

HRM Practices in Knowledge Management in Innovative Enterprises

HRM Practices
in Knowledge
Management
in Innovative
Enterprises

Aneta Karasek

Faculty of Economics,

Maria Curie-Skłodowska University in Lublin, Poland

aneta.karasek@umcs.pl

Abstract

Purpose – The aim of the study was to identify HRM practices in the area of knowledge management applied in Polish innovative enterprises and their relationship with the enterprises' innovation.

Design/Methodology/Approach – The paper presents results of a study covering innovative enterprises operating in Poland. The questionnaire study was conducted among managers responsible for HRM in the enterprises.

Findings – The following aspects were supported among HRM practices regarding knowledge management in the studied companies: employees' creativity, work groups and project teams. Relationships were identified between specific HRM practices in knowledge management and creative, talented workers and management cadre constituting internal sources of innovation, effectiveness of innovation process phases, and the scale of novelty of implemented innovations.

Research limitations/implications – The weakness of the presented studies can be observed in sampling. The sample encompassed businesses manifesting various scopes of implemented innovations (from global to organization innovation) and representing various industries.

Practical implications – The findings of this study may be used by companies interested in implementing innovations in the organization. Results of the study indicate that the more innovations in knowledge management were implemented, the greater the number of these originated internally, the innovative process took a more effective course, and the scope of innovations was broader.

Originality/value – The study applied an original set of HRM practices and a multi-dimensional approach to organizations' innovation. The assessment of the degree to which HRM practices in knowledge management are applied in innovative businesses is also valuable.

Article type – Research paper.

Keywords – innovation, knowledge management, HRM practices, creativity

1. Knowledge management in innovative enterprises

In knowledge-based economy, human resources are considered a critical resource whose unique character offers a strategic advantage. In addition, the rate of socio-economic development of knowledge-based economies depends upon innovation and knowledge carried by qualified employees. By sharing knowledge and disseminating it, they stimulate the development of organizations and care for their own development at the same time.



As a consequence, employees' knowledge and skills represent the main determinants impacting the innovation of businesses. In addition, the emerging changes bring about a new model of employee competences necessitating a systematic adjustment of competences to match the needs of the global labor market (Rakowska, Sitko-Lutek, 2016, p. 184). Therefore, in order to rise to future challenges, enterprises search for means of utilizing competences and employee development potential in order to foster innovative organizational growth (Czubasiewicz, 2009, p. 164). Such conditions require managers of modern companies to concentrate upon management leading to the optimization of employees' knowledge (Stachowicz-Stanusch, 2007, p. 16). Moreover, the development of knowledge economy poses new challenges for organizations and stimulates changes in organizational objectives and HRM practices (Stone, Deadrick, 2015, p. 140).

The literature of the subject emphasizes a special role of knowledge management in innovative companies. A flexible approach in the search for innovations, the ability to select solutions, implement and take advantage of these, are crucial. These entail the necessity of possessing employees who will be able to face these challenges. In addition, a specific ordering and arrangement of knowledge in the company are significant for the innovative process where information arrives from multiple sources and where actions are increasingly decentralized. Such activities entail costs and the necessity of reaching employees of all levels.

A new approach to management is required. The approach requires a change in the way of thinking, qualifications and behaviors of managers. This will be associated with the migration of management practices towards the generation of new qualifications, attitudes and behaviors (Pahalad, Krishnan, 2010, p. 185). HRM practices are critical in order to rise to such challenges.

HRM practices aim to shape employee behaviors required by the organization (Wright, Nishii, 2013, p. 14). As a consequence, employees are able to recognize and develop their competences more effectively and shape suitable behaviors and attitudes. It emerges from the fact that organizational procedures constitute a road map leading to the emergence of desired employee behavior, which, in turn, translates into organizational results (Edgar, Gearem, 2014, p. 647).

HRM practices in innovative companies enable a change in the way employees perceive reality, which is to foster the emergence of knowledge. Businesses ought to facilitate the development of employee engagement and encourage workers to participate in knowledge-management initiatives by developing a suitable organizational structure and enabling the creation of formal and informal communication channels allowing employees to exchange experiences (Staniewski, 2010, p. 109). In addition, the management should not assume they know answers to all questions but ought to encourage employees to seek new solutions both internally and externally. As a consequence, a broader perception of a new idea is possible. This is made possible by actions regarding knowledge and information exchange among employees being facilitated and knowledge being applied in practice and team-working.

