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Кафедра менеджменту

ВИПУСКНА КВАЛІФІКАЦІЙНА РОБОТА

на тему:

«Управління ланцюгами поставок підприємства»

(за матеріалами ТОВ «СІЛЬПО-ФУД», Київ)

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Kyiv National University of Trade and Economics
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FINAL QUALIFYING PAPER

on the topic:

«Enterprise supply chain management»

(based on the materials of LLC «Silpo-Food», Kyiv)

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CONTENTS

INTODUCTION

Relevance of research. In modern conditions of widespread innovation and network production and logistics concepts of supply chain formation by national enterprises is in accordance with the requirements of the integrated logistics paradigm, which came in the 21st century to replace the technological and marketing paradigm. The efficiency of logistic activity of national enterprises is directly dependent on the logistics chains they have formed and the implementation of supply chain management principles – the most up-to-date enterprise management concept. SCM is the result of the development of management, marketing and logistics and meets the requirements of the modern stage of economic development, which is characterized by the development of network production, is an economy of competence and interaction.

Among the foreign scientists involved in the study of logistics and supply chain management should be noted M. Cooper, H. Ding, B. Guo, Z. Liu,J. Mentzer, D. Bowersox, D. Waters, R. Handfield, J. Shutt. The theoretical aspects of supply chain management in the current conditions of the Ukrainian economy were considered by the following scientists: S. Dubovik,T. Kolodizieva, E. Krykavsky, N. Medzhibovskaya, L. Sigida, K. Tankov, M. Cherna, N. Chukhray. However, the dynamic environment of enterprises, the intensification of global competition, the deepening of interaction between the participants in the supply chain requires the search for new theoretical approaches and the development of practical recommendations for supply chain management, so the topic of the study is quite relevant.

The purpose of the final qualifying paper is to justify theoretical positions of enterprise supply chain management and to develop practical recommendations for its improvement in the current economic conditions.

According to the stated purpose, it is necessary to solve the following problems:

- to determine essence, concept, goals of supply chain management;
- to characterize types of supply chain management on the enterprise;
- to analyze of supply chain management of the enterprise;

– to estimate the efficiency of supply chain management provided by the enterprise;

– to determine development of possible ways for improvement of the supply chains on the enterprise;

– to estimate of the proposed measures on the enterprise.

The object of the study is the process of supply chain management at LLC «Silpo-Food».

The subject of the study is a set of theoretical, methodical and practical aspects of improving the supply chain management of LLC «Silpo-Food».

Research methods. The theoretical and methodological basis of the study is the dialectical method of cognition, a systematic approach to the study of economic phenomena and processes, scientific works of leading domestic and foreign scientists, devoted to the problem of supply chain management and logistics.

In the process, the following research methods were used: analysis and synthesis – to study the features and patterns of supply chain management development; inductions and deductions – to reveal the essence and content of supply chain management, to formulate a general concept of a research object based on the combination of its components; analogies – to study the essence of supply chain management; comparison – for comparison of actual indicators with indicators of previous periods; graphical – to visualize statistics and their ratios.

The information and regulatory base of the research are scientific works of domestic and foreign scientists, materials of periodicals, statistics, materials of financial and economic activity of LLC «Silpo-Food», Internet resources.

Approbation the results of the study is represented in the scientific article on the topic: «Essence, concept, goals of supply chain management» which published in the KNUTE collection of scientific papers (Appendix A).

Structure and scope of work. The work consists of an introduction, three sections, conclusions, a list of sources used. The work contains 13 tables, 13 figures. The list of sources used includes 68 items.

PART 1
THEORETICAL BASIS OF THE ENTERPRISE SUPPLY CHAIN MANAGEMENT

1.1 Essence, concept, goals of supply chain management

Business environment has been more and more competitive presently. Nowadays companies are aiming to gain their competitive advantage as much as possible. Supply chain management (SCM) is one of the most effective methods in our fast-moving world.

Development of SCM has certain basis. In 90's of the twentieth century three trends were clearly evident: excess supply over demand, globalization of markets and informatization of society. These trends have caused changes in the strategies for ensuring competitiveness and profitability of business.

The starting point for the emergence and development of a concept of supply chain management was the need to reduce uncertainty on the basis of methods and models of cooperation and multi-echelon stock management, that is, at several enterprises simultaneously, which intensively developed in the 80's of the twentieth century.

The term "Supply Chain Management" belongs to consultants R. Oliver and M. Weber [41, p. 72], who came up with the idea to consider material flows from raw material producers to end consumers as part of an integrated strategy, calling it supply chain management in the article «Supply Chain Management: Logistics catches up with strategy» in 1982.

Scientists have pointed out that in the 1980s the emergence of the term "supply chain management" (SCM) was driven by the need to integrate and streamline key processes from supplier to end consumer. The basic idea of supply chain management is that enterprises operate in the logistics chain according to information on market fluctuations, availability of goods and manufacturers [41, p. 72-75].

D. Waters [34, p. 248-251] views supply chain management as a single entity, not as a set of components, that performs its own function. He defines logistics chain

management as an integration theory for managing the total flow of the distribution channel from the supplier to the end consumer. The author also believes that the modern vision of supply chain management should bring together all participants involved in conversion of raw materials into goods, supplying goods to consumers in the right amount, at the right time, in the right place in the most efficient way.

American scientists in the field of Supply Chain Management define this notion as follows: «This is the integration of key business processes from the end consumer to all suppliers of goods, services, information» [3, p. 354]. Revealing this definition, they point out that supply chain management is an integration of key business processes: customer relationship management; fulfillment of orders; management of material flows; procurement management.

By definition of the European Logistics Association Supply Chain Management is an integrated business approach that reveals fundamental principles of logistics management such as the formation of functional strategies, organizational structure, decision-making methods, resource management, supporting functions, systems and procedures [62].

The term "Supply Chain Management" itself has been widely used in the last ten years. The newest and most significant world-class research which are devoted to current issues of theory and practice of Supply Chain Management are represented in works [42, 43, 46-50, 52, 53, 57-60, 64-66, 68].

Ukrainian researchers make the following definition of SCM: "Supply Chain Management (SCM) is a process of deepening the integration of all supply chain participants - from end consumers to suppliers of goods, services and information, aimed at meeting the requirements of the target market, as well as shaping supply chain participants. social responsibility in accordance with the requirements of society as a whole and of end users in particular." It is also argued that the SCM concept is a "cure" that enables the coordination and regulation of business partners in a rapidly evolving and constantly changing business environment [9].

In our opinion, taking into account characteristic of logistic activity of trade networks we formed such definition of Supply Chain Management: it is a complex

process of planning, making and controlling of material, informational flows and business processes in the logistic chain to meet the needs of all consumers of trade network.

There are different theoretical approaches to define the concept of Supply Chain Management – most up-to-date and efficient concept of logistic management on the enterprise. The Evolution of Supply Chain Management concept is a modern scientific field of organization of interconnections between enterprises and providing for client orientation of conducting modern business.

In the early stage of the formation of SCM was a reflection of current changes in character, which is why it plays an important role in the study of a number of scientists. Initially, the formation of SCM was interpreted as a complement to logistics, but today it is an independent scientific discipline that includes logistics as its most important component. In general, the concept of SCM is the result of the development of management, marketing and logistics. It meets the requirements of the modern stage of economic development, which is characterized by the development of network production, is an economy of competence and interaction.

The first theoretical approach on defining supply chain management focuses on coordination and integration of logistics processes between supply chain actors. For instance, D. Lambert and J. Stoke emphasize that supply chain management is about integrating key business processes from the end user to all suppliers of goods, services and information that add value to consumers and other stakeholders [29]. The authors consider supply chain management as an integrated business concept of cross-functional and inter-organizational coordination. Thus, D. Menzer defines supply chain management as the systematic and strategic coordination of traditional business functions and tactics in the implementation of these business functions in a particular company and in all supply chain firms in order to improve the long-term performance of individual companies and supply chains as a whole [55, p. 18]. R. B. Handfield also defines supply chain management as a concept of integrate supply and control over material flow as main task [35, p. 37].

The second theoretical approach focuses on management functions and defines supply chain management as a philosophy or method of management. M. Cooper and

other scholars [44, p. 67-89] treat supply chain management as an integrated philosophy of managing the overall flow in the channel from the original raw material supplier to the end consumer and beyond, including the disposal process. The Collection of Logistics and Supply Chain Management Standards provides a definition of Supply Chain Management as the organization, planning, control and execution of a product flow from design and procurement through production and distribution to the end consumer in accordance with market requirements for cost-effectiveness [51, p. 26].

The third theoretical approach focuses on the focal company and managing its relationship with key participants in the supply chain - partners who are directly involved in value creation for the customer. In the context of this supply chain management approach, it is about establishing long-term relationships with suppliers and consumers, entering into mutually beneficial agreements, sharing risks and rewards, transitioning from competition, responsibilities and mistrust to mutual support and free exchange of information [35, p. 85].

A fourth theoretical approach defines supply chain management in response to consumer demand for value creation, as a synchronization of consumer requirements with the flow of materials from the supplier to achieve supply chain optimization by customer service criteria and reduce unit cost by optimizing the supply chain, optimizing the supply chain the result of adding value at every stage of product or service creation [8, p. 52]. The main focus of this theoretical approach is the implementation of the procedure "design - deconstruction - reconstruction" of the value chain, which, according to E. V. Krykavsky, should be a generalized evaluation of the supply chain in terms of its effectiveness in aspects of customer service, revenue (profit), elasticity, innovation, business relevance to human values [13, p. 125]

The newest stage in the development of the concept of supply chain management is characterized by a reorientation of the supply chain in the direction of recognizing the interests of end users. Its place as the primary point of supply chain management is due to two major reasons: changes in the nature of consumption, i.e. increasing awareness of end consumers, increasing the variability of their interests, increasing their participation in product creation processes (explicit and implicit), etc.; increase of opportunities,

providing modern information and communication technologies in collecting and analyzing consumer information, in carrying out joint processes of product development and design, etc.

To define the crucial role of consumers in the supply chain, a new term was introduced - Demand chain management DCM. Developing the concept of sustainable supply chain management builds on the SCM concept in the area of social responsibility of chain participants and the ethics of doing business. In this context, SSCM is the concept and methodology of the activity. This approach helps to perceive supply chain links from the point of view of the shared influence and interdependence of the chain members and the world, including nature, society, employees, shareholders, etc. In other words, the object of SSCM is not only the relationships between network members as business entities (like SCM), but also their relationships with the outside world.

The SSCM logic is that environmental and social problems cannot be solved by a single company. They must be addressed by the entire set of supply chain enterprises and jointly formulate long-term strategies for business and society. Examples of business processes that are part of SSCM are reverse logistics, development, production, purchase, or use of materials or products that help to reduce, reduce and / or control environmental pollution, waste management, replacement, and / or reuse of materials, waste disposal, recovery, repair and recycling, etc. These may include the development and implementation of ethical standards, labor standards, employee rights and responsibilities, rules of engagement with the surrounding community, etc. [22].

In general, it should be noted that the formation of a customer-oriented economic paradigm has led to the emergence of SCM as a concept that most fully reflects the systematic, interconnectedness and interdependence of business partners within the supply chain in the context of ever-growing socio-economic requirements.

A supply chain is the connected network of individuals, organizations, resources, activities and technologies involved in the manufacture and sale of a product or service. A supply chain starts with the delivery of raw material from a supplier to a manufacturer, and ends with the delivery of the finished product or service to the end consumer. The scheme of supply chain we can see on the figure 1.1.

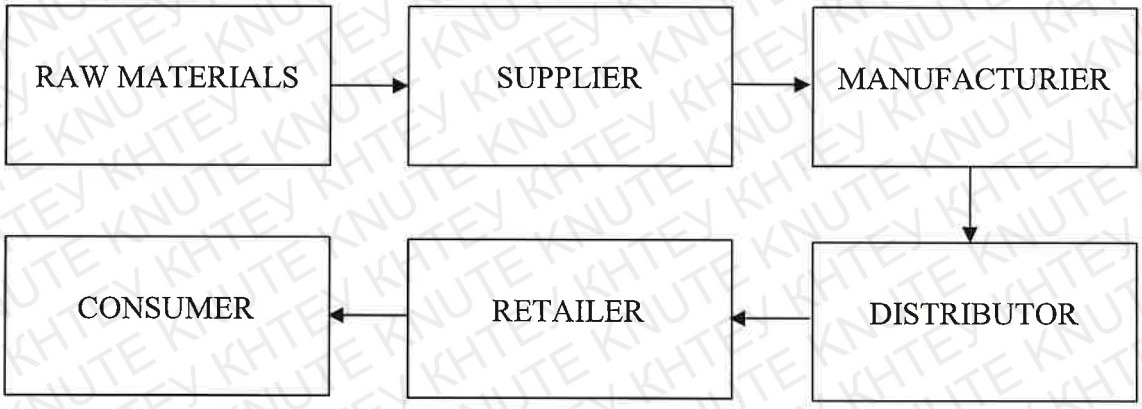

Fig. 1.1. Supply chain scheme

By the author

The main reason for the implementation of the concept of logistics chain management is the desire to increase the competitiveness of the company. At the same time, competitive advantages in the formation of logistics chains are cost reduction or quality improvement for the goods (services) provided to the end consumer.

We can discharge 5 branch directions where supply chain management is one of the main instruments of upgrading business efficiency:

- aircraft construction;
- vehicle manufacturing;
- electric engineering;
- wholesale and retail;
- consumer and pharmaceutical goods.

Essentially, the world can be viewed as one large supply chain. Consumers and producers are constantly communicating with each other, and a product goes through many hands before reaching its destination. Supply chain management deals with major issues such as the growth of multinational corporations, partnerships, global brand expansion, and outsourcing.

Supply chain management is aimed both to optimize inter-organizational interactions based on modern management methods and information technologies, and optimization of enterprise logistics.

On the one hand, supply chain management, is part of logistics, and on the other hand, logistics is part of the supply chain management, because elements of logistics, production management, enterprise organization, marketing and informatics are integrated in the supply chain management. This concept is the key to modern logistics and will continue to develop rapidly in the future.

There are a lot of examples of successful SCM in practice. The implemented projects of supply chain management show the possibility of reducing overall costs in the supply chain up to 60 %, inventory levels up to 60 %, manufacturing time and supplies up to 50 %, increasing the accuracy of supplies to 60 %, improving capacity utilization up to 20%, increasing profits at the expense of optimizing the process of creating value and reducing transaction costs in the field of procurement and sales up to 30 %, improving product quality up to 30 %, increasing turnover and market share by increasing the reaction rate and flexibility of supply chains up to 55 % [45].

Supply Chain Management aims to achieve two main effects:

1. Increase in the amount of income from sales of products or services by increasing the level of service, accuracy of supply and decrease in demand fluctuations;
2. Reduced costs by reducing stock levels, reducing overhead and transaction costs in procurement, storage and sales, as well as improving the use of production and logistics facilities [67].

The modern concept of SCM is widely used in most economically developed countries as it is an effective business tool. SCM provides opportunities and benefits such as:

– reducing costs, adhering to contractual discipline and improving management efficiency by transforming an existing linear, consistent supply chain into a reactive supply chain;

– improving the quality of products and the level of customer service throughout the supply chain based on the integration of business processes of development, supply, production support and distribution among all participants in the supply chain;

– achievement of client-oriented business processes, their openness to knowledge exchange between business partners; - Reducing time to market, eliminating costly mistakes and unsuccessful endeavors through close cooperation in the planning, organization, motivation and control of the entire supply chain;

– increasing the social responsibility of business, taking into account the contemporary challenges of environmental protection and regulating social processes.

The main goal of supply chain management: increasing profits, increasing market share and minimizing aggregate costs in the supply chain in order to ensure the stability and competitiveness of the business in the long run. To achieve this goal there is a whole range of different strategies, concepts, methods and technologies, the various combinations of which can greatly improve the efficiency of business in various sectors of the economy.

Today supply chain management is developing rapidly and getting significance for industrial, logistics and trading enterprises. It is necessary to support and improve this sphere as it is important and essential part of enterprise logistic system. Every year the role of logistics increases and the importance of logistics management grows. Successful implementation of supply chains will help to identify all available market opportunities and improve the decision-making system.

1.2. Types of supply chain management on the enterprise

Today thanks to the global economy the supply chain looks more like a web with the manufacturer in the middle of the web. Supply and logistics are the backbone of every business. It can affect the success of a business and unfortunately also be the downfall of a business. Without a strong supply chain management model in place a business will not thrive.

While there are 6 models of supply chains all of them fit into either one of two categories. Either the model is focused on efficiency or it is focused on responsiveness.

The reality is all supply chains have elements of both efficiency and responsiveness, but each supply chain model can have a primary focus of either [63].

The overall business need is ultimately the driving force behind which model is going to be best for the business. There are several things that are determinants when reviewing the types of supply chain models and which one will deliver the support a business can depend on:

- the framework of the specific industry;
- the value proposition that the business has to offer;
- focus of management.

Each model has unique qualities that can support the overall organizations goals.

Let's get right too it. The 6 supply chain models are:

1. The continuous flow models.
2. The fast chain models.
3. The efficient chain models.
4. The custom configured model.
5. The agile model.
6. The flexible model.

Here is a synopsis of each model.

The continuous flow model for supply offers stability in high demand situations that vary very little. Manufacturers that produce the same goods repeatedly with very little fluctuation can benefit from the continuous flow model. It is ideal for commodity manufacturing and is one of the most traditional supply chain models.

The fast chain model is ideal for manufacturers that manufacture products that are trendy with short life cycles. It works well with a business that must change their products frequently and that needs to get them out fast before the trend ends. It is a flexible model.

The efficient chain model is a model that is best for businesses that are in very competitive markets and where end to end efficiency is the premium goal.

The custom configured models focus on providing custom configurations especially during assembly and production. It is a combination of the agile model and the continuous flow model, a hybrid of sorts.

The agile model is primarily a method of supply chain management that is ideal for businesses that deal in specialty order items. It is a model that focuses on the ability of the supply chain to amp up in some cases but also be solid when there is not much movement happening.

The flexible model gives businesses the freedom to meet high demand peaks and manage long periods of low volume movement. It can be switched on and off easily.

Supply Chains Built for Efficiency. Efficiency supply chain models include, the efficient chain model, the fast chain model and the continuous flow model.

A supply chain model example of this group is the commodity manufacturer that is making low cost clothing and they are fighting for customers. The market is flooded with similar manufactured products all selling to the same type of consumer. Consumers may not realize the unique value of a certain product and all they are looking at is the cost. An efficient focused supply model will help the producer have the materials they need when they need them to stay competitive and create the volume that will keep costs down thereby appealing to the consumer base. These models are based on end to end efficiency.

The supply chain process flow in this type of model is all about speed and cost cutting. The models that fall into the "efficiency" category have components built into the supply chain to ensure that things are moving quickly and with a certain rhythm.

For companies that are in highly competitive situations, it is critical to have inventory on hand to complete orders quickly.

It is an ideal model for manufacturers that do not typically veer from what they produce. They utilize the same processes and materials over and over.

Most industries that use an efficiency model do it to help save on costs or are offering low value items that are produced in very high volume.

