Cost Learning as a Knowledge Management Tool in the Process Of Building the Competitiveness of Logistics Enterprises

Sylwia Łęgowik-Świącik and Joanna Kadłubska
Czestochowa University of Technology the Faculty of Management, Poland

s.legowik-swiacik@pcz.pl
joannakadlubska1@interia.pl

Abstract: This article contributes to research on the factors building the competitiveness of enterprises, taking into account knowledge management processes, by deepening the understanding of cost learning processes. The cost learning construct is a knowledge management tool that allows for searching for new areas for building the competitiveness of enterprises. Cost learning processes are particularly important in logistics companies due to the service-oriented nature of their operations. Cost learning in building the competitive advantage of logistics enterprises requires the identification of factors building their competitiveness. Therefore, considering the current state of research and experience in the field of cost learning in building the competitive advantage of enterprises, the objective of this publication has been to understand and explain the relationships between cost learning and the factors building the competitiveness of logistics enterprises. To achieve the assumed objective, the following research methods were used: critical literature analysis, survey questionnaire and Pearson correlation analysis. The empirical research was conducted on a sample of 100 enterprises. The research conclusions suggest that building competitiveness should take into account the selection of strategic factors building the competitiveness of enterprises, identified on the basis of knowledge management processes that take into account cost learning. The issue of cost learning in building the competitive advantage of logistics enterprises is important and up-to-date due to its impact on strategic decision-making in these enterprises.

Keywords: Cost Learning, Knowledge Management, Competitiveness of Enterprises

1. Introduction

The development of enterprises in a competitive environment depends on the selection of strategic goals, design, implementation, and execution of the strategy. Therefore, making the right decisions regarding building competitiveness requires the implementation of knowledge management tools that will allow for the correct diagnosis of the current state of the enterprise and the indication of directions for its further development. Cost learning processes are an important knowledge management tool since they allow for searching for new areas for building the competitiveness of enterprises. Cost learning processes are particularly significant in logistics companies due to the service-oriented nature of their operations. Logistics companies are organizational units specializing in the implementation of activities such as transport, logistics, forwarding, warehousing, as well as additional activities such as reloading, handling, packaging, and labeling (Brah, Ying Lim, 2006). This definition emphasizes the specificity of operations of logistics companies, which means that they must have specific elements of assets and liabilities necessary to conduct business activities by such entities. This means that logistics companies operating in a competitive market are focused on developing strategies to take advantage of market opportunities (Lin, Ho, 2011).

Cost learning is a knowledge management tool in the context of building the competitiveness of logistics companies, as it allows them to identify and analyze key areas in which they can reduce operating costs, without negatively affecting the quality of services. Through cost learning, logistics companies are able to better understand where and how they can introduce innovation to reduce costs and at the same time increase the value of the services they offer. Moreover, cost analysis and learning on its basis helps logistics companies identify potential operational and financial risks and develop strategies to minimize them. Cost knowledge allows logistics companies to make more informed strategic decisions. This means that logistics companies can use cost information to plan long-term development, invest in new markets or technologies, which directly affects their competitive position. However, the adaptability of logistics companies, especially in terms of the geopolitical situation in Eastern Europe, is limited and does not guarantee obtaining a sustainable competitive advantage. Therefore, cost learning processes are becoming more and more important, as they enable flexible adaptation to customer needs. Hence, when considering the current state of research and experience in the field of cost learning in building the competitive advantage of enterprises, the objective of this publication has been to understand and explain the relationships between cost learning and the factors building the competitiveness of logistics enterprises. To achieve the adopted objective, the structure of the article has been divided into two main parts. In the first part of the article, theoretical one, the competitive strategy based on cost leadership is discussed, pointing to cost learning processes in logistics companies in counterpoint. Then, the factors building the competitive advantage of logistics enterprises in the context of cost learning are identified. The second part of the article is the presentation of the results of the empirical research, including the description of the research methodology applied. The discussion and summary present and discuss the results of the empirical research, including the conclusions with some practical implications.

