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HRM PRACTICES AND ORGANIZATIONAL PERFORMANCE: MEDIATION EFFECT OF INNOVATION

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Abstract

The main aim of this study is to explore the mediating effect of innovation in the relationship between human resource management (HRM) practices and organizational performance. HRM practices are observed through selective hiring, training, participative decision-making, and rewarding. Innovation is conceptualized over behavioral, product, process, and market innovation. The study relies upon the principles of social exchange theory and resource-based theory. Data were collected from 408 managers in an emerging economy context. The proposed conceptual model is evaluated with structural equation modeling using Lisrel 8.8 and SPSS 22. Study findings suggest that innovation influences the relationship between selective hiring, training, and participative decision-making and organizational performance. However, no mediating effect of innovation was found in a relationship between rewarding and organizational business performances. Since human resources and innovation are among the leading sources for building competitive advantage for companies, the study findings contribute to HRM and innovation.

Keywords: *Innovation, Human Resource Management Practices, Organizational Business Performance*

JEL classification: *M1, M12, M15*

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1. Introduction

Nowadays, organizations face a dynamic business environment characterized by increased global competition, rapid technological change, and changing customer demands (Duodu and Rowlinson 2019). In such complexity, innovations are often observed as one of the pillars for achieving and maintaining competitive advantage (Lee, Lee, and Garrett 2019) and business performance (Exposito and Sanchis-Llopis 2018). Their role is especially emphasized in a time of uncertainty, which was evident during the COVID-19 pandemic when digital innovations became the backbone of personal and professional life (Verma and Gustafsson 2020). The architects of innovative ideas in organizations are employees who, through their work, promote, test, implement and improve both innovative and all business processes in organizations. Depending on their strategic orientations, organizations apply different human resource management (HRM) activities by implementing various HRM practices to attract, recruit, select, engage, and maintain those employees who have been assessed as the best fit for organizations.

Human resources (HR) are both the drivers and the bonds for many organizational processes. Their role is crucial in achieving successful business performance (Jiménez-Jiménez and Sanz-Valle 2008), and strategic HRM practices are recognized as sources of sustainable competitive advantage (Boselie, Dietz, and Boon 2005). Since HRM practices might influence organizational outcomes, it is essential to study and observe the relationship between them to determine the most valuable practices for reaching organizational goals.

The research on the relationship between HRM practices and organizational performance has become a topic of interest in academic research during the 1990s (Lee, Lee, and Wu 2010). The vast majority of published studies provide evidence of a positive relationship between HRM and business performance, but the causal relationship results are ambiguous (Saridakis, Lai, and Cooper 2017). In addition, the literature has recognized the positive impact of innovation on business performance (e.g., Arranz *et al.* 2019; Ferreira, Fernandes, and Ferreira 2019). While Engelsberger *et al.* (2021) discuss the growing interest in exploring the influence of HRM practices on the organizational capacity for innovation, Jotabá *et al.* (2022) argue that even though HR practices are essential for innovation, empirical research examining HRM and innovation is quite scarce. Moreover, Kutieshat and Farmanesh (2022) discuss the mediating role of organizational innovation between new HRM practices and innovation performance. In addition, Farouk *et al.* (2016) recognized the mediating role of innovation in an HRM and organizational business performance relationship.

Considering that human resources are the foundation of business processes, this study observes how HRM practices encourage innovation and how HRM practices and innovation (re)shape business processes and contribute to organizational performance. While the relationship between HRM practices and innovations is recognized, the influence of different HRM practices on organizational business performance with innovation's mediating role is still unclear and insufficiently explained. There is a clear gap in the literature related to the synergistic effect of individual HRM practices on innovation capability and business performance. An analysis of their interrelationship is particularly important, given that individual HRM practices may influence employees' innovative behavior differently. Therefore, the present study aims to empirically examine the influence of recruitment, training, employee participation in decision-making, and the reward system (Perez Lopez, Montes Peon and Vazquez Ordas 2005; Hsu *et al*. 2007) on organizational business performance with the mediation effect of innovation in the relation between HR practices and business performance. This study contributes to the ongoing debate about HRM practices and organizational innovation. It discusses innovation as a predictor of organizational performance and explains its role as a mediator.

2. Literature Review

2.1. Innovation

According to Van de Ven (1986), Amabile (1996), Damanpour and Schneider (2006), and Fay *et al.* (2015), innovation is observed as the development or adaptation and implementation of an idea that is useful and new for an organization at the time of adoption. Sanders and Lin (2016, p. 32) define innovation as "a strategic orientation involving the regeneration of product, process, services and/or strategies." Dibrell, Craig, and Neubaum (2014) address innovation as an organization's focus on technological development, new products and services, or improving production and other business processes to achieve competitive advantage. Innovation involves multiple types: behavioral, product, process, and market innovation.

