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The Importance of HRM in Creating Employee Innovativeness – The Mediating Role of Person-Organisation/Job Fit and Job Characteristics

Abstract

The purpose of the study presented in this article is to describe and explain the relationship between HRM practices and innovative behaviours initiated and performed by employees. In the model I propose, I use a “person-organisation fit” as a mediator of the relationship between HRM and creative activity in the workplace, and the influence the former has on the latter. The analysis also accounts for a variable which corresponds to person-organisation fit, and is defined as “job characteristics”.

The research confirmed that a significant statistical relationship exists between innovative work behaviours and all of the variables examined: HRM practices, person-organisation fit and job characteristics/job demands. On the basis of the analysis with the use of structural equation model, it may be stated that the following factors influence innovative behaviours: 1) HRM practices (which have an indirect influence through person-organisation fit) and 2) person-organisation fit and job characteristics/job demands (which have a direct influence). The model explains the direct influence of HRM on person-organisation fit and job characteristics.

The research shows that the “person-organisation fit” construct, as a variable explaining individual innovative effectiveness in the workplace, provides a useful perspective which may facilitate not only understanding of factors which determine the occurrence of organisational innovative activity, but also stimulate creative behaviours
via HRM activities. This is because HRM practices play the key role both in adjusting competences to job characteristics and demands, and in creating attitudes which support employee innovative commitment.

The combination of variables presented in the research model helps to explain the significance of chosen determinants of behaviours which are essential from the perspective of company effectiveness and competitiveness on the market. The research focuses on both individual aspects of innovative behaviours (resources which are needed to perform a creative task) and their organisational aspects (person-job/organisation fit). The scope of the analysis also covers the strategic role HR departments play.

**Keywords:** HRM, innovativeness, person-organisation fit, person-job fit, job characteristics.

1. **Introduction**

The analysis of the determinants of employee innovativeness reveals a wide spectrum of factors which condition the occurrence of creative activities in a workplace, comprising both individual and organisational factors. The key predictors of innovative work behaviour (IWB) of an organisational nature include practices within the field of human resource management (HRM), as they exert a direct influence on employee attitudes and behaviours. Empirical studies confirm the influence of the entire HRM system and of its separate practices on: the development of innovative culture (Alharthey et al. 2013), the development and use of intellectual capital (Wright, Dunford & Snell 2001), the creation of knowledge and development of new products (Collins & Smith 2006), support for the capability of knowledge management (Chen & Huang 2009), and organisational learning (Snell, Youndt & Wright 1996). Among the practices which might support innovativeness in an organisation are the following: commitment-based HR practices (Ceylan 2013), knowledge-oriented HR configuration (Chiang & Shih 2011), incentive system pay (Wang 2013) and performance-based pay for generating incremental innovations (Beugelsdijk 2008), training and managerial coaching (Wang 2013), among others. At the same time, scholars stress that there are numerous mediators and moderators of HRM’s influence on innovativeness, e.g.: employee attitudes (commitment), behaviours (task performance), and organisational practices (perceived organisational support, job design) (Alfes et al. 2013).

In the context of researching the mediators of HRM influence on innovativeness, significant descriptive-explanatory and applicational possibilities are created by including into the range of the analysis the constructs of person-organisation fit (P-O fit) and person-job fit (P-J fit) (Kristof 1996, Kristof-Brown, Zimmerman & Johnson 2005). This is because the studies show that fit mediates between HR practices and other variables, for example between perceived HR practices and employee outcomes (Boon et al. 2011), and between training investment and
turnover intentions among knowledge workers (Chang, Chi & Chuang 2010). Moreover, the construct of fit itself explains various individual variables related to employee professional functioning, including a readiness for change and general change self-efficacy (Caldwell 2011), job satisfaction (Kristof-Brown et al. 2005), organisational commitment and the intent to seek a new job (Verquer, Behr & Wagner 2003).

The usefulness of this construct for the analysis of innovative effectiveness in the workplace results from the fact that such analyses account not only for the fit between resources/supplies of an employee and job demands (person-job fit), but also the congruence between an employee and organisation with respect to innovative goals, values and needs (person-organisation fit). Research indicates that creative performance is positively related to demands-abilities fit when the creative abilities correspond to the required level (Odoardi, Battistelli & Montani 2010). At the same time, as Boon et al. proved empirically (2011), such human resource management practices as selection, training and development help strengthen the person-organisation fit. The practices allow an organisation, via selection and training, to adjust the competences of a given person to the requirements. At the same time, it is via HRM that the organisation’s values, expectations and requirements are communicated. Finally, fit analysis may form the basis for designing HRM activities which cover the fit between competences and job requirements, job design, goal formulation and the creation of attitudes which facilitate employee innovative commitment. Such activities are expected to lead to the achievement of innovative outcomes by increasing the person-innovation fit.