Responsive Supply Chains. The three responsive supply chain models are the agile model, the flexible model, and the custom configured model. These models are ideal for "on demand" situations. They are ideal when there is a level of uncertainty in the product manufacturing. These three models offer the flexibility for industries that provide custom order products, trendy products and for manufacturers that often make changes in the products they produce.

The idea behind "responsive supply chains" is that they respond on demand. A good example is a manufacturer that produces products for different industries, their supply chain must be flexible to meet the needs of the specific client. This week they may be making bags for an electronic manufacturer to house components, next week they may be making plastic plugs and screws for a furniture manufacture. They must have the flexibility in their supply chain to quickly switch raw materials and other supplies.

Unlike the efficiency models that are built on sameness and schedules these models require quite a bit of human interaction which of course leaves the system prone to human error.

From the outside looking in, it can be difficult to define which model is being used. Supply models are similar in so many ways because they all have similar goals:

- keep costs down;
- reduce risk;
- satisfy the end user;
- enhance productivity.

Every supply chain today uses supply chain IT systems to improve efficiency and responsiveness to the needs of the business. Every supply chain today is less like a chain and far more like a web. Only in rare cases is the supply chain the older straight-line model, because there are typically suppliers coming from different directions and logistics moving in different directions and it is all happening simultaneously.

Each model is similar in that it is part of a supply chain network and typically it is not one concrete supply chain model that is being followed, it is typically a hybrid of one or two of the models. Today's market place requires supply chains that are both efficient and responsive to deliver what the modern business needs to stay competitive.

Depending on the functions the supply chain management systems perform, they are classified into two categories, namely supply chain planning systems and supply chain execution systems [62].

Supply Chain Planning Systems provide information that help businesses in the planning of their supply chain. Some of the important supply chain planning functions are as follows:

- forecasting demand for specific products and preparing sourcing and manufacturing plan for those products;
- estimating the quantity of the product to be manufactured in a given time period;
- deciding the location where the finished goods are to be stored;
- identifying the transportation mode to be used for delivering the products;
- setting the inventory levels for raw materials, intermediate products, and finished goods;
- determining the product quantity, a business should make in order to meet all its customers' demands.

Supply Chain Execution Systems provide information that help businesses in the execution of their supply chain steps. Some of the major supply chain execution functions are as follows:

Managing the flow of products from the manufacturers to distributors to retailers and finally to customers in order to ensure the accurate delivery of products

Providing information about the status of orders being processed so that the vendors could provide the exact delivery dates to customers

Tracking the shipment and accounting for the products that have been returned or are to be repaired and serviced

The supply chain, being a complex network structure, contains a focal company, suppliers and consumers of various levels with the broadest geography of manufacturing, warehousing and transportation facilities, as well as numerous intermediaries.

Mentzer et al. [54] there are three levels of complexity in the supply chain: "direct supply chain" (Fig. 1.2), "extended supply chain" (Fig. 1.3) and "maximum supply chain" (Fig. 1.4).

The direct supply chain consists of the company, the supplier and the consumer involved in the upstream and / or downstream flows of goods, services, finances and / or information. An example would be either a very large vertically integrated supply chain, or a very small company that does not have the resources or the need to track second-tier partners.

In its simplest form, the supply chain consists of suppliers and customers of the company. Such a small group of participants can already form the simplest form of supply chain.

Fig. 1.2. The direct supply chain

By the author

The Extended Supply Chain contains suppliers of direct supplier and customer of direct customer relative to the research company involved in upstream and / or downstream flows of goods, services, finances and / or information. This is the traditional supply chain.

The Extended Supply Chain contains additional types of participants. The first "supply supplier" or supplier is at the beginning of the supply chain. The next type of customer is located at the far end of the supply chain.

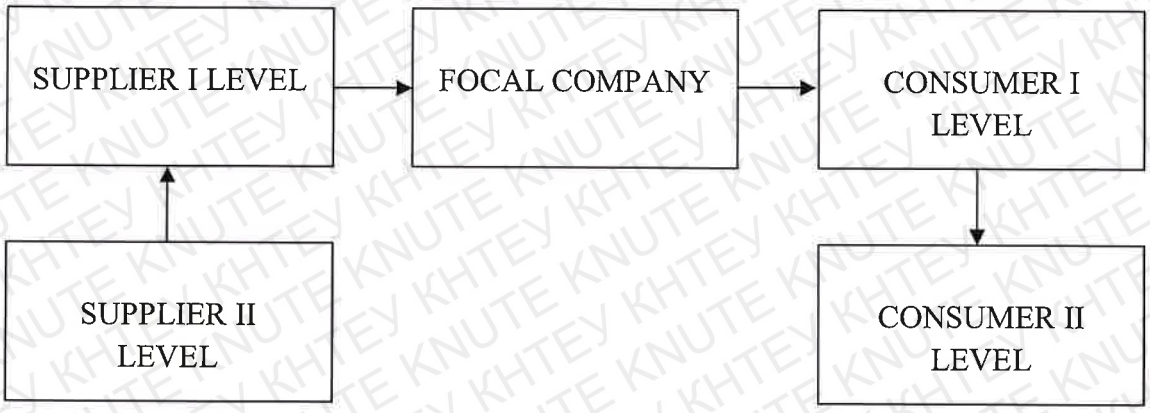

Fig. 1.3. Extended supply chain

By the author

Maximum (final) supply chain includes all organizations involved in the upstream and downstream flows of goods, services, finances and information from the initial supplier to the end customer [54].

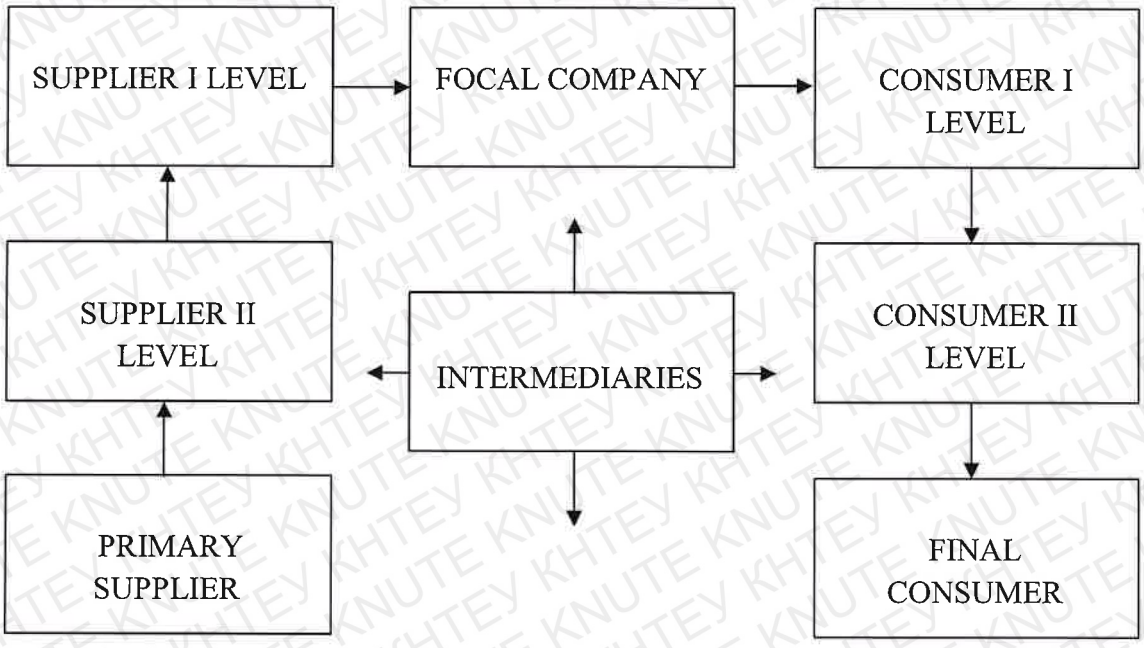

Fig. 1.4. Maximum supply chain

By the author

The last level of complexity of the supply chain involves the additional presence of a group of companies providing services to other companies in the supply chain (logistics, financial, marketing and information, etc.).

There are several levels of suppliers and consumers, depending on their position relative to the focal company: suppliers and consumers of the first level (organizations that interact (buy or sell products and services) directly in the focal company); second-tier suppliers and consumers (tier-one suppliers and first-tier consumers, etc. down to the initial supplier (natural resource provider) and end consumer) [27, p. 64].

Each supply chain is characterized by a combination of companies, with a specific role to play. Such companies include manufacturers, distributors, wholesalers, retailers or customers in the form of legal and natural persons or end users of goods. Other companies support the activities of these companies as providers of a wide range of required services.

Manufacturers are households, businesses and organizations that produce goods. These are companies that are producers of raw materials and are engaged in the production of finished goods for both consumer organizations and end consumers.

Distributors are companies that make large volumes of deliveries from manufacturers to customer groups. As a rule, they sell them to other companies at a higher level than would be the case with a single recipient. Distributors are a kind of buffer for manufacturers, protecting them from fluctuations in product demand by purchasing inventory and managing sales in purchasing, and customer service. For clients, distributors carry out the mission of Time and Places - they deliver products exactly where the customer needs them, and just when they need them.

Retailers stockpile and sell in small quantities to a wide range of consumers. These organizations are also designed to accurately track and analyze the preferences and demand of customers to whom they sell products. They are also direct advertising, often using a combination of price, product selection and service delivery, providing customer comfort to attract customer attention to the products they sell. Stores provide discounts to attract customers by offering attractive prices and a wide range of products. Exclusive specialist stores offer a unique range of products and high level of customer service.

Customers and consumers are any organizations that buy or use a product. A customer organization may purchase products to include in another product that is sold to other customers. The customer may also be the end user of a product that buys it for their own consumption.

Service providers are organizations that provide services to manufacturers, distributors, retailers, and customers. These are companies that have a high level of specialization and have gained considerable experience in a particular area of activity required for the supply chain to function. For this reason, they can provide services in the industry more effectively than manufacturers themselves, distributors, retailers or consumers.

All types of suppliers in each supply chain are transportation and storage service providers. These are freight forwarding companies and warehouses commonly known as logistics operators. Financial service providers provide services such as lending, credit analysis, and accounts receivable. These are banks, credit and collection agencies. Some service providers provide market analysis and advertising services, while others design products.

The management of many of the focal companies around which the network is built prefer to manage their logistics chains only to the point of consumption, because the one with end-user relationships plays the most important role in the supply chain.

In this case, there should not be too many supply chain members, as this can lead to a decrease in management efficiency, but at the same time their number should not be too limited, as it may interfere with tracking the business processes occurring in the supply chain, which may reduce efficiency. management. The task of creating the optimum supply chain structure can be solved through the configuration of a logistics network that involves identifying supply chain participants, linking them, identifying business processes to be associated with each participant, and integrating them. This requires different methods of forecasting and designing supply chains [25].

There are the following approaches in the world of supply chain organization:

1) the company independently creates a logistics department, whose functions are to carry out all processes of logistics activities (1PL);

2) outsourcing part of logistics functions to third parties (2PL (from the English. Second Party Logistic - traditional logistics));

3) transfer of all logistics functions to third parties (3PL (from Third Party Logistic));

4) close collaboration with the logistics provider (4PL (with English Fourth Party Logistic - integrated logistics).

According to experts in Europe and the US, more than 60% of manufacturers resort to the services of specialized logistics companies, working with them on the 3PL and 4PL approaches. About 40 % of companies outsource only 2PL to outsourcing firms. Only large companies use the logistics department and the 1PL approach [33, p. 26].

Three management models are currently in place and are being actively used in supply chain management in Ukraine's food retail chains. Management models can be grouped as follows:

- model of disordered (decentralized) supply chain management;
- an orderly (well-established, centralized) supply chain management model;

– a cross-docking model of supply chain management (a practice in logistics that involves overloading of goods from one vehicle to another without the process of storage in a warehouse).

A more common way of managing your supply chain is to manage and manage it well. In this case, the company creates its own distribution center, and is managed through a separate supply chain link. Or the logistics functions of the distribution of goods are outsourced to the logistics operator - outsourcing of logistics functions.

If this management method is used, transportation costs will be reduced, and the costs of storing goods on the network will be reduced, in addition, suppliers will reduce the cost of goods by reducing transport costs [3, p. 303].

Delegating to outsourcing of any trading network process always involves a cost-effective decision, since the main idea behind outsourcing is to trust and transfer responsibility for tangible and intangible values. When outsourcing one or more logistics functions to a logistics operator, it is important to understand that the control over the execution of these functions belongs to the logistics operators.

It should be noted that the main reasons and motives for outsourcing are the desire to focus on performing the main activities and the need to reduce the costs of doing business. And the main reasons for refusing to delegate logistics functions to logistics agents are: the economic disadvantage of outsourcing some business functions, uncertainty about the professionalism of the potential performer; possible leakage of confidential information. [10, p. 243-248]. These reasons testify to the underdeveloped market for outsourcing services, as well as the fact that some enterprises for some reasons do not adapt to modern ways of managing logistics chains and do not search for new forms of business management.

PART 2
INVESTIGATION OF PRACTICE OF LLC "SILPO-FOOD" SUPPLY

2.1. Analysis of supply chain management of the enterprise

Silpo is the leading supermarket chain in Fozzy Group's sales structure. Fozzy Group is one of the largest industrial trade groups in Ukraine and one of the leading Ukrainian retailers, with over 500 outlets all around the country. Besides retail, the Group's interests' businesses include food production, bank business, and restaurants.

Today, the Silpo chain consists of 241 supermarkets in 60 cities of Ukraine. Silpo retail chain is one of the largest national chains of food supermarkets. Silpo supermarkets are self-service stores with product ranges consisting of up to 20 000 items of food and related products, depending on the sales area of each store.

We will study the dynamics of indicators of financial and economic activity of LLC «Silpo-Food» for 2016-2018 (Table 2.1) on the basis of the financial statements of the enterprise (Appendix B).

Table 2.1

Dynamics of indicators of financial and economic activity of LLC «Silpo-Food» for 2016-2018, thousands UAH

Indicators	2016	2017	2018	Absolute deviation, +,-		Relative deviation, %	
				2017/ 2016	2018/ 2017	2017/ 2016	2018/ 2017
Net income (sales) from sales of products (goods, works, services)	718790	944276	1171732	225486	227456	31,37	24,09
Cost of sales of products (goods, works, services)	549992	743393	894377	193401	150984	35,16	20,31
Gross profit (loss)	168798	200883	277355	32085	76472	19,01	38,07
Other operating income	1332	32780	5234	31448	-27546	2360,96	-84,03
Administrative expenses	38441	43865	19244	5424	-24621	14,11	-56,13
Selling expenses	39268	65750	127193	26482	61443	67,44	93,45
Other operating expenses	13480	40586	13155	27106	-27431	201,08	-67,59
Financial results from operating activities	78941	83462	122997	4521	39535	5,73	47,37
Other financial income	139	4	54	-135	50	-97,12	1250
Other income	8	110	523	102	413	1275	375,45

End of the Table 2.1

Indicators	2016	2017	2018	Absolute deviation, +,-		Relative deviation, %	
				2017/ 2016	2018/ 2017	2017/ 2016	2018/ 2017
Financial expenses	33095	52656	52093	19561	-563	59,11	-1,07
Capital losses	860	0	0	-860	0	-100	0
Other expenses	0	217	44099	217	43882	0	20222,12
Financial results before tax	45133	30703	27382	-14430	-3321	-31,97	-10,82
Income tax on ordinary activities	10938	11106	2354	168	-8752	1,54	-78,8
Net financial result	34195	19597	25028	-14598	5431	-42,69	27,71

Calculated by the author based on the financial statements of LLC «Silpo-Food»

In 2016 the total net income of LLC «Silpo-Food» was UAH 718790000. In 2017 this indicator was 31,37% higher comparatively to the previous year. In 2018 the total net income increased by 24,09% as compared to 2017, resulting UAH 1171732000 of the total net income of LLC «Silpo-Food» at the end of 2018. The increase of the provided goods and services has a positive effect on the financial position of the enterprise, increasing its market share.

In 2017 the increase of the cost of sales exceeds the increase of the revenue reaching 35,16 %. This is a clearly negative trend, which indicates that LLC «Silpo-Food» had less finances to spend on other expenses. In 2018 the situation is improving as the cost increases at a slower pace as compared to the amount of revenue: 20,31 % - increase of the cost of sales, while 24,09 % - increase of the sales revenue.

In the period of 2016-2018, the gross profit of LLC «Silpo-Food» increased from UAH 168798000 to UAH 277355000, or by 64,31 %.

As we can see from the data of the Table 2.1, in the given period, the sales costs on the market increased significantly. Thus, in 2016 the amount of sales expenses was UAH 3968000, in 2017 they increased by 67,44 %, and in 2018 - by 93,45 % comparatively to the previous year. Thus, at the end of 2018 the amount of sales expenses was set at UAH 127193000. This is mainly due to the increase of the fuel price.

In 2016 the amount of administrative expenses summed up to UAH 38441000. Opposite to the previous season, in 2017 the increase of those expense items was

14,11 %. After that, in 2018 there was a change of trend and decrease of the amount of administrative expenses by 56,13 %.

In 2016 the profit from operating activities amounted UAH 78941000, which indicates the effective major activity of the enterprise. In 2017 operating profit increased to UAH 83462000, or 5,73 %. In 2018 operating income increased to UAH 122997000, or 47,37 % compared to the previous year.

In 2016-2018 there is a negative trend of financial results before taxation of LLC «Silpo-Food». Thus, in general, the profit before tax of the enterprise in the studied period decreased from UAH 4513300 to UAH 27382000, which indicates a decrease of the activities effectiveness.

However, overall, LLC «Silpo-Food» has a positive financial result in terms of net profit. In fact, the amount, in the period, ranges from UAH 19597000-34195000. It should be noted that at the end of the investigated period, namely in 2018, the amount of net profit of the enterprise was UAH 25028000, which is 27,71 % more than the previous year.

Let us analyze the dynamics of profitability indicators of LLC «Silpo-Food» for 2016-2018 in table 2.2.

Table 2.2

Dynamics of profitability indicators of LLC «Silpo-Food» for 2016-2018, %

Indicators	2016	2017	2018	Absolute deviation, +,-	
				2017/2016	2018/2017
Return on equity (assets) on net income	20,2	5,21	5,3	-15	0,1
Return on equity	66,95	17,51	18,64	-49,45	1,14
Profitability of production funds	35,11	9,86	11,33	-25,25	1,47
Profitability of sales on sales revenue	12,67	9,67	11,17	-3,01	1,51
Profitability of sales on operating income	10,98	8,84	10,5	-2,14	1,66
Profitability of sales on net profit	4,76	2,08	2,14	-2,68	0,06

Calculated by the author based on the financial statements of LLC «Silpo-Food»

The profitability of the assets of LLC «Silpo-Food» in 2016 amounted 20,2 %, that is, for every hryvnia of assets, the company received UAH 0,202 of net profit. In 2017,

UAH 0,0521 of net profit was received for each invested in the hryvnia assets. In 2018, the value of the return on assets was 5,3 %.

Regarding the index of return on equity of LLC «Silpo-Food», in 2016 each owners invested hryvnia brought them UAH 0,6695 of net profit. This is a low indicator that shows poor performance of the enterprise. In 2017, each owners invested hryvnia brought UAH 0,1751 of net profit, that is, the efficiency of work significantly decreased as compared to the previous year. In 2018, the return on equity was 18,64 %, slightly higher than the previous year.