Behavioral innovation is "an organization's behavioral proclivity or willingness to change" (Alpay *et al.* 2012). Behavioral innovation is viewed through individuals, teams, and management commitment and

enables the creation of an innovative culture, which is a fundamental prerequisite for generating new ideas and innovations (Ellonen, Blomqvist, and Puumalainen 2008). *Product innovation* refers to something new and innovative, with the products being marketed simultaneously (Wang and Ahmed 2004). It has been considered one of the main drivers of value creation (Visnjic, Wiengarten, and Neely 2016). *Process innovation* relates to an original way of doing business (Un and Asakawa 2015). Gunday *et al.* (2011) point out that while product introductions are typically assumed to have a clear, positive impact on revenue growth and employment, process innovations may have an unclear effect. *Market innovation* represents new ways for entering and exploiting the target market (Ellonen, Blomqvist, and Puumalainen 2008). It is closely linked to product innovations, so they are often analyzed together in the literature (Wang and Ahmed 2004).

2.2. Human Resource Management Practices

Human resources management comprehends all the activities that manage people in an organization (Boxall and Purcell 2008). Mäkelä *et al.* (2013) view HRM as an organization's ability to implement and maintain appropriate HRM practices in performance management, education and development, and employee compensation and reward programs. HRM practices are the main assets used by organizations to influence employees' skills and behaviors to achieve organizational objectives (Prieto and Pérez-Santana 2014). Different authors perceive HRM practices from different standpoints, therefore not always encompassing the same practices within their operational definitions. Snape and Redman (2010, p. 1222) state that HRM practices are "formal integrated systems of HR activities that include selective recruitment and selection, extensive training and development of regular performance appraisal, performance-contingent rewards, and high levels of employee involvement." According to Becker and Huselid (1998), organizational performance is enhanced when a firm adopts recruiting and selection system, reward system, and training and development system.

To explore HRM practices that are positively associated with organizational performance while bearing in mind the role of innovation and the tie between HRM practices and innovation, in this study, the concept of HRM capability observed through HRM practices is adopted. Perez Lopez, Montes Peon, and Vazquez Ordas (2005) indicate that the most significant practices that contribute to the development of organizational HRM capability are selective recruitment, training, employee participation in decision-making, and a rewarding system. Also, Delery and Doty (1996, p. 805) argue that HRM practices should be theoretically and empirically related to overall organizational performance.

Selective recruitment refers to the criteria for hiring with the primary aim of recruiting the best individuals in terms of their potential (Perez Lopez, Montes Peon, and Vazquez Ordas 2005). It ensures that the selected employees possess the knowledge and skills necessary for the job and enables person-organization fit in terms of values, goals, and personality (Chang, Gong, and Shum 2011). Moreover, Michie and Sheehan-Quinn (2001) discuss an indirect link between selective hiring and organizational performance manifested through strengthening internal bonds between managers and employees, creating the right culture for higher productivity. *Training* refers to the organization's planned effort to facilitate the acquisition of particular knowledge, skills, competencies, and behaviors that employees need to conduct their current jobs successfully (Goldstein 1993). Training enhances relevant skills and abilities and increases employee satisfaction with their current job and workplace. *Participative decision-making* comprehends control of employees "over their own job tasks and an enhanced understanding of and participation in organizational decision-making" (Probst 2005). Participation in decision-making refers to HR practices, where the influence between superiors and subordinates is shared. It enables employees to be informed about business processes and creates a sense of belonging to the organization (Perez Lopez, Montes Peon, and Vazquez Ordas 2005). Finally, *rewarding* comprehends a compensation system based on equality principles and contains incentive programs related to goal achievement (Perez Lopez, Montes Peon, and Vazquez Ordas 2005). The incentive is performance-dependent and improves employee motivation by aligning employee and organization interests (Jiménez-Jiménez and Sanz-Valle 2008).

2.3. Organizational Business Performance

Organizational business performance is typically considered as the extent to which an organization achieves its desired goals and objectives, such as increasing revenue, profit, market share, return on investment, customer satisfaction, and employee productivity (Chen, Tsou, and Huang 2009). In addition, performance can be measured in relation to the

competition, which indicates the extent to which an organization can outperform or match the performance of other firms in the same industry or market (Cruz-González *et al*. 2015). This includes comparing the organization's performance metrics with those of its competitors. Typically, a combination of financial and non-financial indicators, such as sales growth, profitability, return on investment, employee turnover, customer retention, and brand recognition, is used to evaluate an organization's business performance. This paper used financial indicators of business performance in relation to the competition.