2. Theoretical Foundations for Cost Management and the Implementation of the Cost Leadership Strategy

Searching for new areas of cost management and the implementation of the cost leadership strategy is the result of permanent changes occurring in the endogenous and exogenous environment of modern enterprises. In the literature on the subject, the cost management process includes making decisions related to planning, identification, analysis, evaluation and control of activities connected with the use of resources in the enterprise's operations (Kaplan, Cooper, 1998). However, the critical analysis of the presented approach to the definition of cost management raises the question whether it is really a process that allows for learning costsin the enterprise? The cost management process implemented in enterprises often results in cost reduction, which allows lower prices, which leads to an increase in sales and profitability of the business conducted (Zengin, Ada, 2010). This means that the driving factor of the cost management process is decisions that reflect the choice of one of the possible courses of action in the given situation (Coeurderoy, Durand, 2004). However, it should be noted that when new competitors appear on the market, companies should modify not only the cost management process. In order to acquire new knowledge about costs, operational activities should be reoriented, which will allow for generating new revenue streams as a result of cost learning (Banker, et al., 2018). Conducting the cost management process aimed at creating value may also prove problematic (Kulmala, et al., 2002). When implementing cost management processes, it should be remembered that customer needs and expectations are changing (McNair, et al., 2001). Therefore, the cost management process should strengthen the current value creation or enable the expansion of the current scope of activity through diversification. The idea of managing company costs is also criticized for the extermination of costs, the construction of a strategy based mainly on financial measures and the issue of detaching managers' remuneration from the increase in the value of the company (Henri, et al., 2016). This type of situation can be improved by striving to increase profitability while controlling costs and optimizing the capital structure in order to reduce the cost of capital.

In this context, the cost leadership strategy is important in the cost management process if it leads to learning how to achieve higher prices, lower costs, and greater sales (Valipour, et al., 2012). This means that the cost leadership strategy should take into account the correct relationships between strategic resources, customers and value creation (Hamel, 2001). The cost leadership strategy should be related to strategic resources through the configuration of unique activities, resources and competencies the task of which is to support the implementation of strategic goals (Baroto, et al., 2012). If the cost leadership strategy remains in compliance with the customer, it provides benefits, thus creating, on the one hand, a combination of customer relationships, and on the other hand, it is a point of connection between the company and the customer (Tanwar, 2013). It is worth noting that the cost leadership strategy, while being related to value creation, determines the efficiency of the business conducted (Nandakumar. et al., 2012), increasing the ability to create profit.

However, it should be emphasized that the literature on cost management and the implementation of the cost leadership strategy in logistics companies, especially in terms of the geopolitical situation in Eastern Europe, is fragmentary and dispersed. The current state of knowledge in the field is characterized by methodological diversity. The lack of in-depth theoretical research in this field results in few attempts to explain the relationships between cost learning and factors building the competitiveness of logistics enterprises. The above arguments led to an attempt at theoretical analysis and empirical research to fill the identified gap by deepening the understanding of the cost learning process and the mechanisms underlying it.

3. Competitive Strategy Based on Cost Leadership and the Process of Cost Learning in Logistics Enterprises

The competitiveness of enterprises is the basic concept characterizing modern economies, it is the sustainable ability to design, produce and sell products the prices of which, as well as quality and other values are more attractive than the corresponding products offered by the competitive environment. The competitiveness of enterprises combines not only specific product features but can also be perceived through the prism of competitiveness in terms of available resources (financial, human, material, intellectual) (Nikolova, et al., 2017). All the above features of competitiveness increase the company's potential and reduce its operating costs

(Stonehouse, Snowdon, 2007), which positively affects product prices and the level of profits achieved by the company. In all theories regarding the competitiveness of enterprises, strategy plays a key role. The most famous concept in the literature is the concept of competitive advantage by M.E. Porter (Porter, 2000). Its basis is the search for sources of competitive advantage in individual economic sectors in which enterprises operate.

