Leadership in logistics processes in contemporary SMEs

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Abstract Dynamic changes in economic processes as a consequence of the development of production technologies and techniques entail creating new views on the concept of leadership. An additional factor shaping leadership attitudes are turbulent changes in the environment. The literature on the subject lacks research on leadership in relation to the management of logistics processes, and the presented research results mainly include a discussion on the cost aspect of leadership. In enterprises from the SME sector, the issues concerning leadership are usually overlooked due to the simplified organizational structure and the limited number of employees. Few theoretical studies contain reflections on the complex nature of modern leadership, focusing mainly on the area of human resource management, or include the phenomenon of leadership in the humanities. Knowledge about the role of leadership in a modern SME enterprise can contribute to improving their competitiveness, including improving logistics processes.

The objectives of the article are to present: (1) literature research on the role of leadership in a modern SME enterprise and (2) research on the process character of leadership in logistics processes in an enterprise, and to propose an integrated model of the role of leadership, including presentation of a case study research to verify the theoretical model.

In the process of constructing the methodological concept, which is the studied group of SME enterprises, the literature on the subject of management sciences including leadership issues was used. Survey research was carried out in 2018-19 with the participation of 100 management Master level students who prepared a given individual research project. In this way, we obtained data verifying the usefulness of the presented theoretical model.

The results allow to some extent to identify problems occurring in SME enterprises in the subject of leadership in logistics processes, including logistic knowledge, demonstrating the usefulness of the integrated model to the analysis of leadership in the SME company, and is a starting point towards further research.

1 Introduction

Researchers dealing with management issues have been long looking for answers to questions about the foundations of companies' success - which determines their leading market position, creating value for stakeholders or gaining a lasting competitive advantage. Business management requires understanding of leadership in many dimensions and on the interdisciplinary ground (Nizard 1998; Organa and Niemczy 2017).

One of the concepts regarding the success of enterprises is the implementation of the principles of leadership. Successes can be achieved by organizations that have the skills to create, use and develop knowledge-based resources. In many cases, research in this area of management relates to the issues of leadership in the context of organizational changes directed at the development of an enterprise in the direction ensuring the increase of efficiency, innovation or product leadership (Kozarkiewicz 2015). One of the categories which has been given special attention in recent years as part of the analysis of the success sources of modern enterprises is creativity. Attributes of leadership are identified with creativity, creating a vision of enterprise development, and the use of knowledge resources. There is no research on leadership in SME enterprises. Research on the SME sector dates back to Poland since the nineties, but micro-enterprises employing up to 9 people were not interesting for research institutions. A similar situation occurred in the European Union, and the existing problem of the lack of appropriate databases for the needs of analyses in the SME sector led to the creation of many research initiatives. Among them, one of the first initiatives was the Observatory of European SMEs established in 1992, and then from 2008 SME Performance Review and Ecorys Nederland BV. The aim of these initiatives was to present annual thematic reports on the SME sector, for example a report on sector innovativeness and export activity. European research gives a generalized image of the SME sector in 27 countries, which allows for the formulation of certain generalizations or the creation of national profiles and as a result has become the basis for identifying some of the key reasons for differentiating the SME sector in individual countries.

The aim of the article is to discuss the issue of leadership in the implementation of logistics processes, focusing in particular on the possibilities of SME competitiveness growth through leadership. The theoretical part presents contemporary views on the role and function of leadership in an enterprise. The first part of the article will present a discussion on the most important concepts: leadership, logistics processes in the company, logistics...
project management. In the second part of the work, based on the theories of leadership, guidelines will be formulated as to the principles of creating leadership. The third part of the work will present assumptions for the leadership model in the conditions of logistics project management in the conditions of creativity of such projects. The article presents theoretical approaches to the issue of leadership in an SME enterprise and identified the attributes of leadership characterizing the management of logistics processes based on literature and own research. The following problem issues were formulated, which were verified in the research process:

**Q1:** What areas of management of logistics processes in a SME enterprise are subject to leadership activities?

**Q2:** What attributes of leadership can be identified as important in terms of implementing the logistics processes of SMEs and thus in providing value to the customer?

