

Role of Managers in Stimulating Innovativeness of Employees in Enterprises

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Abstract. The process of creating knowledge and innovation is becoming a significant challenge for enterprises operating on both international and domestic markets. A key factor that has an impact on this process refers to the actions of managers on behalf of creating an environment that is favourable towards the innovativeness of employees. A significant task for managers is to initiate, support and control the innovative activities of employees. By assuming that managers have a significant impact on the process of creating knowledge and innovation in enterprises, this facilitated the formulation of the research objective, which was to search for the answers to the following two research questions: What relationships exist between manager traits and employee innovativeness in enterprises? To what extent do leadership attributes influence creating an innovative organizational climate in enterprises? The assumed goal was executed due to the application of the method of critical analysis of literary sources and the survey method. The empirical research conducted among 179 enterprises from the list of 500 largest enterprises in Poland was conducted in 2019 with the aid of a standardized survey questionnaire using the techniques of CATI and CAWI. As a result of the research, statistically significant relations were discovered between the features of managers and the level of innovation and knowledge in the analysed enterprises. Their positive impact on the innovative environment was illustrated. The research findings acquired provide knowledge about the role of managers in terms of stimulating the innovative behaviour of employees.

Keywords: Leadership, innovativeness, Innovative organizational climate, enterprise.

1. Introduction

Contemporary enterprises, operating in a competitive environment characterized by globalization, short product life cycles, and rapid technological changes, are forced to adapt quickly and effectively to market requirements. Innovation is a key enabler for companies to face the complexity and uncertainty of economic reality. As an attribute of an enterprise, innovativeness indicates the ability of a company to generate and market new organizational, marketing, and product solutions. By innovating, an enterprise can create and meet new customer needs, and develop business models, operating strategies, and business processes. Organizations capable of creating innovation-friendly work environment can achieve a sustainable competitive advantage in innovation (Bammens 2016). Given that innovativeness is crucial for businesses, it is important to identify the factors that can stimulate innovation. One of the important determinants of innovativeness is leadership focused on employees' innovative behavior. It requires managers to develop new competencies to support innovation.

This paper develops new theoretical and empirical insights on the impact of leadership on employee innovativeness. The study sought to make two major contributions to the understanding of the role of managers in building an innovation climate. First, the study contributed to highlighting the role of manager traits in stimulating organizational processes focused on knowledge creation and innovation. Second, the study identified the impact of leadership attributes at the individual, group, and organizational levels on an innovation climate and business growth.

2. Theoretical Background

The development of enterprises and their competitive position on the market depends increasingly on their innovative activity. Among many definitions of innovation, the broad definition of "Innovation in general terms is the creation and adoption of new knowledge to improve the value of products, processes, and services" (Ozorhon et al., 2010, p.1) seems to be the most accurate. Therefore, innovation is a complex and multidimensional process of improving products and services, new methods of production, supply, distribution, and new organizational and work forms and practices. Innovation is an essential means to business success (Evanschitzky et al., 2012). Many factors have an effect on the innovative activity of enterprises, including R&D expenditures, company size, a form of ownership, level of competition, etc. (Kurpayanidi 2018). Important determinants of organizational innovation include the climate within the organization, which can have a constructive effect on innovation at individual and organizational levels (Shanker et al., 2017).

In a company focused on creating innovation, a climate of innovation (Wang et al. 2022) or creativity (Van Esch et al., 2016) can be built. An innovative organizational climate (IOC) can be defined as the subjective perceptions of staff regarding the work environment that encourages the generation of new thoughts, concepts, methods, and procedures (Reichers and Schneider 1990). IOC supports the initiation and development of new ideas. If employees perceive a conducive climate for knowledge creation in the workplace, they soon become more engaged, which results in better performance and business success for the entire organization (Macey and Schneider, 2008). This influences the innovative behavior of employees viewed as behavior related to generating ideas, new technologies, processes, techniques or products, and their promotion and implementation (Qi et al. 2019). The innovative behavior of employees is primarily focused on the innovation process (i.e., engaging in innovative activities) rather than the innovation outcome (i.e., new products) (Montag et al. 2012). Employee innovativeness is affected by many determinants. In numerous studies, researchers have sought to identify the most important ones, such as impact of knowledge sharing (Montani, Stagliano 2021), practices of human resource management (Krammer 2022), an innovation climate (Jaiswal and Dhar 2015), and leadership (Qi et al., 2019).

