

## **USING EMPLOYEE CREATIVITY TO UNPACK THE 'BLACK BOX' IN THE HIGH-PERFORMANCE WORK SYSTEM (HPWS)-FIRM PERFORMANCE NEXUS**

ABDUSSALAAM IYANDA ISMAIL\*

*Department of Management and Entrepreneurship  
College of Social and Management Sciences  
Afe Babalola University, Ado-Ekiti, Ekiti, Nigeria  
iyandaismail@yahoo.com*

ABDUL-HALIM ABDUL-MAJID

*School of Business Management, College of Business  
Universiti Utara Malaysia Sintok, 06010 Kedah, Malaysia*

ABDULLATEEF AMEEN

*Department of Public Administration  
Faculty of Management Sciences, University of Ilorin, Nigeria*

SAQLAIN RAZA

*School of Business Management, College of Business  
Universiti Utara Malaysia, Sintok, 06010 Kedah, Malaysia*

IYIOLA TOMILAYO AKINDELE

*Department of Public Administration  
Faculty of Management Sciences, University of Ilorin, Nigeria*

Published 18 September 2019

The extant research findings have identified lacunas (i.e. gaps, unresolved issues, and black box) in the High-Performance Work System (HPWS)-Performance relationship and suggested usage of a mechanism (mediator) that can close up the identified lacunas. Thus, this study investigates whether employee creativity can play a mediating role in the relationship between HPWS and firm non-financial performance. The sample size of the study is 518, and respondents were selected through stratified sampling technique. Data were collected

---

\*Corresponding author.

from the sampled 518 managers in Nigerian firms. Partial Least Squares (PLS) algorithm and bootstrapping techniques were used for data analysis. The result indicates that employee creativity competitively/partially mediates the relationship between HPWS and non-financial performance. Employee creativity represents an appropriate mechanism to explain the relationship between HPWS and non-financial performance. Hence, the positive indirect effect via the mediator variable (employee creativity) reveals the 'true' relationship between HPWS and non-financial performance. This result implies that HPWS may not necessarily enhance non-financial performance. Ill-configured HPWS could jeopardize non-financial performance, but HPWS that stimulates employee creativity would enhance non-financial performance. Lastly, the implications, limitations and suggestions for future research are discussed.

*Keywords:* High Work Performance System; HRM; creativity; strategic HRM; non-financial performance.

## Introduction

The extant strategic HRM literature indicates that HPWS is crucial to firm performance. HR system that boosts employee competencies, commitment and productivity is frequently referred to as HPWS (Appelbaum *et al.*, 2000; Choi, 2014; Datta *et al.*, 2005). Bundles of HR practices are more influential than individual practices in isolation (Choi, 2014; Chuang and Liao, 2010). In the research by Ismail *et al.* (2018), it is found that HPWS is a strong and positive predictor of firm performance, indicating that HPWS constitutes an indispensable part of the whole of competitive advantage (Ismail *et al.*, 2016, 2017; Kaufman, 2010).

Substantial numbers of studies (see Mihail and Kloutsiniotis, 2016; Muduli *et al.*, 2016; Ogunyomi and Bruning, 2016; Shin and Konrad, 2017) have strongly established that HPWS influences organisational performance. Nevertheless, several other studies have recognised vague process, otherwise known as 'black box' within the HPWS-performance link. These studies recommend usage of a mechanism through which the so called 'black box' could be unpacked (Chadwick and Dabu, 2009; Ismail *et al.*, 2018; Yen, 2015). On this, Boxall (2012) mentioned the absence of issue in the direct HRM-Performance nexus, but there are many vague processes about the chain of nexuses that are persistent inside the 'black box' of HRM.

Moreover, employee creativity is becoming more and more indispensable in the organisation, given the increasingly volatile environments and high levels of competition. Creativity denotes getting out of the comfort zone of individual employee and experimentation of new way or method of doing things with no fear of failure (Ismail *et al.*, 2018). Creativity can be induced via employee-oriented HPWS (Martinaityte, 2014). In addition, employee creative ideas engendered by AMO-enhancing HPWS can engender firms' competitiveness (Baer, 2010) and its

consequent firm performance (Choi, 2014; Moulang, 2015; Shalley and Gilson, 2004). HPWS can induce employee's task motivation, domain-relevant skills, and creativity-relevant skills (Chiang *et al.*, 2015; He *et al.*, 2018), produce innovative outcomes which would enhance the organisational chance to remain competitive and perform better (Ismail *et al.*, 2016; Jiang *et al.*, 2012), and in turn metamorphosed to non-financial performance. Summing up the above exposition, this study aims to examine the effect of HPWS on non-financial firm performance and the mediating effect of employee creativity on HPWS-non-financial performance nexus.

