

MANAGERIAL COMPETENCES AND INNOVATIONS IN THE COMPANY

KATARZYNA SZCZEPANSKA-WOSZCZYNA

Abstract: *In accordance with the concept of the knowledge-based economy, it is rather knowledge and continuous innovation and not only financial capital that are becoming key success factors. Innovation is a factor increasingly determining the economic processes taking place in the modern economy. According to Franssen (2013) innovation does not depend on the type or depth of interactions in local innovation systems, or on the governance of global value chains, but on the ability of a company to absorb and use the almost endless amount of knowledge available. Absorptive capacity of the sector increases primarily due to the entrance of medium-sized firms with highly educated managers and entrepreneurs. This study aims to understand what factors influence the innovation of small and medium-sized enterprises, particularly whether and what relationships exist between the competence of managers and innovations in company. The paper presents the findings of the research conducted in small and medium-sized enterprises in the Province of Silesia in Poland.*

Keywords: *innovation, managerial competence*

JEL Classification: *O31*

1. IMPORTANCE OF HUMAN RESOURCES FOR COMPANY INNOVATION

Innovation is understood as the ability of an organization to seek, implement and disseminate innovations. The basis for creating innovative solutions is innovative capital in the organization, which consists of intellectual capital and creative competencies of employees (part of the competencies related to the ability to create new, creative solutions to problems in the organization). This is individual and collective potential to generate innovation by employees, supported by a number of organizational processes, related to the implementation of the developed solutions. The level of innovation of companies depends on many factors. In the literature, there are two types of classification of innovation determinants, based on different criteria, i.e. the division into: 1) internal and external determinants (based on the criterion of the source of innovation), 2) objectified and unobjectified determinants. Internal factors determine directly or indirectly the innovative potential of the company that determines the possibilities of introducing innovation on the market. Factors directly affecting innovation include innovation resources, and those affecting indirectly condition launching innovative activity by the company.

A key innovative resource directly influencing the innovation processes is human capital (in particular its competence, including the level of education and qualifications, knowledge and skills, which are the result of formal education and acquired experience) [1]. Company innovative capabilities depend on human capital, knowledge and entrepreneurship, the essence of which lies in the search for innovation and identifying new relationships in the economic system. Other important factors include opportunities for employee development, their ability to learn and creativity, the ability to acquire, understand, transform and use new knowledge - originating both inside the organization, and the environment. In contrast, whether the team which managers manage and work environment

are innovative or not depends on competence and the "innovative intelligence" of managers.

Innovations is accompanied by changes created and implemented by creative and innovative-minded people. They result from natural curiosity of people, creative approach, originality of thinking, imagination, flexibility, self-criticism, courage, perseverance, commitment, ability to look beyond borders and make interdisciplinary connections. The knowledge that plays a role in innovation is "hidden" in people and their skills and qualifications. Human resources, their development capacity, readiness to learn and creativity, the ability to acquire, understand, transform and use new knowledge by company personnel – coming from both co-workers (in the same company) and the environment (e.g. people from other companies - suppliers, competitors) are crucial in the innovation processes [2, 3, 4]. Entering various phases of developing and implementing innovation depends on receptivity, awareness and attitude of employees to innovate. They are determined by openness to the influence of the environment (including international), absorption of external information and pro-innovative behaviour of company employees, personality of company managers, employee attitude, employee - employer interactions, and organizational culture. This implies the crucial importance of human capital in the process of forming and implementing innovation in the market. Relevant skills are also necessary to make intelligent use of external resources and codified knowledge. Human capital has double importance: it is a creator of new knowledge and a factor enabling adaptation and absorption of external knowledge. The role of human capital in innovation activity is important both at the level of individual companies, as well as at the aggregate level.

