The Effect of HR Practices and Psychological Contract on Employee Performance: The Polish Experience in Business Services Sector



Anna Rogozińska-Pawełczyk

Abstract This study examines the impact of HR practices system (such as employee resourcing, development, rewards, and relations) on employee performance (EP) (composed of their behaviors and performance) through the mediating role of psychological contract (PC) (expressed by the influence of employer on employee promises fulfilment through employee attitudes). In order to find relationships between the selected variables, and to evaluate the role of the mediator, a correlation analysis and multiple regression analysis were performed using the OUADAS tool. For the purposes of the analysis, the structural equation modelling (SEM) method was additionally applied. The quantitative research was conducted in randomly chosen knowledge-intensive companies on a testing sample of 150 representatives from the business services sector (BSS) (100 managers from the BSS and 50 knowledge employees). The study is providing proof that the HR practices have been shown to have a direct as well as indirect influence on EP, the latter being largely dependent on the fulfilment of the PC by employees and employers. In both cases, the outcomes are significantly determined by individuals' characteristics. The very fulfilment of the PC also considerably influences EP.

Keywords HR practices · Psychological contract · Fulfilment of psychological contract · Organizational performance · Business services sector

1 Introduction

The focus of the research so far has been on the key factors explaining the nature of relationships between HRM and organizational performance. Some researchers studied the role of individual HRM practices, while others explored interactions between HRM practices or HRM systems and performance. The results of both types

A. Rogozińska-Pawełczyk (⊠)

The Faculty of Economics and Sociology Department, University of Łódź, Łódź, Poland e-mail: anna.rogozinska@uni.lodz.pl

of research proved useful in testing for the presence of relationships between HRM practices/systems and performance (e.g., Huselid 1995; Delery and Doty 1996; Delaney and Huselid 1996; Guthrie 2001). The advocates of an integrated approach to HRM practices argued that the clusters of similar practices were more effective in improving work performance (Lepak and Shaw 2008). Studies exploring different ways of integrating HR practices into systems (Becker and Gerhart 1996; Ramsey et al. 2000; Lepak et al. 2006) failed to find one solution that would fit the needs of all organizations. The investigated systems were oriented to increasing employees' involvement in the organization (e.g., Whitener 2001), to reconcile the employees' and organization's interests (Guthrie 2001, etc.), or to strengthen employees' skills and motivation (e.g., Huselid 1995; Lepak et al. 2007, 2007) to ultimately improve organizational performance. The differences between the systems were trivial, and no objective arguments could be presented in favor of any of them (Wright and Boswell 2002). The reason why the theoretical model proposed in this paper is focused on high-performance HRM systems is that they operate a wide range of HRM practices and their purpose is to improve EP by managing relations in the organization (e.g., Lepak et al. 2007, 2007).

The HR practices systems are multi-layer solutions (Becker and Gerhart 1996; Boxall and Macky 2009; Jiang et al. 2012) encompassing HRM policies and HRM practices consisting of content, process, and climate (Schuler 1992; Monks and McMackin 2001; Kepes and Delery 2007). According to research, such systems are directly related to employees' and organizations' performance (Nishii et al. 2008; Boxall et al. 2011; Katou 2015). Bowen and Ostroff (2004) argue that the relationship creates the parties' common understanding of their expectations and commitments, as well as shapes employees' attitudes and behaviors in line with the requirements of the PC.

This paper is prepared to narrow the gap in the literature on the use of HRM policies and PC as a means for establishing relationships between employees and their organization, but without delving into how the relationships may affect organizational performance. The author's earlier findings on the interaction between PC and HR systems emphasizing flexibility or involvement (Rogozińska-Pawełczyk 2016) resulted in the expectation that the HR practices system's influence on EP would be mediated by the fulfilment of the PC.

An important feature of the HR practices systems is that they contribute to better performance by supporting employers and employees in the fulfilment of their PC (Suazo et al. 2009; Chiu and Peng 2008; Robinson and Rousseau 1994). The study can therefore be expected to provide evidence corroborating the observation that the PC acts as a mediator between a HR system and EP, which effectively means that better HR practices lead to better-quality PC and thus improve EP. The majority of empirical studies analyzing PC in terms of their mediating effect between HR practices systems and EP have reported that only the improvement of workforce skills, attitudes, and behaviors could enhance organizational performance (Raeder et al. 2012). There are also a number of studies the authors of which have studied the influence of HR practices systems on organizational performance (Boselie et al. 2005; Jiang et al. 2012; Nishii et al. 2008). In this research, the joint analysis of

organizational and individual factors provided deeper insight into the mechanisms determining the relationship between HR practices systems and EP.

In order to better grasp the nature of the relationship, researchers reached for so-called mediating variables, i.e., factors linking HR practices and organizational performance (Ramsey et al. 2000; Boselie et al. 2005; Paul and Anantharaman 2003). Boselie et al. (2005) proposed employees' satisfaction, motivation, and trust and the social climate between employees and managers in the organization. Ramsey et al. (2000) put forward employees' involvement as a variable interfacing between a high-performance work system (HPWS) and organizational performance, but they failed to confirm its mediating effect.

