

MANAGERIAL COMPETENCES IN RELATION TO MANAGEMENT LEVEL - A SURVEY AMONG MANUFACTURERS IN THE SECTOR OF AGRICULTURAL MACHINERY

Wiesław DANIELAK^{1*}, Przemysław NIEWIADOMSKI²

¹ University of Zielona Góra, Institute of Management and Quality Sciences; w.danielak@wez.uz.zgora.pl,
ORCID: 0000-0002-7319-6847

² University of Zielona Góra, Institute of Management and Quality Sciences; p.niewiadomski@wez.uz.zgora.pl,
ORCID: 0000-0002-2805-4671

* Correspondence author

Purpose: The main goal of the research is to recognize the significance of managerial competences at specific management levels (strategic, tactical, operational). Identification of key competences is emphasized, as they constitute a foundation for managerial activity, as well as help to ensure operational continuity in companies.

Design/methodology/approach: Creation of a catalog of competences forming a research model (theoretical layer) has been recommended as indispensable with reference to the outlined goal (by means of a method of reconstruction and interpretation of relevant literature). On this basis (conceptual/design level), it was crucial to assemble a research tool which would be make it possible to analyze literature (theoretical model) and conduct a survey among purposefully selected experts. On the empirical level, this facilitated the recognition of the significance of individual competences in the agricultural machinery sector in relation to specific management levels.

Findings: The collected research material is meant to stimulate the formulation of general and cognitive conclusions. A procedure and a tool that enable such identification of key competences in relation to specific management levels is proposed in the paper. On the one hand, our conviction that there is an economic need for such findings constituted the main inspiration to undertake the research. On the other hand, they conditioned our arrival at the assumed objective. The study proves that it is possible to develop a universal research model which may constitute a backdrop for compilation of a catalog of managerial competences. By means of the developed research model, it was found that, depending on management level, the addressed competences differ in terms of their hierarchy (differentiation of significance).

Research limitations/implications: The article specifies the importance of competences that are relevant to a given strategic, tactical and operational management level. In next step of the undertaken project, current and anticipated levels of their acquisition will be identified and on this basis a competency gap will be defined.

Practical implications: It should be recognized that managerial competences are of considerable importance and as such, they cannot be underestimated by entrepreneurs who are serious about effective functioning in conditions of uncertainty, which prevail in contemporary markets. The information contained in the study makes it possible to improve work, reduce operating costs or speed up procedures, and thus determine successful completion of individual

tasks. Therefore, it is absolutely necessary to agree with the statement that competent managers function as catalysts of an appropriate operational level, as well as reinforce developmental activities. Even if the presented research fails to exhaust the notion of competences, it at least hints at possible business practices. Relatively little scientific recognition of these issues on the one hand, and the complexity of problems in contemporary business practices on the other hand, justify the research direction delineated in this publication.

Social implications: Managerial competences have long been of interest among the representatives of such disciplines as education, economics, sociology or psychology. Despite many studies and analyzes carried out by eminent scientists, as of now, no universal model of competences has been invented. Due to constant changes within societies, viewpoints and priorities among researchers are constantly evolving. Therefore, managerial competences must be treated as a fundamental issue and despite the large-scale scientific diagnosis so far, its further scrutiny is justified.

Originality/value: In the face of the existing uncertainty and geopolitical situation, managerial competences ensure relatively smooth functioning of daily business practices. They arise in the wake of multiple factors (components), such as knowledge, skills, personality traits, attitudes, motivations and experiences. Therefore, it is important to undertake research that would identify the competences and the level of their assimilation by managers.

Keywords: managerial competences, competency model, management level.

Category of the paper: Research paper.

1. Introduction

Effective functioning of a business depends on managers' ability to use its existing potential, but also on their ability to intelligently choose the best solutions, tailored to the needs of a moment and current requirements of the environment (Cockerill, 1989, pp. 52-56). At the time of progressive existential complexity, companies' operational modes are changing. Unique activities, called complex undertakings or projects that require a different approach to management have now become of key importance (Cheng, Dainty, Moore, 2005, pp. 25-37). Nowadays, managers cannot rely on proven solutions, but they have to make decisions and be guided by the flow of ongoing information. The complexity and unpredictability of the contemporary environment leads to the emergence of many threats that are meant to be promptly identified by managers. Oftentimes, observation followed by the right conclusions and adequate remedial actions can determine a company's survival.

