WSPÓŁCZESNE KONCEPCJE ZARZĄDZANIA I ICH ZNACZENIE W OBSZARZE LOGISTYKI

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Streszczenie: Powszechna globalizacja, automatyzacja i cyfryzacja gospodarki sprawiają, że właściwe dostarczanie niezbędnych produktów lub materiałów ma kluczowe znaczenie dla działalności nowoczesnych przedsiębiorstw – szczególnie na bardzo niestabilnych rynkach. Nowoczesne rozwiązania zarządcze, które odpowiadają na wyzwania nowoczesnego zarządzania, coraz częściej wkraczają w obszary logistyki organizacji. Celem artykułu jest analiza literatury dotyczącej wykorzystania nowoczesnych metod zarządzania w logistyce i controlingu logistyki w przedsiębiorstwie.

Słowa kluczowe: zarządzanie, logistyka, controlling, analiza literatury

CONTEMPORARY MANAGEMENT CONCEPTS AND THEIR IMPORTANCE IN THE AREA OF LOGISTICS

Abstract: The widespread globalization, automation and digitization of the economy makes the proper delivery of the necessary products or materials crucial when it comes to the activities of modern enterprises – especially in highly volatile markets. Modern management solutions that respond to the challenges of modern management are increasingly entering the areas of enterprise logistics. The aim of the article is to analyse the literature on the use of modern management methods in logistics and controlling of organization logistics.

Keywords: management, logistics, controlling, literature review

1. Introduction

The twenty-first century entails many changes to which companies must be able to adapt to survive in the market and function effectively. Growing individual customer requirements, globalization, and thus growing competition, qualitative changes in the environment in which the company operates, technological innovations, fast flow of information are just some of the changes that a modern company should deal with (Jarosz, 2022). Therefore, many of them are looking for and implementing innovative solutions aimed at improving the efficiency of functioning and maintaining a high, competitive position on the global market.

All these changes also do not bypass the area of controlling (Jarosz, 2021) and consequently controlling of logistics. Due to the widespread globalization, automation and digitization of the economy, the proper delivery of the necessary products or materials becomes crucial when it comes to the activities of modern enterprises. In addition, in these times of high inflation and limited resources – logistics optimization is becoming even more important. Modern management solutions that respond to the challenges of modern management are increasingly entering the areas of enterprise logistics.

The aim of the article is to analyse the literature on the use of modern management methods in logistics and controlling of organization logistics. The work presents individual management concepts along with the theories behind them as well as their use in the logistics of modern organizations.

2. Reengineering

2.1. Reengineering – Definitional approach

The concept of Business Process Reengineering was developed by two scholars, Michale Hammer and James Champy, who included all the knowledge about this approach in their book "Reengineering the Corporation" published in 1993. The creators often pointed out that this concept should apply only to enterprises for which there is no other way of rescue, and the managerial staff is ready to take radical steps to improve the efficiency of operations (Myszak, 2011).

BPR, according to the developers, is the introduction of new thinking, starting everything from scratch, redesigning processes. Hammer and Champy (1996) defined

reengineering as a fundamental rethinking and radical redesign of processes in the company, leading to dramatic improvements according to critical, contemporary measures of performance (such as: cost, quality, service, speed).

Reengineering is a constantly developing direction, today thanks to the studies of one of the co-authors J. Champy, we can learn about the next stage of its development. This is X-engineering, classic reengineering focuses on internal processes taking place in the unit, while the latter goes outside the organization (Kisielnicki, 2004).

2.2. Basic principles in reengineering

BPR is a concept that, despite its relatively short existence on the market and the fact that it is still being developed, has already developed key principles of conduct and redesign of systems to improve the functioning of the organization.