With regard to the above considerations, a more in-depth study on the application of HRM practices in knowledge management in innovative companies seems valid. The objective of the present study was to identify HRM practices in the area of knowledge management applied in Polish innovative enterprises and their relationship with the enterprises' innovation.

2. Selected HRM practices in knowledge management

Based upon the review of literature, several HRM practices, significant for the innovation process, were identified. In order to develop new and innovative solutions, the support of employees' creativity is critical. It is associated with creative thinking, views, opinions and skills for generating, combining and developing new ideas (Gruszczyńska-Malec, Steinerowska, 2012, p. 56). As a consequence, new concepts are developed. On the other hand, innovation revolves around skills transforming these ideas into new products or processes in the course of development and implementation.

In the course of HRM practices, employees ought to be communicated the company's needs regarding areas innovative solutions are searched in. On the one hand, "necessity is the mother of creativity" (Sonenshein, 2014, pp. 814–848). On the other hand, an abundance of resources may stimulate creativity. This, however, depends upon interpretations and actions undertaken by managers and employees. When novel solutions are required, superiors ought to exert less control over creative activities of employees and ensure they have access to vital resources (Sonenshein, 2014, p. 843). In addition, work stations ought to be designed so that they stimulate intellects and foster autonomy and creativity (Monks et al., 2013). However, employees' creativity is fostered by voluntariness and interest in partaking rather than by the feeling of obligation or duty (Stankiewicz, Moczulska, 2016, p. 39). Employee empowerment develops creativity in innovative companies (Zhang, Bartol, 2010, p. 175). This is done in the course of employees' participating in decision-making processes associated with their work, them sharing responsibility for decisions made on the basis of obligations, autonomy and creativity (Michna et al., 2011).

In order to foster creativity and offer functional workplaces, businesses develop space for informal meetings to take place, areas designated for entertainment and leisure. Such facilities are to encourage employees to spend time in the location and foster unrestricted knowledge-sharing and generation of new ideas. Employees prefer to work in a place offering casual atmosphere and where co-workers (especially superiors) exhibit high emotional IQ. Innovative companies undertake practices regarding the emergence of suitable organizational culture and creation of physical space where employees are able to exchange ideas and novel concepts.

From the point of view of the innovative process, the opportunity for assessing the way people use a product, enables data to be processed and understood, and technological trends and their impact upon industry to be observed. Space for testing new ideas, one which encourages employees to experiment, is offered to that effect. Products, services or applications are designed and verified in Living Laboratories in the framework of interdisciplinary teams encompassing all stakeholders (employees, clients, local administration). Subsequently, these are improved in real-life conditions (Wojnicka-Sycz, 2013, pp. 411–412). As a consequence, there exists an opportunity for collecting information originating from several sources, and employees are encouraged to share information in a particular field, e.g. production process or manufacturing technology.

The literature of the subject highlights the that the implementation is significant for HRM practices leading to knowledge being discovered and applied in order to realize the innovative process (Maney et al., 2011, p. 187). If benefits emerging from

information-sharing and decentralization are small, or their costs too extensive, owners will select a centralized organization where the management will make decisions without relying upon extensive communicative background (Zoghi et al., 2010, p. 625). People are highly capable of searching for information and knowledge. Companies ought to establish motivation systems which would stimulate those possessing such skills (Li et al., 2013, p. 893). However, in order to recognize tacit knowledge and encourage people to share it, the mutual trust of employees and the emergence of a suitable culture are necessary (Staniewski, 2010, p. 109). For example, IBM organizes global, open, three-days' brainstorming sessions. These result in innovative ideas being developed. Some of these are financed in the framework of seed capital (Maney et al., 2011, p. 186).

The management cadre and work groups play a vital role in searching for innovations. These groups are effective in searching for and acquiring new knowledge and information. Team-working practices, rotation of tasks, reduction of the number of management levels, and decentralization and delegating, exert a positive impact upon innovation (Arvanitis et al., 2013, p. 16). Employees representing knowledge carriers must be ready, willing and able to share knowledge and experiences. Methods and techniques facilitating direct co-participation (management by objectives, quality clubs, autonomous groups) offer much better conditions for generating and adapting innovation by employees than techniques of individual participation (rotation of positions, job expansion, job enrichment and design, flexible working hours, remote work) (Szelągowska-Rudzka, 2016, p. 27). The increase of the share of team-working and delegating may facilitate the generation and application of knowledge in companies.