Recognition of competences as a critical factor that determines the survival of an organization has become an important feature of the present "era" (Boyatzis, 2008, pp. 5-12), as the probability of survival on the market is determined both by external processes as well as by internal resources. Therefore, it is necessary to take actions aimed at strengthening the competences that are needed for the development of innovation. Apart from resources necessary to create and develop innovations, such as good ideas, breakthrough inventions, money capital and a team of outstanding specialists, regardless of management level, a well-

prepared and conscious manager is required. Hence, the focus on the competences of managers considered from the perspective of strategic, tactical and operational management levels.

The issue of managerial competences is one of fundamental issues of modern management and quality sciences because of the lack of a universal competency model.

In the face of the emerging uncertainty and geopolitical situation, competences that ensure daily functioning are of key importance. They involve the accumulation of multiple factors (components), including knowledge, skills, personality traits, attitudes, motivations and experiences. Therefore, it is important to undertake research that would identify the competences and the level of their assimilation by managers, on the one hand, crucial from the point of view of managerial continuity, and on the other hand, adequate to a given management level.

The aim of the article is to recognize the importance of managerial competences that implement management processes depending on management level (strategic, tactical, operational). The research goal is to identify key competences which, on the one hand, constitute a basis for tasks and responsibilities performed by managers, and, on the other hand, help to ensure the continuity of company's operations.

In reference to the outlined goal (using the method of reconstruction and interpretation of relevant literature), it was recommended as indispensable to assemble a catalog of competences that make up the research model (theoretical layer). On this basis (conceptual and design level), it was crucial to compile a research tool based on exploration of literature (theoretical model) and a study conducted among deliberately selected experts. On the empirical level, this made it possible to recognize the significance of individual competences adequately to a specific management level, based on the example of enterprises from agricultural machinery sector.

The collected research material is meant to stimulate formulation of general and cognitive conclusions. The paper proposes a procedure and a tool that make it possible to identify key competences adequately to a specific management level. Our conviction that there is an economic need for such applicable findings constituted the main inspiration to undertake the research, as well as conditioned our arrival at the assumed goal. The study proved that it is possible to develop a universal research model, which may constitute a backdrop for research resulting in the recognition of the catalog of managerial competences. Using the developed research model, it was found that despite the fact that competences articulated in the model differ in terms of their hierarchy (differentiation of significance), they sometimes duplicate at all levels.

The article specifies the importance of competences that are relevant to a given strategic, tactical and operational management level. In next step of the undertaken project, current and anticipated levels of their acquisition will be identified and on this basis a competency gap will be defined.

It should be recognized that managerial competences are of considerable importance and as such, they cannot be underestimated by entrepreneurs who are serious about effective functioning in conditions of uncertainty, which prevail in contemporary markets. The information contained in the study makes it possible to improve work, reduce operating costs or speed up procedures, and thus determine successful completion of individual tasks. Therefore, it is absolutely necessary to agree with the statement that competent managers function as catalysts of an appropriate operational level, as well as reinforce developmental activities. Even if the presented research fails to exhaust the notion of competences, it at least hints at possible business practices.

2. Managerial competences in management and quality sciences - a point of departure

There are many definitions of managerial competences in literature. Most often, they are seen as integrated organizational, conceptual, administrative, technical and interpersonal skills (Nogalski, Śniadecki, 1998, p. 98).

A holistic approach incorporates cognitive competences (knowledge and skills), functional competences (related to professional competences), social competences (contacts and interpersonal relations) and meta-competences, which relate to an active approach to self-development (Delamare Le Deist and Winterton, 2005). They include the ability to acquire and learn new competences, to cope with conditions of uncertainty, as well as to learn about new technological and business solutions.

In managerial competences, leadership and knowledge skills, relational abilities to develop valuable relationships with suppliers, customers and employees, as well as the ability to communicate effectively and motivate employees, as well as teamwork skills are all important (Matysik, 2016, pp. 18-19). Also, understanding people, recognition of their value and personal importance, sense of social responsibility and teamwork, the ability to create positive motivation to work and care for the right atmosphere at work, willingness to take risks and assume responsibility for decisions, care for common interests and values are all crucial (Penc, 2005, p. 124).