The competitive advantage strategies formulated by ME Porter are universal and can also be used by logistics companies. M.E. Porter distinguishes three competitive advantage strategies (cost leadership, differentiation, and focus) (Porter, 2003) but the cost leadership strategy is essential in the context of learning costs by logistics companies. This is due to the fact that placing emphasis on competing based on a leading position in terms of total costs in this strategy allows logistics companies to obtain the status of a leader in the sector of logistics services in relation to the level of generated costs. The cost leadership strategy is a bit of a challenge for logistics companies (Chluska, 2023) since it allows for achieving a relatively high market share, provided that logistics companies are able to maintain a low level of operating costs, otherwise they will be forced to look for alternative types of a competitive advantage (Porter, Magretta, 2014). The benefit of implementing the cost leadership strategy for logistics companies is the ability to generate higher profits. Additionally, logistics companies can benefit from flexibility in terms of services provided and the ability to gain a favorable position in the market, which benefits may result from the implementation of the cost leadership strategy, as presented in Figure 1.

Figure 1: Benefits of the cost leadership strategy in logistics enterprises

Source: Porter, M., Magretta, J. (2014). Strategy and Competition: The Porter Collection (3 Items). Harvard Business Review Press.

The application of the cost leadership strategy must consider cost learning processes. Cost learning can take place by observing the experience curve (Yelle, 1979), which describes the phenomenon of the decrease in unit costs of manufacturing products as the total production volume increases (Li, et al., 2015). The idea of the cost learning process assumes that the more units of a product the enterprise manufactures, the more it learns about the production process, which allows for the optimization and improvement of operations, due to which it is possible to reduce the level of unit costs of products and thus improve performance. Cost learning within the experience curve may consist in cost reduction. In this case, with each doubling of cumulative production, a decline in unit costs can be observed (Gray, et al., 2009). This is the result of increased efficiency, better use of resources, innovation in processes, as well as employee skills and experience (Jaber, et al., 2008) . This means that the greater the cumulative production, the greater the possibility of cost reduction. This effect is noticeable since companies learn how to minimize waste, improve processes, and increase productivity (Yu, et al., 2020). Through cost learning, logistics companies can identify ways to improve processes such as inventory management, transportation, warehousing, and customer service (Zhu, et al., 2021). By using modern technologies and automating processes, logistics enterprises can help reduce operating costs and increase performance. Moreover, as the volume of freight and routes handled increases, logistics companies can reduce operating costs, which contributes to the implementation of the cost leadership strategy.

To sum up, it is worth emphasizing that cost learning is an important knowledge management tool in the implementation of the competitive strategy based on cost leadership. It allows for systematic cost reduction due to greater production and experience gained. Enterprises, especially those in the logistics industry, can use cost learning to optimize their operations and increase competitiveness through the cost strategy. However, it is important not to neglect other key aspects of the business such as quality, innovation, and customer service. This is possible to achieve when the functioning of logistics companies is based on a low-cost position implemented in a strategic segment, or on high differentiation of services, or by applying both solutions.

4. Identification of Factors Building the Competitive Advantage of Logistics Enterprises in the Context of Cost Learning

The understanding of cost learning processes in logistics companies should be determined by a selected set of factors (Figure 2), which should include areas such as (Jaber, Saadany, 2011):

- introducing changes in the company's competitive strategies regarding key resources,
- acquiring knowledge in the company by creating new organizational practices,
- learning in the enterprise by searching for and implementing good practices,
- taking advantage of opportunities and making innovative decisions,
- diversification of activities as a factor determining the market position of the enterprise,
- taking actions to implement positively assessed opportunities.

Figure 2: Factors building the competitive advantage of logistics enterprises in the context of cost learning.

Source: Jaber, M.Y., Saadany, A.M., (2011), An economic production and remanufacturing model with learning effects, Int. J. Prod. Econ. 131 (1).

Introducing changes in competitive strategies in terms of key resources of logistics companies should contribute to distinguishing a given company from competitors (Tomski 2014). Therefore, logistics companies ought to focus their activities, on the one hand, on cost learning by introducing changes in terms of cost rationalization, as well as the selection of key resources, and on the other hand, on searching for new sources of revenue (Ranjith, 2016). The changes should also consider relationships with key customers and the scope of services and products provided (Bumane, 2018).

Acquiring knowledge in the enterprise by creating new organizational practices and learning through searching for and implementing good practices is a manifestation of strategic innovation (Kramer, Porter, 2011). Therefore, strategic innovation is reflected in taking actions aimed at knowledge acquisition and organizational learning. It is worth noting that strategic innovation, through acquiring knowledge and cost learning, contributes to changing the business model and maintaining the adopted level of competitiveness of logistics enterprises (Dyduch, 2019).