![Fig. 1. The Hypothetical Model of Interrelations](#)

Source: the author.
The purpose of the study presented in this article is to describe and explain the relationship between HRM practices and innovative behaviours initiated and performed by employees. In the model I use to explain the influence of HRM on creative activity in the workplace, the construct of person-organisation fit is used as a mediator of the relationship. The analysis also includes a variable that corresponds to person-organisation fit and is defined as job characteristics. The relationships conceptualised in the study are presented in Fig. 1. I assume that the influence of HRM on innovative behaviours is indirect – not direct – because the influence of other intervening variables has been accentuated in other studies done to date, e.g.: job satisfaction, commitment, task performance, and organisational citizenship performance (Den Hartog, Boselie & Pauwe 2004, Kinnie et al. 2005, Kuvaas 2008, Snape & Redman 2010, Takeuchi 2009). Consequently, the relationships between these variables in the model have an indirect character, because, for innovation to occur, it is first necessary for employees to be well fitted both to the organisation and the job requirements, and to relate to the job demands and job characteristics imposed on them. The model also accounts for the direct interrelations between person-organisational/job fit and job characteristics, on account of the fact that fit between employee resources (competences, attitudes, personal traits) and job requirements corresponds to job characteristics such as autonomy, task diversity, and level of control.

2. The Relationship between HRM and Innovative Work Behaviour (IWB)

Innovative work behaviour (IWB) (Kleyson & Street 2001, Scott & Bruce 1994, West & Farr 1989, Janssen 2000, Young 2012, Agarwal 2014) forms the key element of activities with a high potential of creating organisational value. Such activities may be defined as all types of activities oriented at creating, implementing, and/or effective application of beneficial “novelties” at any given level of the organisation (West & Farr 1989). The term denotes development of ideas not only for new products and technologies, but also changes in administrative procedures which might serve to significantly improve effectiveness in the workplace. IWB covers the intentional introduction and implementation of a new and improved modus operandi. It comprises a variety of forms of activity, including searching for opportunities, creating, testing, implementation, and promotion (Scott & Bruce 1994, Kleyson & Street 2001), which can be classified in two main IWB stages: behaviours directed at creation (recognising problems and generating ideas) and ideas directed at implementation (promoting and realising ideas) (Dorenbosch, Van Engen & Verhagen 2005).
As stressed by Janssen (2000), generating, promoting and realising innovative ideas for improvements are not typical jobs for most employees and, therefore, such activities are identified as extra-role behaviours. Thus, as an especially desirable type of employee activity in an organisation, one that leads to the creation of product and process-related innovations, should become subject to influences extended within the system of HRM, since HR practices have an influence on employee efficiency (Becker & Huselid 1998, Huselid, Jackson & Schuler 1997), which is achieved via influencing employee attitudes and behaviours, skills and motivation (Huselid 1995), as well as by shaping employees’ manner of perception (Ostroff & Bowen 2000, Wright, Dunford & Snell 2001).

Researchers analysing the issue of HRM in its relation to innovativeness indicate the following aspects accompany creative activities in the workplace: proper organisational structure, shaping the recruitment in innovative companies, key roles, individual development and career, effective team work and leadership, extensive communication and participation, efficiency (and its measurement), bonuses, and the creation of a creative culture. One group of researchers also believe that HR practices play a vital role in creating innovative culture – via realising the roles required for that culture, including the roles of: creative geniuses who formulate innovative ideas; innovation champions who develop individuals’ creative thinking to support innovation; and innovation leaders who focus on personal and organisational expectations and on promoting innovation (Alharthey et al. 2013). At the same time, under the influence of the culture of innovation, the HRM practices themselves also become modified.

Because innovative behaviours are characterised by a high level of productivity, performance work practices/systems likely play a significant role in supporting them (Huselid 1995). The systems include high-commitment work systems, high-involvement work systems, and high-performance human resource management (Gittell, Seider & Wimbush 2010). Empirical studies show that HR practices related to HPWS such as commitment-based HR practices (Ceylan 2013), knowledge-oriented HR configuration (Chiang & Shih 2011), performance-based pay for generating incremental innovations (Beugelsdijk 2008), and training (Wang 2013) determine innovative activity in the workplace. The major practices which support innovation-oriented business strategy are learning and development, employee involvement, quality initiatives, performance and management schemes, ND employee welfare and engagement schemes. Others include recruiting creative employees, empowerment, and autonomy (Cooke & Saini 2010).