Therefore, the following questions were prepared to give direction to the study:

- (i) Does HPWS impact non-financial firm performance?
- (ii) Does employee creativity mediate the HPWS-non-financial performance nexus?

## Literature Review and Hypotheses Development

### Firm performance

It has become common knowledge that organisational performance is the most vital issue for every organisation, whether such organisations are profit-making-oriented or otherwise. This has underscored the fact that managers/leaders should be aware of the factors that influence performance of organisations, as this will enable them to take proper steps to initiate them. Nevertheless, due to unanimity among the scholar regarding definition, conceptualisation and measurement of the concept performance, it has become a tedious task to have a unified definition, conceptualisation and measurement of performance. Thus, it remains a contentious issue among organisational researchers (Barney, 1997). The fundamental issue in this regard is connected with the suitability of numerous approaches to the concept utilisation and measurement of organisational performance (Van der Stede, 2001).

The effort by the scholars to assist firms' managers in tackling the problem of shortfalls in the extant performance measurements systems dated back to 1980s. The extant performance measurement systems fall short of abetting managers to identify changes in the business environments and to recognise the factors critical to the success of firms (Ittner and Larcker, 1996). In the present competitive business environment, performance measurement is considered a key management control tool for business firms, and it is directly connected with the design of firm's core competency. Performance measurement significantly and positively predicts the growth and development of organisations.

Moreover, some research, despite the acknowledgement of multi-dimensionality of organisational performance, still adopts one indicator to symbolise the concept of firm performance (Miller *et al.*, 2013). Pelozo and Papania (2008)

observed that profit and growth should be included in the components of firm performance, given their roles as the pertinent drivers for the existence of firms. Likewise, Maskell (1992) advocates for the adoption of non-financial performance measures. He also recommended change over time, since every firm needs change. Scholars (e.g., Kaplan and Norton, 1996; Neely, 2002; Neely *et al.*, 2002) included customer service and satisfaction, product quality, learning and innovation as qualitative pointers of performance. Interestingly, since over a decade, considerable research (e.g., Gronum *et al.*, 2012; Kaplan and Norton, 1992; Hilman, 2009; MacDoughall and Pike, 2003) have suggested both financial and non-financial performance to form organisational performance measurement.

Therefore, firm performance, in this study, refers to the indicators that appraise how well the enterprise accomplishes its objectives (Ho, 2008), involving financial and non-financial performance (Kaplan and Norton, 2000).

### Configuring HPWS in the Current Study

Given the fact that systematic combination and integration of HR architectures will give birth to synergistic human resources management system that works together to get the best results for an organisation (Subramony, 2009), the bundling-up of the HPWS in this study will be drawn upon contingency approach. Selective hiring, training, performance appraisal and pay for performance, non-financial rewards are assumed to be forces driving the knowledge, skills and abilities (KSAs) of the employees, employee motivation and creativity and creative performance, which should be the preoccupation of every firms. Hence, the internal fit (as proposed by contingency approach) is ensured in the configuration.

It can also be asserted that the configuration of HPWS in this study is context-specific, given the fact that the configuration was done by selecting the practices that would enhance the capabilities and motivation of the employees. Since highly committed, well-motivated and qualified employees are crucial to the survival and sustainability of firms, and research evidence has demonstrated heavy reliance of the organisational success on employees' contributions (Behrends, 2007; Ojokuku, 2012). Based on this and underpinned by AMO model and the suggestion of Posthuma *et al.* (2013), the proposed configured HPWS connote selective hiring, training and development, performance appraisal, pay for performance and non-financial rewards.