One of the recommendations of the BPR is to create a working team headed by a manager. The team is responsible for the specific process that is subject to change. It should consist of 5 to 11 people and in its ranks gather people who know the processes taking place in the company well, they should also include IT specialists, human resources specialists and young people who know little about the processes in the organization but have a lot of ideas. A well-cooperating group of people can develop a synergy effect that will contribute to the search for and implementation of innovative solutions. One of the next principles mentioned by Hammer is the delegation of some rights to employees who perform a given job. The manager's task is to control the actions taken by the subordinate, who feels appreciated, but is also aware of greater responsibility. BPR in its principles assumes shortening the linear process, which is to be achieved through orientation to goals, not to individual tasks, this can be achieved by performing all stages of a given process by one person, who then uses the results of the data for further analysis. It is also important that the process of processing information exists in the place where it is created. The next step is to combine parallel activities, you need to create links between given functions. We should not forget about the elimination of unnecessary, ineffective activities both from the point of view of the customer and the company (Bogan and English, 2006).

The principles of reengineering include (Martyniak, 1999):

- analysis of customer needs,
- analysis of processes in the company,
- the formulation of restrictive conditions,
- creative thinking.

It is necessary to start with a very detailed analysis of customer needs, the results of this analysis help to identify processes that are directly related to these needs. During the

analysis of processes in the company, it is worth asking yourself: what is it for, instead of how it works. Therefore, a process rather than a structural approach is necessary, which is a better instrument for shortening the time of task implementation. This approach involves employees from various organizational units, it also stimulates the creativity of the team, thanks to which they can find problems in the company and look for solutions aimed at improving the processes taking place inside the organization.

The factors determining the success of reengineering in the company include:

- full involvement of the management of the unit, having a clear picture of the implemented strategy,
- customer-oriented processes,
- setting ambitious goals,
- creating teams of the best people, with the greatest creative potential,
- enabling free, unfettered creativity,
- involving IT specialists in the work of the team from the very beginning,
- the right choice of first actions (Brilman, 2002).

Success in applying this method to an entity allows you to:

- cost reduction of at least 40%,
- shortening production cycles by at least 70%,
- improvement of product quality and customer satisfaction by over 40%,
- improvement in profitability by at least 40%,
- increase in market share by at least 25% (Borowska, 2012).

It happens that there are failures in the implementation of the developed process, which means that companies do not obtain any results, or they are negligible, in extreme cases there may even be financial collapse and the need to close. The concept of BPR was born on the American ground, where customer orientation and profits are the main assumption. This model assumes that the employee after exploitation, in a situation where he no longer benefits the entity, is replaced by another, better employee. This approach has not been adopted in Europe (Myszak, 2011).

Reengineering usually covers more than one department, while the basis for success in implementation is to understand the market in which the company operates and customer needs. The most common reason for choosing reengineering as a method of improvement is a problem with competitiveness, market share or decreasing profitability. This method is aimed at searching for radical changes in the most important indicators for the entity describing the activity. The aim of the implementation is to improve quality, speed of operation, reduce costs, increase flexibility, and increase customer satisfaction (Borowska, 2012).

The main advantages of BPR include:

- a large spectrum of goals and benefits offered,
- improving customer satisfaction,
- improving the competitiveness of the unit on the market,
- flexibility,
- a wide range of methods used.

However, the disadvantages of this method include:

- rising costs of employing employees,
- the possibility of social unrest,
- underestimation of intangible resources in the company that create value for the client, which include the knowledge and experience of employees whose interests have been violated.

It should be borne in mind that reengineering is not a golden mean for every company. Too superficial application of this concept, excessive, unrealistic expectations, lack of understanding of the essence may contribute to the failures of undertaken projects (Borowska, 2012).

2.3. Application of reengineering in logistics

Business Process Reengineering is a concept that requires creativity from the individual, willingness to act, but also focus on constant changes in management processes. The implementation of many changes brought by this concept, a new vision, organizational culture, or a changed management system means that the management is faced with answers to very important questions, but also before a very important decision whether the company can act with risk or not, which involves remaining stuck in one point.

Today, many specialist companies specialize in optimizing existing logistics resources and maximizing the benefits that can be obtained in terms of logistics.