Among all these determinants of innovation, leadership can be considered as one of the most important factors. Jiang et al. (2014) defined leadership as the process of a leader guiding the organizational members to practice the plans for changes and moving toward the objective of changes. The leader first establishes directions consistent with their vision and then communicates and encourages employees to overcome obstacles and work together to create innovation (Duffy et al., 2012). Several leadership styles can be distinguished in the process of driving innovation, transformational leadership, ethical leadership, paternalistic leadership, and inclusive leadership. Ethical leadership is based on moral and ethical practices. An ethical leader is a role model and inspires positive attitudes and behavior in employees. The ethical leader also encourages employees to channel their energy and skills into innovative behavior and being innovative. They emphasize activities that inspire employees to be innovative in achieving common goals (Iqbal et al. 2020).

Paternalistic leadership includes three dimensions: authoritarianism, benevolence, and moral character. A leader's authoritarianism is characterized by hierarchical relationships between the control, power, and authority of leaders and the obedience, submission, and respect of subordinates. A leader's benevolence involves investing in social relationships with subordinates, providing individual and holistic care when subordinates encounter personal and family problems. The moral dimension requires the leader to act as a role model (Cheng et al. 2013). The research by Tian and Sanchez (2017) demonstrated the relationship between the interaction of benevolent and authoritarian leadership and employee trust, innovative behavior, and knowledge sharing. This style is most commonly found in the Chinese culture.

Transformational leadership promotes a drive among employees to accumulate tacit knowledge and use it productively, which is only possible if the enterprise develops the capacity to learn. This style encourages employees to go beyond their job requirements to be innovative of their own accord. Therefore, it requires visionary thinking and openness to ideas. It also includes the type of behavior needed to make improvements that will improve business performance (Majumdar and Ray 2011). Therefore, transformational leadership is an effective leadership style for enterprises that wish to stimulate the processes of sharing knowledge and improve the innovativeness of employees (Lei et al. 2021).

Inclusive leadership emphasizes accepting employees as they are, allowing them to contribute their unique abilities and views, and encouraging their involvement in organizational activities. Inclusive leadership supports employee innovation by creating a work context in which employees feel supported to create, promote, and execute innovative solutions (Qi et al. 2019). Inclusive leadership is a predictor of innovative work behavior (Javed et al. 2017). Inclusive leaders, by intellectually stimulating their subordinates, promoting innovation, and tolerating mistakes, create a climate in which employees are stimulated to seek innovative approaches in their work. Providing organizational support toward employee innovation behavior by an inclusive leader is an important source of innovation (Scott, Bruce 1994). A study by Rosing et. al. (2011) found that different leadership styles are effective at different stages of the innovation process. Therefore, the choice of a leadership style depends on the stage of innovation. Basically, there should be a balance between exploration i.e., the search for new ideas, and exploitation of the innovation i.e., goal-oriented, performance-oriented, and routine implementation of the idea. Therefore, an effective innovation leader should support both exploration and exploitation by providing flexible connections between the two.

3. Methods

The research on the impact of leadership on employee innovativeness was conducted in selected major enterprises in Poland. They aimed to answer the two research questions: What relationships exist between manager traits and employee innovativeness in enterprises? To what extent do leadership attributes influence the creation of an innovative organizational climate in enterprises? In order to response to the research questions, the empirical research was carried out, in which the method of a single-purpose survey on an unweighted sample was applied. It is the most appropriate method to determine the characteristics of the surveyed population of enterprises at a specific time. The research tool was the standardized survey questionnaire. For the purposes of studying the enterprises, mixed techniques were used: CATI (Computer Assisted Telephone Interview) and CAWI (Computer Assisted Web Interview). CATI is a technique based on a computer supported telephone interview. An interviewer conducts a survey following the script drawn up. On the other hand, CAWI is a technique of the Internet survey. Acquiring data from respondents is ensured by electronic questionnaires available via web browsers, whereas supervision over their completion is provided by dedicated research software. The combination of two quantitative methods is a commonly applied method increasing the response rate.