The review of literature indicates that the implementation of a knowledge management strategy, based upon the generation of new knowledge and its transfer, is critical for companies interested in innovative development. The application of the strategy is possible when creative and open employees, who are willing to share knowledge, work in the company. Organizations interested in generating innovation need access to a broad and more comprehensive scientific and technical knowledge (Petroni et al., 2012, p. 170). Employees are granted access to knowledge sources, e.g. clients, academic circles and libraries. On the other hand, owing to high-competence employees' membership in informal knowledge networks and complex contact networks, swift knowledge (both tacit and explicit) transfer among various areas of organizations' functioning is facilitated (Bendkowski, 2016, pp. 20–21).

Employees' knowledge may be applied in creating new innovative ideas and the improvement of already existing solutions. Companies are aware of the significance of ideas originating from employees and utilize them in innovative development. Therefore, also in innovative companies, employees receive information regarding areas organizations expect ideas originating from internal sources to emerge. HRM practices ought to pertain to becoming open to new ideas, stimulating, commenting and developing concepts, caring for reliable assessments, ensuring swift feedback, fostering innovation-friendly atmosphere, developing competences of employees, experts, leaders, and awarding activity and involvement (Królak-Wyszyńska, Rudolf, 2010, pp. 51–52). Companies offer idea boxes employees may submit their ideas for new solutions and improvements to. Owing to the application of such solutions, employees are encouraged to search for and submit new solutions which may contribute to companies' innovative

development. However, employees are frequently apprehensive with regard to disclosing their ideas due to the fact that they believe they may be requested to single-handedly implement a project, because it may go unnoticed and unrewarded, or they feel involved in their current duties enough. In order to improve processes associated with submitting original ideas (suggestions), an employee representative is selected. The person is responsible for liaising between lower-level employees and decision-makers in the organization. This is of particular importance as far as the application for rewards on behalf of shy or withdrawn employees is concerned (Pietroń-Pyszczek, Sudnik-Hryniewicz, 2014, p. 136). Google holds periodic internal reviews of innovations where employees present their ideas to their management. On the other hand, IBM features the Social Blue system, which recognizes and rewards employees for their knowledge sharing (Meister, Willyerd, 2010, p. 14). Each week, a group of 50 IBM employees selects employees' ideas and votes for the best of these.

3. Research methodology

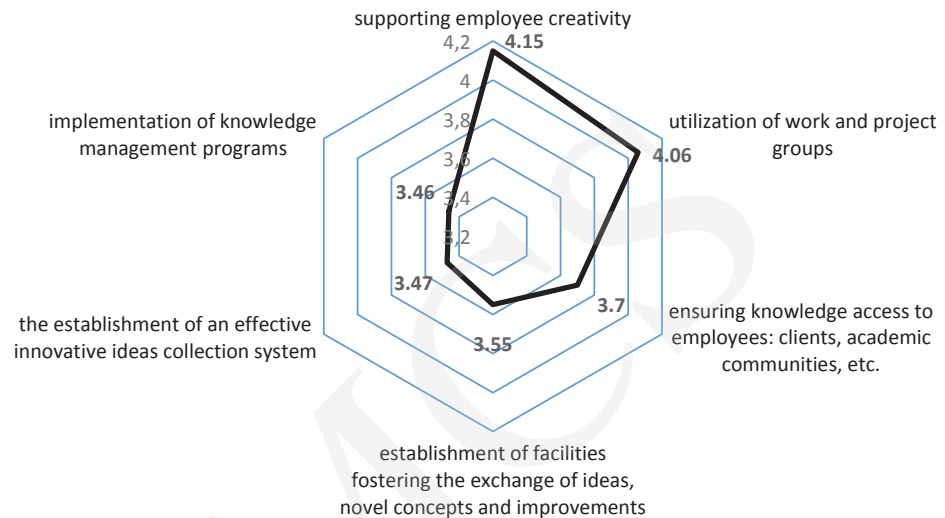
The study was conducted in small, medium and large, innovative enterprises operating in Poland between October 2015 and June 2016. The study was conducted among managers responsible for human resources management in the enterprise with the use of a questionnaire. In accordance with OSLO methodology (OECD, Eurostat, 2006, p. 49), a premise was made that an innovative enterprise is the one which implemented at least one product, process, organizational, or marketing innovation in two years. 92 completed questionnaires were returned, mostly from small enterprises (52.2%). Next, medium-sized enterprises constituted 25.1% and large – 20.7% of the sample.