Based on the definitions of competences articulated in the literature, it should be indicated that they are basic features of a given person, which reveal a cause-and-effect relationship (measured on the basis of specific criteria), work efficiency and its above-average results achieved during the implementation of a specific task or in a given situation (Spencer, Spencer, 1993, p. 9). This means that competences are recognized as critical and decisive factors in the development of an organization (Kheirmand, Lotfi, Etebarian, 2012, pp. 93-119).

The relationship between success and managerial effectiveness stimulates researchers to make attempts at defining competencies that are the most important for its effectiveness (Kerzner, 2005, p. 162). It is emphasized that the higher the hierarchy, the greater the importance of managerial skills (Taylor, 1911). The dynamically changing business environment emphasizes the need to have skills, thanks to which enterprises will be able to effectively cope in times of constant uncertainty (Allen, de Grip, 2012, pp. 3237-3245).

In addition to professional theoretical knowledge and practical skills, organization of work requires from managers to possess basic leadership competences based on many social and ethical aspects. Although a manager is a person whose competences include planning, making decisions, organizing, motivating and controlling, when analyzing competences and their division, it should be emphasized that they cannot be generalized to all people in managerial positions. For example, the competences of a project or finance manager will not be the same as the competences of a production management.

Shaping managerial competences is a very complex process. It's not just about creating lists. The characteristics of contemporary managers differ from each other, especially due to the variety of functions and management levels. Therefore, a question arises about their level of competences at strategic, tactical or operational management levels, which bestows them with legitimacy to lead.

High correlation between quality and internal skills indicates that the decision to choose a manager can be made on the basis of such skills as: thinking, reasoning, logic, problem solving, and the ability to learn (Gardner, Stough, 2002, pp. 68-78; Carmeli, 2003, pp. 788-813; Fakhreldin, Hattab, 2019, pp. 399-414). These constructs reveal a long-term and stable image of a person and are mainly measured non-verbally. However crucial are general mental abilities (Nazari, 2017, pp. 124-133), analytical, numerical and verbal skills, logical and abstract thinking (Billsberry, Birnik, 2010, pp. 171-178), the ability to visualize, the ability to make decisions and judgments, the speed of information processing as well as the speed and ability to acquire knowledge (Lara, Palacios, Devece, 2012, pp. 1853-1863), in-depth scrutiny of the area delineated by the above problems and own observations of economic practices led the authors of the paper to formulate detailed questions.

Identification of the four basic groups of managerial competences was made by Gordon and Howell in 1959. They distinguished organizational, interpersonal, communication and problem solving skills. Porter and McKibbin (1988) created a similar typology of skills. Considering the importance of managerial competences and managerial roles in managing enterprises, it should be stated that they constitute one of the most basic operational components in companies. For this reason, it is important for development-oriented managerial competences to be rooted in knowledge and experience. Therefore, knowledge can be seen as one of the most important resources of modern enterprises.

Managers must be more than ever open to new conditions and operational rules, which primarily result from limitations in the supply chain, remote office practices or the demand for new knowledge (Lara, Salas-Vallina, 2017, pp. 152-160). This requires a fundamental reevaluation of managerial orientation in terms of operational goals and procedures. The process is instituted on several levels (Aslan, Pamukcu, 2017, pp. 1-15), i.e. structural (organization "in the network"), work systems (digitization), technology (agile production systems), organizational procedures and values (emphasis on social responsibility) and competences (creating new knowledge).

Although it is not the authors' role to procure a universally accepted definition of managerial competences, management theory and practice attest that there is still a long way to the adoption of one universally accepted definition. Despite many attempts to agree, there is no consent among researchers as to the meaning of this concept. It is emphasized, however, that the only proper way to practice management and quality sciences would be by means of multiplicity of perceptions, interpretations and influences on the examined fragment of reality. Therefore, such a definition was adopted that makes sense from the perspective of the conditions in which modern managers are expected to function, regardless of their management level. It is also assumed that it can be used consistently in a scientific discourse.