Furthermore, selective hiring is one of the seven practices which define systems that create wealth through the management of people (Pfeffer, 1998). It is empirically evident that hiring is an essential organisational practice as it can induce higher profitability and greater labour productivity (Michie and Sheehan,

2005). It can also induce increased levels of employee commitment (Fiorito *et al.*, 2007; Taylor *et al.*, 2008) and higher overall performance (Takeuchi *et al.*, 2007). In addition, training and development involves the practices designed to improve worker's skills and competencies required for the performance of present and future tasks (Posthuma *et al.*, 2013). For the optimum performance, training and development should be given due priority in the organisation in which employees would have the opportunity to acquire new skills (Ulrich, 1997). Hence, training becomes an important element in the HPWS system because it has linear effect on the functional capability of the organisation (Truss, 2001). Training and development can be designed to improve domain- and creativity-relevant skills. Training workers can enhance creativity by boosting employees' feeling of competence and consequently give rise to enhanced intrinsic motivation (Ryan and Deci, 2000).

Besides, performance appraisal forms a vital part of performance management in which performance of workers are defined, gauged, stimulated and developed (DeNisi and Pritchard, 2006; Kinicki *et al.*, 2013). Performance appraisal is a crucial practice, given the fact that it can align individual and team performance with organisational strategies (Zhang and Li, 2009). Appraisal practices comprise frequent feedback based on team and organisation goals, managing objectives that are tied to organisational strategies. Performance appraisal stimulates creative behaviours on the part of employee because employee is aware that behaviours are assessed and connected to performance. Feedback on overall performance is useful for assessing worker's performance state as feedback on particular job aspects is helpful for the employee who aims at performance advancement (Pritchard *et al.*, 2002).

With regards to pay for performance, it is a core HPWP that has been empirically studied across clusters of countries and thereby cross-cultural, generalisable and fit to be part of HPWS system. It refers to a technique through which individual or group performance is directly compensated in the form of money (Armstrong, 2005). It is also a scheme designed to reward the workers based on their performance (Boachie-Mensah and Dogbe, 2011). It is also based upon merit as empirically appraised in the firm's performance appraisal program, with a chance to receive above market pay by the employees demonstrating exceptional performance (Matsumura and Shin, 2004). This type of compensation is increasingly being adopted by firms with the aims of transforming their reward system. The basic drive of any performance-based reward system is to relate employees' salaries directly to their performance. Connecting rewards to performance bolsters workers to increase their efficiency. Pay for performance entitles employees to a basic income and the chance to get extra reward if their outputs surpass the set standard (Grobler *et al.*, 2006).

Likewise, non-financial rewards are a broad HPWP that has been widely studied but not up to the level of the core HPWP such as pay for performance.

Non-financial reward has been identified to be understudied and this necessitates more research on its promising effect on the organisational performance. Non-financial reward promotes commitment, motivation and a sense of culture in the organisation (Posthuma *et al.*, 2013). It is a HPWP practice that involves many tools and methods that can be adopted in addition to monetary rewards to induce employee's high productivity.

Non-financial rewards include social recognition, genuine appreciation, certificate and acknowledgement (Neckermann and Kosfeld, 2008), paid vacation, training programmes, praise and promotion (Jeffrey, 2003). Also, non-financial reward should cater for the internal needs of employees. It has been suggested that long-lasting motivation of workers can be achieved through the mix of financial and non-financial rewards (Armstrong, 1993). Employee turnover has been observed to be high in a system devoid of non-financial reward (Mushrush, 2002). Hence, Shields (2007) recommended that it is very imperative for firms to recognise the kind of non-financial rewards that can foster the preferred employee behaviours.

### **Linking HPWS to Non-Financial Firm Performance**

Strategic human resource management is a key foundation of competitive advantage (Bamberger and Meshoulam, 2000), and that will consequently enhance performance (Seidu, 2011). Human resources and its management form an indispensable part of the whole of competitive advantage (Allen and Wright, 2007; Boxall and Purcell, 2003; Pfeffer, 1998). Strategic HR that enhance task, targets and performance are formed through the effective adoption of HPWS. Good strategy gives rise to competitive advantage of an organisation over another, and it is connected with the improvement in industrial competencies, productivity and performances of such organisation. Such feat cannot just come about except through the instrumentality of employees who are equipped with the required skills, knowledge and competencies needed for the execution of organisational strategy and planning (Fu, 2013; Ismail, 2014; Ismail *et al.*, 2015; Mansour *et al.*, 2014). HPWS formed a part of numerous resources which give rise to sustainable competitive advantages for the organisations, and consequently enhance organisational performance (Choi, 2014; Choi and Lee, 2013; Chuang and Liao, 2010; Demirbag *et al.*, 2014; Fan *et al.*, 2014; Fu, 2013; Shin and Konrad, 2014; Seidu, 2011).