Taking advantage of opportunities and making innovative decisions is a sign of strategic entrepreneurship, which, however, requires the implementation of the process of planning and learning costs by logistics companies for the idea to be implemented. Therefore, strategic entrepreneurship should not only enable taking advantage of opportunities and making innovative decisions (Kaplan, Norton, 2006), but also allow for planning new ventures and taking actions to implement positively assessed opportunities in the environment (Lepak, et al., 2007).

The diversification of activities as a factor determining the market position of the enterprise is the factor of the company's position in the market. The factors of positioning a logistics company on the market should consider professionalism and flexible behavior, as they determine the market position of the company (Mangan, 2004). Therefore, the diversification of activities of the logistics company (Skowron-Grabowska, 2023) ought to take into account cost learning processes, since they determine the company's ability to engage in new areas of operation, allowing for acquiring new markets and new skills, abilities and competences (Kim, Mauborgne, 2017).

Taking actions to implement positively assessed opportunities is an important factor determining the company's predispositions to compete in the market. The identification of the company's predispositions to compete on the market of logistics services should take into account: high quality of the services provided, good price-quality ratio of the services provided and low costs (Otola, Grabowska, 2020). This means that taking actions to implement positively assessed opportunities requires the implementation of cost learning processes, carried out by assessing the ability of logistics companies to conduct business and compete in the market, considering internal and external factors resulting from the market environment.

Summarizing the above considerations, it can be noted that the selected set of factors for implementing cost learning processes in logistics enterprises constitutes a conceptual instrument of strategic management, acting as a template for the cost learning process. Its advantage is the primacy of strategic choices, which causes that managers' attention is focused on strategic factors building the competitiveness of logistics enterprises, enabling, on the one hand, cost reduction and, on the other hand, achieving a competitive advantage (Stępień, 2022). The correctly selected set of factors needed to implement cost learning processes constitutes the basis for developing a detailed cost learning plan in logistics companies. This means that logistics companies should choose a set of selected factors to implement cost learning processes that will allow them to specify the most critical management areas while considering the company's strengths and weaknesses against the background of existing and identifiable opportunities and threats.

5. Research Methodology and the Structure of the Research Sample

The empirical research was quantitative in nature. The selection of the research sample was purposeful. The research was carried out using - CATI Computer Assisted Telephone Interview (Hair, et al., 2014). The applied research method has both limitations and advantages. The limitations include difficulties associated with examining areas that are complicated for the respondent and the complexity of the process of conducting research consisting of many questions (Vogel, Koutsombogera, Costello, 2020). The advantages of using the CATI method when achieving the research objective include: systematicity of stages occurring during the research, obtaining high-quality results in a short period, integrated data collection flow (Oláh, et al., 2019) . To accomplish the research objective, a survey questionnaire was used, which was verified in the presence of the interviewer. The questions used a five-point Likert rating scale. The respondents were asked to answer to what extent they agreed or disagreed with each statement. Answer 5 meant "I completely agree", 4 - "I agree", 3 - "I don't know", 2 - "I disagree", and 1 - "I completely disagree". The structure of the research sample is presented in Figure 3.