One of the more important HRM areas of activity which serve to support innovation in organisations is formed by strengthening their knowledge
management capabilities (Chen & Huang 2009). In this context, for innovative behaviours to take place, it is essential that the organisation acquire and accumulate knowledge on the development of new products (new product development activities, NPD) (Chiang & Shih 2011). The coherence of HRM practices, described as a knowledge-oriented human resource (HR) configuration, may facilitate NPD learning processes. Thus, it might be stated that HR practices related to knowledge management and free access to information form a basis for organisational learning processes, which in turn facilitate employees’ innovativeness. This is confirmed by research results which show that long-term and skill-oriented staffing is one of the HRM systems that promote innovativeness (Jiménez-Jiménez & Sanz-Valle 2008). At the same time, the indirect influence of HR practices on innovativeness, particularly through employee knowledge, has been stressed (Lopez-Cabrales, Pérez-Luño & Cabrera 2009).

Other research into the relationships between HRM and innovativeness shows that commitment to IWB is influenced by the perception of high commitment HRM practices (Dorenbosch, Van Engen & Verhagen 2005), empowerment and employee involvement (Shipton et al. 2006). In the case of high commitment HRM practices, the following types of activities are mentioned: employee participation, wages, training and development, information sharing, and supervisor support. Superior support perceived by employees increases their efficiency, especially when their self-esteem is low due to their role in the organisation (Rank et al. 2009).

Incentive system pay and developing employee competences also play a particularly important role in stimulating innovative behaviours. These aspects were covered in studies done by Shipton et al. (2006), who indicated that two groups of HR mechanisms are likely to enhance innovation in organisations – those designed to promote exploratory learning and those intended to exploit existing knowledge (training, induction, appraisal, contingent pay and team work) are significantly crucial to innovation in products and technical systems. Other research also confirms a positive relationship between employee creative activity on the one hand and training and coaching on the other (managerial coaching). These factors constitute intervening variables between characteristics of employees from R&D departments (in high-technology firms) and their innovative behaviours (Wang 2013).

In the light of the above analyses, it is possible to adopt the following hypothesis:

H1: HR practices have a positive impact on innovative work behaviour.
3. Job Characteristics and Innovative Work Behaviour

Dorenbosch, Van Engen, and Verhagen (2005) indicate that innovative work behaviours can be studied from both the perspective of job characteristics and organisational practices which promote the opportunity and motivation to show IWB. Research shows that the perceived characteristics of a job and HR practices facilitate innovative behaviour (Dorenbosch, Van Engen & Verhagen 2005, Kipp 2010). In this context, the design of a job, considered to be an important cause of employee motivation for innovativeness, is significant (Hackman & Oldham 1980, West & Farr 1990). In the case of innovative commitment, the particular characteristics present in Hackman and Oldham’s (1980) Job Characteristics Model (JCM) – skill variety, task identity, task significance, autonomy, and feedback – play a significant role. The three first ones lead employees to experience meaningfulness at work, while autonomy determines experienced responsibility for work, and feedback increases the knowledge employees possess of the results of work activities.

Empirical studies prove that from the point of view of job characteristics, the occurrence of radical innovation is facilitated by task autonomy and flexible working hours (Beugelsdijk 2008). The explanation of this relationship might be sought in personality preferences for job characteristics (Kipp 2010). Individuals who achieve high results with regard to openness, a characteristic correlated with creativity, highly appreciate the meaningfulness of work, and accept the possibility of responsibility in terms of autonomy and knowledge originating from feedback on the outcomes of their own work (Kipp 2010). Consideration for this aspect may be expressed through both recruitment activities and other HR practices – motivation, for example. Individuals with a high level of openness and core self-evaluation may be motivated through changes in their work, understood as job enrichment (e.g.: job rotation, enlargement) (Kipp 2010), which may facilitate innovativeness by helping them gain access to new knowledge and the opportunity to acquire new competences.

Moreover, activities with regard to job design may also be related to increasing functionality flexibility, which favours undertaking a variety of tasks (multitasking), and, via an increased range of job activities and psychological extension of the boundaries of one’s work, the possibility to increase innovative behaviours (Dorenbosch, Van Engen & Verhagen 2005). Promoting functionality flexibility through increasing redundancy and multi-functionality stimulates a proactive attitude towards the work situation.

Another aspect related to innovative behaviours is the assignment of creativity goals and creative requirements (Binnewies & Gromer 2012), which positively influence creative performance in the workplace. Creativity goals
cause employees to invest more effort into finding creative solutions to problems. This is a response which, as a result, leads to, according to Odoardi, Battistelli, and Montani (2010), the occurrence of creative ideas of increased quantity and quality. These researchers also indicate that, in the context of creative activity, which is constituted by envisioning and planning, job autonomy, task variety and job demands play a particular role. Autonomy may increase the sense of control and self-regulation employees feel. Job control is related to opportunities for learning and an increase of appropriate, relevant task-related knowledge, and thus forms a predictor of creativity and innovativeness (Hammond et al. 2011) in all its stages – idea generation, promotion and implementation (Binnewies & Gromer 2012). Job variety stimulates envisioning and planning as well as self-efficacy and control. Job enrichment may increase individual responsibility for tasks and goals (including the innovative ones), which are not directly related to the role of one’s job (have an extra-role character) (Frese et al. 1996, Parker, Williams & Turner 2006). Creative job demands predict idea generation, idea promotion and idea implementation (Binnewies & Gromer 2012). At the same time, when employees experience overload, it is difficult to set and accept innovative goals. However, research has shown that employees consider innovative efforts to be an effective way to deal with job requirements, through the fact that workload increases individual innovative efforts in order to meet the requirements (Bunce & West 1994).