The survey frame was the database of 500 largest enterprises (according to the ranking of the Rzeczpospolita portal site). Based on the method of random selection, the research sample of 179 companies was constructed. As a result of sampling, the survey was carried out on a representative sample, according to the following parameters: general population size – 500, estimation error 6%, confidence level: 95%. The research was participated in by 74 manufacturing enterprises, 35 trading enterprises, 25 service enterprises, 20 manufacturing-service enterprises and 25 manufacturing-trading enterprises. The respondents were representatives of these enterprises, e.g., personnel directors, HR department heads, while also specialists of the field of HR. For the purposes of selecting enterprises for research, the method of random selection was applied.

For the purposes of the analysis, the responses to the following questions were used: How do you assess the processes in your company? The respondents evaluated 6 processes affecting the innovativeness of employees. To determine the impact of managers' characteristics on the processes conducive to building innovativeness, the question was asked: Please, assess to what extent do the managers in your company ...? The respondents evaluated 16 characteristics of the manager (Tab.1). In order to identify an organizational innovation climate, the question was formulated: To what extent do you agree with the statements? 19 statements were adopted allowing for the determination of organizational innovation capital (Tab. 2). The statements were selected based on the questionnaire constructed by Kot and Lewicka (2016). In order to specify leadership attributes in the surveyed enterprises, the question was asked: To what extent do you agree with the statements? 15 statements were adopted allowing for the determination of attributes related to managing the organization, managing human resources and the leader's own construction. The question was developed based on the tool constructed by Paliszkievicz et al. (2015).

To analyze the responses to the questions, the statistical methods were applied, i.e., arithmetic mean, median and Spearman's rank correlation coefficient. The arithmetic mean is a measure of location, i.e., any change in any element of the analyzed set entails a change in the mean value and, at the same time, a measure of the central trend. The median is "the middle value" of the characteristic in the ordered series, above and below which there is an equal number of observations. It is the measure of the average (or location measures), and it allows for the determination of the location of the highest concentration of results. The median value indicates that half of the results are below the median value and the other half are above the median value. Spearman's rank correlation coefficient evaluates the monotonic nature between random variables. This coefficient is used to describe the strength of the correlation of two characteristics when they are measurable, the tested group is small, and they are qualitative and can be ordered.

4. Results

Creating innovation is a complex process. One of its elements is developing innovativeness among employees. The author of the present study decided to examine the impact of leadership on employee innovativeness in large companies in Poland. As a first step, intra-organizational processes that foster knowledge creation and innovation were assessed. Among the processes studied, the highest ratings were found for the quality of task performance in collaboration with employees from other teams and departments (3.32, SD = 1.243 on a scale

of: 1- very low, 2- low, 3- medium, 4- high, 5- very high), information flow between employee teams and departments (3.28, SD = 1.330), cooperation between employee teams and departments in the enterprise (3.22, SD = 1.265), and creation of innovation in the enterprise (3.16, SD = 1.274). The lowest ratings were given to the speed of performing tasks requiring cooperation with employees of other teams and departments in the enterprise (2.97, SD = 1.273) and the flow and creation of knowledge in the enterprise (2.95, SD=1.360). In conclusion, in the process of creating innovation in large enterprises in Poland, the most important factor is the cooperation with other teams, which is based on the mutual flow of information. However, this process is limited by the relatively small flow of knowledge.

Managers are important actors in creating innovation-friendly attitudes. The innovation process depends on their level of commitment to the organization and trust in other employees. In the enterprises surveyed, the most important features of managers that foster employee innovation is keeping secrets, keeping their word, the belief that trust is an important source of innovativeness, the interest of subordinates in improving their skills, and the belief that most people are open-minded. These are trust-related traits, and, therefore, it can be concluded that the key to creating innovation is the trust of managers. (Table 1).