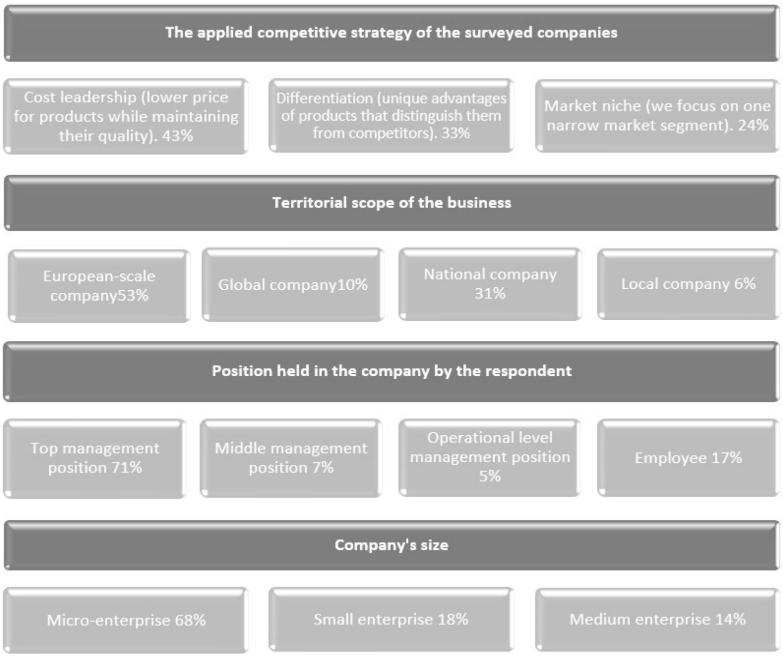

Figure 3: Structure of the research sample

Source: Own study based on the conducted research.

The population of the surveyed enterprises consisted of 100 micro, small and medium-sized logistics enterprises operating in Poland. When analyzing the structure of the research sample, it is noted that most of the research covered enterprises using the cost advantage strategy (43%). Considering the territorial scope of their activities, the vast majority of the surveyed entities were European-scale enterprises (53%). Most of the survey respondents held top management positions (71%). When considering the size of the business conducted and the size of the enterprise, it should be noted that the vast majority of the surveyed entities were micro logistics enterprises (68%).

6. Results of the Conducted Empirical Research

In order to understand and explain the relationships between cost learning and the factors building the competitiveness of logistics enterprises, the Pearson correlation coefficient was used, which takes the values in the range < -1.1 >. The tested relationships were additionally confirmed by a significance test (at the level of $\alpha = 0.05$). Table 1 presents the research results obtained using the Pearson correlation matrix for introducing changes in the company's competitive strategies and the factors determining the company's competitiveness, i.e. low costs.

Table 1: The relationship between introducing changes in the company's competitive strategies (changes in the set of key resources) and the factor determining the company's competitiveness (low costs).

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Introducing changes in the company's competitive strategies in terms of key resources	0.75

Source: Own study.

When analyzing the data presented in Table 1, it is noted that there is a strong positive relationship between introducing changes in the company's competitive strategies regarding key resources and the factors determining the company's competitiveness, such as low costs (0.75). Logistics companies are aware that low costs have a positive impact on their competitive position in the market. Additionally, the surveyed companies are changing the set of key resources. As a result, competitors' strategies change, making them more attractive in the market. Table 2 shows the correlation between strategic innovation manifested in acquiring knowledge in the surveyed enterprises and low costs.

Table 2: The relationship between acquiring knowledge in the enterprise by creating new organizational practices and low costs.

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Acquiring knowledge in the enterprise by creating new organizational practices	0.75

Source: Own study.

Based on the results presented in Table 2, it can be concluded that in the surveyed enterprises there is a strong positive relationship between strategic innovation in the process of acquiring knowledge by creating new organizational practices and low costs as a factor determining their competitiveness (0.75). Creating new organizational practices can increase the efficiency of enterprises and contribute to the reduction of waste, which may translate into lower operating costs. Table 3 shows the correlation between the input variables of strategic innovation and the factor determining the economic competitiveness of the surveyed enterprises, i.e. low costs.

Table 3: The relationship between learning in the company by searching for and introducing good practices and low costs.

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Learning in the company by searching for and introducing good practices	0.71

Source: Own study.

When considering the results presented in Table 3, it can be concluded that there is a strong positive relationship between strategic innovation in the process of searching for and implementing good practices and low costs treated as a factor determining the competitiveness of micro, small and medium-sized logistics enterprises (0.71). The surveyed companies are searching for and implementing good practices and at the same time analyzing the level of decision-making costs. Table 4 shows the correlation between the factors determining the company's competitiveness, such as low costs, and taking advantage of opportunities and making innovative decisions.

Table 4: The relationship between taking advantage of opportunities and making innovative decisions and low costs.

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Taking advantage of opportunities and making innovative decisions	0.67

Source: Own study.