The HPWS literature has reported that HPWS has consistently led to higher individual and organisational performance (Werner, 2011) indicating a linear causal relationship between HPWS and performance. Many HRM models were designed to link a firm's organisational strategy to the main personnel operations

such as performance appraisal, reward and employee development. HRM is widely seen as a way to maximise organisations' competitiveness (Guest, 1987; Legge, 1995).

Scholars from different disciplines have deployed various theoretical approaches to study the relationships between HPWS and organisational performance. These theoretical approaches include: resource dependency theory, human capital theory, strategic management, expectancy theory, behavioural science, organisational theory, resource-based theory, etc. (Delaney and Huselid, 1996; Guest, 1997; Paaue and Richardson, 1997). In general, these theories stress the importance of HPWS in improving both employee- and firm-level performances via their impact on employees' skills, knowledge, ability, motivation and flexibility (Arthur, 1994; Gephart and Van Buren, 1996; Guest, 1997; Ichniowski *et al.*, 1997; Paaue and Richardson, 1997; Vandenberg *et al.*, 1999). Moreover, many authors (e.g., Arthur, 1994; Delaney and Huselid, 1996; Pfeffer, 1998) have explained how well-functioning HPWS are associated with a higher organisational performance. For example, HPWS enhances workers' skills and competence through training and development. Skilled and knowledgeable employees are motivated and empowered the provision of proper rewards.

*Based on the above discussion, this study hypothesises thus: HPWS would positively influence non-financial firm performance.*

### **Mediating Role of Employee Creativity in the Relationship Between HPWS and Non-Financial Firm Performance**

Research on creativity has been in existence since four decades ago. Creativity has attracted different approaches among which are person, process and product approaches (Runco, 2004). Creativity refers to quality of individual intellectual endowments and personalities (Hennessey and Amabile, 2010; Runco, 2004). Creativity entails creation of original, new and valuable ideas in any sphere (Amabile, 1996). Creativity entails production and development of novel and valuable ideas, processes, or techniques by an individual or by a group of individuals working as a team in an organisation (Amabile, 1988; Madjar *et al.*, 2002; Zhou and Shalley, 2003).

Creativity always goes along with innovation. In some research, both concepts are used interchangeably. Innovation is believed to entail fostering and executing novel ideas (Baer, 2012; Gong *et al.*, 2009). Martinaityte (2014) conceptualised creativity to involve innovation claiming that the line between the two concepts is fuzzy. From the interview she conducted, it was gathered that creativity has to do with offering of solution to the customers' problems. Creativity involves both the



generation of ideas only and turning of the idea into new behaviours. In addition, creativity involves offering solution to customer's problems, treating them exclusively, testing new sales technique, suggesting the best way to work better and enhancing job effectiveness. This view is also held by the scholars such as [Chen et al. \(2013\)](#) and [Yuan and Woodman \(2010\)](#). Hence, creativity and innovation are considered one and the same in this study. Moreover, research (e.g., [Florida, 2002](#)) has demonstrated that creativity is part of the drivers of economic growth in the 21st century. In this exposition, the focus is on individual employee creativity as it is becoming more and more indispensable in the organisation, given the increasingly stormy environments and high levels of competition.

Employee creativity has been suggested to greatly influence organisational innovation ([Amabile, 1996](#); [Jiang et al., 2012](#)) and firm performance ([Gong et al., 2013](#)). Given the importance of employee creativity, numerous researchers have examined its antecedents such as empowering leadership ([Harris et al., 2014](#)), and employee learning orientation ([Gong et al., 2009](#)). However, as employees are members of their respective organisations and experience many management practices, it is expected that employees' attitudes and behaviour would depend on management systems ([Chiang et al., 2015](#)). Therefore, it is vital to examine the influence of management systems, such as HRM systems, on employee creativity. As systems of work practices that make a great contribution to superior organisational performance ([Boxall and Macky, 2009](#)), HPWS have been found to inspire creative ideas ([Chiang et al., 2015](#)) and innovation ([Messersmith and Guthrie, 2010](#)).