Therefore, it was articulated that managerial competences make up a system of interrelated knowledge, skills, abilities, personality traits, values and attitudes as well as experiences, motivations and behaviors aimed at efficient and effective management from the perspective of strategic, tactical and operational management levels.

The proposed definition is an amalgam of different approaches. The essence of competences presented in literature is relatively dispersed; some of the proposals are limited to reactions, others only to adaptation to changing conditions, yet others limit the scope of competences only to accessible resources. As the conducted research focuses on management levels, the definition of competences highlights the following: (1) the ability to deliberately create, expand or change a manager's potential; (2) the process of integrating, reconfiguring, acquiring and releasing competences in order to be able to react to emerging opportunities, or even spontaneously provoke their appearance; (3) manipulating competences articulated in the research model in order to create specific configurations.

3. Material and research method

3.1. Construction of the research model - preliminary research

In the first stage, i.e. a preliminary research, the authors used a method of literature analysis. The review (Green, 2005, pp. 270-273) was instituted in three stages, i.e. generation of a literature database, selection of items included in further analysis, and a critical analysis of the selected content (Anello, Fleiss, 1995, pp. 109-116). The methodology of literature review not only allowed for a formalized and objectified synthesis of the current literature (Columb, Lalkhen, 2005, pp. 391-394), but most of all, it made it possible to identify areas important for further research. The primary objective of the preliminary examination was to list key managerial competences in the context of management levels. On this basis, an inventory of 105 competences was developed.

Due to diversified and multifaceted nature of the selected competences, their importance was established by means of expert knowledge (design layer) and a survey technique was used as a research tool. The respondents were asked to indicate the significance of competences articulated in the theoretical research model from the perspective of further research (defining the hierarchy of competences from the perspective of a specific management level). 47 experts were nominated to respond, 37 of whom were from production companies in the agricultural machinery sector (group I), and 7 from research units and non-governmental organizations (group II). Only respondents who possessed knowledge about management (leadership), were qualified for the study, although it did not necessarily have to be attested by formal education. As business people are not prone to declare willingness to participate in research, direct acquaintance between the experts and the researchers constituted an important criterion conducive to cooperation (guarantee of participation in the research). This undoubtedly contributed to high effectiveness and quality of the declared statements.

In the first group, 21 entrepreneurs (56.76%) and 16 managers (43.24%) were invited to respond; 52.38% of the entrepreneurs had higher education, 28.57% - secondary, 19.05% - vocational; 47.61% of them were <50 years old, the age of 33.33% was in the range of 40-50, and the age of 19.05% below 40. The remaining experts (group II) were representatives of: (a) Poznań Institute of Technology - Łukasiewicz Research Network (2 in managerial positions), (b) university (professor of organization and management sciences - head of the department and dr hab. in management and quality sciences - director of institute), (c) the Marshal Office of the Wielkopolska Province (department director), (d) Platforma Fundacja Przemysł Przyszłości (Future Industry Platform) (department director), (e) a consulting company (management strategy consultant).

A large number of variables significantly complicates the possibility of carrying out the research and prevents the formulation of significant conclusions. Time constraints and the need to answer many questions discourage managers from carrying out a thorough self-assessment.

In the context of the above, for the next stage of the research, a list of 21 competences significant from the perspective of a given management level was prepared. The key components were made more operational by means of multiple-choice questions. Namely, it was assumed that at the later stage of the research, key competences are determined by a subset constituting 20% of their entire set, of which competences concerning strategic (top), tactical (medium) and operational levels (first-line managers) were distinguished. Details are presented in Table 1.

Table 1.
Research model design - introduction to research

Management level	Competence	General character	Dimension
Strategic	Resistance to stress	Ability to coordinate and integrate all organizational interests and activities. It is an ability to perceive the organization as a whole and interdependent parts, as well as understand how a change in any part of the organization will affect the whole	Conceptual
	Client-orientated attitude		
	Managerial intuition		
	Calculation of risk		
	Strategic/managerial skills (mission, vision, strategic goals)		
	Cognitive abilities		
Tactical	Analytical, prognostic, decision-making abilities	Ability to cooperate with other people, understand their needs and motivate	Social
	Negotiation abilities		
	Communication skills		
	Ambition, occupational passion		
	Motivation		
	Problem-solving skills		
Operational	Responsibility, reliability	Ability to use tools, methods and technology in a specific specialty	Technical
	Managing relations, focus on cooperation		
	Task and powers delegation skills		
	Production expertise (technology, production means, production items)		
	Planning and organizational skills		
	Ability to create organizational and human structures required to operate highly automated production parks		
	Creativity and innovation		
Orientation on development			
Quick-learning skills			

Source: own study.