3. Hypotheses Development

3.1. The Interplay of Social Exchange and Resource-Based Theories

This study draws on the social exchange theory (SET) and the resource-based view (RBV) to explain the interplay between HRM practices and innovation and their impact on organizational business performance. SET provides a foundation for a better understanding of HRM practices and their role in establishing commitment and positive work attitudes (Ko and Hur 2014). The SET premise states that social and material resource exchange is a basic form of human interaction (Blau 1964). According to Shaw *et al.* (2009), SET comprehends economic and socioeconomic exchanges such as consideration of employee well-being, stability, career advancement, and intangible issues such as perceptions of fairness. The present study observes social exchange between an organization (HRM practices) and employees (workplace behavior). When HRM practices are positive, employees adopt and manifest a positive attitude toward the workplace (Ko and Hur 2014; Shaw *et al.* 2009). Hence, HRM practices are essential for social exchange from an employee perspective.

In addition to SET, the resource-based view (RBV) is integrated into this study. According to RBV, organizational superior business performance depends on its resources and uses during operations (Barney and Clark 2007). Resources should be valuable, rare, inimitable, and non-substitutable (Javalgi and Todd 2011). They are controlled by an organization that enables it to devise and implement strategies created to improve its effectiveness and efficiency (Mahdi, Nassar, and Almsafir 2018). Therefore, relying on SET, this study describes the influence of HRM on innovation. On the other hand, RBV explains the effects of HRM and innovation on organizational performance.

3.2. Innovation, HRM and Business Performance

In the relationship between HRM, innovation, and performance, HRM enhances innovation while innovation positively contributes to business performance (Farouk *et al.* 2016). Pradana, Pérez-Luño, and Fuentes-Blasco (2020), in the light of the resource-based view, examined the positive relationship between human capital and innovation and the positive relationship between innovation and performance. Several studies have addressed the mediating effect of innovation between HRM and the firm's performance (e.g., Chowhan 2016; Farouk *et al.* 2016; Diaz-Fernandez, Bornay-Barrachina, and Lopez-Cabrales 2017). The rationale of the mediation is that HRM investment aims to promote the necessary behavior among employees to make companies more competitive and consistently more profitable (Diaz-Fernandez, Bornay-Barrachina, and Lopez-Cabrales 2017). If HRM practices enhance innovation performance and influence organizational performance, innovation is observed as the driver between HRM and the firm's performance (Farouk *et al.* 2016). Human resources use knowledge to develop sustainable competitive advantage and successful performance based on innovation processes (Martinez-Sanchez, Vicente-Oliva, and Pérez-Pérez 2020). In line with the discussion, it is hypothesized that innovation mediates the relationship between HRM practices and business performance.

H1. Innovation mediates the relationship between HRM and organizational business performance.

Bäckström and Bengtsson (2019) discuss the HRM-related activities related to hiring, selecting, and rewarding employees and how various financial incentives influence innovative behavior. Gope, Elia, and Passiante (2018) discuss HR practices, such as recruiting and selection activities and training programs, in the context of knowledge management strategy and organizational strategy and their contributions to the innovation activities of an organization. Li, Zhao, and Liu (2006) discuss how employee training, non-material motivation, and process control positively influence technological innovation, while material motivation and outcome control negatively influence technological innovation. Similarly, Chang, Gong, and Shum (2011) found that hiring and training significantly influence incremental and radical innovation among hotel and restaurant companies. Knoke and Kalleberg (1994) argue that training leads toward positive organizational outcomes, while Ling and Nasurdin (2010) state that training positively and significantly

influences organizational innovation. Jotabá *et al.* (2022) discuss how innovation occurs when HR activities are focused on learning and development. Hill, Tedards, and Swan (2021) argue that innovation should be driven by better decision-making, while Flores-Garcia *et al*. (2021) explore decision-making approaches while implementing process innovation. According to Maier *et al.* (2014), a proper reward system is a powerful tool for commitment, professional growth, and innovative corporate culture. Therefore, in line with the discussion on the relationship between innovation, HRM, and organizational performance, and relying on studies that have analyzed the relationship between individual HRM practices and innovations, and using SET and RBV as foundation theories, a mediation model with the following hypotheses is proposed.

H1a. Innovation mediates the relationship between employees' selection and organizational business performance.

H1b. Innovation mediates the relationship between the training of employees and organizational business performance.

H1c. Innovation mediates the relationship between employees' participation in decision-making and organizational business performance.