The existing studies report a relationship between individual HR practices and systems and the PC (Uen et al. 2009), as well as a positive correlation between the latter and employees' attitudes and behaviors (e.g., Turnley et al. 2003; Rogozińska-Pawełczyk 2016) that have effect on how an organization performs (Henderson et al. 2008).

Despite the increased interest in the psychological contract in recent years, it would be difficult to conclude that this issue has been sufficiently researched and described. More research is needed to make PC a rational framework for understanding the relationship between employees and employers (Guest 2011). There is also a need for more research exploring both employers' and PC employees' perspectives (Baker 2009) as well as research into the causal order between the relationships involved (Aryee et al. 2002; Cropanzano and Mitchell 2005; Coyle-Shapiro and Shore 2007).

Accordingly, in this research, it was assumed that the PC was a mediating variable that helped the HR practices systems to modify EP. The assumption was based on the knowledge that the HR practices systems can influence the PC being an element of the employer's obligations toward an employee and an incentive for the latter (Suazo et al. 2009; Uen et al. 2009). In other words, the HR practices systems facilitate the fulfilment of the PC which encourages employees to adopt the desired workplace attitudes (Turnley et al. 2003; Sturges et al. 2005; Henderson et al. 2008) and improves their performance (Ramsey et al. 2000; Paul and Anantharaman 2003). To test this and other assumptions of the mediation model, the author focuses her research on the relationships between the PC and EP (meant as behaviors and performance) and on the relationships between the HR practices systems and PC.

Moreover, considering that there is poverty of research on PC outside European Western economies (Westwood et al. 2001, p. 648), the author proposes to extend previous PC research into a previously untested cultural, economic context, such as the Polish modern BSS. Economic, political, and demographic changes in Poland have serious social consequences for human resource management (HRM) in organizations. The financial crisis of 2007–2008 has resulted in an ongoing need to reduce labor cost cuts, which in most cases has led to redundancies and the shelving of the available human capital.

New trends and the evolution of the relations between employers and employees have attracted the interest of Polish HRM practitioners and researchers (Rogozińska-Pawełczyk 2016). Polish HRM changes at an increasing pace, following changes in

the character of work and in the internal and external environments of organizations. Polish studies conducted in the 2015s have demonstrated that factors comprising the environments influence organizations, their strategies and structures, as well as the dynamics of work (Zadura-Lichota 2015; Melnarowicz 2017). The significance of employees' performance is connected most with organizations in which there are a high variety of working demands and changeable conditions of work performance; a high demand for diversity, creativity, and innovativeness at work; as well as a large variety of ways in which work can be carried out and difficulties in their nonmaterial estimation. The indicated conditions occur mainly in a specific group of Polish companies belonging to the BSS. Therefore, it would be interesting to extend the debate on the role of HRM and PC in improving EP to companies in the modern BSS.

2 The Model's Theoretical Background and Research Hypotheses

This paper considers EP using independent and intermediate variables characterizing individuals and organizations. The empirical part of the research involved quantitative analysis of relationships between HR practices systems and EP. To explain the relationships, a model is proposed (see Fig. 1) which assumes that a HR practices system (the predictor) contributes to EP both directly and indirectly, in the latter case being mediated by the fulfilment of the PC (the mediator).

The research model includes an explanation of the cause-and-effect relationships, together with a specification of the conditions in which the tested influence of prognostic factors (HRM practices) on the tested variable (EP) will occur. The proposed model assumes that the performance stage of a PC (mediating variable) intermediates in the relationship between HRM practices and EP. The model is based on the assumption that a wide range of factors located in the indicated areas affect employees' performance. The following theoretical concepts are used in the model, EP, HR practices systems, and a PC, which are presented more widely below. The perspective of knowledge employees, who are professionally connected with the companies of BSS sector, undertaking activities connected with the necessity to use specialized, complicated knowledge is stressed in this article. HR practices systems constitute a recommended approach in organizations offering knowledge-intensive services in the HRM area.

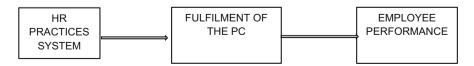


Fig. 1 Relationships between the model's components. Source: developed by the author

Conceptualization of a theoretical model is based on a concept of EP. Taking the assessment of EP into consideration, it is important to state that the company efficiency is also connected with the level of HR (Jiang et al. 2012). Therefore, the theories of the area of behavior and approach based on results are the basis to explain the selection of particular variables constituting the measurable EP in the project (Aguinis et al. 2016). They refer to the measures of individual behavior and their aggregates as well as the indicators of obtained results gathered on the basis of differentiated sample of persons obtaining efficiency at work. This way of including the variables constituting measurable EP is based on the use of many measures designed in such a way that they examine specific behavior of a respondent in a direct way. Moreover, a lot of operational measures (e.g., profit, market value, ROE indicator, revenue, and sale per 1 employee or turnover ratio) reflect only the work results and not the behavior itself. The author's intention was that the employee's behavior and employee's performance are closely connected. In other words, the EP should reflect individual behavior. According to the results of research of Delaney and Huselid (1996) and Klassen et al. (1998), the following indicators should be applied to assess the individual and organizational effects; productivity, efficiency, effectiveness, and efficacy. As there are the lack of precision and no semantic limits in the use of these terms, only the terms of effectiveness and efficiency have become the elements of constructive assessment of organizational performance in the proposed model. The term effectiveness means the rate in which the organization obtains the indicated objectives; efficiency means the rate in which the organization minimizes the expenditures and maximizes the obtained profits. The application of described indicators refers mainly to the assessment of production effects, e.g., in manufacturing companies, and the nature of services (especially the intangible ones) in this approach may cause some problems. Pocztowski (2008) draws attention to the subject aspect and approach related to the features, behavior, and results connected with the performed work. Therefore, the following three measures of the assessment of EP are development which means the rate in which an organization develops to meet future chances and challenges; innovation which means the rate in which the organization is able to create new ideas, products, and process in order to improve competitiveness; and quality which means the rate in which the organization is able to create the biggest number of ideas/products/services of the highest quality. Two arguments are in favor of the use of these measures: (1) emphasis of the aspect of result of the action and (2) emphasis of the significance of values and benefits which these results bring (Wojtczuk-Turek 2016).