Reengineering of a logistics system includes, for example[1]:

- optimization of logistics costs,
- analysis and reorganization of logistics processes,
- optimization of used warehouse space,
- rationalisation of employment levels,
- expansion of the ERP system with a WMS module (Warehouse management system),
- modernization of warehouse equipment.

As a result of reengineering and modelling of logistics processes, the company can achieve such effects as[2]:

[1] Sterlog - Reengineering of logistics systems, https://sterlog.pl/oferta/reinzyniering-systemow-logistycznych/

- models close to processes ranging from global sales and procurement processes to detailed models defining selected areas of company logistics,
- variant proposals for the implementation of basic sales processes for individual products,
- assessment of strengths and weaknesses of the presented options,
- proposals for organizational changes, including new positions and organizational units,
- variant analysis of production service,
- models for integrating cost accounting with logistics processes,
- schedule for the implementation of logistics modules.

In summary, considering reengineering in the aspect of the area of enterprise logistics is used for an in-depth understanding of existing logistics processes and their analysis. This is to identify existing problems and find possible ways to solve them. This may include analysis of supply chain, warehousing and distribution processes, and transportation processes.

3. Lean

3.1. Lean – definitional approach

The creator of the concept of lean was the American engineer John F. Krafcik, who first used in his article "The triumph of the lean production system" (Krafcik, 1988, pp. 41-52). The term lean management comes from English and literally means lean management. Lean management defines the way of thinking and managing the company, which aims to improve the functioning, increase the efficiency of the company's profitability while optimizing time, reducing waste, and increasing the quality of products and services (Piasecka-Głuszak, 2013).

The concept of lean management developed in Japan after World War II in the automotive industry. It was first used by Toyota Motor Company as an approach to production, based on high quality, continuous improvement, elimination of waste and

[2] Bosman Browar Szczecin: reorganization of business processes (BPR) in the field of logistics, Effective business processes in procurement and sales, https://www.all-for-one.pl/pl/case-studies/bosman-browar-szczecin-reorganizacja-procesow-biznesowych-bpr-w-zakresie-logistyki/

flexibility. In the English-language literature, Lean Management is referred to as Toyota Production System (TPS) (Bird, 2002).

One of the main objectives of the lean management concept is to identify and eliminate sources of waste (Zimniewicz, 2009). From the customers' point of view, everything that generates costs and increases the amount of time spent on the production of the final product and has no value should be eliminated (Piasecka-Głuszak, 2013).

There are five principles according to which an organization that has adopted the concept of lean management as a leading one in its activities should function (Womack and Jones, 2003):

1. Determination the value for the customer.
2. Identify the value stream and all activities in the value stream.
3. Continuous flow.
4. Pull system.
5. Striving for excellence.

Lean management is a kind of set of tools, the selection of which depends on the profile of the organization, the way it operates and needs. Lean management tools include: the 5S principle, the Just-In-Time concept, Kanban, Kaizen, and other Japanese management techniques (Krasiński, 2014).

3.2. Lean management – logistics

Lean management is currently the most well-known and used management concept in manufacturing companies (Ahrens, 2006). Lean management focuses mainly on increasing efficiency, reducing costs and waste. The objectives pursued under this method are universal for many industries, which means that lean management has no restrictions due to the company's business profile.

The possibilities of using lean management can only be limited by internal factors of the company, such as unfavourable management or lack of sufficient knowledge about the lean approach.

Lean management can also be used in every part of the company (the exception is not the area of logistics), which means that the organization does not strive for partial efficiency, but holistic, which contributes to raising the level of knowledge and qualifications of the organization's members, but also increases the value of the organization as a learning entity.