Thus, from the point of view of stimulating innovativeness in the workplace, it is important for managers to both establish clear goals, and to stimulate employees’ internal orientation towards goals within HRM influences, since research shows that individuals with high learning goal orientation approach tasks in order to build on knowledge and skills, improve their competences and master tasks (Odoardi, Battistelli & Montani 2010), which may lead to the effective realisation of creative aims.

In the view of the above findings, the following research hypothesis was formulated:

H2: There is a positive relationship between innovative behaviour and job characteristics.

4. Person-organisation Fit, Person-job Fit and Innovative Work Behaviour

To effectively undertake and realise innovative behaviours requires the appropriate qualifications and competences – especially creative ones. However, from the point of view of task effectiveness, it is particularly important that
employees not only possess them, but also fit the job and organisation. The lack of such a fit may lead employees who display considerably high innovative potential to not achieve the goals that have been set for them, though not because of the lack of opportunities to undertake productive professional activities. It appears, then, that the construct of “fit” as a variable explaining individual effectiveness versus lack of such effectiveness in the workplace (task performance) forms a useful theoretical perspective for the understanding of factors which determine the occurrence of innovative activity in an organisation.


Person-organisation fit (Kristof-Brown et al. 2005, Kristof 1996) assumes compatibility between an employee’s individual characteristics and conditions of his or her job environment. Compatibility is expressed through two main dimensions: 1) the fit of goals, values, and the needs of employees to an organisation’s ability to fulfil them, and 2) the fit between employee competences and job requirements. Fit forms an evaluation, expressed via affective and cognitive responses, and related to the degree to which a given job is beneficial or non-beneficial, while the optimal level of person-organisation fit – according to research – is connected with satisfaction (Kristof-Brown et al. 2005), which makes it an important factor for shaping employees’ sense of psychological well-being. Fit also refers to the degree of similarity or compatibility between individual and situational characteristics (Livingstone, Nelson & Barr 1997). It is possible to discuss fit in terms of similarities as to the goals, values and beliefs (supplementary fit), as well as of differences, which are, at the same time, complementary (complementary fit) (Muchinsky & Monahan 1987). In the second case, the congruence is understood as a complementary exchange of resources – “needs-supplies”, “demands-abilities”. Naturally, these two perspectives employed to describe fit do not have to be mutually exclusive, a fact Kristof (1996) presented along with his model, which combined supplementary and complementary perspectives.

From the point of view of innovative behaviour, various types of fit may be discussed: person-job, person-organisation, person-supervisor and person-team, though given the scope of this article, only the first two are analysed here.

In the case of person-job fit, the subject of the discussion is congruence between individual predispositions for performing specific job tasks (specific demands). Cognitive abilities, knowledge and experience, as well as motivation are all predispositions that improve the job effectiveness of individuals
undertaking innovative behaviour. The interplay of individual factors (cognitive capabilities, intellect, and personality traits like self-efficacy) and environmental ones (the organisation) are certainly very important to the creative productivity of employees.

Fit with regard to the requirement of creativity will be manifested by the types of relations which can be taken from Harrison’s (1985) concept of lack of person-environment fit (P-E), which is related to the relational trend in the treatment of the notion of stress. From this point of view, fit will be reflected by: 1) congruence between the objective environment (task demand) and objective person (an employee’s resources for performing the task related to competences, personality, etc.), 2) congruence between the subjective environment and the subjective person (subjective perception, e.g.: demand for work creativity).

Extending the scope of job fit onto the non-task-related factors in terms of intellectual abilities indispensable for performing them, it is also possible to examine the extent to which an individual’s job induces emotional overload (stress) versus underload (boredom, monotony, routine). To do so, it seems justified to capture various types of job demands as psychological stressors – the need to perform a job quickly and with a large amount of effort, as indicated by Janssen (2000). Research shows that fit between creativity demands and the capacity for creative behaviours is related to lower load and a higher sense of job satisfaction (Livingstone, Nelson & Barr 1997). Thus, it seems that both fit and job characteristics themselves are closely tied to the effective realisation of innovative behaviours.