The second pillar of the proposed model concept comprises the concept of a PC. PC, expressed by the set of mutual views about the obligations of each party of an employment relationship, their expectations regarding the rate of performance significant for their needs and interests, as well as faith that they will be included and satisfied appropriately, comprise the second pillar of the conceptualization of the proposed model. The satisfaction of promises (transactional or relational) made by an employer affects the fulfilment of similar promises declared by an employee, resulting in employees adopting relevant attitudes (satisfaction, engagement, motivation). The theoretical frames specifying the scope of a PC constitute a social

exchange occurring between an employee and an employer and the mutual norm accompanying it (Rousseau 1995).

Despite the fact that PC have a very subjective nature (Rousseau 2010), there are some common features that classify PC into two main types: transactional and relational (Rogozińska-Pawełczyk 2011). A transactional contract varies regarding economic benefits and may take specific time frames. The contract is usually externally oriented, but it also offers the possibilities of the development of employee's competencies and income growth and the prestige of the workplace. The relational benefit of a PC between an employer and an employee consists in the exchange of employment security and the possibility of a long-term career in a company for loyalty and obedience toward the organizational hierarchy (Rogozińska-Pawełczyk 2015). Moreover, other research suggests that the selection of HRM policy and practices may affect the performance of the two types of a PC (Pathak et al. 2005). This thesis is also confirmed by the results of research carried out by the author, proving that the type of contract (relational, transactional) which is dominant in an organization may be identified by analyzing how the HRM policy functions based on engagement, flexibility, and particular HRM practices. It is proved by the connection between the types of PC presented in the research and the systems of assessments, career paths, and the variable aspect of remuneration (Rogozińska-Pawełczyk 2012, 2016). Taking the above arguments into consideration, the analysis of fulfilling the relational and transactional PC which, in the case of mutual fulfilment, will be connected with EP should be included when creating the model.

HR practices system is a final part of the analysis. The concept of HR practices systems evolved along the idea of employees' performance management and created de facto an independent stream of research. The main assumption of HR practices systems is that certain bundles of practices, being specific HRM activities, can lead to greater organizational outcomes (Zhang and Morris 2014). Additionally, the different clusters of HR practices systems are intended to increase beneficial individual outcomes (e.g., knowledge, skills, and abilities) and, subsequently, firm's performance (Jiang et al. 2012). A completely homogenous HR practices system has not been developed. Researchers propose various bundles of HR practices systems which differ in range, consistency, or comprehensiveness (Evans and Davis 2005; Topcic et al. 2016).

The HR practices system is a cluster of practices and policies that organizations use to make their employee selection, retention, and development processes more efficient and to improve the use of human capital in line with their strategic goals (Boselie et al. 2005). Most HR practices are aimed to attract and recruit the right job applicants, to set the goals for human resource development, to implement a remuneration policy facilitating the retention and motivation of employees, and to foster positive relations among the workforce (Boxall et al. 2011). These key practices underlie the creation of HRM strategies (Boselie et al. 2005; Lepak et al. 2007, 2007) for planning, recruiting, and selecting the best-quality human capital for the organization. Employee development is directly linked to the organization's ability to function, the assessment of their performance and fair remuneration help

focus their energy on the execution of their tasks, and relations among employees influence the overall climate in the organization and thereby its performance.

The proposed research model has an innovative character because it refers to issues connected with employee's performance of companies in the modern BSS who do work that requires special and innovative knowledge. Due to the scope of the research and the analysis of the architecture of HR practices systems, the specification of EP mechanisms will be extended by analyzing areas which have not been looked at so far. The inclusion of a PC as a mediator will contribute to a deeper understanding of the employee's performance determinants in knowledge-intensive companies. The simultaneous analysis of individual and organizational factors and the interdisciplinary of the approach to the research issue constitute the main reasons for carrying out the research, which will enable an understanding of the mechanisms underlying employee's performance at the workplace more deeply. The analysis of employee's performance being taken regarding their connections with the HR practices system may indicate not only their mutual relationship but also predictive power of the influences in the human management area.

3 Research Method

3.1 Procedure and Measures

The quantitative research was aimed to establish the relationship between HRM practices and EP in regard to the mediating role of the PC. The following research hypotheses were tested:

H1. There is a relationship between HRM practices system and EP.