H1d. Innovation mediates the relationship between a rewarding system and organizational business performance.

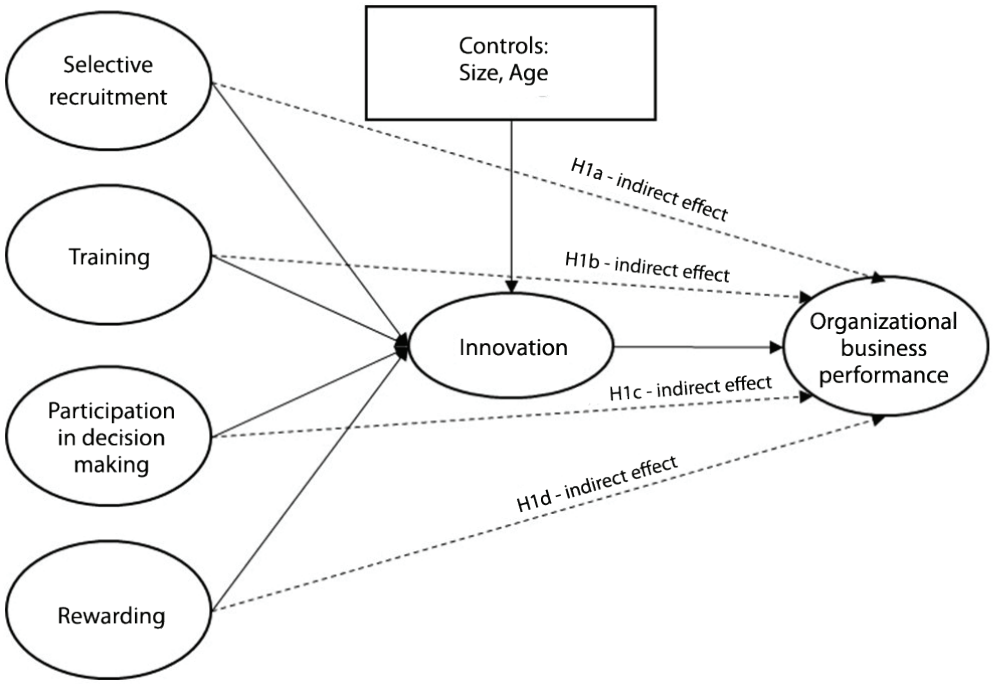
4. Research Methodology

Confirmatory factor analysis (CFA) and structural equation modeling (SEM) were selected as data analysis methods. CFA was used to verify the reliability and validity of measurement models, while SEM was used to test hypotheses and analyze the structural model (Hair *et al.* 2014).

4.1. Measures

Indicators of measurement scales are adopted from validated empirical studies. The psychometric properties of measures have been evaluated by accepted practices (Anderson and Gerbing 1988; Bagozzi, Yi, and Phillips 1991), and the content, nomological, discriminant, and convergent validity of constructors were verified. Content validity refers to a clear understanding of the meaning and content of each variable (Hair *et al*. 2014). It is tested before conducting the research, together with nomological validity, which implies confirmation that the correlations between the constructs have theoretical meaning. Content and nomological validity tests are conducted during and after the operationalization of the measurement scales. All indicators have to be carefully revised in terms of text, specificity, and length to ensure relevance to the research context. Content validity and relevance are justified by a panel of experts consisting of two managers and four scholars.

Figure 1. Proposed conceptual mediating model



Innovation is assessed with the different types of innovation an organization generates. The reflective indicators are adopted from Ellonen, Blomqvist, and Puumalainen (2008). HRM practices are conceptualized through selective recruitment, training, employee participation in decision-making, and rewarding (Perez Lopez, Montes Peon, and Vazquez Ordas 2005). All dimensions consisted of three reflective indicators, each adopted from Perez Lopez, Montes Peon, and Vazquez Ordas (2005). Chen, Tsou, and Huang (2009) adopted reflective indicators for organizational business performance. Respondents were asked to indicate the extent to which they strongly agree or disagree with items related to analyzed concepts using a seven-point Likert scale.

The usual control variables, namely the size and age of the organizations, are included in the model. Firm size is measured as the firm-wide number of employees and firm age with the years the organization has been in business (Lu and Ramamurthy 2011). Earlier research has confirmed differences in organizations' innovativeness depending on age and size. While Mothe and Uyen Nguyen Thi (2010) argue that firm size positively influences the propensity to innovate, Jiang, Wang, and Zhao (2012) indicate that increasing size may create uncertainties that demand innovative behavior. Large firms may have access to a broader range of knowledge and human capital skills, enabling innovation.