2. COMPETENCE OF MANAGERS AND COMPANY INNOVATION

The role of a manager in the modern organization has changed significantly over the last dozen or more years. In the light of changing expectations and an employee model,

currently a manager plays a variety of roles: a leader, facilitator, animator, coach, mentor or trainer, and his task is to: coordinate, diagnose and bring out human potential, moderate, stimulate, create, initiate, and to motivate. Management becomes an art, and a manager - a coach, animator, trainer [5]. Already Schumpeter combined innovation with an entrepreneur (an entrepreneur as a creative innovator). In the first edition of Theory of Economic Development from 1912, he highlighted the creativity and heroism as the basic characteristics of an entrepreneur [6]. The entrepreneur had leadership skills, will and energy of action, dynamism, and constructivity understood as the ability to act contrary to established beliefs and current rules. The introduction of new combinations required that the entrepreneur have skills and the courage to take a huge risk. He was characterized by: the willingness to take action, the ability to subdue others, and management and leadership skills [7]. Francik and Poczowski [8] highlight the readiness and motivation of managers to take risks. The factors vital to the development of innovation in an organization are support and encouragement given by management to each employee to seek and discover non-conventional, non-standard ways of achieving objectives and tasks. The important thing is personality of people managing the team, which initiate new projects, or give a "green light" to initiatives reported by workers [9, 10].

Thus, managerial competences must be oriented to start innovative behaviour of employees. Each element of the daily work - starting from the conceptual stage, through cooperation and building relationships with other employees, to the areas of the operating and current performance of tasks and activities, should be firmly rooted in the consciousness of being creative. This is one of the most difficult challenges for managers. Creative and innovative competences mean the ability to learn new values and patterns of action continuously, as well as new ways of acquiring and transferring knowledge. The researchers Steiner and Weber (1993) attribute the dominant role to creative skills of managers, including, among others, the ability to generate large numbers of ideas in a short time, the continuous search for new solutions, originality - creating innovative connections and ideas, the ability to choose an optimal solution, perseverance in overcoming difficulties, motivation as a problem and a challenge, vigour and efficiency, consistency, regularity, courage, tolerance and respect for different views, avoiding taking a stance too early, openness to criticism, relativistic view of reality, and independence of judgments [11].

As a result of the research conducted, Nawrat presents the following characteristics of the innovative manager: openness, the ability to look broadly at problems, the ability to creatively solve problems and conflicts, following change, and creativity. According to the respondents, an innovative manager is competitive, constantly seeking, constantly introducing changes and improvements, communicative and has good interpersonal skills, is able to inspire subordinates, to listen to their opinions and recognize good ideas. Two main factors influencing innovation competence development include: subjective factors (predispositions, traits, abilities, personality type, personal and social

competences), which are considered most important and working environment [11]. An indispensable element of effective change management aiming to implement innovations is entrepreneurial skills as a kind of "package", which consists of the following skills:

- highly developed understanding of the process and its various components,
- project planning and management,
- teamwork skills in uncertain conditions,
- leadership - having a vision and the ability to implement it,
- learning skills - the ability to analyze, identify positive and negative events and their causes, the ability to correct the process on their basis of [12].

The research conducted by Kanter among 165 executives of five major corporations in the United States shows that managers - innovators should be characterized by:

- the ability to sense the needs, anticipate change and a positive attitude to them,
- determination (careful planning of activities and tenacity in action),
- the ability to combine the overall vision with attention to every detail,
- participative leadership style,
- determination combined with persuasion skills and tact [5].

However, it should be noted that every innovation is a change that will not be accepted by all employees. Resistance to change can be minimized, if the manager promotes innovation, combining the qualities of a promoter of power and a professional promoter. The promoter of power favourably supports the process of innovation through its potential resulting from the hierarchy, the professional promoter supports this process with expertise. Structures that promote autonomy and independence are favourable to the implementation of innovations According to the theory of a social psychologist Serge Moscovici, creative minority has an impact on the conformist majority. Creative minorities, which have well-established ideas about what they want to achieve, push through innovation in the wider group. This process takes place in three phases. In the initial phase, a coherent and substantial minority group confronts their ideas with the majority group. In the second phase, the message of the minority is repeated and spread. In the third phase, the majority eventually take the view and practice of the minority. The role of the promoter is to support such innovative minorities.

3. RESEARCH METHODOLOGY

The goal of the study was to understand what factors influence the innovation of small and medium-sized enterprises, particularly whether and what relationships exist between the competence of managers and innovations in company.