Management of logistics processes is a constant search for opportunities for improvement and improvement. From the point of view of the free market economy, the main reason for this situation is the need to meet the requirements of customers. The consequence of the high level of complexity of logistics processes is the need to support them by various

types of systems and methods of production control, inventory management, management of the process of transporting materials and information or proper customer service. According to the literature, the basic assumption of the Lean concept is to eliminate activities included in the logistics m.in processes carried out in the company and not adding value to the products and shortening the production cycle (Liker, 2005; Kucharczyk, 2014). In the spirit of these principles, Słowiński (2010) proposed a model for improving logistics processes according to lean:

1. Choose a logistics process to analyse and improve, which currently requires a lot of work, effort, time, work or is strategic from the point of view of the company.
2. Describe in detail the selected logistics process and all the work that is done in it, using tables, diagrams, charts, process course cards, etc.
3. Analyse the collected data, facts and apply troubleshooting methods; 5W, brainstorming, Ishikawa diagram.
4. Ask for facts and conditions defining the improvement plan and suggest improvements; "ECRS" (eliminate, combine, rearrange, simplify).
5. Use the streamlined and standardized method developed in the previous step.
6. Control the selected process, taking care to maintain the new standard.

A tool for improving the efficiency and increasing the value of logistics processes for the customer can be the concept of continuous improvement of Kaizen.

4. Kaizen

4.1. Kaizen as a protective umbrella for businesses

The concept of Kaizen can be explained in two ways. Firstly, it can be interpreted as an independent method of management, and secondly, it can be explained due to the cultural aspect (Krasiński, 2014).

In terms of cultural aspect, Kaizen philosophy is "a state in which one is never satisfied with the status quo, a never-ending pursuit of improvement that begins with the recognition of problems" (Imai, 2007).

Imai (2007) also emphasizes that Kaizen is based on society's innate belief that it deserves a better life. According to the Japanese nation, events occurring in life are the work of fate and nature, which is worth remembering when discussing Kaizen methods and tools,

because certain behaviours, e.g., identification with the company, result from the characteristics of the Japanese (Krasiński, 2014).

Kaizen as a management model is based on the constant search for and implementation of changes in all areas of the company's operations, from the largest elements of the organizational structure to a single employee position (Wawak, 2004).

Due to the complexity of the areas in which Kaizen can be used, the effectiveness of this method is determined by the implementation of techniques that must be used to achieve the status of continuous improvement of the company's operations. For this reason, Kaizen is also defined as a set of management methods and techniques. Kaizen is also called a protective umbrella for companies (Jagieła, 2021), which, thanks to various methods and techniques, focuses on reducing waste, continuous improvement, and improvement of the company's market situation.

4.2. Categorization, principles, and objectives of application

There are two types of Kaizen approaches: Kaizen flow and Kaizen process. Flow Kaizen refers to the management and improvement of the flow of information and material. Kaizen process, on the other hand, refers to individual workplaces in an organization and consists in improvement based on key principles: searching for the sources of problems and conflicts or teamwork (Lean Trix..., 2020).

The Kaizen philosophy is based on a set of principles that have been distinguished based on practice and experience gained over the years. The main principles include (System-Kanban..., 2017):

1. Customer focus – companies using the Kaizen philosophy focus mainly on satisfying customer needs at the highest possible level.
2. Process orientation – means documenting and improving the process by optimizing operations.
3. Quality orientation – continuous quality control using measurement methods.
4. Continuous change – continuous implementation of changes in all areas of the organization.
5. Public recognition of the problem – each identified problem should be discussed and implemented in case a change is possible.
6. Orientation to criticism – in the philosophy of Kaizen, criticism is recommended as a factor to raise awareness and mobilize to make changes.
7. Involvement of all employees in co-creating work teams.
8. Horizontal development – the experience gained should become the property of the entire company

9. All workers should be kept informed of initiatives and activities.
10. Self-improvement.
11. Self-discipline among employees and members of work teams.
12. Continuous analysis of the implemented Kaizen strategy.
13. Extraction of added values from the implemented Kaizen strategy.
14. Standardization of Kaizen strategy – if it has positively contributed to changes in the organization, it should be continued.
15. Use incentive programs that encourage employees to submit their ideas.
16. Further improve and improve solutions.