4.2. Data Collection and Sample

An online survey collected data from organizations in an emerging economy context. The managerial sample was chosen since they create a setting that shapes employees' experience within an organization (Yukl 1989). The general managers of the companies were identified as key respondents based on two primary criteria: i) possessing sufficient knowledge and ii) an adequate level of involvement in the concepts being analyzed (Campbell 1955). Following the letter of invitation, two reminders were sent at 12 and 16-day intervals. Also, the respondents were guaranteed anonymity and were informed that the research results would be presented collectively and for scientific research purposes. After excluding observations from multiple missing values, 408 remained for the analysis, considered an adequate sample size (Hair *et al.* 2014). The sample consists of 11% micro firms, 37% small and 37% medium-sized firms, and 15% large firms. The average age of firms is 22, while the average number of employees is 152.

5. Research Results

Data analysis was performed in several steps. First, the data were examined for assumptions of multivariate techniques following Hair *et al.* (2014). Then, the CFA was used to test the reliability and validity of the measurement model. Finally, the hypotheses and the conceptual mediation model were evaluated using SEM following Anderson and Gerbing's (1988) two-step approach. The results were further validated using the Sobel test (Sobel 1981) and bootstrapping method in SPSS (Hayes 2013). First, the measurement model's unidimensionality, reliability, convergent, and discriminant validity were assessed using CFA and Lisrel 8.8 software (Diamantopoulos and Siguaw 2000). A structural model was assessed in the second phase based on the measurement models estimated in the first phase (Andreeva and Kianto 2012).

Since data were gathered from a single key informant in an organization, there was a risk that they could suffer from common method bias (CMB). Following Podsakoff *et al.*'s (2003) suggestions, two procedural and one statistical remedy were used to control potential CMB. First, respondents' anonymity was guaranteed in the invitation letter to reduce evaluation apprehension. Vague concepts were avoided, and items were kept simple, specific, and concise when translating (Tsai and Yang 2013). Harman' s single-factor test was conducted for the statistical remedy by specifying a hypothesized method factor as an underlying dimension of all the indicators (Podsakoff *et al.* 2003). The results of the CFA with the twenty-eight indicators loading onto a single factor (χ^2/df=4,766.151/405=11.77; RMSEA=0.163; SRMR=0.107; CFI=0.842; NFI=0.826) showed a poor fit, suggesting that the single factor does not account for all of the variances in the data (Pérez-López and Alegre 2012).

5.1. Reliability and Validity Analysis

Results of the assessment of unidimensionality, reliability, discriminant, and convergent validity are presented in Tables 1 and 2. Composite reliability (CR) for each construct was greater than 0.70 confirming the constructs' reliability (Hair *et al*. 2014). Convergent validity is assessed by confirming that the values of each variable's standardized factor loadings on the proposed construct (Anderson 1987) are greater than 0.6 (Hair *et al.* 2014). Also, the average variance extracted (AVE) indicators above 0.5 confirmed good convergence. Finally, discriminant validation is assessed by comparing the square root value of the AVE indicator with the correlation values of that all other constructs

Table 1. CFA factor loadings

Construct	Items	λ
Human Resource Management (Perez Lopez *et al.* 2005)	*Selective recruitment* – In my firm...	
	The members of the department or team, which the new worker will be part of, participate in the selection of candidates.	0.700
	In the process of selecting candidates for recruitment, knowledge, and experience are valued.	0.818
	In the process of selecting candidates for recruitment, teamwork skills, and propensity for continuous learning are evaluated.	0.863
	Training – In my firm...	
	Employee training and development policies cover all the employees in the firm.	0.814
	Training programs are mainly based on firm-specific knowledge.	0.843
	Every employee receives training during his/her professional life.	0.757
	Participation of the employees in the decision-making – In my firm...	
	Employees participate in the decision-making process.	0.651
	Employees are regularly informed of the firm's economic and strategic information.	0.767
	There is a high degree of personnel empowerment.	0.833
	Rewarding system	
	The organization has a mixed system of rewarding: fixed + variable.	0.696
	The firm offers incentives to employees, depending on their job performance alone.	0.845
	The firm offers incentives to employees, depending on their effort and commitment.	0.813
Innovation (Ellonen *et al.* 2008)	*Behavioral innovation* – In my firm…	
	Employees get a lot of support from managers if they want to try new ways of doing things.	0.781
	Individuals who do things in a different way are accepted and tolerated.	0.717
	People are willing to try new ways of doing things and seek unusual novel solutions.	0.884
	People are encouraged to think and behave in original and novel ways.	0.830
	Product Innovation	
	During the past five years, my firm has introduced more innovative products and services than its competitors have.	0.901
	In new product and service introductions, my firm is often first-to-market.	0.967
	The new products and services of my firm are often perceived as very novel and innovative by customers.	0.834
	Process Innovation	
	My firm improves its business processes constantly.	0.853
	During the past five years, my firm has developed many new management approaches.	0.817
	When a problem cannot be solved using conventional methods, people in my firm invent new methods.	0.666
	Market innovation	
	In comparison with its competitors, my firm's most recent product/service marketing program is revolutionary in the market.	0.762
	In the new product and service introduction, my firm is often at the cutting edge of technology.	0.779
Organizational Business Performance (Chen *et al.* 2009)	Rating realized profits compared to its main competitors in the past 3 years.	0.929
	Rating realized sales compared to its main competitors in the past 3 years.	0.853
	Rating realized return on investment compared to its main competitors in the past 3 years.	0.821
	Rating realized the planed market share in the past 3 years.	0.648
Firm's age	Assessed by the number of years since the firm was founded.	
Firm's size	Assessed by the number of employees (natural logarithm).	
$\chi 2/df<3$; RMSEA<0.08; SRMR<0.08; CFI>0.95; NFI>0.9		
Notes: λ – CFA factor loadings; All items significantly load to their reflective constructs.		