The empirical part presents the result of the research on leadership attributes in a SME enterprise, case study research.

### 2 Leadership theories

In the 21st century enterprises, the issue of leadership is a big challenge for both researchers and managers. They are looking for leadership models appropriate for modern organizations. The basic question is the answer to the question whether the current leadership models are effective nowadays and whether they will be appropriate for organizations in the future (Avery (2009)). In essence, leadership excludes coercive measures, and is based on voluntary submission to the will of the leader (Wyrębek 2013). Among the many theories of leadership, there are significant paradigms, valid in subsequent periods in historical perspective. These include the following paradigms:

- **CLASSICAL** - accepted as the primary one in the period from antiquity to the 1970s. The leader's dominance is based on respect and / or power, serving the command and control. The source of the group members' involvement is fear of the leader or because of their respect for him, they strive to be awarded or avoid punishment (Peter et al. 2010). A leader's vision is not necessary to ensure obedience of the group's members;
- **TRANSACTIONAL** - valid in the period from the 1970s to the mid-1980s. It is characterized by the influence exerted on the members of the group in personal contacts and consideration of their opinions and feelings, creating the right environment for management. The source of engagement of the group's members is negotiated prizes, contracts and expectations. The vision is not necessary again and may never be articulated;
- **VISIONARY** - created in the mid-1980s and in force until 2000. The leader is the group's inspiration. The group's commitment is a shared vision, leadership charisma and individualized approach to people in the group. The vision is the most important for the leader and the group members can contribute to it;
- **ORGANIC** - created after 2000. The leader together with the members interpret the group's environment. Leaders may emerge from the group instead of being appointed. The group members' commitment is to support values and processes common to the given group. Vision emerges in the group and is an important element of the organization's culture.

Among leadership theories, the importance of styles that characterize the behaviour of leaders is emphasized. Researchers have found that a leader whose behaviour is most effective uses three approaches at the same time:

- **task-oriented style** - effective leaders focus on activities such as planning and coordinating the work of subordinates, providing help, transparent communication of tasks and goals, managing subordinates so that they understand the goals of the action,
- **a style oriented to social relations** - supporting subordinates psychologically, friendliness, help, focus on interpersonal relationships, an attempt to understand problems, showing trust and acceptance of subordinates,
- **a participative style** - the leader includes subordinates in the decision-making processes of the company, he can do it with the help of the following issues: team meetings, clear communication, promotion of cooperation between subordinates, conflict resolution.

In the global world of interrelationships, where smaller and larger organizations are constantly trying to adapt to the changes taking place in their internal and external environment, traditional leadership concepts are increasingly questioned. In the future, leadership will depend on many factors. We are not yet able to predict many of them, especially since the creation of new concepts of leadership is subject to phenomena occurring in the
environment (Simon 2006). Questions bothering contemporary researchers relate to currently used leadership models, are they appropriate for the organization, or will they work in the future? The first theories of leadership show concentration on the person of the leader, especially on his traits and behaviours. The leader is placed in the centre of actions as a person who has absolute power and treats his subordinates as a tool for achieving the set goals. The focus of the researchers was therefore the attributes defining the leaders (theory of the outstanding individual, the theory of personality traits). The emergence of a behavioural direction in management has focused the attention of researchers on the analysis of the behaviour and attitudes of the leader. The first stages of research and development of leadership theory were dominated by the belief that a leader must be born, which meant that the traits and ways of behaviour of the leaders were treated as innate, which cannot be developed. One of the aspects included in the leadership is the acquisition or possession of leadership skills.

It seems reasonable to say that the understanding and definition of leadership changes over time, thus influencing the approach to acquiring leadership skills (development of leaders and leadership development). Theories on creativity that explain both the conditions and the course of creative processes, e.g. the theory of creativity components, the theory of organizational creativity, the theory of the process of human creativity and the investment theory of creativity (Kesser 2013) should be accounted for in the consideration of creating leadership skills. Synthesizing the role in analysing and explaining leadership traits on sociological grounds can also play the concept of "personality skills", included in the Creative Behaviour Styling model. The operational definition of the model is the "behaviour styles” questionnaire, in which the following hitherto highlighted features leadership are appraised: professional development, interpersonal skills, innovation, managerial skills, change-mindedness. New factors were added to the questionnaire, such as: innovation, interpersonal competences, managerial competences.