As part of the strategic management level (conceptual dimension), attention was paid to the ability to coordinate and integrate all the interests and organizational activities of an enterprise. The competences that determine the ability to perceive an organization as a whole as well as the interdependence of its parts (systemic approach), as well as to understand how a change in any part of the organization will affect the whole, are indicated. In the context of the above, resistance to stress, client-oriented attitude and managerial intuition were articulated. Strategic and management skills (including the ability to formulate a mission, vision and strategic goals) and the ability to take risks were indicated. It was confirmed that the functioning and effectiveness of a business depend on how managers are able to use the existing potential at this level, but also on whether they are able to intelligently choose the best solutions, tailored to the

needs of the moment and the current requirements of the environment. Therefore, analytical, prognostic and decision-making as well as cognitive skills were indicated. As part of the tactical level (social dimension), attention was paid to competences that determine the ability to exist in a professional environment and create relationships with the environment. Thus, empathy, the ability to understand the needs of colleagues and the ability to motivate them were articulated.

As creation of new products sits at a core of innovative activities for modern companies and delineates the directions of their development, hence the need to acquire knowledge in the area of new technologies and innovations by operational level managers. Due to the need for efficient and timely implementation of complex and largely unique projects, the ability to delegate powers and tasks, production knowledge, organizational and planning skills, as well as the ability to create organizational and human structures are permanently included in the current activity of modern managers. The specificity of the implementation of tasks at the operational level and the features that distinguish them from other activities pose specific requirements for the ability to learn quickly.

The developed research model plays a very important role, because on the one hand it provides a specific picture of reality, and on the other hand, it makes room for further research.

3.2. Verification of the research model - main research

The main study was carried out during the 27th International Fair of Agricultural Technology AGROTECH in Kielce on March 18-20, 2022. 73 interviews were conducted, including 39 entrepreneurs (53.42%) and 34 deliberately selected managers (46.58%) representing production companies operating in the agricultural machinery sector (technical means of agricultural transport). When making the decision to select a particular respondent, his direct acquaintance with the researchers constituted an important criterion. This ensured a degree of independence in the views expressed by the respondents, as well as the expected level of expertise. In the process of selection, respondents' practical experience in managing people was taken into account. They were invited to participate in direct business meetings during which questionnaires were handed in. In our opinion, this contributed to high efficiency and quality of the study. The respondents represented the following sizes of businesses: micro - 6 respondents (8.22%), small - 19 respondents (26.03%), medium - 45 respondents (61.64%) and large - 3 respondents (4.11%).

The aim of this study was to specify which of the listed competences were of key importance from the perspective of the articulated management level. In the context of a goal which was formulated in this way, the following thesis was adopted: *the level of acquisition of individual competences is affiliated to the management level to which they relate*. Although the competences articulated in the model are important from the point of view of managerial activity, their hierarchy differs from the perspective of strategic, tactical or operational levels.

In order to recognize the significance of individual competences, a five-level scale was used, where 1 meant a low level of competence, and 5 - very high. In the course of the research, the results were interpreted based on respondents' declarations.

4. Own research results

Regardless of management level, modern managers must be open to new trends in the functioning of enterprises resulting primarily from the challenges of globalization, networking, technological innovations for the sake of a competitive advantage and the constant search for new knowledge. The existing competition causes new problems and, above all, tightens the requirements for the competences of the managerial staff.

Although it is not a new issue, managerial competences are nowadays a popular topic and subject of interest of many practitioners and researchers. Although the analysis of the literature indicates that managerial competences have been scrutinized on many occasions, the subject is most typically presented in the form of model sets of competences, regardless of management level and specialization of a given sector. Lack of scientific recognition of managerial profiles in the agricultural machinery sector is definitely noticeable, which became an incentive for the authors to undertake research, whose results are presented in Table 2.