The study was conducted among managers of top, middle and operational management level in companies operating in the Province of Silesia (Poland). We eliminated the respondents who failed to answer at least 20 per cent of the questions. A total number of 156 usable questionnaires were received, however, this paper presents the results for

small and medium-sized enterprises (86 enterprises). Of the 86 respondents, 11.6% are top managers, 39.6% - middle, 48.9% - managers of operational level. Two-thirds are managers from medium-sized enterprises (67.4%), 18.6% of small companies, 13.9% micro-enterprises. The companies surveyed had their headquarters in cities of all sizes, including more than 40% of cities with a population over 100 thousand residents.

The research was conducted by means of a direct survey. The instrument of data collection was questionnaires. A questionnaire consisting of 21 questions with a mixture of Likert-scale, multiple choice and closed-ended questions with one answer was developed. The survey was divided into four sections. In addition to demographic data, information about the type and scope of the innovation implemented by the company, scope of knowledge, skills, qualities and attitudes of managers relevant to company innovation (the expected competencies), assessment of their own competence and leadership styles was collected. The components of knowledge, skills, qualities and attitudes were listed, and a five-point Likert scale was employed to gather responses, 5 indicating "maximum agreement" and 1 "no agreement". The components of competence (in the scope of knowledge, skills, qualities and attitudes) were developed by deconstructing the Boyatzis concept of competence as well as concepts of authors such as Katz, Peterson and Van Fleet, Rakowska, Oleksyn and others. In another part of the survey multiple choice and closed-ended question with one answer were used.

The survey was sample-based. Non-random sampling was applied and advantages and disadvantages specific to this method of sampling were considered. A small group of those surveyed does not authorize to make generalizations, but allows the identification of the specific mechanisms and formulation of questions and conclusions. Tested on a larger sample, they will make it possible to formulate more documented and certain, useful theses on a larger scale. The data was collected in March and April 2014. The data was first analysed using basic statistical techniques. Data analysis was accomplished using IBM SPSS Statistics 21.

4. FINDINGS

Boyatzis (1982) [13] defines a competence broadly as an essential, fundamental characteristic that results in effective and/or better fulfillment of professional duties. In his opinion, professional competencies represent potential and capabilities (to do something). An individual set of competences reflects the abilities of a person – competences are identified with characteristics of a manager who does his job really well. These include motives, personal qualities, skills, self-representation and representation of his/her social role, knowledge which a person uses, and a person can be aware of the existence and possession of these qualities or not. Lévy-Leboyer believes that competences refer to the integrated use of abilities, personality traits, as well as knowledge and skills to complete a task successfully [14]. According to Rakowska and Sitko-Lutek [15] and Filipowicz [16], competence can be defined by three components: knowledge, skills and attitudes. On the basis of the literature studies, the following sets that company management should have were

developed, important for company innovation: knowledge areas, areas of conceptual and analytical skills, social skills, job skills, management and cognitive skills, as well as key qualities, attitudes and behaviours. These sets were evaluated by the managers as expected components (to what extent a manager should have them) and self-evaluated (to what extent the manager has them currently).

Each type of activity is based on knowledge, without which it is difficult to imagine a rational life, development and human activity. In the broad sense, knowledge is defined as the total content consolidated in human mind as a result of experience and learning. Narrowing the analysis of the concept of knowledge to knowledge managers possess, operational knowledge should be emphasised (functionality of knowledge), which is understood as an ability to use knowledge and skills in task situations, which pose theoretical and practical problems for them, different from the situations they deal with every day. From the point of view of developing managerial competence, individual explicit knowledge is essential (knowledge of facts, concepts, theories) and individual implicit knowledge (it takes the form of skills, practices encoded in the mind, habits). According to the managers surveyed, the following factors are conducive to company innovation: knowledge of the industry (industry knowledge) - this item gained the highest mean score: 4.44 on a 5 point scale (88.3% of the respondents rated it as very important or quite important), knowledge of the sources of innovation (4.21 - for 81.4% it is important or quite important), practical knowledge (4.17) and operational knowledge (an ability to use knowledge and skills in task situations) (4.12). In the area of knowledge of the sources of innovation the biggest difference was observed between the level of knowledge expected and actually possessed by managers (0.84). Shortage of knowledge managers have was also recorded in the area of knowledge of the factors determining innovation (0.65) and practical knowledge (0.64). According to the respondents, the following factors are the least required for successful implementation of innovation: general humanistic and social knowledge (3.35) and general economic knowledge (3.74).