Person-job fit is the basis for creating person-organisation fit, related to the overall context of employee’s functioning in the workplace and covering its various elements (Kristof 1996, p. 4) including the organisational attributes of culture/climate, values, and goals and individual characteristics including personality, values, goals, and attitudes. Characteristics indicated here contain factors which exceed provisions covered by a formal employment contract, such as job remuneration. They are also related to aspects that more belong to a psychological contract – for example, needs. Fulfillment of mutual demands will condition the existence of person-organisation fit. A demands-abilities perspective refers to the fit that occurs when an individual’s abilities meet organisational demands (Edwards 1991). In the case of innovative behaviours, particular significance seems to occur in the range of highly regarded values and goals, and a sense that needs that are important for an employee are being fulfilled and the possibility to develop creative potential exists. Common values and goals facilitate identification with an organisation. Research shows that creative activity is positively related to affective commitment (Jafri 2010).
When discussing the fit of needs of persons undertaking innovative behaviours, it is necessary to indicate the significance of the following factors for creating a commitment to innovation: the possibility to realise diversified, interesting tasks and tasks which might present a challenge, and the possibility to learn and develop professional competences and to develop interests. Fit in this respect will be possible if an organisation provides the conditions for realising such needs, e.g.: via an intellectually stimulating job environment.

On the basis of this analysis, the following research hypothesis was formulated:

H3: There is a positive correlation between innovative behaviour and job fit and organisation fit.

5. Methods

5.1. Sample and Research Procedure

The surveys covered 208 employees working at companies in Poland across a variety of sizes and lines of business. The majority of employees who participated in the survey represented corporations (67%), medium companies (11%), and small companies (17%); from financial agency services and banking (13%), construction (11%), industry and production (8%), electricity, gas and water supply (8%), and others (28%). The majority of the respondents were employees within the age range of 26–35 (46%), with university education (77%), holding non-managerial positions (59%), mostly with work experience of over 5 years (56%) or 1–5 years (37%). 51% of the respondents were female, and 49% male. The survey was anonymous, with a questionnaire emailed to respondents. 963 questionnaires were distributed, and 208, or 22%, were answered and returned. The companies chosen for the study were selected randomly. To preserve anonymity, the questionnaires were collected from HR departments in sealed envelopes.

5.2. Measures

The conducted survey took into consideration the following set of variables:

Innovative workplace behaviour (IWB), which was measured with the 14-item Innovative Behaviour Questionnaire developed by Kleysen and Street (2001). Answers were chosen on a 6-point scale, where 1 was “never” and 6 was “always”. To ensure that the instrument was culturally adapted, statistical analyses were performed to verify reliability. The coefficient reliability $\alpha$ for the whole instrument amounted to 0.95. Confirmatory factor analysis was performed in order to verify
whether the tool could be used in the single-factor form ($\chi^2 = 69.011, df = 60; p = 0.017; RMSEA = 0.037; CFI = 0.993; GFI = 0.948; NFI = 0.995; TLI = 0.989$).

HRM practices (HRMP) were measured using a tool I developed for the purpose. The content of the 8-item tool was established on the basis of a review of available tools for measuring HR practices, including ones designed by Boon et al. (2011) and those described in other literature. HR practices concern a variety of aspects of activities related to high performance HR practices. These include recruitment of persons with high competence, the opportunity to improve one’s competences, rewards for ideas, job position rotation, and the organisation of teamwork. The coefficient of reliability $\alpha$ for the whole instrument amounted to 0.77. The confirmatory factor analysis ($\chi^2 = 1.201, df = 2; p = 0.549; RMSEA = 0.001; CFI = 0.999; GFI = 0.995; NFI = 0.990; TLI = 0.999$) confirmed the possibility to employ this tool in further studies in the single-factor version. When completing the questionnaire, the respondents used a 5-item Likert scale, where 1 was “I completely disagree” and 5 was “I completely agree”.

An eight-statement questionnaire was used to measure person-job fit, person-organisation fit (P-O fit, P-J fit). It covered both job fit (congruence between competences possessed and job requirements), and organisation fit (congruence as to the goals, values, and the possibility of realising vital needs), in accordance with Kristof’s conceptualisation (1996). The tool’s reliability came in at $\alpha = 0.75$. After the model estimation ($\chi^2 = 22.799, df = 16; p = 0.119; RMSEA = 0.063; CFI = 0.971; GFI = 0.952; NFI = 0.914; TLI = 0.950$), it was decided that the questionnaire in the single-factor version would be used. The participants responding to statements contained in the tool used the 5-item Likert scale, where 1 was “completely untrue” and 5 was “completely true”.