The profitability of production funds of LLC «Silpo-Food» in 2016 amounted 35,11 %, that is, for every hryvnia of production funds the company received UAH 0,35 of the net profit. In 2017, UAH 0,986 of the net profit was received for each hryvnia funds investment. In 2018, the value of the profitability of production funds was 11,33 %.

Sales profitability for sales revenue shows how much revenue is earned per unit of revenue. It allows to determine the amount that remains after deducting cost, business and management expenses to cover the other expenses (other operating expenses, interest on credit, income tax). In 2016, the figure was 12,67 %. That is, LLC «Silpo-Food» had funds left for the other expenses. In 2017, the profitability of sales on profit from sales was 9,67 %. At the end of the reviewed period, each hryvnia of the revenue allowed to receive UAH 0,11 of the profit from the sale.

The profitability of sales on net profit shows how much net profit per unit of the revenue is attributable to. As a rule, high-level enterprises have higher revenues as they have better available to them resources. In 2016, each revenue hryvnia allowed to receive about UAH 0,05 of net profit. In 2017, the profitability of sales on the profit from sales amounted 2,08 %. At the end of 2018, this indicator was set at 2,14 %.

Let's analyze LLC «Silpo-Food» with the help of SNW-analysis – strategic analysis of the internal environment from the standpoint of strengths, weaknesses and neutrals of the organization. SNW-analysis for LLC «Silpo-Food» is shown in Table 2.3. The weightiness degree of the parameters of the internal environment of LLC «Silpo-Food» was estimated on a 10-point scale.

The data of the table 2.3 indicate that the strongest points of LLC «Silpo-Food» are working conditions, motivation and stimulation of the staff, information support, quality of services provided, organization of marketing at the enterprise, pricing policy, and consumer orientation. The weaknesses are high staff turnover, planning organization, staffing, and enterprise development strategy.

Table 2.3

SNW - Analysis for LLC «Silpo-Food»

№	Key parameters of enterprise activity	S	N	W
1	Salary		5	
2	Working conditions	9		
3	Motivation and stimulation (inspitation?) of the staff	8		
4	Frame (Staff) turnover			1
5	Staff qualification		5	
6	Assessment of quality of work of personnel		6	
7	Social package		5	
8	Planning organization			3
9	The level of technical equipment		5	
10	Information support	8		
11	Quality of services provided	10		
12	Organization of marketing at the enterprise	9		
13	Volume of sales		7	
14	The range of products		6	
15	Staffing			4
16	Salary		6	
17	Image (business reputation) of the company		7	
18	Psychological climate in the team		7	
19	Financial stability of the enterprise		5	
20	Territorial location		5	
21	Pricing policy	8		
22	Sales		7	
23	Consumer oriented	8		
24	Enterprise development strategy			4

By the author

In order to investigate supply chain management of LLC «Silpo-Food», it is necessary to identify the factors that influence precisely the supply chain management at the enterprise. Among them there are the factors of external and internal environments of the enterprise.

We will analyze the influence of the environmental factors on the supply chain management processes of LLC «Silpo-Food». For a more detailed study of environmental factors, a PEST analysis matrix (Appendix C) should be constructed, by which we will determine the directions of influence of the environmental factors on the supply chain management processes of LLC «Silpo-Food».

In this way, following the PEST analysis, we can conclude that there is a number of factors that strongly affect the supply chain management processes of LLC «Silpo-Food». They mainly include the unstable political and economic situation in the country.

The main risks of the activity of LLC «Silpo-Food» are economic (inflation, in particular, dollar rising), political (increasing uncertainty in the business environment). Factors that positively influence the activity of LLC «Silpo-Food» are mainly implication of new technologies, expansion of the range of services and products, work motivation in the company.

LLC «Silpo-Food» micro-environment, or direct impact environment.

Suppliers. They are various entities that provide LLC «Silpo-Food» with the necessary material and technical, labor and information resources. Each manufacturing company must carefully monitor the dynamics of the prices of the supply objects, the regularity of deliveries of the resources necessary for the execution of the production program. Otherwise, manufacturing and marketing problems may quickly arise, and, in the long run, there is a risk of losing the image of the enterprise acquired over the years and the commitment of its regular partners and customers. Therefore, LLC «Silpo-Food», which is also a manufacturing company, is very cautious about choosing suppliers (especially if there are alternatives), but strive to maintain long-term relationships with those who work in the light of common interests.

Intermediaries. These are the enterprises, organizations or individuals (entrepreneurs) who assist in the sale of goods on the relevant markets. These include resellers, turnover specialists (including transportation companies, warehouse network), marketing agencies (specialty research, consulting, advertising, etc.), as well as credit and financial institutions (commercial banks, insurance companies) [2, p. 155] cooperation with intermediaries helps LLC «Silpo-Food» to gain strong market positions, work

effectively and develop. LLC «Silpo-Food» very carefully chooses intermediaries, because it understands that the unsuccessful choice of intermediaries, which only "wind up" the product price, but do not care about its effective sale, can bring the company into bankruptcy.

Consumers are those who buy and use goods, order work and services for personal, non-profit-related needs. Each of us is a consumer, wishing in any way to satisfy our needs. The consumer is a firm, an organization, overall, a country. Businesses aim to meet the needs of all categories of consumers while generating revenue.

Nowadays, Silpo has more than 3500000 active customers and they are divided in such groups: primary, secondary growth breadth (low categories), secondary growth frequency (low visit), occasional, one time buyers. That largest part (31 %) is occasional buyers. Every time they shop, they typically have no real pattern to their purchases. Primary group usually is not the largest group but they are very important for the enterprise. It is a group of customers that are those buyers who are the first priority for Silpo and they take 19 % from all customers. General Situation activity of the buyers we can see on the figure 2.1.

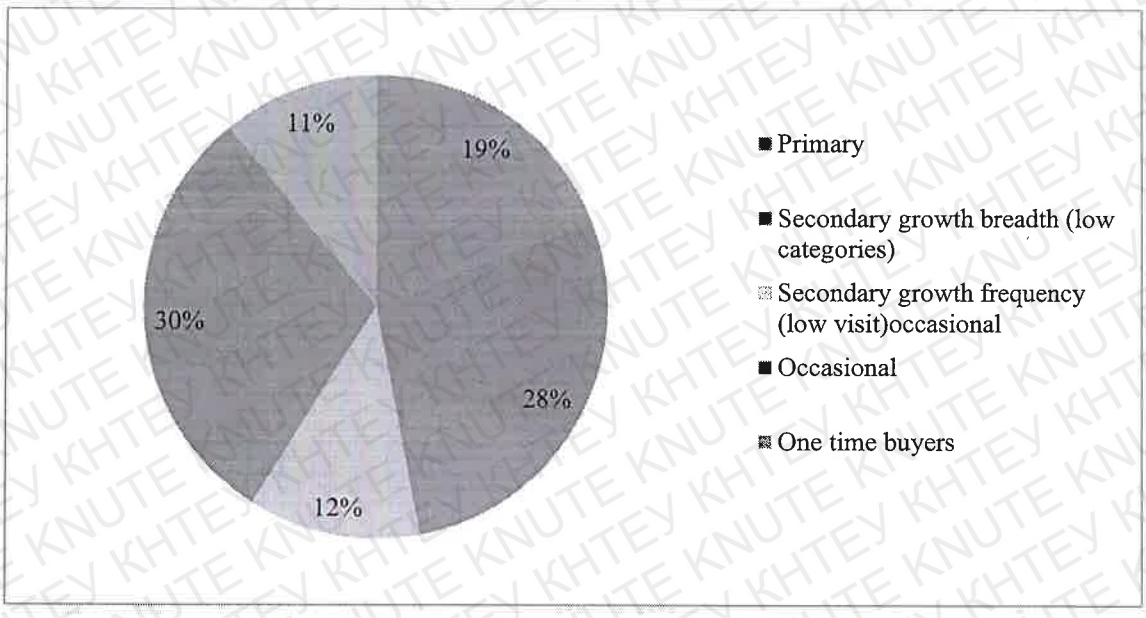

Fig. 2.1 Activity of the buyers

By the author

Price sensitivity can be defined as the degree to which consumers' behaviors are affected by the price of the product or service. Price sensitivity is also known as price

elasticity of demand and this means the extent to which sale of a particular product or service is affected. Figure 2.2 shows us price sensitivity of Silpo customers.

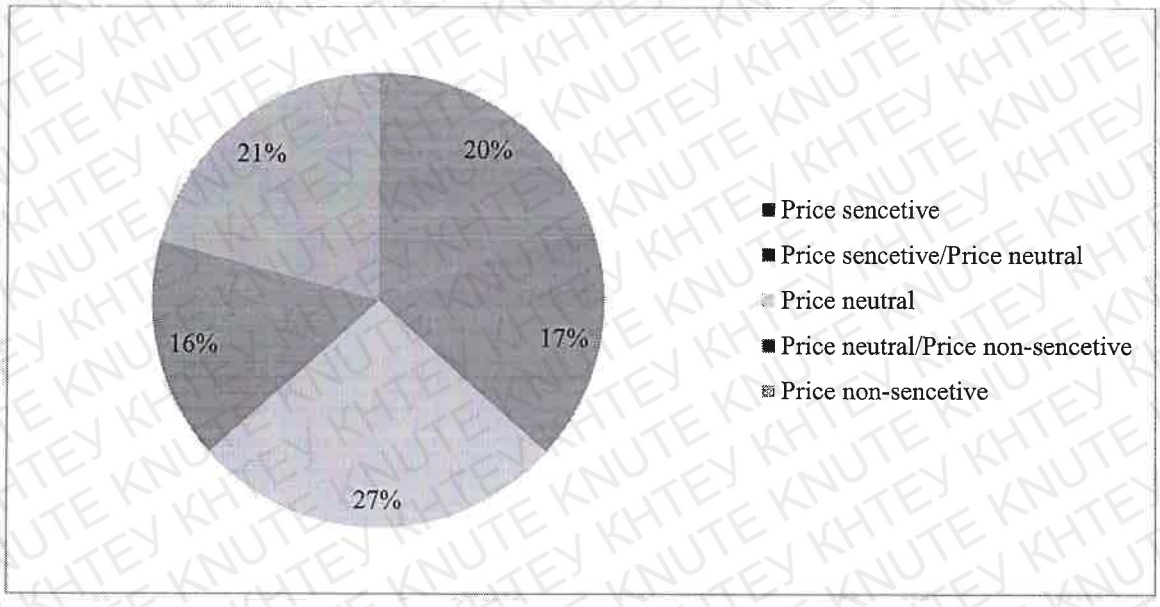

Fig. 2.2 Price sensitivity of the buyers

By the author

Competitors. The largest competitors of LLC «Silpo-Food» (Silpo supermarket chain) in the Ukrainian food retail market are Eco-market, Furshet, Velyka Kyshenya, ATB-market.

Figure 2.3 shows the organizational structure of LLC «Silpo-Food», where a clear hierarchy and department of responsibilities of each office can be observed, which ensures the smooth operation of all components, including supply chain management.

Supply chain management of LLC «Silpo-Food» - is a complex of logistic network and administration system which is formed on the enterprise for the implementation of its logistic and supply strategy. It is based on the logistic operations through the own distribution center of LLC «Silpo-Food». That is why the enterprise was able to establish timely provision of goods to the shops all over the country. Except that, LLC «Silpo-ood» has its own quality control system which ensures complying with high standards of storage, transportation and sale of goods.

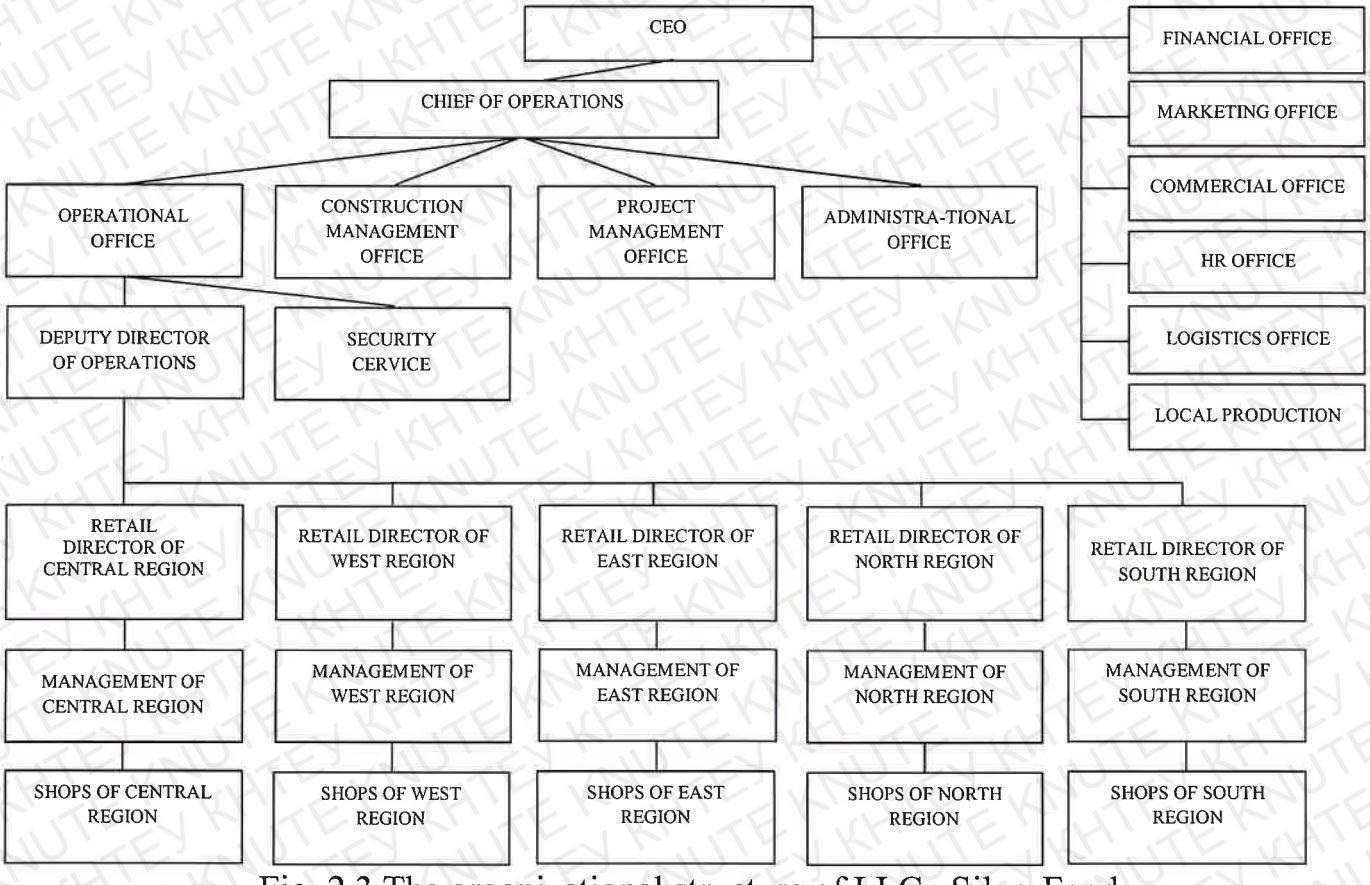

Fig. 2.3 The organizational structure of LLC «Silpo-Food»

Source: based on data of [23]

Each shop that belongs to LLC «Silpo-Food» has small warehouse, which is necessary for storage and supplementation of goods, presale preparations and sales of goods. All the goods come to local warehouse from central warehouse or distribution center.

Distribution center - is the structure element of LLC «Silpo-Food»where selection, storage and allocation for retail shops «Silpo» occur.

Through the usage of regional distribution centers and the introduction of an automated inventory management system, the chain "Silpo" has been able to establish an efficient supply system. The use of a distribution center allows "Silpo" stores to reduce purchase prices, as well as the load on stores when receiving goods, that is why this system promotes more rational organization of the trade and technological process.

The use of a distribution center allows «Silpo» stores to reduce purchase prices, as well as the load on stores when receiving goods, which promotes a more rational organization of the trade and technological processes.

The functional cycle of supply chain management at LLC «Silpo-Food» is divided into three stages: procurement logistics; in-store logistics; sales and service logistics.

Purchasing Logistics of LLC «Silpo Food» is an area in which issues related to provision the company with the products, raw stuff and materials are being solved. For Silpo-Food LLC it is one of the most important areas, as at this stage the suppliers of goods are studied and selected, the supply contracts are concluded and the mechanism of control over their implementation is used.

In-store logistics of LLC «Silpo-Food», in general approach - production logistics - solves the problem of creating wealth or providing services. The specificity of this area is that the bulk is performed within the one enterprise area. The participants of the production process interact with each other as a result of the decisions made by the enterprise supply chain management system.

Production logistics for LLC «Silpo-Food» consists of the following operations: acceptance of goods by quantity and quality, storage, pre-packing and packing of goods, their movement and display in the trading halls of shops, organization of storage, etc. It provides processing of goods flows, beginning with the receiving goods at the store and ending with full preparation for sale. These operations are a continuation of the process of production in the sphere of circulation, they are done without participation of buyers and directly affect the consumer properties of goods. One of the elements of Silpo Food's in-house logistics is merchandising, which is considered to be a complex of measures produced in the trading floor, aimed at increasing sales of a product. Affirmatively, organized arrangement of goods on store shelves allows to increase sales by at least 15%.

Sales logistics of LLC «Silpo-Food» includes performing such operations as: demand research and product assortment formation, choice of forms and organization of sales of goods, cash service, goods dispatch (including packaging and checking of functioning of goods), as well as after-sales operations (delivery of goods to order, warranty service, etc.).

2.2. The efficiency of supply chain management provided by the enterprise

We will analyze the efficiency of asset management related to supply chain management, LLC «Silpo-Food» for 2016-2018 (Table 2.4). Typical asset management performance indicators related to supply chain management are: total asset turnover, inventory turnover, finished product turnover, working capital turnover, and operating cycle duration.

Table 2.4

Dynamics of Performance Management Indicators Related to Supply Chain Management, LLC «Silpo-Food», 2016-2018

Indicators	2016	2017	2018	Absolute deviation, +,-		Relative deviation, %	
				2017/ 2016	2018/ 2017	2017/ 2016	2018/ 2017
Asset turnover, (turnover)	4,25	2,51	2,48	-1,74	-0,02	-40,93	-0,99
Working capital turnover ratio, (revolutions)	8,83	4,81	4,02	-4,02	-0,79	-45,51	-16,35
Period of one turnover of working capital, (days)	40,77	74,82	89,45	34,05	14,63	83,53	19,55
Inventory turnover ratio, (revolutions)	32,4	22,86	13,95	-9,55	-8,91	-29,46	-38,96
Period of one turnover of stocks, (days)	11,11	15,75	25,8	4,64	10,05	41,77	63,83
The turnover ratio of finished products, (revolutions)	151,6	106,3	124	-5,36	17,77	-29,92	16,73

Calculated by the author based on the financial statements of LLC «Silpo-Food»

At the beginning of 2016, the value of the asset turnover was 4,25. With the use of each hryvnia, assets were manufactured and services provided to LLC «Silpo-Food» in the amount of UAH 4,25. In 2017, the value of the indicator is reduced and each invested hryvnia to the assets allowed to receive UAH 2,51 revenue. That is, the efficiency of the use of assets of LLC «Silpo-Food» as a whole decreases. In 2018, the indicator continues to decline and for each invested hryvnia the enterprise received net income of UAH 2,48.