H2. PC fulfilment mediate relationship between HRM practices system and EP.

In order to test both hypotheses, to find relationships between the selected variables, and to evaluate the role of the mediator, a correlation analysis and multiple regression analysis were performed using the QUADAS tool. Correlations were assumed significant at p < 0.05 and p < 0.01. To quantify the role of the mediator, regression models and 5000 bootstrapping samples were used. For the purposes of the analysis, the structural equation modelling (SEM) method (part of the STATA/SE package) was additionally applied (Preacher and Hayes 2004). It was used because of the need to analyze multivariate models containing a large number of predictors (HRM practices system with its employee resourcing, development, rewards, and relations) and of mediators (the fulfilment of the PC by employees and employers). Another important argument for using the SEM is that it outperforms the regression models as a tool for analyzing variables.

3.2 Sample

The survey was carried out in the first quarter of 2019. The quantitative research was conducted in randomly chosen knowledge-intensive companies on a testing sample: n = 150 representatives from the BSS (including n = 100 employers from the BSS and n = 50 knowledge employees). Respondents were recruited to the survey through the direct, personal contacts of the author of this article with BSS organizations' employees participating in the training on "Creativity in Business." The survey was anonymous and voluntary.

The research has a national character, and its subjects were managers and employees employed in eight BSS organizations. In total 150 persons were tested, including 36 women and 114 men. The age average of respondents amounted to 35 years, SD = 10.16. Fifty knowledge employees of middle level, including 20 women and 30 men, and 100 BSS managers, including 16 women and 84 men, took part in the research. More than half respondents (78) had substantial professional experience judging by the number of years they had worked. Most of them had worked 6-10 years (68), 11-15 years (49), and 21-30 years (26). Other respondents had worked less than 5 years or longer than 30 years (7).

3.3 Measures

The survey was carried out using the PAPI technique (direct individual questionnaire interview technique). The measurements of the selected variables were made using the following diagnostic tools:

HRM practices—this variable was measured against items adapted from the tools measuring HR practices (Guthrie 2001; Tsai 2006; Fu et al. 2015). Based on the exploratory factor analysis, the following practices were selected: resourcing, training, rewards, and relations. Each practice was described by three items such as "My career path and personal development plan in the organization are clearly defined" (training) and "The motivating system addresses my personal expectations" (rewards). Respondents rated the statements on a 5-point Likert scale, where 1 represented "I strongly disagree" and 5 "I strongly agree." Cronbach's alpha coefficient indicating the reliability of this research tool was 0.78.

Fulfilment of the PC—this variable was measured using two subscales, each having five items based on Mcneil (2000) and Rousseau (1989). One subscale assessed the transactional aspects and the other the relational aspects of employers' and employees' fulfilment of their PC obligations. Whether an aspect was transactional or relational was determined using the categorization system used by Thompson and Hart (Thompson and Hart 2006). The transactional aspect comprised economic variables such as pay, its level and structure, performance-based profit sharing, and variables that could generate incomes in the future, e.g., opportunities for personal development and promotion. The relational aspect consisted of "social"

variables, including a good workplace atmosphere, values associated with organization's CSR, and the quality of relations between the employer and employees (e.g., employment certainty and security, fair treatment from the employer).

To measure the fulfilment of the employer's and employees' transactional and relational obligations, two subscales were used, each containing five items such as "Does your employer deliver on their promise to provide promotion opportunities in the organization?" (the employer has offered a relational PC) or "Do employees share their expertise with other people in the organization as they promised?" (employees have accepted a transactional PC). All items were assessed by respondents on a 5-point Likert scale, where 1 was "not at all" and 5 "very much." Cronbach's alpha coefficient for this research tool was 0.77.

EP—this variable was measured on five subscales (effectiveness, efficiency, development, innovativeness, and quality), each containing three items adapted from the tools that Delaney and Huselid (1996) and Klassen et al. (1998) developed to measure EP (behaviors and work results). Some of the items were as follows: "I do my job carefully, competently and efficiently" or "I think I take enough training to do my job competently." Cronbach's alpha coefficient for this tool was 0.89. Respondents gave their answers on a 5-point Likert scale, where 1 denoted "I strongly disagree" and 5 "I strongly agree."

4 Analysis of Research Results

The first step of statistical analysis involved the calculation of correlations between the variables (Table 1).

As the data in Table 1 show, EP is moderately and significantly correlated with HR practices system (r=0.76; p<0.01) and its dimensions, i.e., resourcing (r=0.54; p<0.01), training (r=0.61; p<0.01), rewarding (r=0.40; p<0.01), and relations (r=0.54; p<0.01) (Table 1). Moreover, EP as a whole and its constituent variables (effectiveness, efficiency, development, innovativeness, and quality) are positively and moderately correlated with EP. We observe strong, positive, and significant correlations between HR practices, organizational performance, and employer and employee PC fulfilment, supporting the hypotheses of the study. This confirms the findings of earlier research according to which organizational HR practices are correlated with the manner of their communication and their perceived importance by employees (Bowen and Ostroff 2004; Nishii et al. 2008; Katou 2015).