A skill, as a component of competence, is proficiency at using relevant messages (in the normative form as a principle, rules, or - in the case of imitation - as role models), while performing specific tasks. This is application of knowledge in real company resource management and self-management. Managerial skills mean efficient and effective achievement of objectives and results, problem solving in the area of organization management. In the group of conceptual and analytical skills needed for the implementation of innovation, the respondents rated problem-solving, decision-making as important (skills score: 4.58 on a 5 point scale; for 69.8% of the respondents it is very important, for the others quite important; none of the respondents rated this area of skills as unimportant; in this area, however, the greatest difference was observed between the expected level of this skill and actually possessed (0.49), conceptual skills, including operational and strategic thinking (4.49; for 86.1% very important and important; a significant difference between the expected level of this skill and actually possessed was observed (0.47), diagnostic skills (holistic, systemic view of the organization)

(4.33); According to the respondents, the least required skill in this area for effective implementation of innovation technical skills (depending on the specialization of the position) (3.70). The study findings indicate that in this particular area of manager's work such as the process of implementing innovation, job skills are less important (foreign language skills, knowledge of documentation, the ability to draw up documents, learning the rules and procedures or computer skills - results in this group of skills ranged from 3.67 to 4.05. Management skills are important, including: the ability to think strategically (4.48; 60.5% regarded them as very important), the ability to set targets (4.40; for 58.% of the respondents it is very important), motivational skills (4.33; for 53.5% very important), the ability to plan and manage projects (4.33); in this area there is the biggest difference between the expected level and the level of skills possessed. The ability to respond quickly to changes in tasks and conditions of their implementation (4.37) and analytical thinking skills (4.28) are also important for the respondents. The managers surveyed highly rated the importance of the ability to cope with change (4.42) and to strive to achieve results (4.45).

The skills overlap with attitudes (e.g. the ability to make decisions is linked with an attitude of responsibility for

them). It is not possible to radically distinguish and separate attitudes and skills. In the decision-making process, attitudes affect behaviour. In addition, behaviour is determined by situational and organizational factors in the workplace: the position in the organizational hierarchy, the scope of the decision-making autonomy, promotion opportunities, and organizational culture. Behaviour of managers is also influenced by motivation to achieve a goal. As the research findings indicate, the attitudes and universal behaviours important in the manager's work in the context of the implementation of innovations and company innovation include willingness and readiness to improve their skills (4.58), honesty (4.44), as well as attitudes and behaviours directly affecting the effectiveness in achieving the set goals, such as self-reliance (4.33), perseverance and persistence in pursuing the goal, determination (4.30). Interestingly, in the opinion of managers, creativity and initiating change do not have to be the most important quality of the manager, the manager is not a creator of new ideas, his role is to support and motivate subordinates so that they are creative.

Table 1 presents the scope of knowledge and skills necessary in the context of company innovation.