Table 1: Degree of the features of managers (FM) of the enterprises surveyed

Specification	Mean	Median	Standard deviation
(FM1) They self-develop their knowledge	3.13	3	1.316
(FM2) They keep secrets	3.24	3	1.428
(FM3) They reduce protections for long-time employees	3.17	3	1.331
(FM4) They have a strong tendency to trust others	2.95	3	1.295
(FM5) They keep their word	3.20	3	1.379
(FM6) They think that most people are open-minded	3.19	3	1.276
(FM7) They have respect for norms and values	3.15	3	1.356
(FM8) They believe that trust is an important source of competitive advantage	3.12	3	1.347
(FM9) They believe that trust is an important source of innovation	3.20	3	1.376
(FM10) They enter into informal relationships with employees	3.12	3	1.285
(FM11) They limit contacts to immediate associates	3.08	3	1.205
(MC12) They are interested in the improvement of qualifications by their subordinates	3.18	3	1.327
(FM13) They are guided by ethical values in their relations with subordinates	3.11	3	1.319
(FM14) They help break down barriers to the implementation of innovation	3.12	3	1.365
(FM15) They are mentors for their subordinates	3.10	3	1.384
(FM16) They have the traits of a leader who supports innovation	2.99	3	1.317

Source: own research

Grading scale: 5- to a very high degree, 4 - to a high degree, 3- to a medium degree, 2 - to a low degree, 1- to a very low degree

One of the objectives of the study was to identify the impact of manager traits on processes that foster building innovation. Spearman's rank correlation coefficient r_s was used to examine the effect size. Its magnitude illustrates the strength of the impact of manager traits on organizational processes. The process related to the flow of information between work teams and departments is affected by manager traits such as FM4 ($r_s=0.160$, $p=0.326$) and FM13 ($r_s=0.152$, $p=0.438$). The creation of innovation in a company is affected by FM3 ($r_s=0.226$, $p=0.002$), FM14 ($r_s=0.325$, $p=0.002$), and FM16 ($r_s=0.213$, $p=0.004$). The flow and creation of knowledge within the enterprise is affected by FM7 ($r_s=0.204$, $p=0.006$), FM6 ($r_s=0.218$, $p=0.003$) and FM9 ($r_s=0.240$, $p=0.001$). Collaboration between work teams and departments in the enterprise is affected by manager traits such as FM15 ($r_s=0.219$, $p=0.003$), FM16 ($r_s=0.272$, $p=0.000$), FM8 ($r_s=0.208$, $p=0.005$), FM7 ($r_s=0.186$, $p=0.125$), and FM13 ($r_s=0.180$, $p=0.158$). The speed of performing tasks that require collaboration with employees from other teams and departments is primarily determined by FM16 ($r_s=0.319$, $p=0.000$), FM7 ($r_s=0.243$, $p=0.001$), FM15 ($r_s=0.188$, $p=0.011$), FM1 ($r_s=0.187$, $p=0.012$), FM2 ($r_s=0.172$, $p=0.020$), and FM14 ($r_s=0.167$, $p=0.024$).

One of the determinants of innovation in enterprises is organizational culture focused on stimulating employee innovation. Employees show more interest in innovative activities if they perceive the presence of an organizational climate that supports innovation (Bos-Nehles 2019). This indicates the need to create an innovative organizational climate (IOC) in the enterprise. The study identified the degree of occurrence of IOC in the enterprise studied. A questionnaire containing 19 statements was adopted to measure the IOC construct

in the enterprises studied (Krot and Lewicka 2016). The analysis of Table 2 shows that the generalized level of IOC in the enterprises surveyed is at a medium level (mean 4.14). The detailed analysis of its indicators reveals that the most important feature is a belief among employees that innovation is much more likely to succeed if employees can suggest unusual and unique solutions in their everyday work. Other important characteristics of IOC are recognition of innovation as a core value in the organization, employee knowledge of consistent goals for the development of innovative ventures, and knowledge of the employee's contribution to innovative ventures. The extent to which employees engage in innovative activities depends on the belief that innovation processes carry high risk and therefore errors may occur. An important component of IOC is managerial support, which manifests itself in managers helping break down barriers to the innovation process, supporting employees who want to seek innovative solutions from managers, and encouraging risk-taking and seizing opportunities. Furthermore, IOC is influenced by the expectations placed on employees to improve their skills and knowledge, which can serve to foster innovative ventures and expect employees to be creative and think and act in innovative and original ways.