4. HRM practices in knowledge management in innovative enterprises – research results

The implementation of knowledge management practices in companies enables their constant innovative development. Therefore, businesses implement those initiatives which aim to offer knowledge access to employees, facilitate opportunities for discovering and sharing knowledge and its application to generate novel solutions. The present study requested respondents to assess specific HRM practices in knowledge management:

- companies' support regarding employee creativity,
- work and project groups being utilized,
- the establishment of an effective innovative ideas collection system,
- ensuring knowledge access to employees: clients, academic communities, etc.,
- implementation of knowledge management programs,
- establishment of facilities fostering the exchange of ideas, novel concepts and improvements.

The studied companies (Chart 1) predominantly supported employee creativity (Me=4.15). As a consequence, workers were supported in generating innovative solutions. In addition, work and project groups were frequently utilized (Me=4.06). This resulted in the cooperation of employees exhibiting diversified competences, and the acquisition of knowledge originating from various positions, which are significant

**Chart 1.**

HRM practices in knowledge management in the studied companies (median)

Source: Own study based upon quantitative data.

for the innovation-related decision-making process. The studied companies offered access to knowledge sources: clients, academic communities, etc., more seldom ($Me=3.7$). This may have hindered knowledge acquisition and generation of novel solutions meeting clients' needs and requirements. In addition, facilities stimulating an unrestricted exchange of ideas, novel concepts and improvements were rarely developed ($Me=3.55$). This exerts considerable impact upon innovation generation, stimulation of cooperation among various employees, and acquisition of information critical in the innovative process. On the other hand, effective innovative ideas collection systems were sporadically implemented ($Me=3.47$). This translated into the infrequent analysis and application of ideas submitted by employees and may have discouraged employees from submitting ideas. Moreover, they may have not been rewarded for such initiatives. Knowledge management programs were the least frequently supported area ($Me=3.46$). This may have exerted a negative impact upon the collection and application of knowledge in companies.

In conclusion, it may be observed that the studied companies declared they supported employee creativity and their cooperation. However, it rarely included ideas collection systems and knowledge management programs, which integrate knowledge resources in companies. A variable constituting an average value of answers for HRM practices applied was developed on the basis of HRM practices regarding knowledge management. In order to verify the reliability of the selection, Cronbach's alpha was calculated. The coefficient amounted to 0.79.

Based on literature review, it seems interesting to know the relationship between the application of HRM practices in the discussed area and the innovation of the enterprise. Enterprises' innovation were analyzed in the following three aspects: internal sources of innovation, effectiveness of innovation process phases, and the scale of novelty of implemented innovations. Spearman's rank correlation coefficient was applied in the process.

HRM Practices in Knowledge Management in Innovative Enterprises

Relationships between HRM practices and internal sources of innovation were analyzed as first. A premise was made that these sources encompass creative, talented employees and the management.

On the basis of research results (Table 1), it can be observed that positive and statistically relevant correlations emerge between creative, talented employees and the management constituting the internal source of innovation, and HRM practices regarding knowledge management. The strongest relationship occurs between the management constituting the internal source of innovation and HRM practices in knowledge management. Moreover, there exists low correlation between creative, talented employees constituting the internal source of innovation and HRM practices in knowledge management. Therefore, it can be said that the more frequently HRM practices in knowledge management are applied, the more innovations originate from the management and creative, talented employees.

	Internal sources of innovation:			
	Creative, talented employees		The management	
	r_s	p	r_s	p
HRM practices in knowledge management	.370**	0.001	.408**	0.001

** – Correlation is significant at the 0.01 level (two-tailed)

* – Correlation is significant at the 0.05 level (two-tailed)

Source: Own study on the basis of quantitative data.

The second innovative aspect was the effectiveness of the innovative process conducted by businesses in relation to own and clients' expectations.

	Effectiveness of the innovative process:							
	Search		Selection		Implementation		Capture	
	r_s	p	r_s	p	r_s	p	r_s	p
HRM practices in knowledge management	.210*	.044	.433**	.001	.344**	.001	.379**	.001

** – Correlation is significant at the 0.01 level (two-tailed)

* – Correlation is significant at the 0.05 level (two-tailed)

Source: Own study on the basis of quantitative data.