I used my own eight-item job characteristics (JCH) tool, referring to the aspects conceptualised in Hackman and Oldham’s model (1980): diversity of tasks, degree of control, and autonomy. It also examined creative goals and creativity requirements, and cognitive and emotional overload. The reliability of the tool was estimated at $\alpha = 0.81$. To validate the tool, confirmatory factor analysis was conducted ($\chi^2 = 23.630, df = 25; p = 0.541; RMSEA = 0.001; CFI = 0.999; GFI = 0.959; NFI = 0.937; TLI = 0.999$). Respondents completed the questionnaire using the 5-item Likert scale, where 1 was “never” and 5 was “always”.

The study examined the control variables of: education, sex, age, job seniority, and job position.

5.3. Results

In order to verify the hypotheses, the correlations for individual variables were analysed. The results of inter-correlation, together with the descriptive statistics (mean and standard deviations) are presented in Table 1.
Table 1. Descriptive Statistics and Intercorrelations

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HRMP</td>
<td>3.26</td>
<td>0.91</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. IWB</td>
<td>3.82</td>
<td>0.97</td>
<td>0.228*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. JCH</td>
<td>3.53</td>
<td>0.66</td>
<td>0.349**</td>
<td>0.483**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. P-O fit, P-J fit</td>
<td>3.54</td>
<td>0.65</td>
<td>0.536**</td>
<td>0.446**</td>
<td>0.669**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. Education</td>
<td>1.24</td>
<td>0.43</td>
<td>0.199**</td>
<td>-0.036</td>
<td>-0.221*</td>
<td>-0.262**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Job position</td>
<td>1.58</td>
<td>0.49</td>
<td>-0.199**</td>
<td>-0.219*</td>
<td>-0.319*</td>
<td>-0.424**</td>
<td>-0.256**</td>
<td>1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7. Job seniority</td>
<td>2.50</td>
<td>0.62</td>
<td>0.198*</td>
<td>0.102</td>
<td>0.249**</td>
<td>0.246*</td>
<td>-0.508**</td>
<td>-0.380**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Sex</td>
<td>1.54</td>
<td>0.50</td>
<td>0.167</td>
<td>0.176</td>
<td>0.128</td>
<td>0.181</td>
<td>-0.085</td>
<td>-0.069</td>
<td>-0.064</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9. Age</td>
<td>2.14</td>
<td>0.89</td>
<td>0.267**</td>
<td>0.054</td>
<td>0.169</td>
<td>0.317**</td>
<td>0.125</td>
<td>0.695**</td>
<td>-0.464**</td>
<td>-0.362**</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.01.

Source: the author’s own calculations.
Statistically significant correlations were found between IWB and the remaining examined variables: HR practices, job fit, organisation fit and job characteristics. In the case of the positive relationship between IWB and the strongest force – job characteristics ($r = 0.483$, $p < 0.01$) – creative activity occurs when creative activity is required in connection with employee’s autonomy, the possibility of control, and diversity of tasks which require flexible adjustment to requirements and dealing with overload. With regard to job/organisation fit and IWB, a positive relation was also present, although it was slightly weaker ($r = 0.446$, $p < 0.01$). This confirms the data in the literature that stress their significance for effective activity both from the point of view of fit between employee competences and tasks, and, more broadly speaking, the fit to the organisation’s overall characteristics (Kristof 1996). In the case of the relationships between IWB and HR practices ($r = 0.228$, $p < 0.05$), it was found that creative activity is related to human resource management practices including teamwork, competence development programmes, motivation, and job position rotation.

Interestingly, statistically significant relationships between IWM and control variables were not observed, though the literature suggests they will exist with regard to sex, age and job experience, and that they should be controlled in research procedures on such types of behaviours (Agarwal et al. 2012, Young 2012).

The next stage of the analysis verified the model and research hypotheses using the structural equation modeling (SEM) method. The adopted research model assumed that there was no indirect relationship between HRM and IWB, but took into account the significance of job fit, organisation fit and job characteristics. Maximum likelihood was employed to model the estimation, with the following confirmatory factors: RMSEA, CFI, GFI, NFI and TLI. The model proved to be well fit to the data ($\chi^2 = 0.079$, $df = 1$; $p = 0.779$; RMSEA = 0.001; CFI = 0.999; GFI = 0.999; NFI = 0.999; TLI = 0.999) and the individual variables explained the interrelations in a statistically significant manner.

On the basis of the presented model (see Fig. 2) it may be stated that IWB is not directly related to HRM practices ($\beta = -0.03$). This relationship, however, has an indirect character ($\beta = 0.31$), which allows hypothesis 1 to be confirmed: P-J fit and P-O fit and job characteristics play the role of intervening variables for the influence of HRM on IWB. Intervening variables account for 10% of result variance with regard to innovative behaviours. At the same time, the direct relationship between innovative behaviours and the variables considered was observed, as assumed in the model. The value of coefficient $\beta$ in the case of the relationship of innovative behaviours and organisation/job fit is $\beta = 0.34$, and in the case of job characteristics $\beta = 0.54$. It explains, respectively, 12% of the variants of the IWB and P-J/P-O fit results and 29% of the variants of the
IWB and JCH results. The obtained results allow hypothesis 2 to be adopted and to state that, together with the increase of congruence between the competence requirements and the congruence within goals, the values and needs of employees and the organisation, there is an increase in the frequency of employee initiative with respect to the generation and implementation of ideas.