Furthermore, going by the present economic situation, high quality and innovative products and services are regarded crucial ([Martinaityte, 2014](#)). Likewise, the current trends in the world of business today underscore the importance of creativity and innovation as a strategic objective of majority of organisations. Thus, research has noted creativity performance nexus (e.g., [Coelho et al., 2011](#); [Gilson, 2008](#)). Likewise, studies have established HRM-creativity interconnection (e.g., [Binyamin and Carmeli, 2010](#); [Byron and Khananchi, 2012](#); [Chang et al., 2014](#); [Martinaityte, 2014](#)); HRM-performance connection is pinned down too (e.g., [Demirbag et al., 2014](#); [Fan et al., 2014](#); [Shin and Konrad, 2014](#)). However, development and validation of HPWS system in relation to creativity has evaded the concern of scholars in the HPWS research field. Hence, the research on HPWS-creativity nexus is imperative.

In addition, [Baron and Kenny's \(1986\)](#) supposition indicates that creativity is logically and empirically fit to be the mechanism (mediator) through which the identified lacunas is resolved. It is portended that there is possibility of having a particular construct as a mediator, if there is nexus between the construct, independent variable and dependent variable, and there is nexus between the



independent variable and dependent variable. Going by this, it can be proposed that creativity can play a role of mediator in the relationship between HPWS and non-financial firm performance.

*Based on the above discussion, this study hypothesises thus: Employee creativity would mediate the relationship between HPWS and non-financial financial performance.*

### Proposed Research Framework

Owing to the discussions in the previous sections, this study projects a model indicating that employee creativity could unpack the 'Black Box' in the HPWS-non-financial performance connection in the HRM research field. The model is underpinned by resource-based view (RBV) which advocates that firm performance is enhanced by its organisational resources and competences. Companies are capable of accomplishing better performance via the effective utilisation of their organisational resources and capabilities that cannot be imitated by the competitors. This is demonstrated in Fig. 1.

### Methodology

This study considered the [Krejcie and Morgan's \(1970\)](#) study on sample size determination. The population of the study comprises 11,044 Nigerian firms. Based on [Krejcie and Morgan's \(1970\)](#) study, the sample of the study is 370. Moreover, in order to minimalise and abate sampling error, and to take care of non-response rate issues that may come up, it is suggested by [Salkind \(1997\)](#) that 40% increase should be added to the original sample size. Therefore, the overall

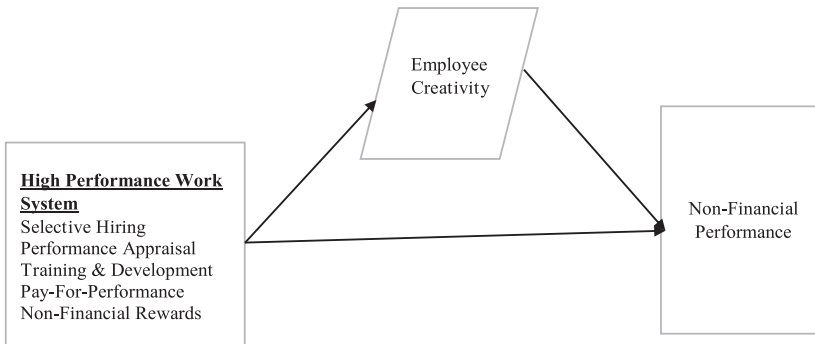


Fig. 1. Research framework.

sample size is 518. This is also consistent with the fact that the higher the sample the more accurate the result will be (Alreck and Settle, 1995). Eventually, this would ensure adequate representation of the population under study.

The data, which were collected from the sampled 518 managers in the Nigerian firms, were analysed via smart PLS 3 software packages. This would guarantee that measurement errors are minimalised and duly taken care of. The respondents were selected through stratified sampling technique. Stratified sampling technique involves definition of population (i.e., 11,044). Then, the determination of the strata, which are 13 industries of the selected firms in Nigeria, and the determination of an average number of population elements per strata. This is done by dividing the population size by the number of strata (850 [i.e., 11,044/13]). To be determined next is the percentage of respondents to be taken from each stratum. This is done by dividing the calculated sample size by the population of the study and then multiplying by 100 (4.70% [i.e., 518/11,044\*100] is the percentage of respondents to be taken from each stratum).