Table 2. Reliability and validity assessment

#	Dimensions	CR	AVE	1	2	3	4	5	6	7	8	9
1	Recruitment	0.838	0.635	**0.797**								
2	Training	0.847	0.649	0.682	**0.805**							
3	Participation	0.797	0.569	0.605	0.684	**0.754**						
4	Rewarding	0.829	0.620	0.389	0.373	0.465	**0.787**					
5	Behavioral innovation	0.880	0.649	0.467	0.511	0.600	0.329	**0.805**				
6	Product innovation	0.929	0.814	0.443	0.485	0.569	0.312	0.548	**0.902**			
7	Process innovation	0.825	0.613	0.569	0.623	0.731	0.401	0.704	0.668	**0.783**		
8	Market innovation	0.745	0.594	0.498	0.545	0.640	0.351	0.616	0.584	0.751	**0.771**	
9	Business Performance	0.889	0.671	0.323	0.354	0.416	0.228	0.400	0.379	0.488	0.426	**0.819**
	Age			-0.157	-0.068	-0.066	-0.070	-0.159	-0.151	-0.194	-0.170	-0.110
	Size			-0.169	-0.004	-0.002	0.040	-0.046	-0.044	-0.057	-0.049	-0.061

Notes: Squared-root AVEs are shown on the diagonal in bold; CR = Composite reliability; AVE = Average Variance Extracted; Construct correlations are shown below the diagonal.

(the AVE value should be higher) (Fornell and Larcker 1981) (see Table 2). Also, the Goodness of Fit (GoF) indicators of the measurement model reveal an acceptable fit (χ2/df<3; RMSEA<0.08; SRMR<0.08; CFI>0.95; NFI>0.9).

5.2. Hypotheses Testing

The hypotheses were tested by applying structural equation modeling techniques (Diamantopoulos and Siguaw 2000). First, the assessment of the structural model resulted in an acceptable model fit (χ2/df=1,010.309/381=2.65; RMSEA=0.0637; SRMR=0.0623; CFI=0.971; NFI=0.954) (Hair *et al*. 2014). According to Hair *et al*. (2014, p. 583), "the researcher should report at least one incremental index and one absolute index, in addition to the χ2 value and the associated degrees of freedom". The most commonly used absolute index is RMSEA, while the incremental indicator most often used to represent model fit is CFI.

Parameter estimates and their corresponding significance levels for hypotheses testing are provided in Table 3 and Table 4. As expected, innovation mediates the relationship between selective recruitment and organizational business performance (H1a: β=0.053, p<0.1). The results also support H1b and confirm the mediating role of innovation between training and firm performance (β=0.099, p<0.01). The indirect impact of employee participation in decision-making through innovation is also supported by study findings (H1c: β=0.299, p<0.01). Finally, the results failed to confirm the indirect impact of rewards on organizational performance (H1d: β=0.026, p>0.1).