Table 2: Assessment of an innovative organizational climate (IOC) in enterprises

Specification	Mean	Median	Standard deviation
(IOC1) There are consistent goals for developing innovative ventures known to employees	4.27	4	2.057
(IOC2) Innovation is a key value in the enterprise	4.32	4	1.844
(IOC3) Ability to turn ideas into profitable ventures	4.23	4	1.904
(IOC4) The belief that innovation processes pose a high risk and therefore errors may occur	4.35	5	2.042
(IOC5) Quickly using customer or competitor suggestions to improve products	4.04	4	1.824
(IOC6) The project manager has a high degree of autonomy to accelerate, slow down, or completely abandon the innovation project	4.03	4	1.913
(IOC7) Creating free access to information and knowledge	4.13	4	2.033
(IOC8) Creating optimal conditions for cooperation between departments/divisions	4.22	5	2.056
(IOC9) Each employee involved in innovative ventures knows their contribution	4.37	5	1.847
(IOC10) Expectations of employees to improve their skills and increase their knowledge, which may support innovative ventures	4.26	4	1.943
(IOC11) Innovation is much more likely to succeed if employees can express unusual and unique solutions in their everyday work	4.60	5	1.906
(IOC12) Using employees' creativity for profit, which means using it well	4.09	4	2.032
(IOC13) Taking a risk is accepted	4.05	4	1.930
(IOC14) Expecting employees to be creative, think, and act in innovative and original ways	4.14	4	1.993
(IOC15) With the creation of a new solution, there is an increase in recognition within the enterprise	4.08	4	1.864
(IOC16) Expecting employees to be flexible and adapt quickly to change	3.98	4	1.947
(IOC17) Employees are too busy solving everyday problems to spend time thinking about the future	4.21	4	1.909
(IOC18) Helping managers break down barriers in the innovation process	4.23	4	1.883
(IOC19) Encouraging managers to take a risk and seize opportunities to develop the company by enterprises' managers	4.07	4	1.863

Source: own research

Grading scale: 1- I totally disagree, 2 - I mostly disagree, 3 - I partially disagree 4 - I neither agree nor disagree, 5- I partially agree 6 - I mostly agree, 7 - I totally agree.

Managers play an important role in IOC management by encouraging employees to seek new solutions to old problems without fear of blaming each other in case of a negative outcome and building positive attitudes towards innovation (Gumusluoglu and Ilsev, 2009). A tool consisting of three dimensions; organizational management, human resource management, and self-management (self-development) proposed by Paliszkiwicz et al. (2015) was used to measure leadership attributes in enterprises. The results contained in Table 3 reveal that in leading an organization, the most important attribute of leaders is the ability to positively shape the organization, people, and themselves by establishing a vision and translating it into business strategies and expected outcomes. The ability to make a change in the organization is also important. Furthermore, in managing people, it is important to build and maintain good relationships with subordinates and use

interpersonal communication to stimulate employees to work effectively. Empowering employees to perform their assigned tasks is also an important attribute of leadership. Self-awareness (knowing one's strengths and weaknesses and being willing to improve weaknesses), seeking opportunities for continuous learning, and seeking and using feedback from others at work are important in managers' self-construction.

Table 3: Leadership attributes (LA) in the enterprises surveyed

Specification	Mean	Median	Standard deviation
Leading the organization			
LA1 Managers make changes in the enterprises	4.49	5	1.882
LA2 It is necessary for the manager to lead/manage innovation in the organization	4.40	5	1.980
LA3 Managers in the enterprise can positively shape the organization, people, and themselves by setting a vision and translating it into business strategies and expected outcomes	4.59	5	1.918
LA4 Managers respect values and respect diversity by including them in the organization. This inclusion ensures proper conditions for everyone to develop and work together to increase organizational effectiveness.	4.44	5	1.878
Total	4.48	5	1.985
Managing people			
LA5 Managers motivate employees to work more effectively and bring out the best in them	4.25	4	2.052
LA6 Managers empower/strengthen employees to perform their assigned tasks	4.51	5	1.867
LA7 Managers are good listeners and can calm others	4.44	5	1.878
LA8 The manager's interpersonal communication is essential to stimulate employees to work effectively	4.54	5	2.050
LA9 Managers can build and maintain good relationships with subordinates	4.59	5	1.938
LA10 Managers are not afraid of conflict: a manager's attitude should be to see conflict as something good and therefore should not avoid conflict	4.09	4	1.902
Total	4.40	5	1.953
Leader's self-construction			
LA11 Managers are based on principles and values when making decisions	4.48	5	1.906
LA12 The manager should be self-aware (know his or her strengths and weaknesses and be willing to improve the weaknesses)	4.58	5	2.030
LA13 Managers seek and use feedback from others	4.51	5	1.941
LA14 Managers know how to manage their time effectively	4.42	5	1.959
LA15 Managers seek opportunities for continuous learning	4.54	5	1.920
Total	4.51	5	1.948