The next step is the determination of the number of subjects in the sample. This is achieved by multiplying the total number of each element in the population by the calculated percentage (71 [i.e., 1500\*4.70%]). The final step in the selected proportionate stratified sampling technique is systematic sampling which was employed in selecting the sample from the available strata. It started with the determination of the number of subjects/elements in the sample from the total number of firms/elements in the identified thirteen strata. Then, this was followed by random selection of 518 firms from the total 11,044 firms that make up the thirteen strata. This was done by selecting sampled firms from each stratum.

The process of selection started with the estimation of sampling fraction for each stratum, which was estimated by dividing the population size of each stratum (i.e., 1,500 in the case of manufacturing stratum) by the sample in each stratum (i.e., 71 in the case of manufacturing stratum). The estimated sample fraction for the manufacturing stratum is 21. Thus, one firm was selected in every 21 firms of the 1,500 manufacturing firms that make up the stratum. To select the first firm, a random number table was used, and the first firm was 7th. So, every 7th in the list of 1,500 of manufacturing stratum was selected as the respondents. In this way, the sample was composed of 7th, 28th, 49th, 35th, . . . , 1,500th. The selected numbered elements were then approached and given the questionnaire to fill. The process was repeated for other strata.

Data collection was conducted as 518 questionnaires were distributed to the respondents, but 372 completed questionnaires, representing 72% response rate, were returned and usable for further analysis. This response rate is considered adequate and sufficient, given the position of Sekaran (2003) which signifies that a response rate of 30% is sufficient for survey. Moreover, the analysis technique

in the current study involved descriptive analysis and inferential analysis. Inferential analysis connotes 2-step approach: measurement and structural models (Chin, 1998; Hair *et al.*, 2011, 2012), as this guarantees valid and reliable results. To guarantee the constructs validity and reliability, which involve internal consistency reliability, convergent validity and reliability and discriminant validity, measurement model evaluation was done. Measurement model represents the relationships between constructs and their corresponding indicator variables (generally called the outer models in PLS-SEM). The basis for determining these relationships is measurement theory. A sound measurement theory is a necessary condition to obtain useful results from PLS-SEM (Hair *et al.*, 2017).

As for the measurements of the constructs of the study, HPWS in the current study involves selective hiring, training & development, performance appraisal, pay for performance and non-financial rewards and the measurements of the construct were adapted from (Martinaityte, 2014). Employee creativity measures were adapted from Wang and Netemeyer (2004) and Martinaityte and Sacramento (2013) while firm performance measures were adapted from Ogunyomi and Bruning (2016). The survey instruments included demographic information of the respondents (six items), instruments of selective hiring (four items); training and development (five items); performance appraisal (three items); pay-for-performance (two items) and non-financial rewards (two items). With regard to the instruments of employee creativity and firm performance, seven items belong to the former while six items belong to the latter (see Appendix A). All the measures of HPWS, employee creativity and firm performance are in reflective form.

The scale for all the constructs, except firm performance, ranged from 1 (strongly disagree) to 5 (strongly agree). Firm performance was scaled using a 5-point interval scale bordering on 1 = Very Weak; 2 = Weak; 3 = Not Sure; 4 = Strong; 5 = Very Strong. However, demographical variable was measured as categorical variable. This kind of interval scale is deemed fit for this study, going by the suggestion of Zikmund and Babin (2010).

## Data Analysis

### (a) Demographic and Descriptive Analysis

Table 1 depicts that demographic information of the respondents of the current study indicates that 137 (37%) respondents out of 372 respondents are executive directors in their respected firms while 94 (25%) and 44 (12%) are marketing managers and HR manager, respectively. The remaining 97 (26%) respondents are either supervisors or line managers. Forty percent of the sampled firms are in agriculture-related business, as 22% of them are firms dealing on construction,

Table 1. Descriptive analysis of demographic data.