According to Koźmiński (2004), leadership is an "important resource of the organization", an element of its social potential: the sum of abilities, skills and talents of the influence of some members of the organization on other members so that the organization's strategic goals can be achieved (Koźmiński 2004). Leadership also means the dominant way in a given organization to play roles related to the impact of one of its members on others. As Sułkowski writes: "leadership belongs to the symbolic heritage of humanity" (Sułkowski 2010), hence its sources can be traced back to the beginning of the homo sapiens genre. Noteworthy is also the neo-evolutionary concept of leadership, according to which leadership has its source in the biological nature of man. It is attractive both for the group of those led by organizing activities and for the leader thanks to the provision of multidimensional benefits (Geryk 2016). From the point of view of leadership assessment, it may be important to consider the methodology of measuring the effectiveness of leadership. The literature on the subject presents various methods of measuring effectiveness and criteria resulting from specific goals, such as profit maximization, acquisition and retention of clients and many others. It is assumed that the measurement of effectiveness should take into account both financial and non-financial measures (Bielawa 2013).

3 Characteristics of a leader

Leadership is a set of processes and activities performed in order to make members of the organization cooperate in the interest of the organization. A leader is a person who has the leadership qualities, knowledge and skills needed to lead the group to achieve their goals. To manage people, the appropriate personality and character traits are required (Thomas 2010). According to Thomas, a good leader should have the following attributes:

- Enthusiasm - it is important for the leader to show enthusiasm to set an example and be positive about all tasks.
- Honesty - is understood as a personality trait, faithfulness to external values, honesty and nobility.
- Firmness - it is important that the leader is demanding, persistent and resistant to adversity. He cares more about respect than popularity. He creates high standards, which he himself adheres to.
- Justice - the leader should be objective, reward and punish for the results and not for sympathy, treat everyone equally.
- Cordiality - a truly good leader engages not only the mind in his work but also the heart.
- Humility - is very important because it teaches you to listen to others and protects you from the growth of the ego.
- Confidence - it is important to believe in yourself, because it also affects your subordinates well.

With regard to the above, Watkins (2012) sees changes leading to leadership which include a number of specific features, such as: specialization in a given industry, detailed insight into the company's operations, integration of collective knowledge, the ability to deduce reasoning, the ability to raise the organization's effectiveness, perceiving important matters, ability to shape your own personality, creating a personal pattern.
4 Leadership in logistics processes management

The superior function that characterizes the modern SME enterprise is to provide value to customers. The dynamic development of logistics as a field of economic activity has significantly affected the company's logistics system. In the sphere of logistics, there are also growing expectations regarding leadership in the area of new technical and organizational solutions, both in relation to the offered logistics services, as well as modern forms of business cooperation and supply chain management processes. Nowadays, in the era of developing modern forms of logistics activities, the management of logistics processes seems to be a very interesting and current research topic. The management of logistic processes in the company puts specific tasks in the area of the main logistics processes ahead of the leader.

The company's logistic system can be analysed by defining its individual elements, which in relation to the production system can be characterized as follows:

- the purpose of the system: it results from production tasks, e.g. the manufacture of household appliances, and the production of food products;
- input: raw materials and materials necessary to manufacture specific goods;
- output: finished goods and services, information on results, defective products, production waste;

The changes that took place in skills, competences and knowledge necessary for the effective implementation of logistics processes were also marked in the approach to leadership and leadership traits (Murphy and Poist 2006). Due to the high dynamics of logistics processes, certain requirements are set towards the leaders. Reflections on the contemporary role of leadership in creating the logistics strategy of an enterprise can be presented in several perspectives taking into account the anticipated market effects:

- subordination of the logistics system to the design, manufacture and commercialization of new products or the modernization of the existing ones,
- design and implementation of new or better systems (or subsystems) of logistics management
- introducing changes in logistics management taking into account the development of industry 4.0

The logistics strategy may refer to (and it does refer to) various areas of economic activity, it may assume different scope of aggregation. It can be a strategy of:

- specific company - both the existing and planned economic sphere,
- specific sector of activity - e.g. industry, agriculture,
- specific region, e.g. a voivodship, a county, a municipality
- the whole country, e.g. in Poland, Operational Program Innovative Economy is currently being implemented,
- finally, the logistic strategy can be global and apply to the whole world – e.g. related to the principles of sustainable development and climate change.

Strategies of modern logistics management in the aspect of leadership may concern the following types:

- anticipated changes in traditional branches of industry: for example, in the sectors such as: machine, automotive, mining, power, chemical, pharmaceutical, agricultural and food industry,
- new future techniques - they concern microelectronics, photonics, microsystems, nanotechnologies, biotechnology, molecular electronics, cellular technologies, software and simulations,
- new fields of application - including the use of new raw materials and new energy sources, computerization, logistics, integrated communication systems for environmental protection,
- new applications - including in industrial production, construction, transport, communications, agriculture, in households, health care, and in the use of waste.

According to Zakrzewski et al. (2014), logistic strategies implemented in accordance with the leadership theory in logistics service activities may include:

- initiation by the leader of designing new services in the field of exchange and transmission of information, diagnostics, training,
- anticipated changes in traditional services, such as medical, educational, transport, service and repair services,
- the use of new energy sources,
using new techniques and technologies of the future in the services.

On the basis of Zakrzewski et al. (2014) research, four key dimensions of the concept of leadership can be selected, which are:

- support - the leader's behaviour strengthens the sense of value and meaning of others;
- facilitation (one of the methods of resolving conflicts) of interactions - the leader encourages others to establish and maintain contacts;
- emphasis on goals - the leader evokes enthusiasm from achieving goals or completing tasks;
- facilitating work - the leader supports achieving goals.

Adjustment of logistic processes management standards is caused by the rapid internationalization of enterprises and the expansion of the geographical coverage of operations. The changes that have the greatest impact on processing activity include globalization, penetration of the production sphere with services, consumption standardization, turbulent changes in the environment and dynamic development of information technologies. Global competition requires the application of innovative solutions in the field of technology, technique and information transfer as well as other fields. The clients' requirements are becoming more and more diverse, the awareness of the importance of quality is constantly growing, and the spiral of buyer expectations is inevitably growing.

A clear tendency to raise quality requirements is particularly noticeable in relation to supply service and demand for integrated logistics services. This is particularly about the need to orientate on time, quality, flexibility and shaping more and more interdependencies. The principles of marketing and logistics management can be formulated based on the theory of the "right bundle value" (Dytwald 1997, pp. 44-54). This theory defines three variants of value delivery to clients:

- operational excellence variant - expressed in offering products and services to buyers at the most attractive price. It is shaped by optimizing processes from the point of view of costs, time, flexibility, efficiency, customer convenience and shaping the effective course of processes,
- product leadership variant - based on innovation, designing new products and their introduction to the market, creating new process structures based on processes,
- customer intimacy variant - matching to the needs of an individual customer - expressed through learning about the client's needs and its value chain and building lasting relationships with them.

The theory of the right bundle value formulated by Treacy and Wiersema (1995) indicates the integration of logistic and marketing processes in the enterprise. Developing new product concepts, building long-term relationships with clients and adjusting the logistic processes of material and information flows confirm the need to create leadership and use marketing and logistics instruments at the same time. At the same time, innovations are defined as the main direction of marketing and logistic activities.

Based on the literature studies, an integrated model of leadership in logistics processes in a SME enterprise based on the studies of Zakrzewski, Zakrzewska and Brdulak and Dytwald was proposed - as presented in Figure 1 that follows.