Relationships between HRM practices in knowledge management and the effectiveness of the phases of the innovative process were evaluated. A moderate correlation exists between HRM practices in knowledge management and the effectiveness of selection phase of innovative process ($r_s=0.433$; $p=0.001$). Moreover, in studied enterprises exists a low correlation between HRM practices in the specific area and the effectiveness of search, implementation and capture phase of innovative process. Therefore, the more frequently HRM practices in knowledge management were introduced, the more effective the search, selection, implementation and capture of innovation process were.

Outcomes of innovative actions in enterprise may be assessed by means of the scale of novelty of implemented innovations. On the basis of research results, it can

Table 1.
Correlations between HRM practices in knowledge management and internal sources of innovation, including those originating from creative, talented employees and the management in the studied enterprises

Table 2.
Correlation between HRM practices in knowledge management and the effectiveness of the phases of the innovative process in the studied enterprises

be established that a moderate correlation exists between HRM practices in knowledge management and novelty of innovative solutions ($r_s=0.445$; $p=0.001$). It means, that the more frequently HRM practices in knowledge management were applied, the greater the novelty of innovations was.

5. Summary and discussion

Knowledge-based economy requires employees engaged in the search and implementation of novel solutions. The development of their behaviors towards a broader perspective, the observation of change and search for the improvement of solutions applied in companies, ought to be supported. With regard to the above, researchers draw attention to HRM practices which play a significant role in organizations and may inspire employees to create and implement innovations. HRM practices in knowledge management are of particular importance in innovative enterprises. The present study indicates that Polish innovative businesses feature a diverse level of HRM practices in knowledge management. It is declared that employees' creativity and their cooperation are supported. However, systems facilitating innovative ideas' collection and knowledge management programs integrating knowledge applied in innovative processes are rarely implemented. This proves that knowledge management initiatives were fragmentary and a comprehensive knowledge management approach was missing in companies. As a consequence, employees' ideas could go to waste and knowledge in individual stages of the innovative process could remain untapped. Moreover, research results indicate that the more frequently HRM practices in knowledge management were implemented, the greater the number of innovations originating internally, the more effective the course of the innovative process, and the broader the scope of implemented innovations. This proves that owing to the implementation of HRM practices in knowledge management, employees received a clear message on the behavior required of them, which is necessary to implement the innovative process and exert impact upon the organization's innovation. For future studies, it will be of interest to become familiar with HRM practices regarding knowledge management in high-tech sector companies and the role of organizational spirit in the implementation of HRM practices.

References

- Arvanitis, S., Loukis, E.N., Diamantopoulou, V. (2013). Are ICT, workplace organization and human capital relevant for innovation? A comparative study based on Swiss and Greek micro data. *KOF Working Papers*, no. 333.
- Bendkowski, J. (2016). Jednostkowe korzyści z uczestnictwa w nieformalnych sieciach wiedzy [Individual benefits from participation in informal knowledge networks]. *Organizacja i Zarządzanie*, nr 89.
- Czubasiewicz, H. (2009). Pracownicy wiedzy jako wyzwanie dla zarządzania zasobami ludzkimi [Knowledge workers as a challenge for human resources management]. In: A. Potocki (Ed.), *Przeobrażenia i zmiany w organizacjach w warunkach globalizacji* [Transformations and changes in organizations in the conditions of globalization], Difin, Warszawa.
- Edgar, F., Gearem, A. (2014). An employee-centred analysis: Professionals' experiences and reactions to HRM. *International Journal of Human Resource Management*, no. 25(5), p. 674.