Table 1 Knowledge and skills necessary in the context of company innovation

| Attribute | Expected knowledge/skills | | | Possessed knowledge/skills | | |
|---|---------------------------|----------|--------------------------|----------------------------|----------|--------------------------|
| | Mean | Rank | Agree/Strongly agree (%) | Mean | Rank | Agree/Strongly agree (%) |
| Knowledge | | | | | | |
| Knowledge of the industry (industry knowledge) | 4.44 | 5 | 88.3 | 4.28 | 2 | 81.4 |
| Knowledge of the sources of innovation | 4.21 | 15 | 81.4 | 3.37 | 20 | 46.5 |
| Practical knowledge of the following issues: | 4.17 | 17 | 76.7 | 3.53 | 19 | 51.2 |
| – knowledge of management and new trends in organization and its application, | | | | | | |
| – technical and production (engineering), | | | | | | |
| – legal, sociology, psychology, business, ethics; | | | | | | |
| Operational knowledge (an ability to use knowledge and skills in task situations) | 4.12 | 19 | 76.8 | 3.95 | 14 | 76.7 |
| Knowledge of the factors determining innovation (of an employee, manager, entrepreneur) | 4.02 | 21 | 69.8 | 3.37 | 20 | 46.5 |
| Conceptual and analytical skills | | | | | | |
| Problem-solving, decision-making skills | 4.58 | 1 | 88.4 | 4.09 | 8 | 81.4 |
| Operational and strategic thinking | 4.49 | 2 | 86.1 | 4.02 | 11 | 79.3 |
| Diagnostic skills (holistic, systemic view of the organization) | 4.33 | 10 | 83.7 | 4.00 | 12 | 79.1 |
| Analytical skills (noticing key variables and relationships between them) | 4.28 | 12 | 83.8 | 4.09 | 8 | 78.9 |
| Social (interpersonal and personal) skills | | | | | | |
| Striving to achieve results | 4.45 | 4 | 80.6 | 4.19 | 4 | 88.3 |
| Coping with change | 4.42 | 6 | 86.0 | 4.19 | 4 | 90.7 |
| Ability to listen to other people (employees/subordinates) | 4.36 | 9 | 85.7 | 4.39 | 1 | 93.5 |
| Commitment | 4.30 | 10 | 81.4 | 4.23 | 3 | 90.7 |
| Ability to flexibly adapt to complex and unclear situations | 4.26 | 13 | 81.4 | 4.16 | 6 | 81.4 |
| Managing stress, coping with stressful situations | 4.26 | 13 | 86.1 | 4.05 | 10 | 66.7 |
| Delegating tasks effectively | 4.26 | 13 | 83.7 | 3.86 | 17 | 69.8 |
| Motivating others | 4.23 | 14 | 83.7 | 4.00 | 12 | 81.4 |
| Creative problem solving | 4.23 | 14 | 76.7 | 3.98 | 13 | 69.8 |
| The ability to work in a group (teamwork) | 4.14 | 18 | 76.7 | 4.02 | 11 | 81.4 |
| Interpersonal skills (networking, empathy) | 4.09 | 20 | 79.1 | 4.16 | 6 | 86.1 |
| Management (managerial) and cognitive skills | | | | | | |
| The ability to think strategically | 4.48 | 3 | 88.4 | 4.10 | 7 | 76.7 |
| The ability to set goals | 4.40 | 7 | 88.3 | 4.07 | 9 | 72.1 |
| The ability to respond quickly to changes in tasks and conditions | 4.37 | 8 | 90.7 | 3.90 | 15 | 74.5 |
| Motivational skills | 4.33 | 10 | 81.4 | 3.98 | 13 | 72.1 |
| The ability to plan and manage the project | 4.33 | 10 | 88.4 | 3.84 | 18 | 62.8 |
| Leadership skills | 4.30 | 11 | 83.7 | 3.88 | 16 | 69.8 |
| Leadership - having a vision and the ability to implement it | 4.28 | 12 | 83.7 | 4.00 | 12 | 76.7 |
| Managerial courage | 4.28 | 12 | 81.4 | 4.05 | 10 | 74.5 |
| Analytical thinking skills | 4.28 | 12 | 79.1 | 4.17 | 5 | 79.1 |
| The ability to learn fast and develop continuously | 4.19 | 16 | 81.4 | 4.23 | 3 | 88.4 |

5. CONCLUSION

Company innovation is determined, among others, by top management: their mental focus on the development of innovative activities, the ability to involve appropriate resources in this activity, the ability to identify and use external impulses, and the acceptance of many, even controversial points of view. A manager who has a pro-innovation attitude allows you to do experiments with calculated risk and looks for opportunities to radical breakthroughs. An essential element of effective change management aimed to implement innovations is entrepreneurial skills as a kind of "package", which consists of skills such as:

- conceptual skills, including operational and strategic thinking
- personal skills, including ability to flexibly adapt to complex and unclear situations, managing stress, coping with stressful situations
- interpersonal (social) skills, including ability to listen to other people (employees/subordinates), delegating tasks effectively, motivating others,
- management (managerial) skills, including the ability to set goals, the ability to plan and manage the project,

leadership - having a vision and the ability to implement it,

- cognitive skills, including the ability to respond quickly to changes in tasks and conditions.

Implementation of innovation is a specific process of change in the organization. A key factor of change success is the people involved in the process of its implementation. According to Carnall, change effectiveness depends in 40% on solving social problems [17]. The importance of the human factor in the process of change is due to the fact that organizations change through people – it is people who need to adopt change, take on new tasks and then develop them. Therefore, the problem of change needs to be examined from the perspective of people involved in this process.