In addition to continuous improvement and improvement of the company's efficiency, the main objectives of Kaizen include (Mikiharu, 2013): learning how much time is spent on the implementation of processes and improvement of quality; alignment and unification of process elements in technical terms; creation of rules and criteria for evaluating and rewarding employees involved; reducing costs and increasing profits; improving the efficiency of individual workstations and the personnel responsible for them.

4.3. Kaizen implementation in the enterprise – logistics

In the context of logistics, Kaizen refers to a continuous improvement approach that focuses on making small, incremental changes to processes to improve efficiency and effectiveness. This can include things like streamlining operations, reducing waste, and implementing new technologies to improve the flow of goods and services. The goal of Kaizen in logistics is to help organizations improve their performance and meet their customer's needs more effectively.

For the implementation of Kaizen in the organization to be successful and for the organization to be able to maintain the adopted changes, appropriate elements of the organizational culture must be introduced. First, it is necessary to take care of the constant development of employees and to create conditions in which everyone from the environment of the organization will take care of its common good.

Kaizen is also understood as a system of initiatives that come directly from employees; it does not matter at what level. This system involves activating employees, including employees of the logistics department, and using their knowledge and experience at workplaces to improve (Krasiński, 2018).

Thanks to the implemented system of employee initiatives, the staff will not only look for improvement in general areas of the company, but especially in their own workplace (for example, employees servicing logistics processes), which will additionally affect their self-satisfaction and commitment (Grycuk, 2011).

In enterprise logistics, the Kaizen philosophy can be applied at different levels. The priority in improving the company's operations is an investment in improving the quality and working conditions as well as the skills of employees – which may result in increased involvement in the continuous improvement of logistics processes.

In addition, it is also important to have management focused on maintaining a constant relationship between the management and individual departments of the company, setting clearly formulated goals, as well as involving employees in the company's activities through an efficient evaluation and motivation system in the logistics and production departments (Łangowska, 2014).

The assumptions of the Kaizen philosophy are applied at the level of improving production, conducting business transactions, as well as optimizing the supply chain. The method, the aim of which is to introduce systematic changes, gives the opportunity to analyse the industry, be interested in the efficiency of selected distribution channels and the quality of product transmission. Examination of individual supply relationships allows to obtain a short and therefore competitive delivery time and simplify complex administrative procedures (Łangowska, 2014).

5. Conclusions

The use of modern management methods allows to optimize those logistics processes that are particularly important from the point of view of the company's strategy, m.in transport. The contemporary image of logistics has changed during evolution, consisting in the transformation from logistics treated only as a service function, focused on short-term control and rationalization of individual logistics processes, to the stage of logistics management of the enterprise (Kucharczyk, 2016). This results in the need to pay special attention to the improvement of logistics processes in enterprises and it is key challenge for controlling departments. In logistics, controlling refers to the process of overseeing and managing the flow of goods and materials through the supply chain which is crucial for proper function especially in production enterprises. This can include managing inventory levels, tracking shipments, and ensuring that goods are delivered to their destination on time and in good condition. Controlling in logistics is important for ensuring the efficiency and effectiveness of the supply chain, as well as for reducing costs and mitigating risks. Some key activities involved in controlling in logistics include forecasting demand, setting transportation routes, and monitoring the performance of logistics providers. All these

processes and aims can be more effective with help from modern management mentioned in this paper.

To sum up, the Kaizen philosophy is not only a method or technique of business management, but also a set of tools, the use of which leads to optimization and increase in the efficiency of enterprises. A very important aspect in this philosophy is the focus on the human factor and supporting and motivating employees in recognizing and needing to improve processes in which employees play a key role. Lean management focuses mainly on increasing efficiency, reducing costs and waste. The objectives pursued under this method are universal for many industries, which means that lean management has no restrictions due to the company's business profile. This concept also fits perfectly into the optimization of logistics processes, which is one of the main tasks of logistics controlling.

Business Process Reengineering is not only a way of operating, but also a completely new approach, which is based on a radical change of strategy using the latest information technologies – which is particularly crucial for logistics operating in a strongly globalized and digital world.

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