The data in Table 2.4 indicates a steady decline of the asset utilization of LLC «Silpo-Food» throughout the period.

In 2016, working capital made 8,83 turnovers. In 2017, it reduced to 4,81 turnovers. The decrease in the intensity of use of working capital is also observed in 2018, in which they made 4,02 turns, so 0,79 less than the previous year.

According to a decrease in turnover, the average turnover period increases. If at the beginning of 2016 the value of one turnover of working capital is 40,77 days, then in 2018 – 89,45 days.

In 2016, inventories made 32,4 turnovers. If the ratio is much higher than the industry average, it creates a risk associated with insufficient inventory, which will result in a decrease of sales revenue. Too high ratio may be a sign of a lack of available funds and a signal of a potential insolvency of the enterprise. The normal value of the ratio can vary from 4 to 8 for different business areas. In 2017, the value of the indicator decreases by 9,55 compared to 2016. This indicates a decrease in inventory management efficiency and may be a sign of a decline in sales activity. In 2018, the trend remains unchanged and there is a decrease in the utilization of stocks of LLC «Silpo-Food». In 2018, the stock made 13,95 turnovers.

Accordingly, as the inventory turnover decreases, the average turnover period increases. If at the beginning of 2016 the value of one turnover of stocks is 11,11 days, then in 2018 – 25,8 days.

Operating cycle period means the period during which raw materials and goods become monetary. The downward trend is a positive trend. In 2017, there is an increase in the operating cycle by 34,85 days than over the previous year. In 2018, the trend continues, that is, the period during which raw materials and goods acquire monetary form, had been steadily increasing. This has a negative impact on the enterprise's operations, since, with the increase in the duration of the operating cycle, the time between the purchase of goods, raw materials and the receipt of revenue increases, which reduces the profitability of the enterprise.

We will analyze the volume and structure of cost management related to supply chain management, LLC «Silpo-Food» for 2016-2018 (Table 2.5).

Table 2.5

Dynamics and structure of costs related to supply chain management of LLC «Silpo-Food» for 2016-2018, thousand UAH

Cost Articles	2016 year		2017 year		2018 year	
	thousand UAH	%	thousand UAH	%	thousand UAH	%
Purchasing costs	72498,8	36,2	95969,3	35,5	100206	30,3
Production logistics costs	10844,1	4,9	12800,2	4,7	15972,7	4,8
Selling expenses	27487,6	12,5	46879,8	17,4	92087,7	27,8
Warehouse costs	16389,8	7,4	23119,5	8,6	24083,4	7,3
Transportation costs	40499,1	18,4	46233,6	17,1	48219,6	14,6
Costs of material flow management	13749,8	6,2	19030,9	7	21611,6	6,5
Costs of logistics administration	10999,8	5	17841,4	6,6	20448,9	6,2
Cost of service	7599,7	3,5	8160,3	3	8325	2,5
Total cost	200069	100	270035	100	330955	100

Calculated by the author on the basis of the financial statements of LLC "Silpo-Food" and the data of the logistics departments of the enterprise

According to the provided data, it can be concluded that the costs of LLC «Silpo-Food» related to supply chain management tend to increase every year. In 2016, the costs of LLC «Silpo-Food» related to supply chain management amounted to UAH 200069000, in 2017 they increased to UAH 270035000, which is 34,97 % more than in 2016. In 2018, these costs increased by 25,56% and were UAH 330955000, as shown in Figure 2.4.

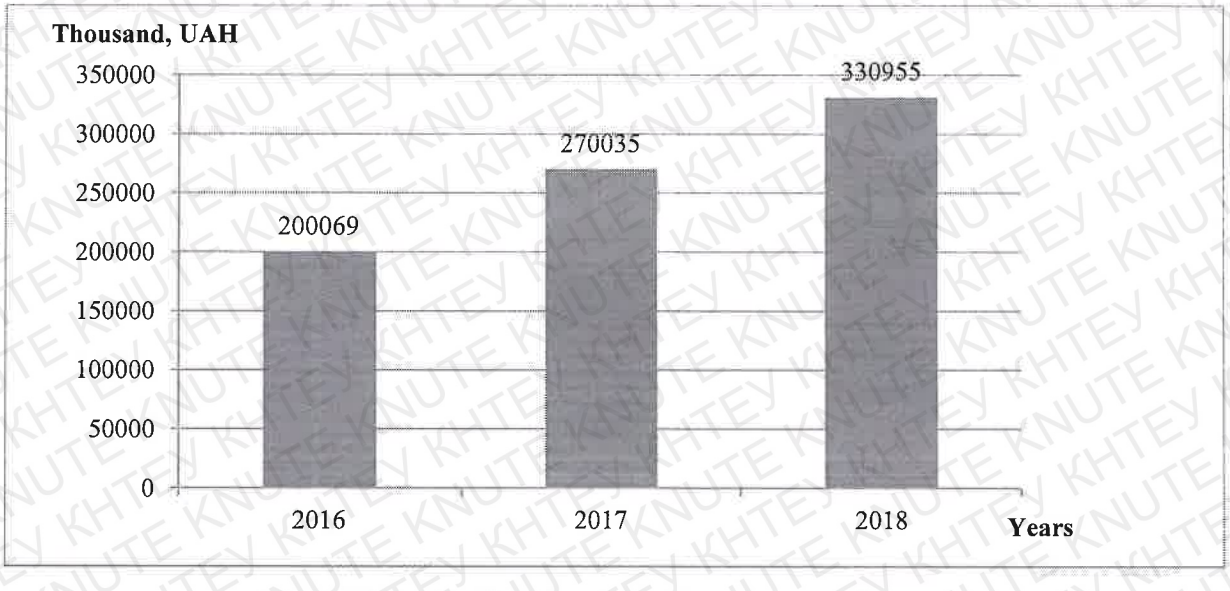

Fig. 2.4 The costs of LLC «Silpo-Food» related to supply chain management

By the author

Figure 2.5 shows the overall cost structure of LLC «Silpo-Food» in 2018 for supply chain management. The vast majority are purchase costs – 30,3 %, transportation costs – 27,8 %, sales costs – 14,6 % and other costs – 27,3 %.

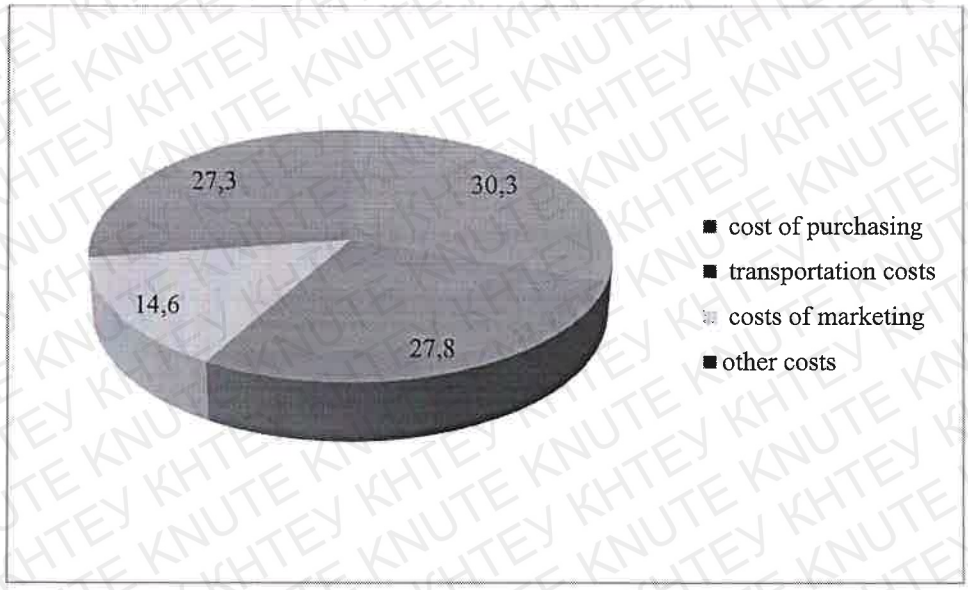

Fig. 2.5 Overall cost structure of LLC «Silpo-Food» in 2018 for supply chain management

By the author

We will analyze the performance indicators of cost management related to supply chain management of LLC «Silpo-Food» for 2016-2018.

According to table 2.6, during 2016-2018, the share of costs related to supply chain management in the total cost structure of LLC «Silpo-Food» ranges from 28,2-32,1 %. Depending on the type of activity, geographical location, scale of the enterprise and other characteristics, each enterprise attributes some of its costs to the group "costs associated with supply chain management". Their sum may vary, ranging from 5-45 % and may increase under the influence of external and internal factors.

LLC «Silpo-Food», during 2017-2018, spends UAH 0,40 on all expenses related to supply chain management for the maintenance of one hryvnia.

In 2016, UAH 0,30 for each hryvnia revenue of LLC «Silpo-Food» is spent offsetting the costs associated with supply chain management, in 2017 - UAH 0,50, and

in 2018, for each hryvnia, income of LLC «Silpo-Food» spent UAH 0,40 offsetting the costs associated with managing the supply chain of the enterprise.

In general, there will be a further increase in the efficiency of logistical costs formation of LLC «Silpo-Food», since the growth rates of logistics costs in 2018 are less than the growth rates of sales (0,9) and the growth rate of total costs (0,9).

Table 2.6

Dynamics of cost management performance indicators related to Supply Chain Management of LLC «Silpo-Food» for 2016-2018

Indicators	2016	2017	2018	Absolute deviation, +,-		Relative deviation, %	
				2017/ 2016	2018/ 2017	2017/ 2016	2018/ 2017
Net income from sales of products, UAH thousands	718790	944276	1171732	452942	227456	31,4	24,1
The total cost of the enterprise, UAH thousands	686074	957573	1152515	466441	194942	39,6	20,4
Material costs of the enterprise, UAH thousands	399680	623974	782951	383271	158977	56,1	25,5
Supply chain management costs, UAH thousands	220069	270035	330955	110886	60920	22,7	22,6
Costs related to supply chain management, UAH thousands	32,1	28,2	28,7	-3,4	0,5	-12,1	1,8
All cost ratio associated with managing the supply chain and material costs of the enterprise	0,6	0,4	0,4	-0,1	0	-21,4	-2,3
Cost ratio related to supply chain management and sales volume	0,3	0,5	0,4	0,1	-0,1	73,1	-20,8
Ratio of growth in costs associated with supply chain management and total enterprise costs	x	0,4	0,9	x	0,5	x	x
Ratio of growth costs related to supply chain management and sales volume	x	0,7	0,9	x	0,2	x	x

Calculated by the author on the basis of the financial statements of LLC «Silpo-Food» and the data of the logistics departments of the enterprise

Therefore, we can make a conclusion that the efficiency of supply chain management at LLC «Silpo-Food» is at a rather high level. Among the general shortcomings in the logistics management system of LLC «Silpo-Food» there are the

following: insufficient activity of the company in the field of market segmentation and product positioning; low efficiency of use of information technologies; lack of an established system of interpersonal communications.

Among the general advantages in the supply chain management system of LLC «Silpo-Food» there are the following: existence of the unified methodological approach to the concept of supply chain management of the company; orientation of the company management on the latest concepts; an effective supply chain management service at the enterprise and purposeful activity in the field of supply chain management; the existence of clear strategic goals and plans for the company and line units.

The analysis of the efficiency of the supply chain management system LLC «Silpo-Food» allowed to establish that the company has a sufficiently effective system of supply chain management, and there are a number of shortcomings that need to be corrected in the future to ensure the effective operation of the investigated enterprise as a whole, and to increase its level of competitiveness in the retail market of Ukraine.

PART 3
IMPROVEMENT OF SUPPLY CHAIN MANAGEMENT OF LLC "SILPO-FOOD"

3.1. Development of possible ways for improvement of the supply chain management on the enterprise

The current state of enterprises and the conditions for forming a strategy for their development are characterized by radical changes in the management system. An important management problem is its strategic focus. In this regard, the application of advanced supply chain concepts and technologies by Ukrainian companies should play an important role.

The practice of logistics shows that the highest results in business are achieved by those enterprises that use the concept of integration in supply chain management, which allows to combine efforts of management personnel of the enterprise and logistics intermediaries in the through-line management of commodity and information flows in the integrated business structure: «production - distribution - sale - service». Therefore, there is a question implementation of an adaptive control system with a focus on supply chain management, which will significantly increase the efficiency of supply chain management LLC «Silpo-Food» and ensure the legitimate interests of owners and management of the enterprise in the results of activities [8, p. 151].

In a market economy, a rapid change in the market situation and high competition requires the management of LLC «Silpo-Food» to constantly monitor the activity of the enterprise and all the processes that take place. The effectiveness of the management process is directly dependent on the level of awareness of the manager about the real state of affairs, which, in turn, makes it possible to make informed strategic and operational management decisions.

Controlling is a special management function that synthesizes, integrates and coordinates the basic functions of managing the activity of an enterprise in order to

achieve strategic goals in the conditions of uncertainty and variability of the environment [19, p. 13].

The purpose of supply chain management controlling is the prompt and strategic management of the supply chain of the enterprise in order to mutually reconcile tangible and intangible flows in terms of achieving a strategic goal. Since supply chain management as an integrated flow management enterprise covers all its functional units and areas (supply, production, marketing, transportation, warehousing), controlling of this activity is determinative in the enterprise management system. Controlling is intended to provide management of the enterprise with the information necessary for decision-making in the field of supply chain management, as well as to coordinate and optimize material flows with other processes occurring at the enterprise.

Analyzing the activity of the company, there are three major streams: real (material), nominal (financial) and information [26, p. 301-306].

Integration of controlling and supply chain management occurs exactly through the information flow, its importance for the coordination of material and financial flows both inside and outside the enterprise is constantly increasing, as information flows contribute to the formation of logistics infrastructure (Fig. 3.1).

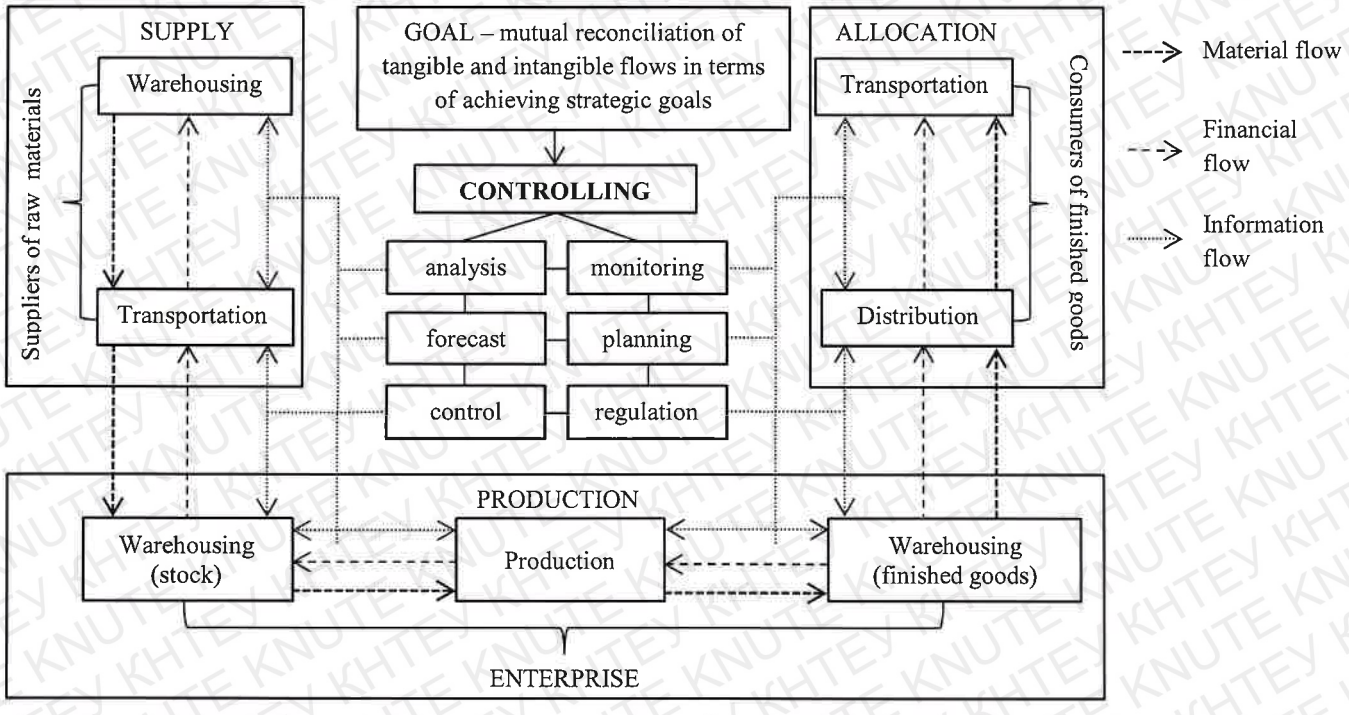

Fig. 3.1. Place of Controlling in the Process of Supply Chain Management

By the author

Controlling as an open system processes the incoming information flow for supply chain management through analysis, monitoring, forecasting, planning, control, regulation and generates input for management decisions. Ongoing monitoring of supply chain management allows to identify a discrepancy between actual and planned values and adjusts logistics decisions made in the process of strategic logistics goals.

Effective supply chain management in an enterprise is impossible without the use of a systematic approach, which allows to identify, evaluate the interconnection and integrate the elements of the management system in such a structure that would direct the activity of each element to achieve the common goal by agreeing the private conflicting interests of the constituent subsystems and created a certain economic result of synergistic interaction of these elements. A systems management approach allows to avoid the situations when a decision in one industry turns into a problem for another because this approach assumes that any solution or action has consequences for the entire system [33, p. 125].

Measuring the results of supply chain management at LLC «Silpo-Food» in the process of controlling is a necessary condition for achieving the goals of the management strategy, as it provides the feedback necessary for effective management. In this sense, supply chain management controlling has two aspects: first, the establishment of a specific system of measures (quantitative and qualitative indicators - criteria, scales of relationships and preferences); second, directly measuring the outcome of management decisions on supply chains.

Controlling raises the supply chain management of the enterprise to a new level, integrating, coordinating and directing the activities of various services and units of the enterprise to achieve operational and strategic goals. The main purpose of any business is to make a profit, gain market share, eliminate competitors. Regardless of the purpose of the enterprise, controlling is a system of profit management of the enterprise, orienting the efforts of the enterprise to achieve the set goals.

The mechanism of controlling functioning with the focus on supply chain management is shown in figure 3.2.