Demography	Indicators	Frequency	Percentage
<b>Position</b>	Executive Director	137	37
	HR Manager	44	12
	Marketing Manager	94	25
	Others (e.g., Supervisor, line manager)	97	26
	Total	372	100
<b>Industry</b>	Agriculture, Food Products, Bus Service	147	40
	Construction, Logistics, Oil Energy	83	22
	Computer, Financial, Manufacturing	46	12
	Information Tech, Mechanical, Medical	39	11
	Others	57	15
	Total	372	100
<b>Operation's Year</b>	1–10 Years	147	40
	11–20 Years	83	22
	21–30 Years	50	13
	31–40 Years	39	11
	41 and above	53	14
	Total	372	100
<b>Ownership</b>	Sole Proprietorship	169	45
	Partnership	70	19
	Private Limited Liability Company	82	22
	Cooperative	19	5
	Faith Based Organisation	20	5
	Others	12	3
Total	372	100	
<b>Staff</b>	<100 Employees	348	94
	101–150 Employees	16	4
	151–200 Employees	8	2
	Total	372	100
<b>Labor Cost</b>	<25%	183	49
	26–50%	129	35
	51–75%	52	14
	>75%	8	2
	Total	372	100

logistics and oil Energy, 46 (12%) and 39 (11%) are workers in the firms transacting in computer, financial, manufacturing and info-tech, mechanical and medical equipment. The remaining firms, which are 57 (15%) in numbers, belong to Arts, Entertainment and Recreation or Water Supply, Sewage, Waste Management industries. In addition, majority of the firms sampled (40%) have been operating for a decade or less while 83 (22%) firms' years of operation ranged

between 11 and 20 years and 50 (13%) firms' years of operation ranged between 21 and 30 years. While 39 (11%) firms' years of operation ranged between 21 and 40 years, 53 (14%) firms have been in operation for more than four decades. In addition, the selected firms have different forms of ownership structure, 169 (45%) firms are owned by individual owners (sole proprietors), 70 (19%) firms are owned by two or more people called partners (partnership). A total of 82 (22%) firms among the selected firms are Private Limited Liability Companies, but 19 (5%) firms are cooperative companies. As 20 (5%) firms are faith-based organisations, the remaining 12 (3%) firms are franchise-based business.

Concerning the number of employees in the respondents' firms, 348 (94%) firms have 100 employees or less. While 16 (4%) firms have between 101 and 150 employees, the remaining 8 (2%) firms have between 151 and 200 employees. Moreover, the total annual operating expenses accounted for by labor costs in 183 (49%) respondents' firms are 25% or less, while that of 129 (35%) firms ranged between 26% and 50%. While 52 (14%) firms' total annual operating expenses accounted for by labor costs ranged between 51% and 75%, only 8 (2%) firms have the total annual operating expenses accounted for by labor costs of more than 75%.

Overall, the respondents of this study varied substantially in terms of their backgrounds, and this implies that the data used in the study were from the respondents of diverse demographic backgrounds, and thus enriching generalisability of the result of the research.

As illustrated in Table 2, all variables possessed the mean scores ranging from 3.71 to 6.76, and the standard deviation of all dimensions ranged from 0.72 to 1.06. These values of overall mean and standard deviation for all the variables and their dimensions are quite acceptable. Hence, it can be proven that the responses of the respondents clearly indicate an acceptable and satisfactory level of implementation with regard to the constructs: selective hiring, non-financial reward, pay-for-performance, performance appraisal, training & development, employee creativity and non-financial performance.

Table 2. Descriptive statistics for latent variables.

Latent constructs	No. of Items	Mean	St. Deviation
Selective hiring	4	5.94	0.965
Non-financial reward	2	5.51	1.056
Pay-for-performance	2	6.76	0.724
Performance appraisal	3	5.62	0.984
Training & development	5	5.33	0.831
Employee creativity	7	4.69	0.793
Non-financial performance	6	3.71	0.800

