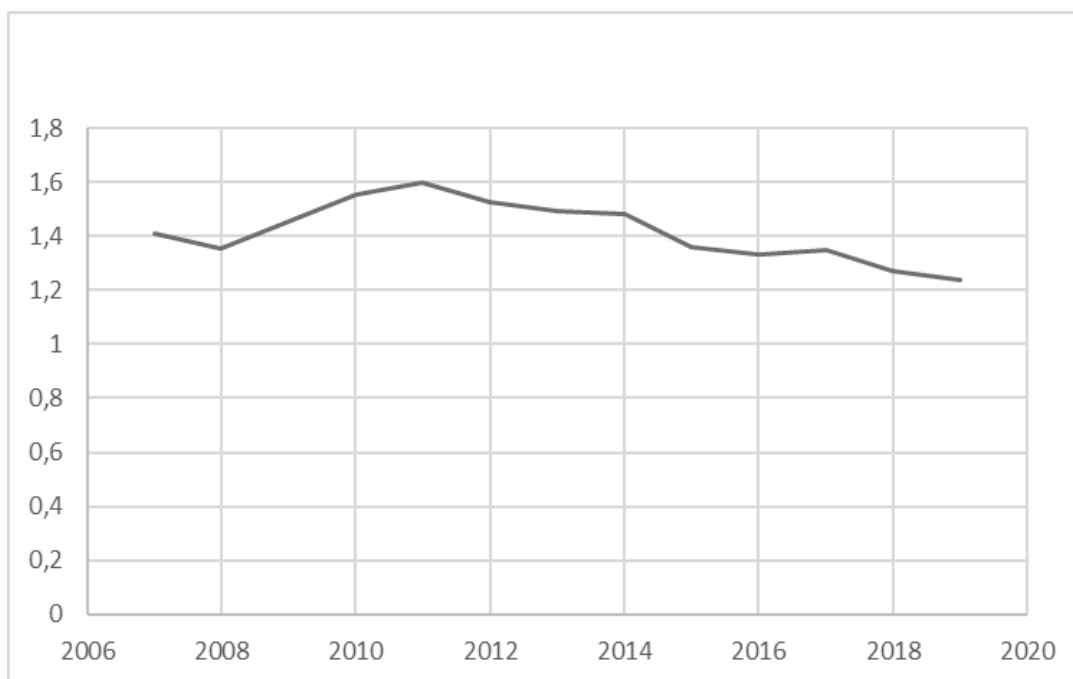


Figure 3. The ratio between wholesales and retail sales of consumer non-food products in Bulgaria in the period 2007 - 2019

Source: according to NSI data and the author's own presentation

At the beginning of the considered period 2007-2019 the ratio rises until 2011, after which it shows trends to reduce. The increase is a result of the larger share of wholesale trade in the conditions of lower concentration of retail trade. After the crisis in 2008, the share of retail chains in the country increased and thus the share of direct supplies from foreign suppliers and imports increased. Lower coefficient values show that more and more retailers have taken over the functions of wholesalers and are buying or importing goods from producers themselves. On the other hand, it means that some wholesalers are building a store network in which they sell directly to final costumers.

Conclusion

We live in very dynamic time marked by the Covid-19 pandemic and the mass transition of all activities to the digital environment, the entry of digital currencies (cryptocurrencies), increasing restrictions on social contacts, deteriorating economic environment, higher prices of raw materials, energy and fuels. All this leads to an increasement in the prices of all products and services offered on the market. In this difficult economic and social environment, companies are struggling to survive and maintain market positions. It is precisely in such a global crisis that the weak links of companies and, in some cases, their inability to flexibly address the difficulties encountered can be seen. It is necessary to automate the processes, reduce the unprofitable units, innovate and personalize the activities. Supply chain management is moving towards complete optimization in

order to maximize and rational use of resources. In the very near future, the supply chain will use much more the support of artificial intelligence. Many of the common tasks will be performed by pre-programmed software. The Covid 19 pandemic is the main reason to be necessary the all the strategic decisions to be taken very quickly, which requires the information and data to be easily accessible and transparent to handle. Every manager need summarized and accurate data base to take more effective decisions on time. This will be achieved with an increasingly global supply network composed of various new technologies. Good management of the company's supply chain lead the company to better collaboration of the global company process, risk mitigation, higher quality control of the offered products and services, guaranteed revenues, reduce of the costs and stability of the company.

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