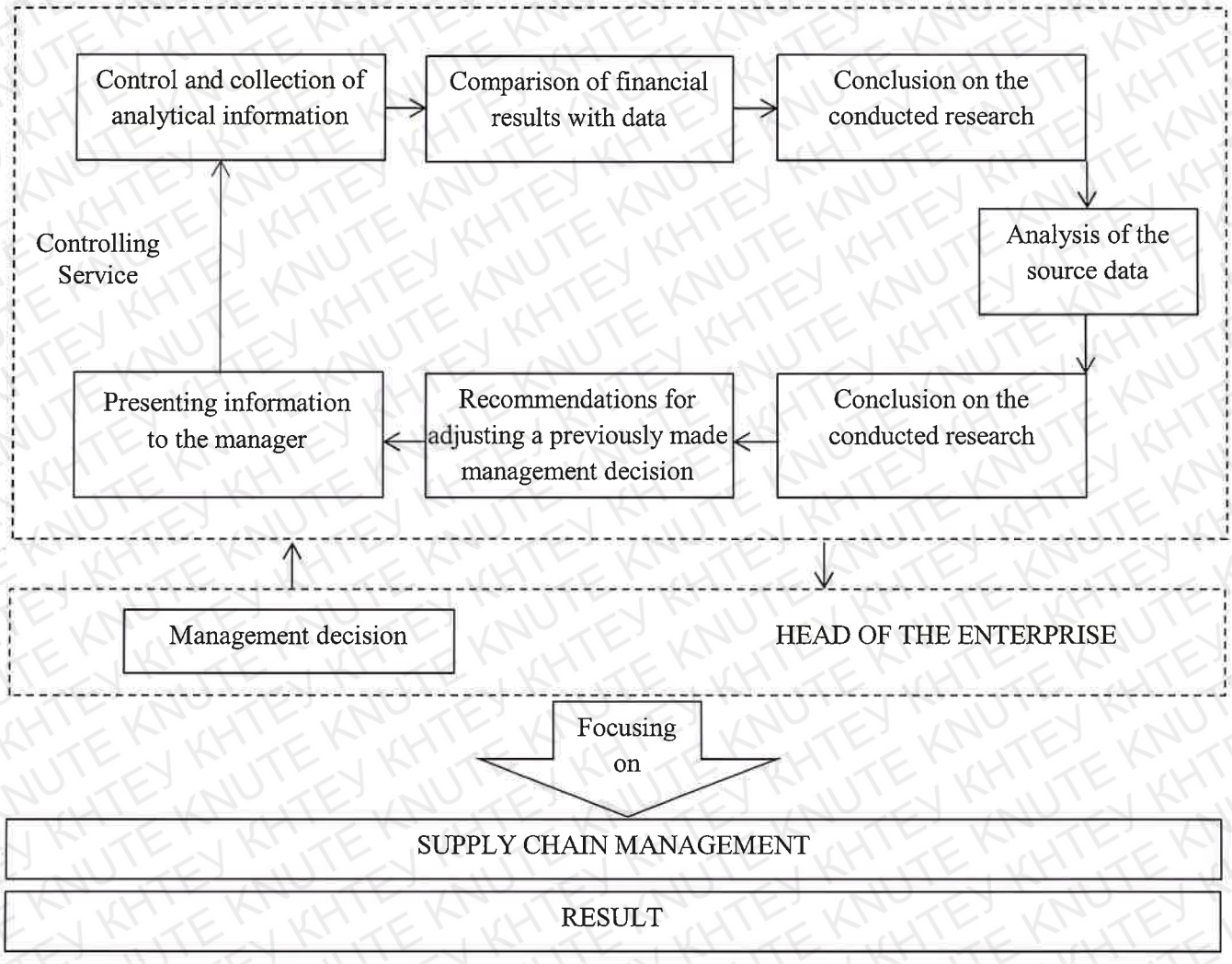

Fig. 3.2 Supply Chain-Based Controlling Mechanism

By the author

We will consider the presented mechanism with more details. The result of the adopted and implemented management decision is the process of tracking the current results. In this case, introduced management decision must be relevant to the target criteria of the set of possible alternatives and the consequences of their adoption. In the process of tracking, the controller oversees the results, collects analytical information, monitors the processes of the enterprise.

The next step is to report on the performance of the enterprise for periods of time (days, weeks, months, years), the data of which are compared with the target planned results [3, p. 154].

On the basis of such comparison, conclusions are made, after which the controller analyzes the deviations, possible threats of the environment, the strengths and weaknesses of the enterprise.

Such an analysis makes it possible to develop a forecast of changes in the potential of the enterprise and its external environment, which is the basis for development a new managerial decision more appropriate to the given circumstances, or making recommendations for correcting the previously made decision.

The results of the invedtigstion conducted by the controller are presented to the head of the company for a decisive decision: adoption of a new or adjusted managerial decision, means when the circle closes [30, p. 56].

At the present stage of the open Ukrainian economy, economic agents are strongly influenced by external and internal factors. The problem of creating a favorable climate in the entrepreneurial environment in terms of the supply chain management of the enterprise is of particular importance, becomes a decisive factor in determining the prospects for the development of entrepreneurship. That is why controlling activity should be aimed at ensuring of effective supply chain management of the enterprise.

The overall mechanism of controlling-oriented supply chain management is to produce the desired result for the enterprise.

Therefore, in order to overcome a number of negative trends in the process of supply chain management at LLC «Silpo-Food», we propose the introduction of a supply chain management controlling system at the enterprise, which will enable:

- coordinate management activities related to the achievement of goals of supply chain management at LLC «Silpo-Food»;
- to provide information and advisory support for decision-making process related to supply chain management at LLC «Silpo-Food»;
- to create and ensure the functioning of the general information system of supply chain management LLC «Silpo-Food»;
- ensure the rationality of the management process;
- ensure effective supply chain management at the enterprise.

The main task of controlling the supply chain management is the operational control over the cost effectiveness of the processes of storage and transportation of material resources. Controlling should provide management of LLC «Silpo-Food» with the information necessary for rational decision-making in the supply system, as well as coordinate and make best use of material flows with other processes occurring in the organization.

The necessity of controlling the supply chain management in LLC «Silpo-Food» is explained by the following reasons:

- increasing environmental instability puts additional demands on the supply chain management system;
- shift of emphasis from the control of the past to the analysis of the future;
- increasing the speed of reaction to changes in the environment, increasing the flexibility of the enterprise;
- the need for continuous monitoring of changes occurring in the external and internal environments of the enterprise;
- the need for a thought-out system of actions to ensure the viability of the enterprise and prevent crisis situations;
- the complexity of enterprise management systems requires a mechanism of coordination within the management system;
- the availability of a large amount of information, but the lack of relevant information requires the construction of a special system of information support supply chain management;
- desire for synthesis of activity.

Given the complexity of supply chain management at LLC «Silpo-Food», it is necessary to set up a special structural unit, the Supply Chain Management Control Unit, for effective activity and a clear definition of responsibility at LLC «Silpo-Food». At the studied enterprise, the most appropriate is seen in the implementation of controlling the supply chain management headquarters management organization, that is, direct reporting to the management of the enterprise. In the absence of a controlling system, the

implementation of the supply chain management department should proceed gradually with a clear definition of the goals, sequence and importance of each stage (Fig. 3.3).

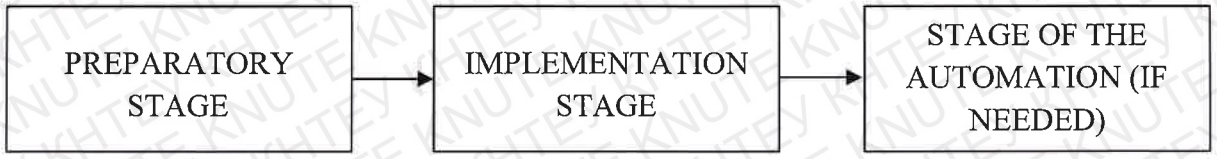

Fig. 3.3. Stages of Implementation of Supply Chain Management Controlling System at LLC «Silpo-Food»

By the author

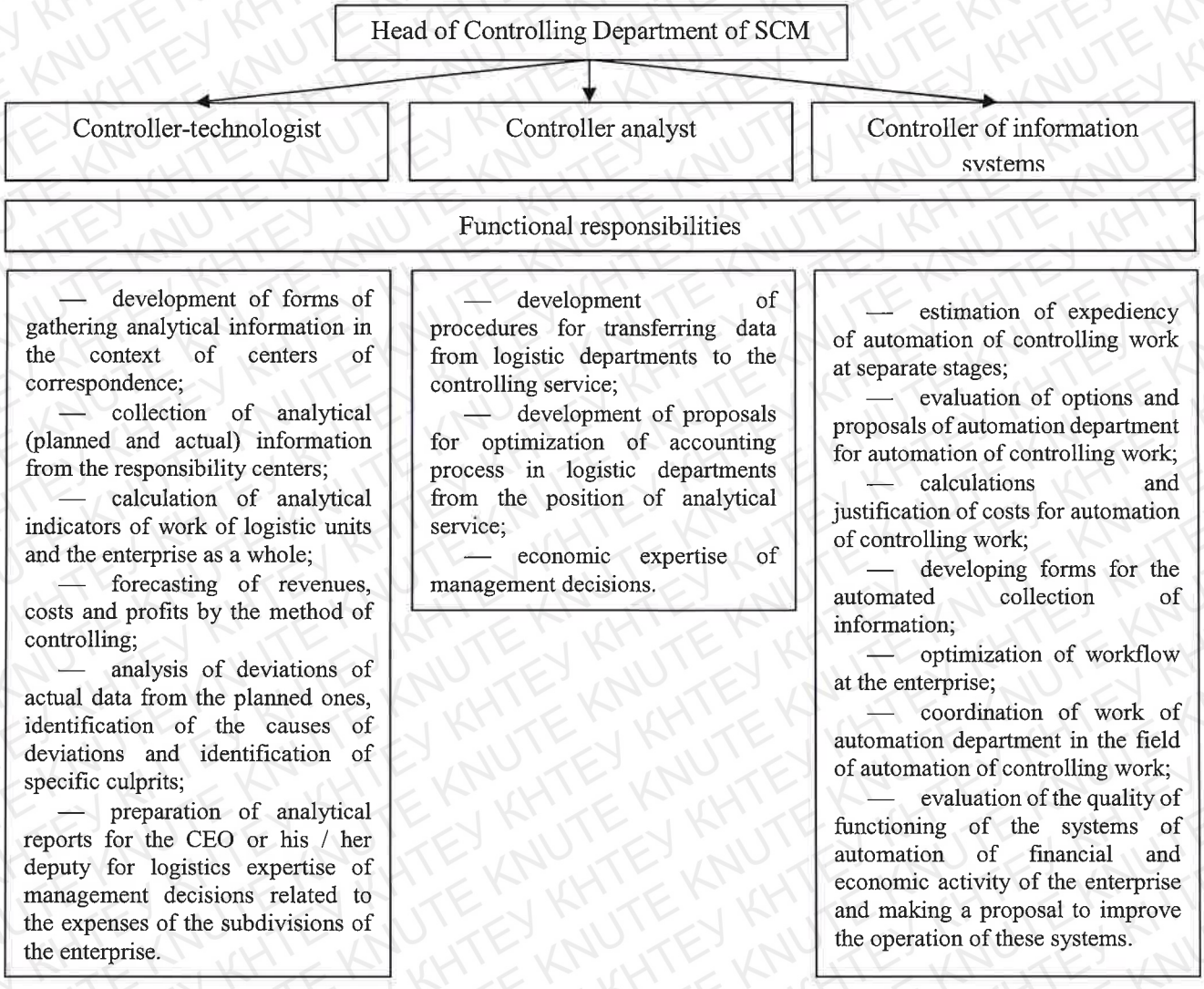

Fig. 3.4 Proposed composition of the Supply Chain Management Controlling Department at LLC «Silpo-Food»

By the author

At the initial stage of the process of implementation and adaptation, it would be sufficient to include 3-4 employees in the controlling department with the respective job responsibilities (Fig. 3.4) [4, p. 132].

Controlling within the problems established as a result of the analysis of supply chain management of LLC «Silpo-Food» will solve the following tasks:

– plan costs for processes associated with managing the enterprise supply chain;

– determine the scheme of involvement of financial resources in the processes of supply chain management with minimal losses for the enterprise.

It is important to clearly define, understand and communicate to employees both the newly established control service and the entire management unit of LLC «Silpo Food» a system of goals, which will be facilitated by the supply chain management control department.

Therefore, the main functions of the Supply Chain Management Controlling System of LLC «Silpo-Food» should be aimed at:

– making qualifying decisions to overcome possible problems in managing the supply chain of LLC «Silpo-Food»;

– support and assistance to the Head of Supply Chain Management Controlling Department, together with management, forms the basis of enterprise management and thus is integrated into the overall enterprise management system;

– ensuring the interconnection of supply chain management control with virtually all management functions;

– control of costs of the enterprise, connected with management of supply chains, as the main object of management in the controlling system;

– organization of operating centers of cost, profit, revenue and investment centers;

– constant analysis of the costs of the company related to supply chain management;

– development of measures and preparation of management decisions aimed at improving the supply chain management of LLC «Silpo-Food».

Also, the Supply Chain Management Department of LLC «Silpo-Food» will act as an analytical service and provide managers with prompt information on the cost of the enterprise related to supply chain management, periodically prepare detailed analytical reports, forecast supply chain management indicators.

In addition, the Supply Chain Management Controlling Department conducts an economic examination of management decisions related to cost and profit, defines the methodology for planning the supply chain management of the enterprise.

3.2. Estimation of the proposed measures on the enterprise

We will conduct an economic evaluation of the proposed project to improve the efficiency of supply chain management of LLC «Silpo-Food» on the basis of controlling.

To open a new additional service, the Supply Chain Management Controlling Department of LLC «Silpo-Food», it is necessary to provide the employees of the new department with the necessary equipment, as indicated in Table 3.1.

Table 3.1

Costs (equipment) for the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food»

Name of equipment	Service life (in months)	Depreciation (year),%	Cost, ths. UAH
Computer Prime PC Business J18HD (4 pcs.)	60	20	24,0
Printer Samsung JM3408 (1 unit)	60	20	3,1
Radiotelephone Phillips Si 5620 (1 unit)	60	20	1,3
Furniture (chairs - 4pcs., Desks - 4pcs., Cabinets - 2 pcs.	60	20	19,6
Total:			48,0

By the author

As can be seen from Table 3.1, the investment costs (equipment) for the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food» are UAH 48000.

The total costs of organizing the work of the Supply Chain Management Department of LLC «Silpo-Food» are listed in Table 3.2.

Table 3.2

Costs required for opening a supply chain management controlling department of LLC «Silpo-Food»

Activities	Budget, UAH
1. Purchase and installation of equipment, communications	48000
Total cost of opening a department	**48000**
Personnel wage costs (4 people), 1 month = 1 * 10000 + 3 * 7000 = UAH. For the year 31000 * 12	372000
Single social contribution «ESV» payroll (22%): 1 month. = 6820 UAH. For the year 6820 * 12	81840
Total expenses for maintenance of current activity	**453840**
Total costs	**501840**

By the author

The necessary expenses for the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food» are UAH 501840.

Let us analyze the economic efficiency from the implementation of the project of implementation of the Supply Chain Management Control Department of LLC «Silpo-Food». Analysis of project development scenarios allows us to evaluate the impact on the project of a possible simultaneous change of several variables due to the likelihood of each scenario. For the sake of simplicity, there are a limited number of scenarios up to two: realistic, pessimistic.

Experience in the use of controlling indicates that the implementation of its mechanism contributes to the growth of basic economic and social performance indicators, optimization of profit (controlling in some aspect is a system of profit management of the enterprise), increase innovation activity.

Of the main positive results of the functioning of the controlling mechanism of supply chain management should be noted the following [1, p. 69].

– increase in sales of products from 0,2 to 0,8 %;

– increase of profit from 1,0 to 1,2 %;

– profitability growth from 0,8 to 1,1 %;

– increase of labor productivity to 2,0 %;

– optimization of receivables and payables;

– increase in payments to the state budget in line with the increase in the volume of activity, etc.

Consider the realistic forecast of growth of net income from the sale of services of LLC «Silpo-Food» - 0,8 %, for the pessimistic forecast - 0,2 % (Table 3.3).

Table 3.3

Calculation of the annual effect of the opening of the Supply Chain Management Department of LLC «Silpo-Food»

Indicator	The effect of the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food»	
	Realistic forecast	Pessimistic forecast
% of the absolute value of net sales revenue	0,8	0,2
Total, thousand UAH.	(1171732*0,008) = 9373,86	(1171732*0,002) =2343,46

Calculated by the author based on the financial statements of LLC «Silpo-Food»

As can be seen from Table 3.3, the general economic effect of the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food» is to increase the forecasted net income from sales by 0,8% or UAH 9373,86 thousand in the pessimistic scenario - by 0,2 % or UAH 2343,46 thousand.

The financial results of the project of opening the Supply Chain Management Controlling Department of LLC «Silpo-Food» under the realistic development scenario are given in Table 3.4.

Table 3.4

Financial results of the project of opening the Supply Chain Management Department of LLC «Silpo-Food» under the Realistic Development Scenario

Index	Years					Total
	2019	2020	2021	2022	2023	
Net income from the sale of services, thousand UAH.	9373,90	9448,90	9524,40	9600,60	9677,40	47625,20

End of the Table 3.4

Index	Years					Total
	2019	2020	2021	2022	2023	
Cost of services rendered, thousand UAH.	48,00	0,00	0,00	0,00	0,00	48,00
Gross profit, thousand UAH	9325,90	9448,90	9524,40	9600,60	9677,40	47577,20
Costs of the employees of the Controlling Department thousand UAH	453,84	457,47	461,13	464,82	468,54	2305,80
Profit from the sale of services rendered, thousand UAH	8872,06	8991,43	9063,27	9135,78	9208,86	45271,40
Corporate income tax (18%), thousand UAH.	1596,97	1618,46	1631,39	1644,44	1657,60	8148,85
Net profit, thousand UAH.	7275,09	7372,97	7431,88	7491,34	7551,27	37122,55
Profitability,%	77,61	78,03	78,03	78,03	78,03	77,95

By the author

According to the table 3.4, sales revenue after the opening of the Supply Chain Management Department of LLC «Silpo-Food» will increase by 0.8% annually. In general, net income from sales of LLC «Silpo-Food» after the opening of the Supply Chain Management Department of LLC «Silpo-Food» for the first 5 years will increase by UAH 47625,20 thousand.

The financial results of the project of opening the Supply Chain Controlling Department of LLC «Silpo-Food» under the pessimistic development scenario are given in Table 3.5.

Table 3.5

Financial results of the project of opening the Supply Chain Management Department of LLC «Silpo-Food» under the Pessimistic Development Scenario

Index	Years					Total
	2019	2020	2021	2022	2023	
Net income from the sale of services, thousand UAH.	2343,46	2348,15	2352,85	2357,55	2362,27	11764,28
Cost of services rendered, thousand UAH.	48,00	0,00	0,00	0,00	0,00	48,00

End of the Table 3.5

Index	Years					Total
	2019	2020	2021	2022	2023	
Gross profit, thousand UAH.	2295,46	2348,15	2352,85	2357,55	2362,27	11716,28
Costs of the employees of the Controlling Department	453,84	454,75	455,66	456,57	457,48	2278,29
Profit from the sale of services rendered, thousand UAH.	1841,62	1893,40	1897,19	1900,98	1904,79	9437,99
Corporate income tax (18%), thousand UAH.	331,49	340,81	341,49	342,18	342,86	1698,84
Net profit, thousand UAH.	1510,13	1552,59	1555,70	1558,80	1561,93	7739,15
Profitability, %	64,44	66,12	66,12	66,12	66,12	65,79

By the author

According to the table 3.5, sales revenue after the Silpo-Food Supply Chain Management Controlling Department will increase by 0,2 % annually. In general, the net income from the sale of the enterprise products after the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food» for the first 5 years will increase by UAH 11764,28 thousand.