![Fig. 2. The Analysis of the Assumed Research Model](image)

Source: the author.

The situation is similar for job characteristics – with regard to that variable, IWB also presents statistically significant relations, confirming hypothesis 3. Thus, when requirements related to performed job are better adjusted to employee preferences with regard to autonomy, degree of control, task type, overload type and other job performance conditions, an employee undertakes creative activity in the workplace more often. The relationship between job/organisation fit and job characteristics is also important. The parameters of the model’s estimation indicate that the relationship between these variables ($\beta = 0.53$) is unidirectional, since it turns out that job characteristics are a predictor of person-job/organisation fit.

To sum up, the results achieved in the analysis may be interpreted as follows: HRM practices will stimulate innovativeness in the workplace only when there is both a good person-job and person-organisation fit, and appropriate job characteristics.

### 6. Discussion of the Results

Innovative behaviour at work depends on HR practices, as well as person-job/organisation fit and job characteristics. The assumed indirect relation between
HR practices and IWB is confirmed by the research done in this area (although not with regard to the variables contained in the research model), which may be exemplified by, for instance, analyses done by the team of Lopez-Cabrales, Pérez-Luño, and Cabrera (2009), who stated that the influence HR practices have on innovation takes place via knowledge. On the other hand, an HRM system may also constitute a mediator and moderator of relations. That is to say, training and managerial coaching formed, in the light of research, an intervening variable between the characteristics of R&D department employees (in high-technology firms), and their innovative behaviours (Wang 2013). Such a result is not surprising when the knowledge of complex interrelationships between variables related to both innovativeness and HRM practices is taken into account. What is more, an organisation’s use of certain practices is not as important as the perception that they are effective (Dorenbosch, Van Engen & Verhagen 2005, Nishii, Lepak & Schneider 2008, Boon et al. 2011), which, in turn, depends on other factors, including fit (Boon et al. 2011). The integration of practices was another factor indicated by researchers to facilitate positive effects of HRM activities on innovativeness (Arthur 1994, Huselid 1995).

The following variables were found to be mediators of the influence of HR practices on innovativeness: person-job fit, person-organisation-fit and job characteristics. At the same time, these variables display a direct influence on innovative behaviours in the workplace. The results agree with other studies, according to which creative performance is positively related to demands-ability fit when creative abilities remain in agreement with the level required (Odoardi, Battistelli & Montani 2010). In this context it is possible to speak of person-innovation fit influencing innovative outcomes. Naturally, fit only with regard to competences is not sufficient to undertake and effectively realise innovative activities. In spite of P-J fit and P-O fit convergence, it is stressed that work as a part of the work environment forms a separate concept (Kristof 1996), and possession of job skills does not have to signify congruence with organisational values and culture (Lauver & Kristof-Brown 2001). Therefore, fit between an employee and an organisation as a whole is also relevant, as confirmed by Choi and Price (2005), who showed that agreement between individual values and innovative values (supply-values fit) forms a predictor of commitment from the point of view of innovation implementation, while congruence between required abilities for innovation and the actual abilities of an employee (demands-ability fit) strongly correlates with effective behaviour directed at implementation.

With regard to job characteristics, which in the research presented are also related to employee innovativeness, and in particular such attributes as perception of autonomy, responsibility, and job control, may generate motivational processes through ascribing innovation-oriented goals by the management, since autonomy
and job enrichment strengthen the sense of responsibility both for employees’ own work and for goals which are not directly related to their job roles. In such a situation, employees are more willing to perceive the innovativeness of goals as desirable (Odoardi, Battistelli & Montani 2010) – similarly, in the case of job control, which is positively related to creativity and innovativeness (Binnewies & Gromer 2012). Fit in that respect, together with a high level of control, creates a chance for experimentation at work, thereby enabling employees to freely create, communicate and express ideas (Ohly, Sonnentag & Pluntke 2006).

I would stress that HRM increases fit and job design, which are directly tied to innovative activity in the workplace. HRM practices are key both in adjusting competences to job characteristics and demands, and in creating attitudes that support the innovative commitment of employees. Moreover, I would recommend, as a relevant area of HR activities supporting innovations, measuring various types of complementary and supplementary fit, taking into account the dynamics of changes with regard to job requirements (e.g.: increased requirement of creativity or overloads), competences (outdating of knowledge), employee attitudes (especially sensitive to personnel policy), a sense of being appreciated, having a sense of one’s own work and valuing it, perceived organisational support, a sense of organisational justice/fairness, and job satisfaction (Wojtczuk-Turek 2013). Divergences with respect to person-job fit by way of organisational changes should thus be eliminated (job conditions and content) while employees should be equipped with adequate competences. Furthermore, increased fit results in better acceptance of messages sent by the organisation (Boon et al. 2001). The signals communicated by HR systems might then be better understood and supported by employees, which will translate into their increased commitment, and, consequently, improved performance.