How the independent variable (a HR practices system) correlated with the mediator (the fulfilment of the PC) was important for evaluating the strength of the research hypotheses. Analysis showed a positive correlation between the HR practices system and the fulfilment of the contract by employees (r = 0.91, p < 0.01) and employers (r = 0.79, p < 0.01) and a positive and moderately strong correlation between the system's particular dimensions and the mediator. EP also positively

 Table 1
 Correlation coefficients calculated for the selected variables

Vari	Variable		2	3	4	5	9	7	8	6	10	11	12	13
-	HR practices	1												
2	HR resourcing	0.54**	1											
ω	HR training	0.61**	0.11**											
4	HR rewarding	0.40**	80.0	**69.0	1									
S	HR relations	0.54**	0.19**	0.01	0.22**	-								
9	Employer PC fulfilment	0.79	0.27**	0.64**	0.52**	0.64**	-							
7	Employee PC fulfilment	0.91	0.81** 0.73**		0.45**	0.63**	0.58**	1						
∞	EP	0.76**	0.64**	0.61**	0.32**	0.27**	**89.0	0.72**						
6	Employee effectiveness	0.12*	0.36** 0.49**		0.12**	0.37*	0.33**	0.41**	0.43**					
10	Employee efficiency	0.21*	0.10*	0.09	0.12**	0.57**	0.29**	0.36**	0.26**	0.07	1			
11	Employee development	0.24*	0.33**	0.50	0.57**	0.37**	0.26**	0.44**	0.03	0.09	0.13*	1		
12	Employee innovativeness	0.38**	0.81** 0.64**	0.64**	0.35*	0.81**	0.87*	0.81**	0.71**	0.74**	0.34**	0.29**	1	
13	Employee quality	0.10*	0.58**	0.41**	0.36**	0.27**	**99.0	0.25** 0.36**		0.15**	0.15**	0.43**	0.37**	
- +	***************************************													

* p < 0.05, ** p < 0.01Source: developed by the author

Variable	Model 1	Model 2
Independent variable: HR practices system	0.786	0.566
	p < 0.001	p < 0.001
Control variables:		
Gender	-0.421	-0.238
	p < 0.01	p < 0.05
Age	0.954	0.742
	p < 0.01	p < 0.01
Seniority	0.383	0.299
	p < 0.01	p < 0.01
Position	-0.320	-0.187
	p < 0.05	p < 0.05
Mediating variable: Fulfilment of PC	_	0.7092
-		p < 0.001
R^2	0.26	0.24
ΔR^2	0.21	0.24
F	22.087	32.692
	p < 0.001	p < 0.001

Table 2 The results of regression analysis

Source: developed by the author

correlated with the mediator (r = 0.68, p < 0.01 for employers meeting their obligations and r = 0.72, p < 0.01 for employees).

To study the nature of the correlation between the HR practices system and EP and to assess the mediating effect of the fulfilled PC, a stepwise regression analysis and a bootstrapping procedure were used. Two regression models were constructed that allowed, respectively, for a direct and indirect (stronger) influence of the HR practices system on EP. The results of this analysis are shown in Table 2.

Both models proved statistically significant and well fitted to the data (F = 32.692, p < 0.001 and F = 22.087, p < 0.001, respectively). They showed that, as expected, the HR practices system (the predictor) influenced EP both directly and indirectly. The direct effect in the first model ($\beta = 0.786$; p < 0.01) meant that EP would improve with the HR practices system's elements becoming more visible. In the second model, the introduction of the mediator increased the predictor's value with respect to the explained variable (performance). The mediator significantly correlated with both the dependent variable (EP) and the predictor that stimulated EP indirectly ($\beta = 0.566$; p < 0.001), i.e., through the mediator.

The author states that there is no solid theoretical justification for considering individual controls as a separate factor and continues to use this factor for regression purposes only to isolate the effect of independent variables on PE (Boselie et al. 2005). Additionally, it must note here that although the author tried all possibilities connecting individual and organizational controls with all the other constructs, the only significant results obtained are those reported in Fig. 2. Individual control variables (age, gender, the number of years in service, position) significantly determined the effectiveness of the HR practices system and EP.

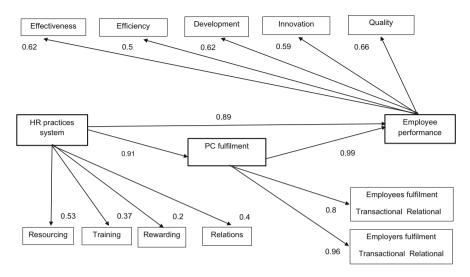


Fig. 2 Estimation result of the relationships between a HR practices system and EP and the mediating effect of the fulfilment of the PC by employees and employers. Source: created by the author

The effect of the HR practices system on EP negatively depended on their gender and position, which means that the influence of women and non-managerial position is lower. This is confirmed by the research of Karoliny and Sipos (2019), who confirm the existence of gender differences in holding specific job positions. The empirical findings show that age and the number of years in service, persons older than 46 years of age and employees who were employed the longest, reported a stronger association between EP and HR practices system in place. These results confirm the positive influences of age and seniority to EP (Guest 2011; Ramsey et al. 2000; Boselie and van der Wiele 2002).