Therefore, based on the analysis of the effectiveness of the proposed project of opening the Supply Chain Management Department of LLC «Silpo-Food», we can conclude that this project is profitable in both realistic and pessimistic development scenarios.

Assessing investment performance is the most responsible step in the investment decision-making process. How objective and detailed this assessment is, depends on the timing of return on investment and the pace of development of the enterprise [5, p. 30].

When calculating the investment efficiency in the opening of the Supply Chain Management Controlling Department of LLC «Silpo-Food», we will use the following indicators of real investment performance evaluation, such as: Net Return on Income (NPV); profitability index (ARR); payback period (PP); profitability index (PI); Internal Rate of Return (IRR) (Table 3.6-3.7).

The net present income (NPV) is calculated according to the formula 3.1 [39, p.280]:

$$NPV = NCF\text{-}CI, \quad (3.1)$$

where NCF – total net cash flow for the whole period of project operation;

CI - the amount of investment costs for the implementation of an investment project.

The profitability index (PI) according to the formula 3.2 is calculated [39, p.280]:

$$PI = \frac{NCF}{CI}, \quad (3.2)$$

The payback period (PP) according to the formula 3.3 is calculated [39, p.281]:

$$PI = \frac{CI}{NCF}, \quad (3.3)$$

where NFC is the average annual amount of net cash flow for the period project operation.

Internal Rate of Return (IRR) according to the formula 3.4 is calculated [39, p.281]:

$$IRR = \sqrt[n]{\frac{NCF}{CI}} - 1, \quad (3.4)$$

Scheme of cash flows from the opening of the Supply Chain Controlling Department of LLC «Silpo-Food» under the realistic scenario of development is given in Table. 3.6. Factors of influence: attraction of new technologies, expansion of the range of services and products, motivation of work activity in society.

Table. 3.6

Cash Flow Scheme from the Opening of the Supply Chain Management Department of LLC «Silpo-Food» under the Realistic Development Scenario

Indicator	Years					Total
	2019	2020	2021	2022	2023	
Net profit, thousand UAH.	7275,09	7372,97	7431,88	7491,34	7551,27	37122,55
Depreciation, thousand UAH.	9,60	9,60	9,60	9,60	9,60	48,00
Project cash flow, thousand UAH	7284,69	7382,57	7441,48	7500,94	7560,87	37170,55
Total investment expenses, thousand UAH	501,84	-	-	-	-	501,84

End of the Table 3.6

Indicator	Years					Total
	2019	2020	2021	2022	2023	
Discount rate at discount rate d = 25%	0,80	0,64	0,51	0,41	0,33	2,69
Discounted cash flows, thousand UAH	5827,75	4724,85	3795,16	3075,39	2495,09	19918,22
Discounted investments thousand UAH	501,84	-	-	-	-	-
Net present value of the project (NPVt), thousand UAH	19416,38	-	-	-	-	-
Profitability Index (PI)	39,69	-	-	-	-	-
Payback period (PBP), years	0,13	-	-	-	-	-
Internal Rate of Return (IRR),%	6,22	-	-	-	-	-

By the author

According to the data in Table 3.6, the profitability index of the project of opening the Supply Chain Management Controlling Department of LLC «Silpo-Food» is 39,69 under the realistic scenario - the project is effective.

The payback period of the project is 0,13 years.

Internal rate of return is 6,22 %.

Scheme of cash flows from the opening of the Supply Chain Controlling Department of LLC «Silpo-Food» under the pessimistic scenario of development is given in Table 3.7. Impact factors: economic (inflation, in particular, rising dollar), political (increasing uncertainty in doing business).

Table. 3.7

Cash Flow Scheme from the Opening of the Supply Chain Management Department of LLC «Silpo-Food» under the Pessimistic Development Scenario

Indicator	Years					Total
	2019	2020	2021	2022	2023	
Net profit, thousand UAH.	1510,13	1552,59	1555,7	1558,8	1561,93	7739,15
Depreciation, thousand UAH.	9,6	9,6	9,6	9,6	9,6	48
Project cash flow, thousand UAH	1519,73	1562,19	1565,3	1568,4	1571,53	7787,15
Total investment expenses, thousand UAH	501,84	-	-	-	-	501,84

End of the Table 3.7

Indicator	Years					Total
	2019	2020	2021	2022	2023	
Discount rate at discount rate d = 25%	0,8	0,64	0,51	0,41	0,33	2,69
Discounted cash flows, thousand UAH	1215,78	999,8	798,3	643,05	518,6	4175,54
Discounted investments thousand UAH	501,84	-	-	-	-	-
Net present value of the project (NPVt), thousand UAH	3673,7	-	-	-	-	-
Profitability Index (PI)	8,32	-	-	-	-	-
Payback period (PBP), years	0,6	-	-	-	-	-
Internal Rate of Return (IRR),%	2,71	-	-	-	-	-

According to Table 3.7, the profitability index of the project of opening the Supply Chain Management Department of LLC «Silpo-Food» under the pessimistic development scenario is 8,32 - the project is effective.

The payback period of the project is 0,6 years.

Internal rate of return is 2,71%.

Thus, the opening of the Supply Chain Management Department at LLC «Silpo-Food» will give the opportunity to: coordinate logistical activities to achieve the goals of LLC «Silpo-Food»; to provide information and advisory support for management decisions on supply chain management; to effectively plan the activity of the enterprise.

The introduction of the Supply Chain Management Controlling Department of LLC «Silpo-Food» will help stabilize and strengthen the strategic position of Silpo-Food LLC in the national market, which will lead to the flexibility of the enterprise's response to the influence of external factors.

CONCLUSIONS AND RECOMMENDATIONS

In the final qualifying paper, the theoretical generalization is made and the ways of solving the set tasks are offered, which consist in the development of practical recommendations for improving the supply chain management of LLC «Silpo-Food» in the present conditions of management. The obtained results give grounds for forming the following conclusions:

1. The concept of supply chain management is a modern scientific field of organization of interconnections between enterprises and ensuring customer orientation of conducting modern business. Supply chain management is the result of management, marketing and logistics development and meets the requirements of the current stage of economic development. The newest stage in the development of the concept of supply chain management is characterized by the reorientation of the supply chain in the direction of recognizing the interests of end users, as well as the inclusion in its system of components that take into account modern requests of society for the need to conduct activities based on the principles of social responsibility and business ethics. The main reason for the implementation of the concept of logistics chain management is the desire to increase the competitiveness of the company. At the same time, competitive advantages in the formation of logistics chains are cost reduction or quality improvement for the goods (services) provided to the end consumer.

2. The supply chain, being a complex network structure, contains a focal company, suppliers and consumers of various levels with the broadest geography of manufacturing, warehousing and transportation facilities, as well as numerous intermediaries. Each supply chain is characterized by a combination of companies, each of which has a specific role to play. Such companies include manufacturers, distributors, wholesalers, retailers or customers in the form of legal and natural persons or end users of goods. Other companies support the activities of these companies as providers of a wide range of required services.

The overall business need is ultimately the driving force behind which model is going to be best for the business. There are several things that are determinants when

reviewing the types of supply chain models and which one will deliver the support a business can depend on: the framework of the specific industry, the value proposition that the business has to offer and focus of management. Efficiency supply chain models include, the efficient chain model, the fast chain model and the continuous flow model. The three responsive supply chain models are the agile model, the flexible model, and the custom configured model. Depending on the functions the supply chain management systems perform, they are classified into two categories, namely supply chain planning systems and supply chain execution systems.

3. Three management models are currently actively used in supply chain management in Ukraine's food retail chains. They are:

- model of disordered (decentralized) supply chain management;
- an orderly (well-established, centralized) supply chain management model;
- a cross-docking model of supply chain management (a practice in logistics that involves overloading of goods from one vehicle to another without the process of storage in a warehouse).

4. The costs of LLC «Silpo-Food» related to supply chain management tend to increase every year. In 2016, the costs of LLC «Silpo-Food» related to supply chain management amounted to UAH 200069000, in 2017 they increased to UAH 270035000, which is 34,97 % more than in 2016. In 2018, these costs increased by another 25,56 % and were set at UAH 330955000. It means that the efficiency of supply chain management at LLC «Silpo-Food» is at a rather high level. Among the general shortcomings in the logistics management system of LLC «Silpo-Food» there are the following: insufficient activity of the company in the field of market segmentation and product positioning; low efficiency of use of information technologies; lack of an established system of interpersonal communications. Among the general advantages in the supply chain management system of LLC «Silpo-Food» there are the following: existence of the unified methodological approach to the concept of supply chain management of the company; orientation of the company management on the latest concepts; an effective supply chain management service at the enterprise and purposeful activity in the field of

supply chain management; the existence of clear strategic goals and plans for the company and line units.

5. Supply chain management of LLC «Silpo-Food» - is a complex of logistic network and administration system which is formed on the enterprise for the implementation of its logistic and supply strategy. It is based on the logistic operations through the own distribution center of LLC «Silpo-Food». That is why the enterprise was able to establish timely provision of goods to the shops all over the country. Except that, LLC "Silpo-Food" has its own quality control system which ensures complying with high standards of storage, transportation and sale of goods.

6. Given the complexity of supply chain management at LLC «Silpo-Food», it is necessary to set up a special structural unit, the Supply Chain Management Controlling Department, for effective activity and a clear definition of responsibility at LLC «Silpo-Food». At the studied enterprise, the most appropriate is seen in the implementation of controlling the supply chain management headquarters management organization, that is, direct reporting to the management of the enterprise. Controlling within the problems established as a result of the analysis of supply chain management of LLC «Silpo-Food» will solve the following tasks:

- plan costs for processes associated with managing the enterprise supply chain;
- determine the scheme of involvement of financial resources in the processes of supply chain management with minimal losses for the enterprise.

The Supply Chain Management Controlling Department conducts an economic examination of management decisions related to cost and profit, defines the methodology for planning the supply chain management of the enterprise.

7. The profitability index of the project of opening the Supply Chain Management Controlling Department of LLC «Silpo-Food» is 39,69 under the realistic scenario - the project is effective. The payback period of the project is 0,13 years. Internal rate of return is 6,22 %. the profitability index of the project of opening the Supply Chain Management Department of LLC «Silpo-Food» under the pessimistic development

scenario is 8,32 - the project is effective. The payback period of the project is 0,6 years. Internal rate of return is 2,71%.

Thus, the opening of the Supply Chain Management Controlling Department at LLC «Silpo-Food» will give the opportunity to: coordinate logistical activities to achieve the goals of LLC «Silpo-Food»; to provide information and advisory support for management decisions on supply chain management; to effectively plan the activity of the enterprise. The introduction of the Supply Chain Management Controlling Department of LLC «Silpo-Food» will help stabilize and strengthen the strategic position of LLC «Silpo-Food» in the national market, which will lead to the flexibility of the enterprise's response to the influence of external factors.

REFERENCES

1. Аакер Д. Стратегическое рыночное управление / Д. Аакер: пер. с англ. (под ред. Ю. Н. Каптуревского). – СПб.: Питер, 2012. – 544 с.

2. Ансофф И. Стратегическое управление / И. Ансофф: сокр. пер. с англ. – М.: Экономика, 1989. – 520 с.

3. Бауэрсокс Д. Дж. Логистика: интегрированная цепь поставок / Д. Дж. Бауэрсокс, Д. Дж. Клосс. – М. : Олимп-Бизнес, 2016. – 640 с.

4. Брітченко І. Г., Князевич А. О. Контролінг : навч. посіб. / І. Г. Брітченко, А. О. Князевич. – Рівне : Волинські обереги, 2015. – 280 с.

5. Буратчук Н. Ю. Місце контролінгу запасів у фінансовому та логістичному управлінні / Братчук Н. Ю. // Бізнес-інформ. – 2017. – № 10. – С. 277-285.

6. Верстяк А. Розробка механізмів ефективного управління сталими ланцюгами постачань виробничого підприємства / А. Верстяк // Актуальні проблеми економіки. – 2017. – №2 (188). – С. 84-94.

7. Григорак М. Ю. Стратегія макросегментування ринку логістичних послуг в Україні / М. Ю. Григорак // Глобальні та національні проблеми економіки. – 2017. – № 18. – С. 83-89.

8. Данченко О. Б. Практичні аспекти реінжинірингу бізнес-процесів / О.Б. Данченко. – К.: Університет економіки та права «КРОК», 2017. – 238 с.

9. Дубовик С. Г. Управління ланцюгами поставок підприємств, їхні сутність і структура [Електронний ресурс]. – Режим доступу: http://www.economyandsociety.in.ua/journal/18_ukr/56.pdf.

10. Кавун О. О. Диверсифікація діяльності підприємницьких мереж у торгівлі: сутність, форми, мотиви та ризики здійснення / О. О. Кавун // Проблеми економіки. – 2014. – № 2. – С. 243-248.

11. Колодізєва Т. О. Визначення ланцюгів поставок та їхня роль у підвищенні ефективності логістичної діяльності підприємств /

Т. О. Колодізєва // Проблеми економіки. – 2015. – № 2. – С. 133-139. [Електронний ресурс]. – Режим доступу: http://www.problecon.com/export_pdf/problems-of-economy-2015-2_0-pages-133_139.pdf

12. Колодізєва Т. О. Управління ланцюгами поставок [Текст] : навч. посіб. / Т. О. Колодізєва ; Харків. нац. екон. ун-т ім. Семена Кузнеця. – Харків: ХНЕУ ім. С. Кузнеця, 2016. – 163 с.

13. Крикавський Є. В. Ланцюг вартості Портера (конструкція, деконструкція, реконструкція) та управління за цінностями / Є. В. Крикавський, З. Патора-Висоцька // Маркетинг і менеджмент інновацій. – 2015. – № 2. – С. 121-130.

14. Крикавський Є. В. Нова парадигма логістики: стратегічний статус / Є. В. Крикавський // Наукові праці ДонНТУ. Серія економічна. – 2017. – № 4 (46). – С. 240-247.

15. Крикавський Є. В. Промислові ланцюги поставок: між ефективністю та відповідальністю / Є. В. Крикавський // Актуальніі проблеми економіки. – 2016. – № 5(179). – С. 30-41.

16. Крикавський Є. Логістика та управління ланцюгами поставок: Навч. посібник / Є. Крикавський, О. Похильченко, М. Фертч. – Львів: Видавництво Львівської політехніки, 2017. – 844 с.

17. Лиса С. Ринок логістичних послуг в Україні: динаміка, структура, перспективи / С. Лиса // Товари і ринки. – 2017. – №2. – С. 52-61.

18. Логістика та управління ланцюгами поставок [Текст] : навч. посіб. / Є. Крикавський, О. Похильченко, М. Фертч ; Нац. ун-т "Львів. політехніка". – Львів : Вид-во Львів. політехніки, 2017. – 801 с.

19. Малярець Л.М., Матвієнко-Біляєва Г. Л. Формалізація задач контролінгу логістичної діяльності підприємства : монографія. / Л. М. Малярець, Г. Л. Матвієнко-Біляєва. Харків: ХНЕУ, 2010. – 227 с.

20. Меджибовська Н. С. Логістика й управління ланцюгами поставок: спільність і відмінність концепцій [Електронний ресурс]. – Режим доступу https://core.ac.uk/download/pdf/147036563.pdf.

21. Меджибовська Н. С. Матеріально-технічне постачання: нові ролі і інструменти реалізації / Н. С. Меджибовська // Економіка: реалії часу. – 2015. – №4 (20). – С. 217-222.

22. Меджибовська Н. С. Сучасні тенденції управління ланцюгами поставок / Н. С. Меджибовська [Електронний ресурс]. – Режим доступу : http://irbis-nbuv.gov.ua/cgibin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name= PDF/Popu_2011_1_55.pdf.

23. Організаційна структура ТОВ «Сільпо-Фуд» [Електронний ресурс]. – Режим доступу: https://silpo.ua/assets/Report_Silpo%20Food_2018_site.pdf

24. Організація та проектування логістичних систем: Підручник / за ред. проф. М. П. Денисенка, проф. Л. Г. Шморгуна, доц. В. С. Марунича, доц. В. С. Харута – К.: Мілениум, 2016. – 387 с.

25. Основные направления оптимизации цепей поставок. Глобальная оптимизация цепи поставок [Електронний ресурс]. – Режим доступу: http://studopedia.org/2-105680.html.

26. Поліщук Н. В. Логістика і контролінг як інтегровані функції менеджменту / Н. В. Поліщук // Про-блеми економіки і управління: Зб. наук. пр. №391.– Львів: ДУ «Львівська політехніка». – 2016. – С. 301-306.

27. Сигида Л. О. Оцінювання ефективності ланцюгів поставок: методичний аспект / Л. О. Сигида // Науково-виробничий журнал «Бізнес-навігатор». –2017. – № 2 (41). – С. 63-69.

28. Сигида Н. О. Управління ланцюгами поставок: еволюція та перспективи розвитку / Н. О. Сигида // Економічний простір. – 2016. –№119. С. 195-205.

29. Сток Дж. Р. Стратегическое управление логистикой / Дж. Р. Сток, Д. М. Ламберт ; пер. с англ. – 4-е изд. – М. : ИНФРА-М, 2013. – 797 с.

30. Стратегічне управління корпораціями [Текст] [Текст] : навч. посіб. для студ. вищ. навч. закл. / О. М. Скібіцький, В. В. Матвєєв, В. І. Щелкунов, С. М. Подрєза. – Київ : Центр учбової літератури, 2016. – 479 с.

31. Таньков К. М. Маркетинг взаємовідносин в управлінні ланцюгами поставок / К. М. Таньков // Бізнес-інформ. – 2015. –№ 7 . –2012. – С.180-183.

32. Таньков К. М. Стратегічні підходи до формування взаємовідносин у ланцюгах поставок / К. М. Таньков, О. В. Бахурець // Проблеми економіки. – 2015. – № 2. – С. 58-63.

33. Тюріна Н. М. Логістика: навч. посіб. / Н. М. Тюріна, І. В. Гой, І. В. Бабій. – К.: Центр учбової літератури, 2016. – 392 с.

34. Уотерс Д. Логистика. Управление цепью поставок / Д. Уотерс ; пер. с англ. Сер. «Зарубежный ученик». – М. : ЮНИТИ-ДАНА, 2013. – 503 с.

35. Хэндфилд Р. Б. Реорганизация цепей поставок. Создание интегрированных систем формирования ценности / Р. Б. Хэндфилд, Э. Л. Николс-мл. ; пер. с англ. – М. : ИД "Вильямс", 2003. – 416 с.

36. Чечет А. М. Сучасні тенденції управління ланцюгами поставок / А. М. Чечет // Вісник НТУ. – 2017. – №. 26. – С. 351-354.

37. Чорна М. В. Модель оптимізації ланцюга поставок товарних ресурсів / М. В. Чорна // Агросвіт. –2015. – № 6. – С. 3-6.

38. Чухрай Н. І. Оцінювання результативності та ефективності маркетингу промислового підприємства у ланцюгу поставок / Н. І. Чухрай // Маркетинг і менеджмент інновацій. – 2015. –№3. – С. 24-34.