![Fig.1. An integrated model of executing leadership in the implementation of logistics processes](image-url)

Source: author’s own
The developed theoretical model consists of five elements. Four of them concern the individual characteristics of the leader: initiating the design of new services in the field of exchange and transmission of information, diagnostics, training, anticipated changes in traditional services, such as medical, educational, transport, service and repair services, the use of new services sources of energy, the use of new technologies and future technologies in services. The advantage of the model is the combination of skills based on knowledge and experience with readiness to learn and readiness to accept the challenges of sustainable development. The fifth element - constituting a compendium of value provided to the client - is integrally connected with the attributes of the contemporary leader. The proposed model has been verified in the research described below.

5 Discussion of author’s research

The research was conducted in 2017-19 among 100 enterprises from the Mazowieckie and Kujawsko-Pomorskie voivodships”. The studies involved the students of the Master degree program of the University of Social Sciences in Łódź as part of two research projects carried out during lectures on the subject of “Success in business” at the Faculty of Management.

The aim of the research was, among others, to identify the manifestations of leadership and to define the characteristics of the leader in the surveyed enterprises. The following research methods were applied: surveys, interviews with experts, analysis of reports and documents. In the surveyed group of enterprises, 60% were SMEs. Based on the results of the research, leaders’ styles profiles were prepared in the surveyed enterprises and the theoretical model of leadership in the SME enterprise was verified. Literature studies, case study surveys, surveys, participant observations, interviews with experts and managers in enterprises have been carried out. The sample was not representative and the conclusions from the study refer only to the surveyed enterprises. Before the study, an information lecture was conducted. The results of the research were presented in the form of reports and attached to the questionnaires sent via the e-learning platform. There were 60% and 40% of responses respectively from enterprises in the Mazowieckie Voivodship from the Kujawsko-Pomorskie Voivodship. The industry structure of the surveyed companies by type of activity was as follows:

- 20% - commercial activity;
- 30% - production activity
- 50% - service activity.

![Fig. 2. Characteristics of leader’s traits in the surveyed SME enterprises](image)

*Source: Own results*

The surveyed SME enterprises conducted operations in local markets (70%), in the country (20%), and operations outside the country (10%). Respondents stressed the important contribution of leaders in achieving the
success of a given company. The respondents pointed to a set of leadership traits that were the most important and influencing the market success of enterprises. The survey was based on American studies presented by Rowitz (2001). The American research led to the formulation of a set of traits of an effective leader. The results of 52 research on features that occur in the largest number of studies were analysed.

In the results of the research presented in the article, managers of the surveyed companies expressed their opinions on the features held by the leader. Using the scoring method on a scale from 0 to 5 (maximum score), they assessed the features that influence the company's success. The results of the research can be analysed in three groups: the most important, medium-importance, minor importance. The group of the most important traits, with features scoring 3.5-5 point scale - included the following features:

- courage,
- experience,
- maturity
- creativity
- ability to coordinate work,
- communication skills,
- physical energy,
- intellectual skills,
- management skills,
- emotional balance.

Figure 2 shows a graphical distribution of the responses of the surveyed managers while Figure 3 shows the results of the integrated model of executing leadership in the implementation of logistics processes based on our own obtained results.

Based on our own results and findings, it turns out that SME enterprise from the Kujawsko-Pomorskie voivodship, producing steel constructions, intended mainly for the automotive industry. On the basis of the results obtained, the share of individual leader ship characteristics in the selected SME enterprise was determined.

The important features necessary in the implementation of logistic processes have been assigned to subsequent areas of the theoretical model. In the case of a company from the metal construction industry in the structure of the integrated model, the most important features of the leader are in the area of initiating the design of new services in the field of exchange and transmission of information, diagnostics and training.
6 Conclusions

Overall, it appears that the proposed integrated theoretical model of leadership implementation in logistics processes has been verified. Based on the results obtained, it was determined that in the individual model the most important features of the leader can be assigned to the relevant areas.

Our model can be used to analyse the bundle of values provided to clients during logistics processes. In the case described and presented above, it appeared that the whole range of values actually depended on creativity, coordination skills, and communication skills. The model can be verified in further research on leadership in logistics processes.

References

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