When analyzing the research results presented in Table 4, it is noted that in the case of the logistics enterprises studied, there is a strong positive relationship between the factor determining the company's competitiveness, such as low costs, and the ability to seize opportunities and make innovative decisions, which are a manifestation of strategic entrepreneurship (0.67). These enterprises are aware that low costs are an important factor in building the competitiveness of enterprises, and taking advantage of opportunities and making innovative decisions increases the attractiveness of the sector. As a result, companies become much more competitive in the market. Table 5 presents the research results obtained using the Pearson correlation matrix of the input variables for business diversification and low costs.

Table 5: The relationship between the diversification of activities and low costs in the surveyed enterprises.

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Diversification of activities as a factor determining the company's market position	0.67

Source: Own study.

The conducted research presented in Table 5 indicates that in the case of the logistics companies surveyed, there is a strong positive relationship between low costs as the competitiveness factor and the diversification of activities treated as a factor determining market position (0.67). Micro, small and medium-sized logistics enterprises are becoming more competitive by maintaining low operating costs, which allows them to offer their products or services to customers at lower prices. However, the diversification of activities allows them to offer a wider catalog of services, which makes them more attractive to their clients. Table 6 shows the correlation between the factors determining the company's competitiveness, manifested in low costs, and strategic entrepreneurship, consisting in positively assessed opportunities resulting in taking actions aimed at their implementation.

Table 6: The relationship between taking actions to implement positively assessed opportunities and low costs.

Pearson correlation matrix	Low costs as a factor determining the company's competitiveness
Taking actions to implement positively assessed opportunities	0.60

Source: Own study.

Based on the correlation research, a strong positive relationship (0.60) is noted between the factor determining the company's competitiveness in the form of low costs and strategic entrepreneurship implemented through positively assessed opportunities resulting in taking actions aimed at their implementation (Table 6). This may indicate that the surveyed enterprises, while implementing a strategy focused on low costs, also take actions aimed at implementing positively assessed opportunities. Each positively assessed opportunity is a motivating factor to act, and aiming at low costs in relation to positively assessed opportunities increases the competitiveness of the surveyed enterprises.

7. Discussion

When considering the results of the obtained research aimed at understanding and explaining the relationships between cost learning and the factors building the competitiveness of logistics enterprises, it is noted that there are strong positive relationships. When analyzing strong positive relationships in relation to cost learning processes through the implementation of the factors such as: introducing changes in competitors' strategies in terms of key resources, or taking advantage of opportunities and making innovative decisions, it can be concluded that the surveyed logistics companies are aware of the potential of their knowledge and use opportunities to build their competitiveness. A similarly strong positive relationship exists between low costs and acquiring knowledge by creating new organizational practices, as well as learning through searching for and implementing good practices, which may translate into a long-term process requiring the management staff to have knowledge about the customer to provide them with services of high quality and acceptable prices. Based on the results obtained, it can be concluded that there is a strong positive relationship between low costs and the diversification of activities, which is a factor determining the market position of the company, as well as taking actions to implement positively assessed opportunities. This may mean that the surveyed logistics companies rationalize their cost structure based on positively assessed opportunities, which will allow these entities to become more competitive by maintaining low operating costs to offer their products or services to customers at lower prices.

Summarizing the results of the research procedure in the field of examining the relationship between the factors building the competitiveness of the surveyed logistics enterprises, it should be noted that the low-cost strategy is characteristic of logistics enterprises which, while conducting their operations, on the one hand, take actions aimed at learning the company's costs, and on the other hand, identify factors building competitiveness, striving to increase sales revenues, which has a positive impact on the economic results of the surveyed enterprises.

8. Conclusions

To sum up the presented considerations, it should be stated that they allow for the following conclusion that, in a situation of environmental variability, the factors that highlight the consistency between the ability to identify factors of competitive advantage and the ability to initiate changes undertaken in the area of conducted business activities are of great importance. The following conclusions emerge from the conducted research:

- the surveyed logistics companies build competitive advantage based on cost learning processes, which constitute a knowledge management tool, understood as a long-term process, requiring the management staff to have knowledge about the product and the customer,
- when assessing the conditions for building the competitiveness of logistics companies, it can be noted that the processes of learning the costs of strategic innovation of the surveyed enterprises are positively influenced by factors building their competitiveness, which may indicate an increase in the awareness of the management staff of logistics industry enterprises regarding the potential associated with having knowledge.