39. Чухрай Н. І. Оцінювання функціонування ланцюга поставок : сутність та концептуальні підходи / Н. І. Чухрай // Вісник Національного університету «Львівська політехніка». – 2016. – № 647. – С. 276-285.

40. Шандарівська О. Є. Комплексний аналіз ринку логістичних послуг в Україні / О. Є. Шандарівська, Л. Ю. Шевців // Актуальні проблеми економіки. – 2016. – № 7. – (181). – С. 163-173.

41. Шатт Дж. Г. Управление товарным потоком: руководство по оптимизации логистических цепочек / Дж. Г. Шатт. – Минск : Гревцов Паблишер, 2007. – 352 с.

42. Abdelmajied Fathy E. Y. (2019). Panel Analysis of Relationship between Supply Chain Strategy in Competitive Area and Economic Growth in the European

Union. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5 , pp. 219-224.

43. Ahmed A. (2019). Ways to Improve the Supply Chain Management Mechanism of the Firm's Competitiveness. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 911-915.

44. Cooper M. C. Meshing Multiple Alliances / M. C. Cooper, L. M. Ellram, J. Gardner et al // Journal of Business Logistics. – 1997. – № 18 (1). – P. 67–89.

45. Ding H., Guo B., Liu Z., Information sharing and profit allotment based on supply chain cooperation, International Journal of Production Economics, (2011); p.133.

46. Escorcia-Caballero J. P., Moreno-Luzon M. D., Chams-Anturi O. (2019). Supply Chain Integration Capability: An Organizational Routine Perspective. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 39-47.

47. Hamzah H. (2018). New Avenues of Logistics and Transportation Laws in Supply Chain Management: Issues and Challenges. International Journal of Supply Chain Management (IJSCM), Vol. 7, No 6, pp. 17-24.

48. Kormych B., Averochkina T., Savych O., Pivtorak H. (2019). Barriers and Drivers of Green Supply Chain Management: a Case Study of Ukraine. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 305-313.

49. Kot S., Goldbach I. R., & Ślusarczyk B. (2018). Supply chain management in SMEs – Polish and Romanian approach. Economics and Sociology, 11(4), pp. 142-156.

50. Kovács G., & Kot S. (2017). Economic and social effects of novel supply chain concepts and virtual enterprises. Journal of International Studies, 10(1), pp. 237-254.

51. Logistics and Supply Chain Management: Modern Trends in Germany and Russia: IV Terminology in logistics: Annex. – European Logistics Association; ELA, 1991. – 117 p.

52. Marhamat A., Azizi I. (2017). The Impact of Green Supply Chain Management on Firm Competitiveness. International Journal of Supply Chain Management (IJSCM), Vol. 6, No 4, pp. 215-223.

53. Mekkham W., Kerdpitak Ch. (2019). Impact of Network Globalization and Manufacturing Network Integration on Global Supply Chain Performance: Mediating Role of Sustainability. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 647-659.

54. Mentzer J., DeWitt W., Keebler J., Soonhoong M., Nix N. Smith C., Zacharia Z. Defining supply chain management // Journal of Business Logistics. – Vol. 22. – Issue 2, – 2001. – P. 1–25.

55. Mentzer J.T. Defining Supply Chain Management / J.T. Mentzer et al. // J. of Business Logistics. – 2001. – Vol. 22. – № 2. – CLM. – 2001. – P. 18.

56. Mentzer T., Ed. Supply Chain Management. –Thousand Oaks. – CA: Sage Publications, 2001. – 358 p.

57. Saengchai S., Jermsittiparsert K. (2019). Supply Chain in Digital Era: Role of IT Infrastructure and Trade Digitalization in Enhancing Supply Chain Performance. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 697-707.

58. Saleheen F., Habib M., Hanafi Z. (2018). Supply Chain Performance Measurement Model: A Literature Review. International Journal of Supply Chain Management (IJSCM), Vol. 7, No 3, pp. 70-78.

59. Saputra J., Badruzaman J., Ridho A. (2019). Analysis of Asset Growth and Profit Growth Through Supply Chain Management Toward Company Value. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 5, pp. 336-348.

60. Saudi M., Supriadi H., Razimi M . (2019). Supply Chain Governance, Corporate Governance and Firm Supply Performance: A Paradox of Prediction. International Journal of Supply Chain Management (IJSCM), Vol. 8, No 2, pp. 11-21.

61. Strembitska T. Essence, concept, goals of supply chain management / T. Strembitska // Управління і адміністрування : зб. наук. ст. студ. – Ч. 1. Київ : Київ. нац. торг.-екон. ун.-т, 2019. – С. 216-219.

62. Supply Chain Management [Electronic resource]. - Access mode: https://www.managementstudyhq.com/types-and-benefits-of-scm.html

63. Supply Chain Modeling 101! Understanding the Different Types of Supply Chain. [Electronic resource]. - Access mode: https://boxaroundtheworld.com/supply-chain-modeling-101/

64. Tansakul N., Suanmali S., Charoensiriwath Ch., Shirahad K. (2018). Critical Factors for Constructing an Effective Supply Chain Network. International Journal of Supply Chain Management (IJSCM), Vol. 7, No 6, pp. 96-109.

65. Velychko O. (2015). Logistical system Fortschrittzahlen in the management of the supply chain of a multi-functional grain cooperative. Economics and Sociology, Vol. 8, No 1, pp. 127-146.

66. Velychko O., & Velychko L. (2017). Logistical modelling of managerial decisions in social and marketing business systems. Journal of International Studies, 10(3), pp. 206-219.

67. Weber M., Hiete M., Lauer L., Rentz O. (2010). Low cost country sourcing and its effects on the total cost of ownership structure for a medical devices manufacturer. Journal of Purchasing and Supply Management, No 3, p.16.

68. Zielińska A., Prudzienica M., Mukhtar E., Mukhtarova K. (2016). The examples of reverse logistics application in inter-sector partnerships - good practices, Journal of International Studies, Vol. 9, No 3, pp. 279-286.

APPENDICES

КИЇВСЬКИЙ НАЦІОНАЛЬНИЙ *Appendix A*
ТОРГОВЕЛЬНО-ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ

УПРАВЛІННЯ І АДМІНІСТРУВАННЯ

Збірник
наукових статей
студентів

Частина 1

Київ 2019

РОЗВИТОК ОРГАНІЗАЦІЇ: ОРГАНІЗАЦІЙНІ ПЕРЕТВОРЕННЯ, ЕФЕКТИВНІСТЬ, КОНКУРЕНТОСПРОМОЖНІСТЬ

2. Грабовецький Б.Є. Стратегічне планування: сутність прогнозноаналітичне забезпечення / Б.Є. Грабовецький, О. В. Пітик // Вісник Хмельницького національного університету. Економічні науки. – Хмельницький, 2013. – № 4(1). – С. 48-52.
3. Ібрагімов Е. Ефективне стратегічне планування на основі системного підходу / Е. Ібрагімов // Економічний аналіз: зб. наук. пр. Терноп. нац. екон. ун-т. – 2012. – Т. 10(3). – С. 274-276.
4. Квасній Л.Г. Стратегічне і тактичне планування діяльності підприємства як основні складові механізму забезпечення його економічної безпеки / Л.Г. Квасній, О.М. Попівняк, О.Я. Щербан // Науковий вісник Миколаївського державного університету ім. В.О. Сухомлинського. Серія: Економічні науки. – 2015. – № 1. – С. 48–53.
5. Протасова Л.В. Стратегічне планування розвитку підприємства: особливості оцінки та інтеграції / Л.В. Протасова // Вісник Житомирського державного технологічного університету. Серія: Економічні науки. – 2015. – № 3. – С. 101–105.
6. П'ятницька Г.Т. Стратегічне управління: навч. посіб. для студ. вищ. навч. закл. / Г.Т. П'ятницька, Л.В. Лукашова, Н.В. Ракша; за ред. д-ра екон. наук, проф. Г.Т. П'ятницької; Київ. нац. торг.-екон. ун-т. – К.: КНТЕУ, 2013. – 407 с.
7. Mischirikova A.K. Strategic planning in the enterprise / A.K. Mischirikova // Upravlinnya rozvitkom. – 2014. – vol. 13. – Available at: http://nbuv.gov.ua/j-pdf/Uproz_2014_13_27.pdf.
8. Bordeianu G.D. Analysis Models of the Bankruptcy Risk / GABRIELA-DANIELA BORDEIANU, FLORIN RADU, MARIUS DUMITRU PARASCHIVESCU, WILLI PĂVĂLOAIA // Economy Transdisciplinarity Cognition. – 2011. – vol. XIV, iss. 1. – P. 248–259.

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ESSENCE, CONCEPT, GOALS OF SUPPLY CHAIN MANAGEMENT

**STREMBITSKA T., 5 course FEMP KNUTE,
specialization «Trade management»**

В статті проаналізовано теоретичні основи управління ланцюгами поставок на підприємстві. Обґрунтовано доцільність та переваги запровадження управління ланцюгами поставок на підприємстві.

The theoretical bases of supply chain management at the enterprise are analyzed in the article. The expedience and advantages of introduction of supply chain management at the enterprise is proved.

The urgency of the chosen topic is that in modern world the supply chain management is really important. It becomes necessary to reduce costs, improve management efficiency, improve product quality and customer service throughout the supply chain, reduce the time to enter the market, increase social responsibility of the business etc.

The purpose of the article is to substantiate the features of supply chain management at the enterprise and the current trends in its functioning.

The object of research is the process of supply chain management at the enterprise.

The subject of research is the theoretical and methodological aspects of supply chain management at the enterprise.

Various aspects of supply chain management at the enterprise are covered in the works of such scientists as Ellram, Cooper, Szajda, Guo, Weber, Hiete , Lauer and others. [1, 2, 3, 4, 5]. The

studying of their works allows us to investigate the essence of the scientific task, and also to identify issues that are unsolved.

Business environment has been more and more competitive presently. Nowadays companies want to gain their competitive advantage as much as possible. Supply chain management (SCM) is one of the most effective methods in our fast-moving world.

Supply chain management simply can be defined as how to manage all activities along the entire supply chain in order to gain competitive advantage. Similar to definition stated by Ellram and Cooper, SCM is "an integrating philosophy to manage the total flow of a distribution channel from supplier to ultimate customer" [1]. This means greater coordination of business processes and activities, the power to boost customer service, reduce operating costs and improve the financial standing of a company.

Supply Chain Management is the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders [2].

A supply chain is the connected network of individuals, organizations, resources, activities and technologies involved in the manufacture and sale of a product or service. A supply chain starts with the delivery of raw material from a supplier to a manufacturer, and ends with the delivery of the finished product or service to the end consumer. The scheme of supply chain we can see on the figure 1.

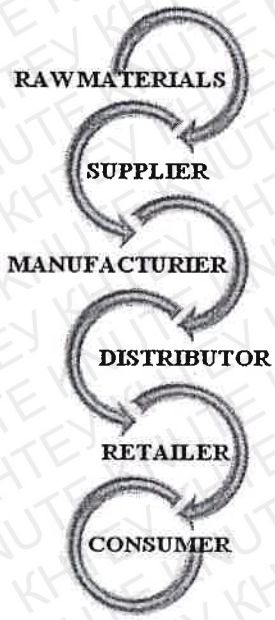

Figure 1. Supply chain scheme [3]

Essentially, the world can be viewed as one large supply chain. Consumers and producers are constantly communicating with each other, and a product goes through many hands before reaching its destination. Supply chain management deals with major issues such as the growth of multinational corporations, partnerships, global brand expansion, and outsourcing.

Supply chain management is aimed both to optimize inter-organizational interactions based on modern management methods and information technologies, and optimization of enterprise logistics.

On the one hand, supply chain management, is part of logistics, and on the other hand, logistics is part of the supply chain management, because elements of logistics, production management, enterprise organization, marketing and informatics are integrated in the supply chain management. This concept is the key to modern logistics and will continue to develop rapidly in the future.

There are a lot of examples of successful SCM in practice. The implemented projects of supply chain management show the possibility of reducing overall costs in the supply chain up to

60%, inventory levels up to 60%, manufacturing time and supplies up to 50%, increasing the accuracy of supplies to 60%, improving capacity utilization up to 20%, increasing profits at the expense of optimizing the process of creating value and reducing transaction costs in the field of procurement and sales up to 30%, improving product quality up to 30%, increasing turnover and market share by increasing the reaction rate and flexibility of supply chains up to 55% [4].

Supply Chain Management aims to achieve two main effects:

- Increase in the amount of income from sales of products or services by increasing the level of service, accuracy of supply and decrease in demand fluctuations;
- Reduced costs by reducing stock levels, reducing overhead and transaction costs in procurement, storage and sales, as well as improving the use of production and logistics facilities [5].

The main goal of supply chain management: increasing profits, increasing market share and minimizing aggregate costs in the supply chain in order to ensure the stability and competitiveness of the business in the long run. To achieve this goal there is a whole range of different strategies, concepts, methods and technologies, the various combinations of which can greatly improve the efficiency of business in various sectors of the economy.

Fung Global Institute identified 5 key risk sources that affect supply chains [6]:

- Government factors (trade policy, regulations, fiscal policy, financial policy);
- The dynamics of consumer demand (local preferences and tastes; sufficient income, attitude towards social / environmental influences);
- Natural changes (earthquakes, floods);
- Artificial changes (military conflicts; terrorism);
- Innovations (technologies, organizations engaged in know-how, the latest business models).

Therefore, in order to reduce risks, management of leading enterprises in the supply chain management should apply new strategies. By building up their logistics system, businesses must be guided by three key principles - clear management, transparency of activities and long-term support, and additionally they have to apply innovations such as:

1. Integration. Most of large organizations already have software for the supply chain management. The integration of existing software products, the activities of internal departments and cooperation with external partners seems a difficult process that takes time, but this will significantly achieve all the benefits in the future. With reliable suppliers, carriers and partners, business will grow and improve its operations, integrating with key consumers and retailers [7].

2. Optimization of the supply chain. Cost control is a key issue faced by managers. Transparency in the supply chain management is achieved through the ability to identify bottlenecks, showing the ways for the optimization, which makes the supply chain better and reduces operating costs. It makes work for employees easier and allows the team of professionals to focus on their main tasks and on increasing efficiency [7].

3. A long process of improvement. In addition to monitoring the real-time supply chain, companies monitor compliance with obligations by suppliers and partners. This encourages them to collaborate in a variety of ways and to improve the level of service that ensures the functioning of the chain. Each link in the chain must be tightly integrated for the overall success of its operation.

New thoughts and ideas about supply chain management take a special place, as new markets open up unique opportunities and benefits for enterprises engaged in foreign economic activity. Improved logistics solutions in the supply chain management system ensure a change of logistics strategy, stable growth and significant competitive advantages.

Today supply chain management is developing rapidly and getting significance for industrial, logistics and trading enterprises. It is necessary to support and improve this sphere as it is important and essential part of enterprise logistic system. Every year the role of logistics increases and the importance of logistics management grows. Successful implementation of supply chains will help to identify all available market opportunities and improve the decision-making system.

References

1. Ellram Lisa M. and Martha C. Cooper, "Supply Chain Management, Partnership, and the Shipper-Third Party Relationship", International Journal of Logistics Management, Vol. 1, No. 2 (1990), p. 1.
2. Lambert, Douglas M., Martha C. Cooper and Janus D. Pagh, "Supply Chain Management: Implementation Issues and Research Opportunities," The International Journal of Logistics Management, Vol. 9, No. 2 (1998), p. 1.
3. Emily Dawn Szajda, GBSB Content Manager, (Feb 2017), "What is Supply Chain Management, and Why is it Important", p. 7.
4. Ding H., Guo B., Liu Z., Information sharing and profit allotment based on supply chain cooperation, International Journal of Production Economics, (2011); p.133.
5. Weber M., Hiete M., Lauer L., Rentz O., Low cost country sourcing and its effects on the total cost of ownership structure for a medical devices manufacturer, Journal of Purchasing and Supply Management, (2010); p.16.
6. Doing Business. Understanding regulations for small and medium-size enterprises. (2014). The World Bank, the International Finance Corporation. Retrieved from: doingbusiness.org/ Doing%20Business/.DB14-Full-Report.pdf.
7. Umney, C. (2014). Trends in global trade management. Retrieved from: www.aebinternational. co.uk/multi.../focus-06-14-trends-in-gtm.pdf.

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МЕТОДИ РАННЬОЇ ДІАГНОСТИКИ КРИЗИ НА ПІДПРИЄМСТВІ

СТУПАК В., 1м курс ФЕМП КНТЕУ,
спеціальність «Менеджмент»,
спеціалізація «Управління бізнесом»

В статті проаналізовано методичні основи ранньої діагностики кризи підприємства для адекватної розробки системи антикризових заходів на вітчизняних підприємствах, що перебувають в передкризовому фінансово-економічному стані. Проведено систематизацію сучасних методів ранньої діагностики кризового стану торговельних підприємств.

The article analyzes the methodological foundations of the early diagnosis of the company's crisis in order to adequately develop a system of anti-crisis measures at domestic enterprises, which remain in the pre-crisis financial and economic condition. A selection of modern methods of early diagnostics of the crisis situation of commercial enterprises was conducted.

Актуальність. Тривалий процес адаптації до ринкових умов господарювання, нестабільність економіки і законодавства, дефіцит інвестиційних ресурсів призводять до того, що значна кількість підприємств опиняються у кризовому стані, який здебільшого випадків закінчується банкрутством.

Основним засобом виживання вітчизняних підприємств у таких умовах є розроблення та впровадження ефективного механізму антикризового управління, важливе місце у якому займає діагностика поточного стану справ. В умовах нестабільного зовнішнього середовища перед підприємством постає завдання проведення діагностики діяльності, виявлення та оцінки можливих напрямків розвитку.