Source: own research

Grading: 1- I totally disagree, 2 - I mostly disagree, 3 - I partially disagree 4 - I neither agree nor disagree, 5- I partially agree 6 - I mostly agree, 7 - I totally agree.

Another research objective was to identify the impact of leadership attributes on IOC. The analysis of the study shows that the strength of the effect of each attribute on the IOC indices varied (Table 4). The leadership attribute - LA13 had an impact on the largest number of innovation climate indicators (9 indicators), whereas the strongest impact was for the statements: IOC12 ($r_s = 0.261$), IOC19 ($r_s = 0.254$) and KI14 ($r_s = 0.231$). The leadership attribute - LA5 had an impact on 8 indicators, including the strongest impact on IOC18 (0.281), IOC ($r_s = 0.264$) and IOC11 ($r_s = 0.240$). In turn, the LA8 attribute, above all, had a positive impact on 7 indicators, among others on IOC17 ($r_s = 0.256$, $p = 0.000$) and IOC16 ($r_s = 0.227$). The LA15 attribute also had an impact on 7 indicators, including primarily IOC11 ($r_s = 0.235$), IOC17 ($r_s = 0.231$) and IOC16 ($r_s = 0.228$). The leadership attributes: LA1, LA2, LA6, LA7, LA11 and LA14 had an impact on 6 IOC indicators, whereas the strongest impact was observed in the case of LA1 on IOC 16 ($r_s = 0.264$), LA2 on IOC1 ($r_s = 0.287$), LA6 on IOC 14 ($r_s = 0.295$), LA7 on IOC15 ($r_s = 0.274$), LA11 on IOC 19 ($r_s = 0.306$) and LA14 on IOC9 ($r_s = 0.286$). To sum up, the largest impact on IOC is exerted by attributes related to managing human resources, particularly, communication between managers and employees, which is essential to stimulate employees to work effectively, and which allows managers to search for and use feedback from subordinates. The leadership attribute related to motivating employees to work more effectively and bringing out what is the best in them also has a significant impact on IOC.

Table 4: Spearman's rank correlation between an innovative organizational climate (IOC) and leadership attributes (LA)