Table 2.

Results of own research - a collective summary

COMPETENCE	LEVEL		
	STRATEGIC	TACTICAL	OPERATIONAL
	Average indications/% for the value of 5 points		
Resistance to stress	4.07 (34.2)	3.47 (15.1)	3.38 (12.3)
Client-oriented attitude	4.01 (32.9)	4.05 (37.0)	3.82 (30.1)
Managerial intuition	4.47 (58.9)	4.07 (32.9)	3.62 (21.9)
Calculation of risk	4.22 (45.2)	4.01 (32.9)	3.07 (9.6)
Strategic/managerial skills (mission, vision, strategic goals)	4.56 (60.3)	4.33 (45.2)	3.47 (12.3)
Cognitive abilities	4.19 (38.4)	3.95 (28.8)	3.37 (11.0)
Analytical, prognostic, decision-making abilities	4.48 (57.5)	4.30 (47.9)	3.84 (27.4)
Negotiation abilities	4.14 (38.4)	4.23 (43.8)	4.14 (34.2)
Communication skills	4.30 (45.2)	4.36 (47.9)	4.16 (38.4)
Ambition, occupational passion	4.00 (30.1)	4.22 (42.5)	3.92 (27.4)
Motivation	4.29 (43.8)	4.29 (45.2)	4.10 (39.7)
Problem-solving skills	3.74 (21.9)	4.37 (52.1)	4.36 (53.4)
Responsibility, reliability	4.11 (30.1)	4.22 (38.4)	4.23 (38.4)
Managing relations, focus on cooperation	4.36 (45.2)	4.40 (47.9)	4.32 (43.8)
Task and powers delegation skills	3.89 (34.2)	4.10 (37.0)	4.40 (52.1)
Production expertise (technology, production means, production items)	3.64 (17.8)	3.99 (34.2)	4.37 (50.7)
Planning and organizational skills	4.04 (39.7)	4.19 (45.2)	4.33 (49.3)
Ability to create organizational and human structures required to operate highly automated production parks	3.27 (5.5)	3.49 (15.1)	4.30 (45.2)

Cont. table 2.

Creativity and innovation	4.16 (34.2)	4.30 (49.3)	4.38 (50.7)
Orientation on development	3.95 (30.1)	4.05 (37.0)	4.16 (41.1)
Quick-learning skills	4.23 (42.5)	4.32 (49.3)	4.44 (56.2)

Source: own study.

Top management of a company (strategic level) is responsible for the entire management, represents the company outside and sets its goals. It is responsible for developing a strategy, allocating resources and deciding on the choice of developmental directions. It is at this level that decisions regarding the general policy of a company are made. In this context, strategic and managerial abilities (4.56; 60.3), analytical, prognostic and decision-making skills (4.48; 57.5) and managerial intuition (4.47; 58.9) are indicated as key top management competences. Also significant from the point of view of the tactical level (middle management), - relationship management (4.36; 45.2), communicativeness (4.30; 45.2) and the ability to motivate (4.29; 43.8) were articulated in the course of the conducted research. It is worth emphasizing that a significant competence of strategic managers was their ability to learn quickly, classified in the research model at the operational level (4.23; 42.5). Taking into account the assessment of significance - articulated in model competences (global approach), from the perspective of the strategic management level, they were classified on position 1 (strategic and management skills), 2 (analytical, prognostic and decision-making skills), 3 (managerial intuition), 8 (risk orientation), 9 (cognitive), 13 (stress resistance), 15 (customer orientation). However, it should be emphasized that all of the above should be learned at a higher level than in the case of operational or tactical levels.