Summing up, the HR practices system has a direct as well as indirect influence on EP. The stronger influence observed in the second case means that the HR practices system improves EP the most when both the employer and employees perform the PC. Accordingly, hypotheses H1 and H2 have been empirically confirmed.

They have also been confirmed by the results of the structural equation modelling (SEM) procedure where the HR practices system functioned as the predictor, the fulfilment of the PC as the mediator, and EP as the dependent variable. The relationships between these variables are shown in Fig. 2.

The model is well fitted to the data ($\chi 2 = 2.971$, df = 243, p = 0.000, RMSEA = 0.086, NFI = 0.992, CFI = 0.901, GFI = 0.846, SRMR = 0.014) and significantly explains how its components are related to each other. As can be seen, EP is directly influenced by the HRM practices system through the fulfillment of the PC.

5 Discussion and Conclusion

The above analysis of the quantitative research results has confirmed the complexity of relationships between the HR practices systems and EP and consequently the need to study them using an interactive approach. These findings also extend the literature referring to the HR practices systems are related to EP in a non-American or British context such as that of Polish modern BSS. Showing that the HR practices systems are related to EP, it is also consistent with the findings of other researchers, such as Bowen and Ostroff (2004) and Katou (2015), and acknowledges the view that HR practices systems are important for organizations because they make employees more productive by inducing a similar perception of HRM practices across the workforce.

This study is partially in line with Guest and Conway's (2004) PC model where HR practices have a major influence on the state of the PC, indicating that a positive PC will lead to improved organizational performance. These findings confirm and extend the argument of Rousseau (1995) about the central importance of reciprocity in relation to the management of exchange relations (Coyle-Shapiro and Shore 2007). This is because the main feature of the conceptual research model is that the relationship between HR practices system and organizational performance is mediated by PC fulfilment. This study can provide some light to address the mechanisms that exist between HR practices systems and organizational performance (Kepes and Delery 2007).

The HR practices systems have been shown to have a direct as well as indirect influence on EP, the latter being largely dependent on the fulfilment of the PC by employees and employers. In both cases, the outcomes are significantly determined by individuals' characteristics.

Fulfilment of the PC, especially the relational and transactional one, also considerably influences EP. Taking into account that there are no significant differences between these values, we argue that the flexibility of fulfilment employee transactional promises to employers' promises is equal to the flexibility of fulfilment employee relational promises in relation to employers' promises in the context of BSS in Poland (Wojtczuk-Turek 2016). Therefore, it can be said that changes in the fulfilment of employers' promises are equally related to changes in the fulfilment of transactional and relational promises of employees. Despite these findings, the author of this paper agrees that transactional aspects of the PC must be fulfilled before relational aspects can be dealt with (Millward et al. 1999) because transactional aspects drive relational aspects due to their cause-and-effect association (Pate et al. 2003).

The analysis of EP (behaviors and performance) and of its determinants can help in formulating recommendations for personnel management. Organizations' BSS should consider using this relationship as a mediator between HR practices systems and EP. According to the research results, shaping EP modifies the functioning of individual employees as well as of the organization. Because this study has shown that the HR practices resourcing, training, rewarding, and relations (comprising an

integrated HRM practices system) have effect on EP, managers should take more care to ensure that the clusters' HR practices are more visible (explicit and noticeable) to employees, more comprehensible (easily understandable), and more meaningful (helping employees achieve goals). Efforts are also necessary to raise the employees' awareness of a HR practices system being in place (as HR practices can significantly improve their performance and quality of work) and to ensure that it is understood or interpreted in the same or similar way (this requires that the HRM department sends its messages in a coordinated manner, consistent across contexts and times). HR managers focused on these aspects of HR practices systems will be able to come with better fulfilment PC capable of stimulating EP.

The study has provided insight into personnel management practices in organizations BSS that are aware of the role of the PC as a means for improving EP and where the fulfilment of the PC is a mediator between EP and HR practices systems. One has to be aware, however, that preparing a positive PC is a difficult task (Rogozińska-Pawełczyk 2016). It is therefore important that the personnel policy in an organization involves open communication and ongoing dialogue between managers and employees.

The pilot study seems to provide a solid starting point for future research with a larger, representative sample BSS, which will investigate the fulfilment of PC as a predictor of EP and as a mediator between HR practices systems and EP. Future research should also focus on other sectors and contexts of different countries in order to be able to verify and extend the present results.

Acknowledgments This work was supported by the Polish National Science Center grant OPUS16 nr UMO-2018/31/B/HS4/01284.

References

- Aguinis, H., O'Boyle, E., Gonzalez-Mulé, E., & Joo, H. (2016). Cumulative advantage: Conductors and insulators of heavy-tailed productivity distributions and productivity stars. *Personnel Psychology*, 69, 3–66.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23, 267–285.
- Baker, T. B. (2009). Towards a model of the new employment relationship: Aligning the needs of individual and organization. *Leadership and Organization Development Journal*, 30(3), 197–223.
- Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: Progress and prospects. *Academy of Management Journal*, *39*, 779–801.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, 15(3), 67–94.
- Boselie, P., & van der Wiele, T. (2002). Employee perceptions of HRM and TQM, and the effects on satisfaction and intention to leave. Managing service quality. *An International Journal*, *12* (3), 165–172.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of the 'strength' of the HRM system. *Academy of Management Review*, 29(2), 203–221.