	LA1	LA2	LA3	LA4	LA5	LA6	LA7	LA8	LA9	LA10	LA11	LA12	LA13	LA14	LA15
IOC1		0,287 p=00			0,153 p=04 0					0,215 p=00 3		0,177 p=01 7	0,178 p=01 6	0,172 p=02 1	
IOC2													0,158 p=03 3		
IOC3		0,179 p=01 6							0,251 p=00 0			0,202 p=00 6			
IOC4						-,156 p=04 2									
IOC5		0,216 p=00 3													
IOC6											0,158 p=03 4				
IOC7							0,155 p=03 7								
IOC8		0,223 p=00 2		0,249 p=00	0,240 p=00 1	0,236 p=00 2	0,176 p=01 8				0,025 p=00 5	0,177 p=02 2		0,157 p=03 4	
IOC9						0,172 p=02 1		0,171 p=02 2			0,217 p=00 3	0,227 p=00 2	0,020 p=00 8	0,286 p=00	
IOC10											0,150 p=04 4				
IOC11	0,193 p=00 9		0,202 p=00 6		0,264 p=00 0			0,213 p=00 4						0,151 p=04 3	0,235 p=00 001
IOC12					0,164 p=02 7	0,278 p=00 0	0,165 p=02 6	0,174 p=01 9	0,160 p=03 2				0,261 p=00	0,267 p=00 1	
IOC13	0,170 p=02 3		0,153 p=04 1		0,181 p=01 5			0,147 p=04 9		0,206 p=00 5				0,197 p=00 8	0,217 p=00 3
IOC14	0,151 p=04 3	0,188 p=01 1				0,295 p=00 0		0,223 p=00 2	0,222 p=00 2		0,169 p=02 4	0,149 p=04 6	0,231 p=00 1		0,154 p=04 0
IOC15			0,178 p=01 7				0,274 p=00		0,155 p=03 8				0,149 p=04 6		0,164 p=02 8
IOC16	0,193 p=00 9		0,161 p=03 0		0,153 p=04 1			0,227 p=00 2	0,190 p=01 0	0,203 p=00 6			0,190 p=01 0		0,228 p=00 3
IOC17	0,162 p=03 0				0,187 p=01 2		0,206 p=00 5	0,256 p=00		0,151 p=04 3		0,171 p=02 1	0,169 p=02 3		0,231 p=00 2
IOC18	0,264 p=00 0	0,168 p=02 4			0,281 p=00										
IOC19				0,227 p=00 2		0,169 p=02 3	0,216 p=00 3				0,306 p=00 0		0,254 p=00		0,164 p=02 7

Source: own research

5. Conclusions and Discussion

The results of the present research provided the answers to the formulated research questions. Organizational processes related to innovation are important in the enterprise. To answer the first research question (What relationships exist between manager traits and knowledge creation and innovation processes in enterprises?), it should be stated that in large enterprises in Poland, the main emphasis is on cooperation with other teams in the organization, which is based on the mutual flow of information. These processes occur primarily in service-providing and commercial enterprises. There is a limited knowledge flow and creation within enterprises, which

limits the creation of innovation. These processes are influenced to a large extent by managers who have diverse traits. Manager traits such as respect for norms and values, being mentors to their subordinates, having leader traits that support innovation, having respect for norms and values, and believing that most people are open-minded are most conducive to creating innovation in enterprises.

One of essential factors affecting the level of innovation in enterprises is organizational culture based on an innovation climate. The generalized innovative organizational climate index is at a medium level in the enterprises surveyed. When answering the second research question (To what extent do leadership attributes influence creating an innovative organizational climate in enterprises?), it should be concluded that they had an impact on most innovation climate indicators, with varied strength of impact. Leadership attributes such as encouraging employees to take risks and seize opportunities to develop the enterprise by managers, managers' use of employees' creativity for profit, knowledge of personal contributions of employees to innovative ventures, and the creation of optimal conditions for collaboration between departments/divisions significantly influenced an organizational climate. Therefore, by providing support, making resources available, and providing autonomy, managers have a significant impact on the perception of work environment as the one conducive to innovation, thus building a climate for innovation (Shalley and Gilson, 2004). The research on the impact of leader attributes on organizational processes that support innovation and an innovative organizational climate revealed close relationships with inclusive leadership. In particular, this concerns leadership dimensions such as tolerating the views and failure of employees and supporting them if they make mistakes, focusing on training employees and praising achievements rather than showing jealousy, treating them fairly, and taking into account their needs and interests (Qi et al. 2019). Being role models, inclusive leaders reinforce employee innovation behavior, influence employee team member feelings, psychological empowerment, and behavioral outcomes (e.g., creativity, job performance, reduced turnover) (Randel et al. 2018).

The obtained results significantly confirm the previous findings of numerous researchers. Tang (2017), among others, established that leadership behavior has a positive and considerable impact on the innovativeness of employees. Kesting et al. (2015) also confirmed a positive relationship between leadership and innovative behavior as well as Jia et al. (2018) identified a positive influence of leadership on organizational innovation.

Some limitations of using the research results on the role of managers and stimulating innovation in enterprises in Poland should be indicated. The present survey research was conducted to outline the complex problems of the impact of leadership on an innovative organizational climate and to provide a starting point for broader research on its role in creating such a climate in modern enterprises. Future research on the impact of leadership on employee innovation should employ a longitudinal design.

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