The business environment of logistics companies is dynamic and requires constant adaptation to new conditions. Therefore, cost learning becomes an element of building the competitiveness of logistics companies that allows them to quickly respond to market changes and meet competitive challenges. Moreover, cost learning, which is a knowledge management tool in logistics companies, enables not only cost optimization, but also innovation, strategic decision-making, and flexible response to changes, which is the basis for building competitiveness in the logistics services market. In conclusion, the considerations presented in this study allowed for achieving the intended objective. The issue of understanding and explaining the relationship between cost learning and the factors building the competitiveness of logistics enterprises is important and up-to-date due to its impact on strategic decision-making in these enterprises.

The recommendation for the surveyed logistics companies is to implement cost learning processes to build competitive advantage and improve competitiveness. The accurate identification of factors building competitiveness allows for changes in competitive strategies and should lead to distinguishing the company from its competitors.

References

Banker, R. D., Byzalov, D., Fang, S., Liang, Y. (2018). „Cost management research". *Journal of Management Accounting Research*, *30*(3), 187-209.

Baroto, M. B., Abdullah, M. M. B., Wan, H. L. (2012). „Hybrid strategy: A new strategy for competitive advantage". *International Journal of Business and Management*, *7*(20), 120.

Brah, S. A., Ying, L. H. (2006). „The effects of technology and TQM on the performance of logistics companies". *International Journal of Physical Distribution and Logistics Management*, 36(3), 192-209.

Bumane, I., (2018), „The methodology of the statement of comprehensive income and its impast on profitability: the case of Latvia", *Entrepreneurship and Sustainability* Issues, nr 6 (1), 77-86.

Chluska, J., (2023), „The Role of the Intellectual Potential of Employees in Creating the Goodwill of a Teaching Hospital", Proceedings of the 24th European Conference on Knowledge Management. Vol. 24 nr 1 (red.) Matos Florinda, Rosa Alvaro.

Coeurderoy, R., Durand, R. (2004). „Leveraging the advantage of early entry: proprietary technologies versus cost leadership". *Journal of Business Research*, *57*(6), 583-590.

Dyduch, W. (2019), „Entrepreneurial strategy stimulating value creation: Conceptual findings and some empirical tests", *Entrepreneurial Business and Economics Review*, Vol. 7, No. 3, 65-81.

Gray, J.V., Tomlin, B., Roth, A.V., (2009) *Outsourcing to a powerful contract manufacturer: the effect of learning-by-doing*, Prod. Oper. Manag. 18 (5), 487–505.

Hair, J.F. et al., (2014), *Multivariate Data Analysis*. 7th Ed., Pearson Education, Upper Saddle, 129, pp. 282-288.

Hamel, G. (2001). Leading the revolution: an interview with Gary Hamel. *Strategy & Leadership*, *29*(1), 4-10.

Henri, J. F., Boiral, O., Roy, M. J. (2016). „Strategic cost management and performance: The case of environmental costs". *The British Accounting Review*, *48*(2), 269-282.

Jaber, M.Y., Goyal, S.K., Imran, M., (2008) *Economic production quantity model for items with imperfect quality subject to learning effects*, Int. J. Prod. Econ. 115 (1), 143–150.

Jaber, M.Y., Saadany, A.M., (2011), *An economic production and remanufacturing model with learning effects*, Int. J. Prod. Econ. 131 (1), 115–127.

Kaplan, R. S., Cooper, R. (1998). *Cost and effect: using integrated cost systems to drive profitability and performance*. Harvard Business Press.

Kaplan, R. S., Norton, D. P. (2006). *How to implement a new strategy without disrupting your organization*. Harvard Business Review, 84(3), 100.

Kim, W. C., Mauborgne, R. A. (2017). *Blue ocean leadership*. Harvard Business Review Press.

Kramer, M., Porter, M.E., (2011) "Creating value for business and society", Harvard Business Review Poland, No 99.

Kulmala, H. I., Paranko, J., Uusi-Rauva, E. (2002). „The role of cost management in network relationships". *International Journal of Production Economics*, *79*(1), 33-43.

Lepak, D.P., Smith, K.G., Taylor, M.S., (2007), „Value Creation and Value Capture. A Multilevel perspective", Academy of Management Review 2007, Vol. 32, No. 1, 181-182.