A manager should have the ability to motivate all stakeholders, particularly employees, to behave pro-innovatively. This motivation is based on recognition, it uses the measures of identification with the organization, and strengthens the internal motivation of employees, but is also based on rewarding for performance, mostly team performance. The essential conditions for the successful implementation of new solutions include identifying agents of change among employees and cooperating with them.

REFERENCES

- [1] BALCEROWICZ, E., WZIĄTEK-KUBIAK, A., *Determinanty rozwoju innowacyjności firmy w kontekście poziomu wykształcenia pracowników*, PARP: Warszawa 2009
- [2] TARGALSKI, J., FRANCIK, A., *Innowacyjność przedsiębiorstw - aspekty makro- i mikroekonomiczne*, [in] *Studia i Prace Wydziału Ekonomii i Stosunków Międzynarodowych*, Uniwersytet Ekonomiczny: Kraków 2007, Vol., pp. 203-218
- [3] BARUK, J., *Zarządzanie działalnością innowacyjną*, [in] M. Brzeziński (Editor), *Zarządzanie innowacjami technicznymi i organizacyjnymi*, Difin: Warszawa 2001
- [4] BOSHMA, R. A., *Proximity and Innovation: A Critical Assessment*, "Regional Studies", Vol. 39.1, 2005, pp. 61-74
- [5] OLEKSYN, T., *Zarządzanie kompetencjami. Teoria i praktyka*. Oficyna Wolters Kluwer Business: Warszawa 2010
- [6] BROUWER, M. T., *Weber, Schumpeter, and Knight on Entrepreneurship and Economic Development*, "Journal of Evolutionary Economics" 12, 2002, Vol. 1-2, pp. 83-105
- [7] SCHUMPETER, J. A., *The Economy as a Whole, Seventh Charter of the Theory of Economic Development*, "Industry and Innovation" 9, 2002, Vol. 1-2, pp. 93-145
- [8] FRANCIK A., POCZTOWSKI, A., *Procesy innowacyjne*, Akademia Ekonomiczna: Kraków 1991
- [9] LOEWE, P., DOMINQUINI, J., *Overcoming the barriers to effective innovation*, [in] "Strategy & Leadership", vol. 34, Vol. 1 2006, pp. 24-31, Emerald Group Publishing Limited
- [10] FABROWSKA, P., *Kreatywność i innowacyjność przedsiębiorstwa a kultura organizacyjna firmy*, w: "Doradca Zawodowy, Kwartalnik", Vol. 13, 2010
- [11] NAWRAT, D., *Kształtowanie kompetencji innowacyjnych w świetle badań biografii menedżerów*, w: *Przedsiębiorczy menedżer przedsiębiorczej organizacji*, J. D. Antoszkiewicz, A. Marjański (Editors), "Przedsiębiorczość i Zarządzanie", Wydawnictwo Społecznej Akademii Nauk: Łódź 2013, Vol. 14, Issue 4,
- [12] BESSANT, J., TIDD, J., *Innovation and Entrepreneurship*, John Wiley & Sons Ltd., West Sussex 2011
- [13] BOYZATIS, R., *The Competent Manager: A Model for Effective Performance*. New York: John Wiley & Sons, 1982
- [14] LEVY-LEBOYER, C., *Kierowanie kompetencjami. Bilanse doświadczeń zawodowych*. Warszawa: Poltext, 1997.
- [15] RAKOWSKA, A., SITKO-LUTEK, A., *Doskonalenie kompetencji menedżerskich*. Warszawa: WN PWN, 2000.
- [16] FILIPOWICZ, G., *Zarządzanie kompetencjami zawodowymi*. Warszawa: PWE, 2004.
- [17] CARNALL C.A. *Managing Change in Organizations*, Prentice Hall, New Youk - London 1990; [in] J. Majchrzak, *Zarządzanie zmianami w przedsiębiorstwie*, Wyd. AE w Poznaniu: Poznań 2002, Vol. 118.

Katarzyna SZCZEPANSKA-WOSZCZYNA, Ph.D.

Academy of Business in Dabrowa Gornicza
Cieplaka 1c, 41-300 Dabrowa Gornicza, Poland
e-mail: kszczepanska@wsb.edu.pl