- Gruszczyńska-Malec, G., Steinerowska, S. (2012). *Twórczy potencjał w organizacji – wyzwania i bariery jego rozwoju* [Creative potential in the organization - challenges and barriers to its development]. In: P. Wachowiak (Ed.), *Człowiek w organizacji. Teoria i praktyka* [Man in organization. Theory and practice], Oficyna Wydawnicza SGH, Warszawa.
- Królak-Wyszyńska, K., Rudolf, T. (2010). Miliony z pomysłów, czyli jak zdobyć dodatkowe przychody dzięki zarządzaniu pomysłami [Millions of ideas, or how to earn additional revenue thanks to idea management]. *e-mentor*, nr 2(34).
- Li, Q., Maggitti, P.G., Smith, K.G., Tesluk, P.E. Katila, R. (2013). Top management attention to innovation: The role of search selection and intensity in new product introductions. *Academy of Management Journal*, vol. 56, no. 3, p. 893.
- Maney, K., Hamm, S., O'Brien, J.M. (2011). *Making the world work better. The ideas that shaped a century and a company*, IBM Press-Pearson plc..
- Meister, J.C., Willyerd, K. (2010). *The 2020 workplace. How innovative companies attract, develop, and keep tomorrow's employees today*, Harper Business.
- Michna, A., Męczyńska, A., Kmiecik, R. (2011). Wybrane czynniki wpływające na poziom innowacyjności organizacji [Selected factors affecting the level of organization's innovativeness]. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, nr 218.
- Monks, K., Kelly, G., Conway, E., Flood, P. (2013). Understanding how HR systems work: The role of HR philosophy and HR processes. *Human Resources Management Journal*, vol. 23, no. 4.
- Petroni, G., Venturini, K., Verbano, C. (2012). Open innovation and new issues in R&D organization and personnel management. *International Journal of Human Resource Management*, no. 23 (1), p. 170.
- Pietrón-Pyszczek, A., Sudnik-Hryniewicz, K. (2014). Udział służb personalnych w kształtowaniu potencjału innowacyjnego organizacji. Analiza przypadku [Participation of personnel services in shaping the innovative potential of the organization. Case analysis]. *Studia Ekonomiczne Uniwersytetu Ekonomicznego w Katowicach*, nr 183.
- Podręcznik Oslo. *Zasady gromadzenia i interpretacji danych dotyczących innowacji* [Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data], 3rd ed., OECD (2006). Eurostat, Ministerstwo Nauki i Szkolnictwa Wyższego, Departament Strategii i Rozwoju Nauki, Warszawa.
- Prahalad, C.K., Krishnan, M.S. (2010). *Nowa era innowacji* [A New Era of Innovation], Wydawnictwo Profesjonalne PWN, Warszawa.
- Rakowska, A., Sitko-Lutek, A. (2016). Kluczowe kompetencje pracowników przyszłości w opinii ekspertów międzynarodowych – wyniki badań [Key competences of future employees in the opinion of international experts – research results]. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, nr 429.
- Sonenshein, S. (2014). How organizations foster the creative use of resources. *Academy of Management Journal*, vol. 57, no. 3, pp. 814–848.
- Stachowicz-Stanusch, A. (2007). *Potęga wartości. Jak zbudować nieśmiertelną firmę* [The power of value. How to build an immortal company], Helion, Gliwice.
- Stankiewicz, J., Moczulska, M. (2016). Zachowania pracowników sprzyjające innowacyjności organizacji w świetle badań [Employee behavior that favors the organization's innovation in the light of research]. *Przegląd Organizacji*, nr 2.
- Staniowski, M. (2010). Innowacyjność w zarządzaniu zasobami ludzkimi [Innovations in human resource management]. In: R. Nowacki (Ed.), *Innowacyjność w zarządzaniu a konkurencyjność przedsiębiorstwa* [Innovativeness in management and competitiveness of enterprise], Difin, Warszawa.
- Stone, D.L., Deadrick, D.L. (2015). Challenges and opportunities affecting the future of human resource management. *Human Resource Management Review*, no. 25, p. 140.

IJSR

6

- Szełągowska-Rudzka, K.I. (2016). Partycypacja bezpośrednia pracowników a innowacje i innowacyjność organizacji [Employee direct participation, innovations and innovativeness of the organisation]. *Przeгляд Organizacji*, nr 5.
- Wojnicka-Sycz, E. (2013). Narzędzia ICT wspierające proces innowacyjny [ICT tools supporting the innovation process]. *Zarządzanie i Finanse*, nr 4, cz. 1, pp. 411–412.
- Wright, P.M., Nishii, L.H. (2013). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis. In: D. Guest, J. Paauwe, P. Wright (eds.), *Human Resource Management and Performance: Progress and Prospects*, Wiley-Blackwell, Oxford.
- Zhang, X., Bartol, K.M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, vol. 53, no. 1, pp. 107–128.
- Zoghi, C., Mohr, R., Meyer, P. (2010). Workplace organization and innovation. *Canadian Journal of Economics-Revue Canadienne De Economique*, no. 43(2).