7. Limitations and Future Directions

While the research presented here contributes new knowledge with respect to mediators of the influence of HR practices on innovative behaviours, it is not free from shortcomings. First of all, the conclusions on the influence of variables assumed in the research model were indirect because the model did not cover experimental research.

Another issue is related to the manner of examination of the variables and to the study tools. Although cultural adaptation was conducted and the reliability of all the tools used in the research was accounted for, their accuracy was not validated. A reference is still needed to an external criterion which would validate the conclusions. Moreover, measures are based on self-reported data, which might raise
doubts with regard to the “social desirability” variable. In this context, it would also appear desirable, during future studies, to use numerous sources of knowledge with reference to the examined variables – for example, the opinions of managers (multisource), and not only the opinions of the employees covered by the study.

As for research on HR practices, two issues are significant: the study of the interactive influence of different types of practices on innovative behaviours (Jiménez-Jiménez & Sanz-Valle 2008), together with the evaluation of their significance by employees, and not only a diagnosis of the fact of their occurrence in an organisation. This is so because the research shows that from the point of view of the effects of such practices, their positive evaluation is also relevant (Boon et al. 2011). Future studies should also broaden the extent of analysis to diagnose the HRM fit itself, since research proves that it plays an important role in creating a team climate, which, when there are multiple teams, supports the generation of innovative products (Estrada, Martin-Cruz & Pérez-Santana 2013). Moreover, Boon et al. (2011) said, to date no extensive research has been conducted with regard to a set of “high efficiency” HR practices and P-E fit, although detailed research indicates positive interrelations exist. Finally, extending research on the range of moderators of the influence of HRM on innovativeness is recommended.

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The Importance of HRM…


Rola praktyk HRM w kreowaniu innowacyjności pracowników – pośrednicząca rola dopasowania człowiek–organizacja/praca i charakterystyka pracy

Celem artykułu jest opis i wyjaśnienie związków pomiędzy działaniami z obszaru zarządzania zasobami ludzkimi (HRM) a podejmowaniem przez pracowników zachowań innowacyjnych. W propozycji modelu wyjaśniającego wpływ HRM na aktywność twórczą w miejscu pracy wykorzystano konstrukt „dopasowanie człowiek–organizacja” jako mediator tej relacji. W analizie uwzględniono także zmienną korespondującą z dopasowaniem do pracy, określoną jako „charakterystyka pracy”.

Badania potwierdziły istotne statystycznie związki pomiędzy zachowaniami innowacyjnymi a wszystkimi badanymi zmiennymi: działaniami z zakresu HRM, dopasowaniem do pracy i organizacji oraz charakterystyką pracy. Na podstawie przeprowadzonej analizy...
z wykorzystaniem modelowania strukturalnego można stwierdzić wpływ na zachowania innowacyjne następujących czynników: 1) praktyk HRM (wpływ pośredni – poprzez dopasowanie człowiek–organizacja) oraz 2) dopasowania i charakterystyki pracy (wpływ bezpośredni). Jednocześnie model wyjaśnia zidentyfikowany bezpośredni wpływ HRM na dopasowanie człowiek–organizacja i charakterystykę pracy.

Badania ukazały, że konstrukt dopasowanie człowiek–organizacja jako zmienna wyjaśniająca efektywność innowacyjną jednostki w miejscu pracy stanowi użyteczną perspektywę nie tylko dla zrozumienia czynników determinujących występowanie w organizacji aktywności innowacyjnej, ale także dla stymulowania zachowań twórczych poprzez działania w obszarze HRM. Działania z zakresu HRM odgrywają bowiem istotną rolę zarówno w dopasowywaniu kompetencji do wymogów stanowiska pracy, jak i w budowaniu postaw sprzyjających zaangażowaniu innowacyjnemu pracowników.

Prezentowany w modelu badawczym zestaw zmiennych pozwala wyjaśnić znaczenie wybranych determinant zachowań kluczowych z perspektywy efektywności i konkurencyjności firmy na rynku. Badania koncentrują się bowiem na aspektach podmiotowych zachowań innowacyjnych (zasoby do wykonywania zadań twórczych), jak również organizacyjnych (dopasowanie do pracy i organizacji), włączając w zakres analiz rolę strategiczną działu HR.

_Słowa kluczowe_: HRM, innowacyjność, dopasowanie człowiek–organizacja, dopasowanie człowiek–praca, charakterystyka pracy.