- Boxall, P., Ang, S., & Bartram, T. (2011). Analysing the "black box" of HRM: Uncovering HR goals, mediators and outcomes in a standardized service environment. *Journal of Management Studies*, 48(7), 1504–1532.
- Boxall, P., & Macky, K. (2009). Research and theory on high-performance work systems: Progressing the high involvement stream. *Human Resource Management Journal*, 19(1), 3–23.
- Chiu, S.-F., & Peng, J.-C. (2008). The relationship between psychological contract breach and employee deviance: The moderating role of hostile attributional style. *Journal of Vocational Behavior*, 73(30), 426–433.
- Chiu, S.-F., & Peng, J.-C. (2008). The relationship between psychological contract breach and employee deviance: The moderating role of hostile attributional style. *Journal of Vocational Behavior*, 73(30), 426–433.
- Coyle-Shapiro, J. A.-M., & Shore, L. M. (2007). The employee-organization relationship: Where do we go from here? *Human Resource Management Review*, *17*(2), 166–179. https://doi.org/10.1016/j.hrmr.2007.03.008.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900.
- Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949–969.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictors. *Academy of Management Journal*, 39(4), 802–835.
- Evans, R. W., & Davis, W. D. (2005). High-performance work systems and organizational performance: The mediating role of internal social structure. *Journal of Management*, 31(5), 758–775.
- Fu, N., Flood, P. C., Bosak, J., Morris, T., & O'Regan, P. (2015). How do high performance work systems influence organizational innovation in professional service firms? *Employee Relations*, 37(2), 209–231.
- Guest, D. E. (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, 21(1), 3–13.
- Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44(1), 180–190.
- Henderson, D. J., Wayne, S. J., Shore, L. M., Bommer, W. H., & Tetrick, L. E. (2008). Leader-member exchange, differentiation, and psychological contract fulfillment: A multilevel examination. *Journal of Applied Psychology*, 93(6), 1208–1219.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635–672.
- Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation. Academy of Management Journal, 55(6), 1264–1294.
- Karoliny, Z., & Sipos, N. (2019). Explanations of the feminization effects in HR profession and beyond. In *Eurasian Business Perspectives* (pp. 159–173). Cham: Springer.
- Katou, A. A. (2015). The mediating effects of psychological contracts on the relationship between human resource management systems and organizational performance. *International Journal of Manpower*, 36(7), 1012–1033.
- Kepes, S., & Delery, J. (2007). HRM systems and the problem of internal fit. In P. Boxall, J. Purcell, & P. Wright (Eds.), *The Oxford handbook of human resource management* (pp. 385–404). Oxford: Oxford University Press.
- Klassen, K. J., Russell, R. M., & Chrisman, J. J. (1998). Efficiency and productivity measures for high contact services. *The Service Industries Journal*, 18(4), 1–18.
- Lepak, D. P., Liao, H., Chung, Y., & Harden, E. E. (2006). A conceptual review of human resource management systems in strategic human resource management research. *Research in Personnel* and Human Resources Management, 25, 217–271.

- Lepak, D. P., & Shaw, J. D. (2008). Strategic HRM in North America: Looking to the future. *The International Journal of Human Resource Management*, 19(8), 1486–1499.
- Lepak, D. P., Smith, K. G., & Taylor, M. S. (2007). Value creation and value capture: A multilevel perspective. *Academy of Management Review*, 32(1), 180–194.
- Lepak, D. P., Taylor, M. S., Tekleab, A., Marrone, J. A., & Cohen, D. J. (2007). An examination of the use of high-investment human resource systems for core and support employees. *Human Resource Management*, 46(2), 223–246.
- Mcneil, I. R. (2000). *Relational contract theory: Challenges and queries* (pp. 877–907). Northwestern University Law Review.
- Melnarowicz, K. (2017). Działalność innowacyjna polskich przedsiębiorstw przegląd narzędzi pomiaru. Studia i Prace Kolegium Zarządzania i Finansów, 158, 117–134. [Melnarowicz, K., 2017. Innovative activity of Polish enterprises a review of measurement tools. Studies and Works of the College of Management and Finance, 158, pp. 117-134.].
- Millward, L. J., Brewerton, P., & M. (1999). Contractors and their psychological contracts. *British Journal of Management*, 10(3), 253–274.
- Monks, K., & McMackin, J. (2001). Designing and aligning an HR system. Human Resource Management Journal, 11(2), 57–72.
- Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the 'why' of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, 61(3), 503–545.
- Pate, J., Martin, G., & McGoldrick, J. (2003). The impact of psychological contract violation on employee attitudes and behavior. *Employee Relations*, 25(6), 557–573.
- Pathak, R. D., Budhwar, P. S., Singh, V., & Hannas, P. (2005). Best HRM practices and employees' psychological outcomes: A study of shipping companies in Cyprus. South Asian Journal of Management, 12(4), 7–24.
- Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: Analysis of a causal model. *International Journal of Human Resource Management*, 14, 1246–1266.
- Pocztowski, A. (2008). Zarządzanie talentami w organizacji. Kraków: Wolters Kluwer Business. [Pocztowski, A., 2008. Talent management in organization, Cracow: Wolters Kluwer Business.].
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*(4), 717–731.
- Raeder, S., Knorr, U., & Hilb, M. (2012). Human resource management practices and psychological contracts in Swiss firms: An employer perspective. *International Journal of Human Resource Management*, 23(15), 3178–3195.
- Ramsey, H., Scholarios, D., & Harley, B. (2000). Employees and high-performance work systems: Testing inside the black box. *British Journal of Industrial Relations*, 38(4), 501–531.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15(3), 245–259.
- Rogozińska-Pawełczyk, A. (2011). Od relacyjnego do transakcyjnego kontraktu psychologicznego zmieniający się paradygmat. *Zarządzanie Zasobami Ludzkimi*, ³/₄, pp. 61–77. [Rogozińska-Pawełczyk, A., 2011. *From relational to transactional psychological contract a changing paradigm*. Human Resources Management, ³/₄, pp. 61-77.]
- Rogozińska-Pawełczyk, A. (2012). Rola wynagradzania kompleksowego w kształtowaniu kontraktu psychologicznego. *Zarządzanie Zasobami Ludzkimi, 5*(88), 63–76. [Rogozińska-Pawełczyk, A., 2012. The role of comprehensive remuneration in shaping the psychological contract. *Human Resources Management, 5*(88), pp. 63-76.].
- Rogozińska-Pawełczyk, A. (2015). The dynamic character of a psychological contract between the superior and the employee (according to empirical research). *Economia. Seria Management*, 18 (2), 271–285.