Table 3. Path analysis estimates

Hypotheses	*Paths*	*Stand. Coeff.*	*T – value*
H1a	Recruitment → INNO → OBP	0.053*	1.508
H1b	Training → INNO → OBP	0.099***	2.527
H1c	Participation → INNO → OBP	0.299***	6.485
H1d	Rewarding → INNO → OBP	0.026	1.036
Age	Age → INNO	-0.073***	-3.507
Size	Size → INNO	-0.003	-0.124
R^2 (INNO) = 68.8; R^2 (OBP) = 27.7			
χ^2/df=1,010.309/381=2.65; RMSEA=0.0637; SRMR=0.0623; CFI=0.971; NFI=0.954			
***p<0.01; ** p<0.05; * p<0.1			

Table 4. Decomposition of effects

Path	Unstandardized coefficients (t-values)			Standardized coefficients		
	Total Effect	Direct Effect	Indirect Effect	Total Effect	Direct Effect	Indirect Effect
H1a	0.106* (1.508)		0.106 (1.508)	0.053		0.053
H1b	0.152*** (2.527)		0.152 (2.527)	0.099		0.099
H1c	0.594*** (6.485)		0.594 (6.485)	0.299		0.299
H1d	0.137 (1.036)		0.137 (1.036)	0.026		0.026
Age	-0.00518*** (-3.507)	-0.00518 (-3.507)		-0.073	-0.073	
Size	-0.00568 (-0.124)	-0.00568 (-0.124)		-0.003	-0.003	
***p<0.01; **p<0.05; *p<0.1; one-tailed for hypotheses and two-tailed for controls						

The findings show that firm size does not influence firm innovation (β=-0.003, p>0.1), whereas age has a negative impact (β=-0.073, p<0.01). This is in line with some earlier research that argues that innovation may decrease with the aging of a firm since younger firms are more prone to innovation while older ones are less innovative (Jiang, Wang, and Zhao 2012).

Furthermore, the PROCESS (Hayes 2013) in SPSS was used to conduct a mediation analysis to confirm the indirect effect of the independent variables on the dependent variable through the INNO mediator. Composite mean scores of latent variables were created (Kianto, Sáenz, and Aramburu 2017; Tsou and Cheng 2018) and then used to produce a bias-corrected 95% level (90% for H1, following results of SEM estimation) bootstrap CI for the indirect effects. If zero is absent from the interval for an indirect effect, with a 95% confidence, that mediated relationship is significantly different from zero. Mediation models were estimated separately by hypothesis using bootstrapping (5,000 resamples) to calculate bias-corrected and accelerated confidence intervals (Cis) for the indirect effect.

The subsequent PROCESS analysis confirmed the findings of the SEM analysis by providing additional evidence of the mediating role of innovation in the relationships between selective recruitment and organizational performance, training and firm performance, and employee participation in decision-making and organizational performance. The importance of HRM practices for business performance and innovation was also highlighted by the mediation models' discovery of significant indirect effects. The use of bootstrapping to calculate bias-corrected and accelerated confidence intervals provided substantial support to these findings. The results, however, did not support the hypothesis that rewards indirectly affect organizational performance via innovation.

Overall, the results provide support for the hypothesized mediation model, in which the three independent variables, dimensions of HRM practices have significant indirect effect on the organizational performance through innovation.

Finally, the mediating effect of innovation between HRM and organizational business performance was tested using the bootstrapping method proposed by Preacher and Hayes (2008) in SPSS 22. The results confirm that innovation fully mediates the relationship between HRM and OBP (β=0.4619, BootSE=0.0577, BootLLCI=0.3509, BootULCI=0.5796).

Table 5. A mediation analysis (Hayes 2013)

H	Path	Effect	BootSE	BootLLCI	BootULCI
H1a	Recruitment → INNO → OBP	0.0787	0.0459	0.0030	0.1536
H1b	Training → INNO → OBP	0.1659	0.0359	0.0978	0.2392
H1c	Participation → INNO → OBP	0.2043	0.0401	0.1295	0.2862
H1d	Rewarding → INNO → OBP	0.0357	0.0223	-0.0062	0.0817

6. Discussion

This study was conducted in an emerging economy context on a managerial sample. The managerial structure of the sample could be of particular importance since Searle and Ball (2003) discuss how HR policies related to innovative behavior are mainly oriented towards employees, perhaps with an implicit expectation that managers should innovate anyway.

The study findings confirm that HRM practices contribute to organizational performance which is in line with other studies (e.g., Chowhan 2016; Sheehan 2014; Zhou et al. 2020). Moreover, innovation plays a mediation role in HRM – organizational performance relationships. While, Kutieshat and Farmanesh (2022) confirmed the mediation effect of innovation on the relationship between new human resource management practices and innovation performance in the companies, Prange and Pinho (2017) exhibit partial mediation of organizational innovation in a relationship between personal and organizational drivers and international performance of small and medium-sized enterprises. The present study results emphasize the importance of selection, training, and participative decision-making. Appropriate selection criteria help organizations recruit candidates that are the best fit for the organization. Training programs develop the skills of employees, and participative decision-making empowers employees. These HRM activities encourage innovative behavior and lead to innovation within the organizations. Study findings suggest that rewarding does not influence innovation or performance. More likely, observed organizational incentives and current rewarding systems do not significantly influence innovation and overall organizational performance.