In addition to the implementation of control tasks over the operational level, managers at the tactical (middle) management level control activities related to company's policy, examine deviations from the assumed goals, the legitimacy of the implementation of individual transactions, look for causes of unfavorable results and develop proposals for changes and improvements. The task of tactical management level managers is to monitor the environment and propose actions that optimize negative impact on the company. In the context of the above, attention was paid to their ability to manage relations (4.40; 47.9), to resolve conflicts (4.37; 52.1) as well as to their communication skills (4.36; 47.9), as superior competences characteristic of the tactical level of management. The development of new proposals is based both on internal information and signals from the environment, therefore the competences characteristic of the strategic and operational levels are also crucial for middle-level managers. In the context of the above, attention was paid to strategic and managerial skills (4.33; 45.2), analytical, prognostic and decision-making skills (4.30; 47.9), as well as to the ability to learn quickly (considered from the perspective of the operational level) (4.32 (49.3) and creativity and innovation (4.30; 49.3).

Taking into account the assessment of the significance of the competences articulated in the model (global approach), those classified under the tactical management level were identified as 1 (relationship management), 2 (conflict resolution skills), 3 (communicativeness),

8 (motivation skills), 9 (negotiation skills), 10 (ambition, professional passion), 11 (responsibility, reliance). At the same time, almost all of the competences should be acquired at a higher level than in the case of the strategic or operational levels. The exception is responsibility where the difference between the level of acquisition for the tactical and operational levels (with the same level of indications (38.4%) for the value of 5 points) is 0.01 in favor of the latter.

At the lowest operational management level, decisions are made regarding the implementation of company's strategy. Managers at this level are responsible for collecting and preparing data and calculations, conducting analyzes, and preparing various techniques and methods used to prepare operational plans. In the process of creating a strategy, the competences of operational level managers are used to build developmental scenarios in order to confront the plans with the actual potential of the company. In this context, attention was paid to managers' ability to learn quickly (4.44; 56.2), to delegate powers and tasks (4.40; 52.1), to creativity and innovation (4.38; 50.7), production knowledge (technology, means of work, work items) 4.37 (50.7) and organizational, planning and design skills (4.33; 49.3). Also indicated was their ability to resolve conflicts (4.36; 53.4) and create relationships (4.32; 43.8) identified at the tactical level. Competences considered from the perspective of the strategic level turned out to be less important from the perspective of the operational management level.

Taking into account the assessment of significance of competences articulated in the model (global approach) from the perspective of the operational management level, they were classified as 1 (the ability to learn quickly), 2 (the ability to delegate powers and tasks, 3 (creativity and innovation), 4 (production knowledge), 6 (organizational, planning and design skills), 8 (the ability to create organizational and human structures required to operate highly automated production parks), 10 (focus on development). Importantly, all of the competences should be acquired at a much higher level than in the case of strategic or tactical levels.

5. Discussion and conclusions

The highest level of management (strategic level) is responsible for the overall management of a given enterprise, it makes strategic decisions, as well as determines the company's development in the long term. Decisions made by managers are therefore related to effective use of the organization's resources. Top-level managers define strategies, indicate which markets to enter, who to connect with, how much to invest or what technology to buy. It should be mentioned here, however, that the approach to strategy management in an organization is changing today and strategy formulation is less and less often separated from its implementation. A more holistic approach to strategy formation or development depicts the

process as a series of actions and decisions made by many members of an organization over a period of time. Forming a strategy is more of an organizational learning process related to the accumulation and dispersion of organizational skills. Looking at the strategy in this way, managers at all levels play a very important role. This is confirmed by research results revealing the relationship between strategic tactical and operational levels in terms of importance of individual competences (Table 3).

Table 3.

Importance of competences in relation to managerial levels - own research findings

Importance	Strategic	Tactical	Operational
1	Strategic and management abilities (mission, vision, strategic goals)	Relationship management, focus on cooperation	Fast learning skill
2	Analytical, prognostic and decision-making skills	Conflict resolution skills	Ability to delegate powers and tasks
3	Managerial intuition	Communicativeness	Creativity and innovation
4	Relationship management, focus on cooperation	Strategic and management abilities (mission, vision, strategic goals)	Production knowledge (technology, means of work, work items)
5	Communicativeness	Fast learning skill	Conflict resolution skills
6	The ability to motivate	Creativity and innovation	Organizational, planning and design skills
7	Fast learning skill	Analytical, prognostic and decision-making skills	Relationship management, focus on cooperation

Source: own study.