Appendix B

Financial statements for year 2017-2018

			CODES
		Date (year, month, day)	2019 | 01 | 01
Enterprise	Limited Liability Company «Silpo-Food »	EDRPOU	40720198
Legal forms of entities	Limited Liability Company	by KOPFG	240
Type of economic activity	Retail sale in non-specialized stores with food, beverages or tobacco predominantly	by NACE	47.11
Unit: thousand UAH			
Address	02090, Kyiv, 1, Butlerova street		

Balance sheet (statement of financial results) on 31.12.2018

Assets	Line code	At the beginning of the reporting period	Finally reporting period	At the date of transition to international financial standards reporting
1	2	3	4	5
I. Non-current assets				
Intangible assets:	1000	1015	976	0
initial value	1001	1455	1911	0
accumulated depreciation	1002	440	935	0
Incomplete capital investments	1005	0	0	0
Fixed assets:	1010	183670	174745	0
initial value	1011	256304	272715	0
wear and tear	1012	72634	97970	0
Investment Property:	1015	0	0	0
initial value	1016	0	0	0
wear and tear	1017	0	0	0
Long-term biological assets:	1020	0	0	0
initial value	1021	0	0	0
accumulated depreciation	1022	0	0	0
Long-term financial investments: accounted for using the equity method other enterprises	1030	0	0	0
other financial investments	1035	0	0	0
Long-term receivables	1040	0	0	0
Deferred tax assets	1045	0	914	0
Goodwill	1050	0	0	0
Deferred acquisition costs	1060	0	0	0
Balance, centralized insurance reserve funds	1065	0	0	0
Other current assets	1090	0	0	0
Total section I	1095	184685	176635	0
II. Current assets				
Inventories	1100	31101	97109	0
Inventories	1101	17238	63058	0
Unfinished production	1102	1739	1266	0
Final product	1103	8293	10603	0
Goods	1104	3831	22182	0
Current biological assets	1110	0	0	0
Deposits reinsurance	1115	0	0	0

Promissory notes received	1120	0	0	0
Accounts receivable for products, goods, works, services	1125	4161	99608	0
Receivables on settlements: for advances paid	1130	3757	3616	0
the budget	1135	280	7694	0
including income tax	1136	142	7389	0
accrued income	1140	0	0	0
internal settlements	1145	181435	107640	0
Other current receivables	1155	5358	628	0
Current financial investments	1160	0	0	0
Money and cash equivalents	1165	510	20372	0
Cash	1166	119	597	0
Bank accounts	1167	391	19775	0
Prepaid expenses	1170	1286	1407	0
Share of reinsurer in insurance reserves	1180	0	0	0
including: reserves long-term liabilities	1181	0	0	0
reserves or losses due allowance payments	1182	0	0	0
reserves for unearned premiums	1183	0	0	0
other insurance reserves	1184	0	0	0
Other current assets	1190	1834	14505	0
Total section II	1195	229722	352579	0
III. Non-current assets held for sale and disposal groups	1200	0	0	0
Balance	1300	414407	529214	0

Liabilities	**Line code**	**At the beginning of the reporting period**	**At the end of the period**	**At the date of transition to international financial standards reporting**
I. Equity				
Registered (share) capital	1400	3797	3797	0
Contributions to unregistered share capital	1401	0	0	0
Capital in surplus	1405	4395	4395	0
Additional capital	1410	0	0	0
Share premium	1411	0	0	0
Accumulated translation differences	1412	0	0	0
Reserve capital	1415	2000	2000	0
Retained earnings (uncovered loss)	1420	111555	136583	0
Unpaid capital	1425	(0)	(0)	(0)
Withdrawn capital	1430	(0)	(0)	(0)
Other reserves	1435	0	0	0
Total section I	1495	121747	146775	0
II. Long-term liabilities and provision				
Deferred tax liabilities	1500	192	0	0
Pension obligations	1505	0	0	0
long-term bank credits	1510	36279	2994	0
Other long-term liabilities	1515	106595	102051	0
Long maintenance	1520	0	0	0
Long-term maintenance costs of staff	1521	0	0	0
Targeted financing	1525	0	0	0
Charity	1526	0	0	0
Insurance reserves, including:	1530	0	0	0
provision of long-term liabilities; (At the beginning of the reporting period)	1531	0	0	0
reserve reserve losses or payments due; (At the beginning of the reporting period)	1532	0	0	0
Reserve for unearned premiums; (At the beginning of period)	1533	0	0	0
other insurance reserves; (At the beginning of the reporting period)	1534	0	0	0
Investment contracts;	1535	0	0	0
The prize fund	1540	0	0	0
Provision for payment of jackpot	1545	0	0	0

Total section II	1595	143066	105045	0
III. Current liabilities and ensuring				
Short-term bank credits	1600	32530	26614	0
Promissory notes issued	1605	0	0	0
Current accounts payable, long-term liabilities	1610	28666	2133	0
for goods and services	1615	28405	55406	0
estimated budget	1620	2501	6504	0
by including income tax	1621	0	0	0
estimated insurance	1625	846	840	0
estimated to pay	1630	1606	1794	0
obtained by advances	1635	0	0	0
estimated the participants	1640	0	0	0
internal settlements	1645	50081	178720	0
the insurance business	1650	0	0	0
Current software	1660	3889	4457	0
future revenues	1665	0	0	0
Deferred fee income from reinsurers	1670	0	0	0
Other current commitments	1690	1070	926	0
Total section III	1695	149594	277394	0
IV. Liabilities associated with non-current assets held for sale and disposal groups	1700	0	0	0
V. The net asset value of private pension fund	1800	0	0	0
Balance	1900	414407	529214	0

			CODES
		Date (year, month, day)	2019 | 01 | 01
Enterprise	Limited Liability Company «Silpo- Food"	EDRPOU	40720198
	(name)		

Income statement (statement of comprehensive income) for 2018

I. FINANCIAL RESULTS

Items	Line code	For the reporting period	Over the same period the previous year
Net income from sales of products (goods and services)	2000	1171732	944276
Net earned premiums	2010	0	0
Premiums subscribed, gross amount	2011	0	0
Premiums transferred to reinsurance	2012	0	0
Change in reserve for unearned premiums, gross amount	2013	0	0
Change in share of reinsurers in unearned premium reserve	2014	0	0
Cost of products (goods, services)	2050	(894,377)	(743,393)
Net incurred losses on insurance payments	2070	0	0
Gross profit	2090	277355	200883
Gross: damage	2095	(0)	(0)
Income (loss) from changes in reserves long-term liabilities	2105	0	0
Income (loss) from changes in other insurance reserves	2110	0	0
Change in other insurance reserves, gross amount	2111	0	0
Change in reinsurers share in other insurance reserves	2112	0	0
Other operating income	2120	5234	32780
Income from changes in value of assets that are measured at fair value	2121	0	0
Revenue from initial recognition of biological assets and agricultural products	2122	0	0
Revenue from the use of funds released from taxation	2130	(0)	(0)
Administrative expenses	2130	(19,244)	(43,865)
Selling expenses	2150	(127,193)	(65,750)
Other operating expenses	2180	(13155)	(40,586)
Expenses from changes in value of assets that are measured at fair value	2181	0	0
Spending on initial recognition of biological assets and agricultural products	2182	0	0
Financial result from operating activities: profit	2190	122997	83462
Financial result from operating activities: loss	2195	(0)	(0)
Income from equity	2200	0	0
Other financial income	2220	54	4
Other income	2240	523	110
Income from charity aid	2241	0	0
Financial expenses	2250	(52093)	(52,656)
Losses from equity	2255	(0)	(0)
Other expenses	2270	(44,099)	(217)

Profit (loss) from exposure to inflation on monetary items	2275	0	0
Financial result before taxation Income	2290	27382	30703
Financial result before taxation loss	2295	(0)	(0)
Expenses (income) income tax	2300	-2,354	-11,106
Profit (loss) from discontinued operations after tax	2305	0	0
Net financial result: profit	2350	25028	19597
Net financial result: loss	2355	(0)	(0)

II. COMPREHENSIVE INCOME

Article	Line code	For the reporting period	Over the same period the previous year
Revaluation (write-down) of fixed assets	2400	0	0
Revaluation (write-down) financial instruments	2405	0	0
Accumulated translation differences	2410	0	0
Share of other comprehensive income of associates and joint ventures	2415	0	0
Other comprehensive income	2445	0	0
Other comprehensive income before tax	2450	0	0
Income tax related to other total income	2455	0	0
Other comprehensive income after tax	2460	0	0
Total revenue (sum of lines 2350, 2355 and 2460)	2465	25028	19597

III. ELEMENTS OF OPERATING COSTS

Material costs	2500	782951	623974
salary expenses	2505	48713	47545
Allocations for social events	2510	16691	18134
Amortization	2515	26406	22904
Other operating expenses	2520	120367	121666
Together	2550	995128	834223

			CODES
		Date (year, month, day)	2018 | 01 | 01
Enterprise	Limited Liability Company «Silpo-Food »	EDRPOU	40720198
Legal forms of entities	Limited Liability Company	by KOPFG	240
Type of economic activity	Retail sale in non-specialized stores with food, beverages or tobacco predominantly	by NACE	47.11
Unit: thousand UAH			
Address	02090, Kyiv, 1, Butlerova street		

Balance sheet (statement of financial results) on 31.12.2017

Assets	Line code	At the beginning of the reporting period	Finally reporting period	At the date of transition to international financial standards reporting
1	2	3	4	5
I. Non-current assets				
Intangible assets:	1000	323	1015	0
initial value	1001	410	1455	0
accumulated depreciation	1002	87	440	0
Incomplete capital investments	1005	0	0	0
Fixed assets:	1010	175331	183670	0
initial value	1011	225802	256304	0
wear and tear	1012	50471	72634	0
Investment Property:	1015	0	0	0
initial value	1016	0	0	0
wear and tear	1017	0	0	0
Long-term biological assets:	1020	0	0	0
initial value	1021	0	0	0
accumulated depreciation	1022	0	0	0
Long-term financial investments: accounted for using the equity method other enterprises	1030	0	0	0
other financial investments	1035	0	0	0
Long-term receivables	1040	0	0	0
Deferred tax assets	1045	85	0	0
Goodwill	1050	0	0	0
Deferred acquisition costs	1060	0	0	0
Balance, centralized insurance reserve funds	1065	0	0	0
Other current assets	1090	0	0	0
Total section I	1095	175739	184685	0
II. Current assets				
Inventories	1100	33945	31101	0
Inventories	1101	18058	17238	0
Unfinished production	1102	1403	1739	0
Final product	1103	9482	8293	0
Goods	1104	5002	3831	0
Current biological assets	1110	0	0	0
Deposits reinsurance	1115	0	0	0

Promissory notes received	1120	0	0	0
Accounts receivable for products, goods, works, services	1125	2987	4161	0
Receivables on settlements: for advances paid	1130	4135	3757	0
the budget	1135	34	280	0
including income tax	1136	0	142	0
accrued income	1140	0	0	0
internal settlements	1145	107031	181435	0
Other current receivables	1155	2158	5358	0
Current financial investments	1160	0	0	0
Money and cash equivalents	1165	3655	510	0
Cash	1166	0	0	0
Bank accounts	1167	0	0	0
Prepaid expenses	1170	7134	1286	0
Share of reinsurer in insurance reserves	1180	0	0	0
including: reserves long-term liabilities	1181	0	0	0
reserves or losses due allowance payments	1182	0	0	0
reserves for unearned premiums	1183	0	0	0
other insurance reserves	1184	0	0	0
Other current assets	1190	1728	1834	0
Total section II	1195	162807	229722	0
III. Non-current assets held for sale and disposal groups	1200	0	0	0
Balance	1300	338546	414407	0

Liabilities	Line code	At the beginning of the reporting period	At the end of the period	At the date of transition to international financial standards reporting
I. Equity				
Registered (share) capital	1400	3797	3797	0
Contributions to unregistered share capital	1401	0	0	0
Capital in surplus	1405	0	0	0
Additional capital	1410	0	0	0
Share premium	1411	0	0	0
Accumulated translation differences	1412	0	0	0
Reserve capital	1415	0	0	0
Retained earnings (uncovered loss)	1420	98353	117950	0
Unpaid capital	1425	(0)	(0)	(0)
Withdrawn capital	1430	(0)	(0)	(0)
Other reserves	1435	0	0	0
Total section I	1495	102150	121747	0
II. Long-term liabilities and provision				
Deferred tax liabilities	1500	0	192	0
Pension obligations	1505	0	0	0
long-term bank credits	1510	34296	36279	0
Other long-term liabilities	1515	100410	106595	0
Long maintenance	1520	0	0	0
Long-term maintenance costs of staff	1521	0	0	0
Targeted financing	1525	0	0	0
Charity	1526	0	0	0
Insurance reserves, including:	1530	0	0	0
provision of long-term liabilities; (At the beginning of the reporting period)	1531	0	0	0
reserve reserve losses or payments due; (At the beginning of the reporting period)	1532	0	0	0
Reserve for unearned premiums; (At the beginning of period)	1533	0	0	0
other insurance reserves; (At the beginning of the reporting period)	1534	0	0	0
Investment contracts;	1535	0	0	0
The prize fund	1540	0	0	0
Provision for payment of jackpot	1545	0	0	0

Total section II	1595	134706	143066	0
III. Current liabilities and ensuring				
Short-term bank credits	1600	48694	32530	0
Promissory notes issued	1605	0	0	0
Current accounts payable, long-term liabilities	1610	0	28666	0
for goods and services	1615	28659	28405	0
estimated budget	1620	3306	2501	0
by including income tax	1621	0	0	0
estimated insurance	1625	933	846	0
estimated to pay	1630	2007	1606	0
obtained by advances	1635	0	0	0
estimated the participants	1640	0	0	0
internal settlements	1645	7356	50081	0
the insurance business	1650	0	0	0
Current software	1660	2689	3889	0
future revenues	1665	0	0	0
Deferred fee income from reinsurers	1670	0	0	0
Other current commitments	1690	8046	1070	0
Total section III	1695	101690	149594	0
IV. Liabilities associated with non-current assets held for sale and disposal groups	1700	0	0	0
V. The net asset value of private pension fund	1800	0	0	0
Balance	1900	338546	414407	0

			CODES
		Date (year, month, day)	2018 | 01 | 01
Enterprise	Limited Liability Company «Silpo- Food"	EDRPOU	40720198
	(name)		

Income statement (statement of comprehensive income) for 2017

I. FINANCIAL RESULTS

Article	Line code	For the reporting period	Over the same period last year
Net income from sales of products (goods and services)	2000	944276	718790
Net earned premiums	2010	0	0
Premiums subscribed, gross amount	2011	0	0
Premiums transferred to reinsurance	2012	0	0
Change in reserve for unearned premiums, gross amount	2013	0	0
Change in share of reinsurers in unearned premium reserve	2014	0	0
Cost of products (goods and services)	2050	(743,393)	(549,992)
Net incurred losses on insurance payments	2070	0	0
Gross profit	2090	200883	168798
Gross: damage	2095	(0)	(0)
Income (loss) from changes in reserves long-term liabilities	2105	0	0
Income (loss) from changes in other insurance reserve	2110	0	0
Change in other insurance reserves, gross amount	2111	0	0
Change in reinsurers share in other insurance reserves	2112	0	0
Other operating income	2120	32780	1332
Income from changes in value of assets that are measured at fair value	2121	0	0
Revenue from initial recognition of biological assets and agricultural products	2122	0	0
Administrative expenses	2130	(43,865)	(38,441)
Selling expenses	2150	(65,750)	(39,268)
Other operating expenses	2180	(40,586)	(13,480)
Expenses from changes in value of assets that are measured at fair value	2181	0	0
Spending on initial recognition of biological assets and agricultural products	2182	0	0
The financial result from operations Activities: Income	2190	83462	78941
Financial result from operating activities: loss	2195	(0)	(0)
Income from equity	2200	0	0
Other financial income	2220	4	139
Other income	2240	110	8
Income from charity aid	2241	0	0
Financial expenses	2250	(52,656)	(33,095)
Losses from equity	2255	(0)	(860)

Other expenses	2270	(217)	(0)
Profit (loss) from exposure to inflation on monetary items	2275	0	0
Financial result before taxation: profit	2290	30703	45133
Financial result before taxation loss	2295	(0)	(0)
Expenses (income) income tax	2300	-11,106	-10,938
Profit (loss) from discontinued operations after tax	2305	0	0
Net financial result: profit	2350	19597	34195
Net financial result: loss	2355	(0)	(0)

II. COMPREHENSIVE INCOME

Article	Line code	For the reporting period	Over the same period the previous year
Revaluation (write-down) of fixed assets	2400	0	0
Revaluation (write-down) financial instruments	2405	0	0
Accumulated translation differences	2410	0	0
Share of other comprehensive income of associates and joint ventures	2415	0	0
Other comprehensive income	2445	0	0
Other comprehensive income before tax	2450	0	0
Income tax related to other total income	2455	0	0
Other comprehensive income after tax	2460	0	0
Total revenue (sum of lines 2350, 2355 and 2460)	2465	25028	19597

III. ELEMENTS OF OPERATING COSTS

Material costs	2500	623974	399680
salary expenses	2505	47545	38027
Allocations for social events	2510	18134	12271
Amortization	2515	22904	10165
Other operating expenses	2520	121666	78667
Together	2550	834223	538810

Appendix C

Analysis of Opportunities and Threats of the Environment to Supply Chain Management by LLC «Silpo-Food» with PEST Analysis

Group of factors	Factor	Direction of influence	Factor condition
1	2	3	4
Political	Political instability	-	Large-scale anti-terrorist operation in Ukraine leads to a decrease in the international image of Ukraine in the global market for services
	Tax legislation Changes in taxation	+/-	Since January 1, 2014, the income tax rate has been reduced to 18%. On December 25, 2015, the Verkhovna Rada of Ukraine adopted a law amending the Tax Code of Ukraine. On January 1, 2017, the Law of Ukraine "On Amendments to the Tax Code of Ukraine on Improving the Investment Climate in Ukraine" came into force on December 21, 2016 No. 1797-VIII
	Formation of international transport-terminal systems of freight transportation	+	Establishment of international logistics centers at the Chop-Zahon node
	European integration	+	Ukraine has entered a new stage of approximation of national legislation to EU legislation, having started the negotiation process with the European Union on the conclusion of a new Free Trade Agreement with the aim of further acquiring the right in the smooth movement of goods, services, labor and capital. At present, all 27 members of the Commonwealth are involved in the development of the transport and logistics services market, which is a testimony to the extensive system of economic relations between Ukraine and the European Union.
	WTO membership	+	Improving Ukraine's international image in the global services market. Due to the liberalization of trade in services and goods, as well as with the reduction of import duties on goods, the Ukrainian economy began to gain weight in the world market

Economic	Impact of the global financial and economic crisis	-	Under the influence of the global financial and economic crisis, in recent years Ukraine has lost significant volumes of transit and export cargo transportation by sea, which has negatively affected the profitability of the industry, the efficiency of seaports and river ports, which are still in need of modernization of port infrastructure and equipment for modern automation systems management such as European ports of competition
	Increase in the 2018 minimum wage budget	+	Minimum wage from 01/01/2016 to 04/30/2016 - 1378 UAH. from 01.05.2016 to 30.11.2016 - 1450 UAH. from 01.12.2016 - 1600 UAH. from 01.01.2017 - 3200 UAH. from 01/01/2018 - 3723 UAH.
	The general economic situation in the country. Inflation rate	-	The inflation rate in Ukraine in 2017 increased to 43,3%, which is the highest value in the last 20 years. This was reported by the State Statistics Service on its official website
	Utilities and service charges	-	Tendent rise in utility costs and service rates.
	Consumer market conditions	-	Fierce competition in the region's retail market, increasing number of potential competitors
	Increasing unemployment	-	Unemployment rate (ILO methodology) - 9.6% in 2018
Social	Wage level. Motivation of work activity and its importance	-	Decrease in household income due to decrease in real average monthly wage - 34.0% in 2017.
	The image of the enterprise in the retail market	-	LLC «Silpo-Food» has already won a great commitment of consumers of this segment of the market
	The level of education of employees	+/-	The number of students in vocational schools increased by 3.4% in the 2018/2017 academic year compared to 2017/2016. However, in universities of I-II levels of accreditation this indicator decreased by 3.3%, III-IV - decreased by 6.6% over the same period.
Technological	Innovation related to logistics processes	+	High level of awareness of the degree of scientific development in the industry.
	Other technological innovations	+/-	Updating of logistic processes in accordance with the development of technologies and market requirements.
	Requirements for qualification of employees	+	All employees involved in the activities of LLC «Silpo-Food» have appropriate education. The company employs only skilled workers.