Although there is a clear view in the literature about the positive relationship between HRM and innovation (Arranz *et al.* 2019; Lee, Lee, and Garrett 2019), the question of how to manage human resources to improve innovation has received little attention (Fu *et al.* 2015), especially considering the synergistic effect of individual HRM practices on innovation capability, and ultimately on business performance. Our findings show that innovation fully mediates the relationship between HRM and the firm's performance. This result is in line with some previous studies (Farouk *et al.* 2016; Fu *et al.* 2015) and adds additional confirmation to innovation's mediating role. This study, however, took a step further and tested the mediating role of innovation between individual HRM practices and organizational business performance. In this regard, the results show that selective recruitment indirectly impacts a firm's performance by promoting different types of innovation. Then, employee training positively impacts organizational innovation and overall business performance. Natalicchio *et al*. (2018) argue that the success of innovation practices is not in the recruitment of highly qualified workers; instead, it is related to employee training activities (as cited in Jotabá *et al.* 2022). Overall, the results highlight the importance of employee development, similar to Soomro, Mangi, and Shah (2020), who argue how crucial it is to encourage personal mastery and its development to enhance organizational innovation. Hence, employee learning has been confirmed as a significant determinant of innovation capability and overall business performance, and in our study, it is given priority over the reward of employees. Study findings depict that innovation mediates participative decision-making and organizational performance relationship. The top management team's participative decision-making positively contributes to management innovation (Su *et al.* 2022), and participation in decision-making is one of the team climate factors for innovations (West and Sacramento 2018).

The study results provide additional validation for SET and RBV in the organizational context of predicting the effects of management practice on employees' attitudes (Gould-Williams and Davies 2005). In other words, our results indicate the value of intangible social exchange between the organization and the employees. The organization recruits candidates by providing an organization-employee fit. Then, the organization provides personal development to employees through training programs and encourages them to participate in decision-making. On the other side, the employees develop a sense of obligation toward the organization and reciprocate the job performance in innovation. Innovation directly contributes to business success but also drives other organizational performance. Our study empirically confirms some theoretical discussions that incentives do not alter the attitudes underlying the individual's behavior (Kohn 1993). Incentives motivate people, but they drive them to get rewards (Kohn 1993), not to initiate and participate in creative activities that are prerequisites for innovation. Hayton (2005) argues that literature reports some contradictions regarding rewards systems, claiming there is no consensus on which type of rewards should be considered within a high-performance work system. Moreover, Svačina (2020) discusses that the appropriate rewarding of inventions is risky, with great potential for employee-employer conflict.

6.1. Managerial Implications

This research contributes to managerial practices in a few ways. First, the study findings confirmed that HRM practices predict organizational performance, indicating that managers should empower their HRM departments to develop and maintain a system of HR practices. Second, since innovation enhances an HRM – organizational performance relationship, managers and HR professionals should create an organizational context that promotes, encourages, and sustains employees' innovative behavior. Notably, the highlight should be on selection, training, and participative decision-making since these activities are related to innovative behavior and, together with innovation, contribute to overall organizational performance. Thus, the study findings might be used for strategic planning and decision-making within organizations.

6.2. Limitations and Directions for Further Studies

The limitations of this study are potential directions for further work. Since the study was conducted on the managerial sample, the employees' side of the story should also be investigated. Moreover, the interplay between HRM, innovation, and organizational performance among employees, should include different career stages of employees and employees at distinct professional positions within organizations. More detailed insight into the relationship between selection, training, participative decision-making, rewarding, innovation, and organizational performance would be obtained since employees in different career stages need different approaches concerning recruiting, training, rewarding, or decision-making. Moreover, in different career stages, employees might exhibit different innovative behavior.

7. Conclusion

Our research's primary value is the empirical evidence of the synergistic effect of individual HRM practices on innovation and organizational business performance. The results are particularly important for transitional and emerging economy contexts, especially those where innovation and HR practices are yet in the early development stages. This study adds to both HRM literature and innovation literature. First, this study highlights the importance of selective hiring, training, and participation in decision-making for organizational innovation and business performance. In the context of innovation literature, the results of this study clarify which HRM practices are a predominant source of innovation. Finally, our study offers practical implications by suggesting that HR professionals should support and develop consistent HR policies and practices to enhance innovative behavior and better organizational performance.

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