- Rogozińska-Pawełczyk, A. (2016). Zarządzanie zasobami ludzkimi oparte na kontrakcie psychologicznym. Warszawa: IPiSS.[Rogozińska-Pawełczyk, A., 2016. Human resources management based on a psychological contract, Warsaw: IPiSS.].
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2, 121–139.
- Rousseau, D. M. (1995). Psychological contracts in organizations: Understanding the written and unwritten agreements. London: Sage Publications.
- Rousseau, D. M. (2010). The individual–organization relationship: The psychological contract. In S. Zedeck (Ed.), *Handbook of industrial/organizational psychology* (Vol. 3, pp. 191–220). Washington, DC: American Psychological Association.
- Schuler, R. (1992). Strategic human resources management: Linking the people with the strategic needs of the business. *Organizational Dynamics*, 21(1), 18–32.
- Sturges, J., Conway, N., Guest, D., & Liefooghe, A. (2005). Managing the career deal: The psychological contract as a framework for understanding career management, organizational commitment and work behavior. *Journal of Organizational Behavior*, 26(7), 821–838.
- Suazo, M. M., Martinez, P. G., & Sandoval, R. (2009). Creating psychological and legal contracts through human resource practices: A signaling theory perspective. *Human Resource Manage*ment Review, 19(2), 154–166.
- Thompson, J. A., & Hart, D. W. (2006). Psychological contracts: A Nano-level perspective on social contracts theory. *Journal of Business Ethics*, 68(3), 229–241.
- Topcic, M., Baum, M., & Kabst, R. (2016). Are high-performance work practices related to individually perceived stress? A job demands-resources perspective. *The International Journal of Human Resource Management*, 27(1), 45–66.
- Tsai, C.-J. (2006). High performance work systems and organizational performance: An empirical study of Taiwan's semiconductor design firms. *The International Journal of Human Resource Management*, 17(9), 1512–1530.
- Turnley, W. H., Bolino, M. C., Lester, S. W., & Bloodgood, J. M. (2003). The impact of psychological contract fulfillment on the performance of in-role and organizational citizenship behaviors. *Journal of Management*, 29(2), 187–206.
- Uen, J.-F., Chien, M. S., & Yen, Y.-F. (2009). The mediating effects of psychological contracts on the relationship between human resource systems and role behaviors: A multilevel analysis. *Journal of Business and Psychology*, 24(2), 215–223.
- Westwood, R., Sparrow, P., Leung, A. (2001). Challenges to the psychological contract in Hong Kong. *International Journal of Human Resource Management*, 12(4), 621–651.
- Whitener, E. M. (2001). Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modeling. *Journal of Management*, 27 (5), 515–535.
- Wojtczuk-Turek, A. (2016). Wspieranie produktywności pracowników wiedzy-rola zarządzania zasobami ludzkimi i dopasowania człowiek-organizacja. Warszawa: Wydawnictwo Naukowe PWN. [Wojtczuk-Turek, A., 2016. Supporting the productivity of employees with knowledge-role of human resources management and human-organizational fitting, Warsaw: Wydawnictwo Naukowe PWN.].
- Wright, P. M., & Boswell, W. R. (2002). Desegrating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management*, 28(3), 247–276.
- Zadura-Lichota, P. (2015). Innowacyjna przedsiębiorczość w Polsce. Odkryty i ukryty potencjał polskiej innowacyjności. Warszawa: PARP. [Zadura-Lichota, P., 2015. Innovative entrepreneurship in Poland. Discovered and hidden potential of Polish innovation, Warsaw: PARP].
- Zhang, B., & Morris, J. L. (2014). High-performance work systems and organizational performance: Testing the mediation role of employee outcomes using evidence from PR China. International Journal of Human Resource Management, 25(1), 68–90.