The above list makes it possible to postulate that middle managers are responsible for the implementation of goals and strategies developed at the highest management level. Managers of this level also perform advisory functions towards the highest level, and at the same time are responsible for their managed unit of the enterprise and the scope of work assigned to it, even if they relate to the entire company. This is indicated by the necessity to have strategic and management skills as well as analytical, prognostic and decision-making skills characteristic of the highest level. Managers of this level make tactical decisions related to the overall functioning of their organization from the technical, financial, organizational and personnel perspectives. Tactical decisions translate goals set at a higher level into techniques and methods of performing particular tasks, the implementation of which takes place at a lower level. In view of the above, their attitude to cooperation, their ability to resolve conflicts and communication skills are of key importance. However, the ability to learn quickly or manage relationships is characteristic of all levels, as managers lead and cooperate with people as part of their daily routine. Due to the ubiquitous emphasis on teamwork, managers at all levels are responsible both for internal team management as well as for acting as ambassadors to other levels. The relationships that take place between superiors and their subordinates at a given level result in specific expectations of the subordinates from the behavior of their superiors. Also, the behaviors and emotions of superiors influence the behavior, emotions and thinking of subordinates, hence attention was paid to the need to acquire cognitive competences, classifying

them as 9 (strategic management level), 19 (tactical management level) and 21 (operational management level), respectively.

As part of strategic and tactical levels, competency links relate to strategic and management skills, analytical, prognostic and decision-making skills, as well as to communication skills. When comparing competences important from the point of view of tactical and operational levels, a convergence in the field of conflict resolution skills, creativity and innovation, and the ability to quickly learn or create relationships are noticeable.

On the basis of the conducted analyzes, it can be presumed that the operational level is occupied by managers of organizational units who directly cooperate with executors of particular tasks. In the work of this managerial group, technical and executive competences prevail. Independence is limited to distribution of tasks and resources necessary for their implementation, and responsibility relates to the implementation of tasks. The lowest-level managers make decisions regarding the performance of the commissioned work or orders issued by the supervisor. At this level, there is a direct relationship between the managers and executors of tasks. Decisions concern specific working routines, have a short-term scope and are related to rational use of resources and are in the course of day-to-day activities. Therefore, the ability to delegate powers and tasks, creativity and innovation, the ability to resolve conflicts and production knowledge including technology, means and production items, as well as organizational, planning and design skills are essential.

The presented research is consistent with the views of many authors dealing with the issue of competences. There is an increased interest in competency models on the part of management theorists and practitioners. There have been a number of publications presenting the results of literature and empirical research on the management of professional competences, competences of employees working in industry, competences of an effective manager, key competences of managerial staff or competency gaps. A competency-based human resource management system is described, attention is drawn to the relationship between competencies and careers as well as management levels. An analysis and evaluation of the possibilities of vocational education was carried out based on the needs of employers, analyzing the professional competences of young people. In many areas, the areas of competence - presented in the publication - are articulated, indicating a specific level of their assimilation. The above allows to postulate that there is a group of competences that are important regardless of the company, market or level of the manager.

6. Conclusions

The material collected in the research procedure as well as in theoretical and empirical scrutiny found their confirmation. The research model created as a result of interviews with experts reflects competences characteristic of particular management levels (strategic, tactical and operational). The study revealed that it is possible to assemble a catalog of competences reflecting areas that are necessary for modern managers regardless of their level. It was found that managers should demonstrate relatively high levels (key competences) of strategic and management skills, as well as managerial intuition (strategic level). In addition, management of relationships (focus on cooperation), conflict resolution and communication skills (tactical level) were indicated. The ability to learn quickly, to delegate powers and tasks, as well as creativity and innovation (operational level) were also articulated. However, building and implementing strategies within which companies will be able to thrive requires acquiring the indicated competences, regardless of management level.

Although there are many works dealing with competences, it should be emphasized that the issues raised are by no means exploited; there are many issues that require scientific explanation, which is manifested by, among others, presented publication. It concerns a significant deficit of knowledge in the field of management and quality sciences, the elimination of which is the subject of desired scientific work. In the context of modern management, the undertaken research problem should be considered as still valid and important. Its solution significantly fills the existing methodological and empirical gap and constitutes a kind of "guide" for contemporary managers.

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