Li, T., Sethi, S.P., He, X.,(2015), „Dynamic pricing, production, and channel coordination with stochastic learning", Prod. Oper. Manag. 24(6), 857–882.

Lin, C. Y., Ho, Y. H. (2011). „Determinants of green practice adoption for logistics companies in China". *Journal of business ethics*, 98, 67-83.

Mangan, J., (2004), „Combining Quantitative and Qualitative Methodologies in Logistics Research", *International Journal of Physical and Logistics Management*, 2004, Vol. 34, No. 7.

McNair, C. J., Polutnik, L., Silvi, R. (2001). „Cost management and value creation: the missing link". *European Accounting Review*, *10*(1), 33-50.

Nandakumar, M. K., Ghobadian, A., O'Regan, N. (2011). „Generic strategies and performance–evidence from manufacturing firms". *International Journal of productivity and performance management*, *60*(3), 222-251.

Nikolova, V. L. , Rodionov, G.D., Afanaseyeva, V.N., (2017), Impact of Globalization on Innovation Project Risks Estimation, European Research Studies Journal, nr 20(2B), 396-410.

Oláh, J. et al., (2019), *Analysis and comparison of economic and financial risk sources in SMEs of the Visegrad group and Serbia*. 515 Sustain., 11.7. 1853.

Otola, I., Grabowska M., (2020), *Business Models. Innovation, Digital Transformation, and Analytics*, Taylor and Francis Group, Boca Raton, 9-11.

Porter, M.E. (2000) "Location, competition and economic development: Local clusters in a global economy". *Economic Development Quarterly*, 14(1), 15–34.

Porter, M.E. (2003) "The economic performance of regions". *Regional Studies*, 37, 549–578.

Porter, M.E., Magretta J., (2014). *Strategy and Competition: The Porter Collection* (3 Items). Harvard Business Review Press.

Ranjith, V.K., (2016), „Business Models and Competitive Advantage", *Procedia Economics and Finance*, 37, 207.

Skowron-Grabowska, B., (2023), „Innovativeness in Enterprise Strategies Value Creation and Innovation Multidimensionality", *Management and Production Engineering Review*, Vol. 14, No. 3, 27-43.

Stępień, M. (2022) "The Dynamics of Knowledge in the Implementation of the Distribution Channels Changing Project under Conditions of the Covid-19 Pandemic: a Case Study", Academic Conferences and Publishing International Limited, Proceedings of the 23rd European Conference on Knowledge Management. Vol. 23 No 2 (ed.) Centobelli Piera, Cerchione Roberto, 1140-1148.

Stonehouse, G., Snowdon, B. (2007). „Competitive advantage revisited: Michael Porter on strategy and competitiveness". *Journal of Management Inquiry*, 16(3), 256-273.

Tanwar, R. (2013). „Porter's generic competitive strategies". *Journal of business and management*, *15*(1), 11-17.

Tomski, P., „Entrepreneurship as a career choice: the empirical perspective". *Polish Journal of Management Studies* 2014, 9, 244-253.

Valipour, H., Birjandi, H., Honarbakhsh, S. (2012). „The effects of cost leadership strategy and product differentiation strategy on the performance of firms". *Journal of Asian Business Strategy*, *2*(1), 14-23.

Vogel, C., Koutsombogera, M. Costello, R. (2020) *Analyzing Likert scale inter-annotator disagreement*, Neur. Approach. Dynam. Sig. 513 Exchang, Springer, Singapore, 383-393.

Yelle, L.E., (1979), The learning curve: historical review and comprehensive survey, Decis. Sci. 10 (2), 302–328.

Yu, B., J. Wang, X. Lu, H. Yang, (2020), *Collaboration in a low-carbon supply chain with reference emission and cost learning effects: cost sharing versus revenue sharing strategies*, J. Clean Prod. 250, 119460.

Zengin, Y., Ada, E. (2010). „Cost management through product design: target costing approach". *International Journal of production research*, *48*(19), 5593-5611.

Zhu, X., Chiong, R., Liu, K., Ren, M. (2021), „Dilemma of introducing a green product: Impacts of cost learning and environmental regulation", *Applied Mathematical Modelling* 92, 829–847.