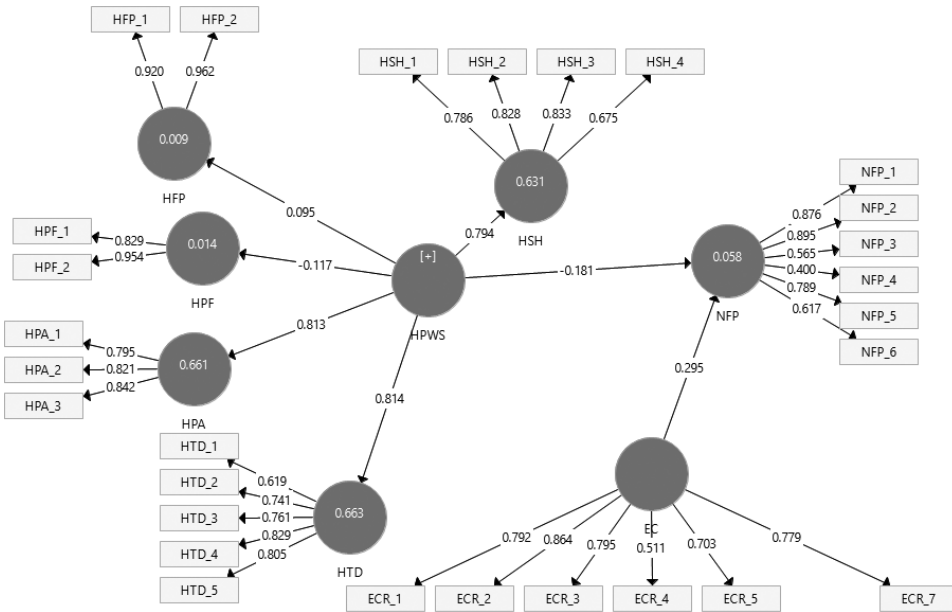


Fig. 2. Measurement model.

a. Measurement Model Evaluation

In this section, internal consistency reliability, convergent validity and reliability and discriminant validity were vetted to satisfy the conditions required for constructs’ reliability and validity (Hair et al., 2011, 2014). Figure 2, Tables 1 and 2 below show the outputs from the measurement model evaluation:

Drawn upon Fig. 2 and Table 3, it is crystal clear that each item of the constructs has higher value on their respective constructs, and thus affirming the content validity of the constructs, except that one item from employee creativity, which fell below the threshold of 0.4 (Stevens, 1992), was deleted. Also, the constructs of the study have high levels of internal consistency reliability, as the composite reliability and Cronbach’s alpha values of all the constructs are well above the threshold values of 0.7 and 0.6, respectively. The Average Variance Extracted (AVE) values of the reflective scales exceed the minimum requirements of 0.5 (Hair et al., 2011).

As for discriminant validity assessment, the rotrait-monotrait ratio (HTMT) of the correlations was adopted. HTMT is the ratio of the between-trait correlations to the within-trait correlations (Hair et al., 2017). The result in Table 4 confirms the discriminant validity of this study’s constructs, as the HTMT values for all pairs of constructs in the matrixes fell below the threshold value of 0.90. In addition to evaluation of the HTMT ratios, the HTMT values were tested via bootstrapping method (see Table 5) and found that they are significantly different

Table 3. Internal consistency and convergent validity.

Constructs	Items	Loadings	CA	CR	AVE
Employee creativity	ECR_1	0.792	0.859	0.882	0.561
	ECR_2	0.864			
	ECR_3	0.795			
	ECR_4	0.511			
	ECR_5	0.703			
	ECR_7	0.779			
Non-financial rewards	HFP_1	0.920	0.875	0.939	0.886
	HFP_2	0.962			
Performance appraisal	HPA_1	0.795	0.755	0.860	0.671
	HPA_2	0.821			
	HPA_3	0.842			
Pay-for-performance	HPF_1	0.829	0.768	0.888	0.799
	HPF_2	0.954			
Selective hiring	HSH_1	0.786	0.787	0.863	0.613
	HSH_2	0.828			
	HSH_3	0.833			
	HSH_4	0.675			
Training and development	HTD_1	0.619	0.814	0.868	0.569
	HTD_2	0.741			
	HTD_3	0.761			
	HTD_4	0.829			
	HTD_5	0.805			
Non-financial performance	NFP_1	0.876	0.874	0.853	0.508
	NFP_2	0.895			
	NFP_3	0.565			
	NFP_4	0.400			
	NFP_5	0.789			
	NFP_6	0.617			

Note: AVE: Average Variance Extracted; CR: Composite Reliability; CA: Cronbach Alpha.

from 1, indicating that the constructs of the study have discriminant validity (Henseler *et al.*, 2015).

Overall, having confirmed the content validity, convergent validity and discriminant validity of the constructs of this research, it can then be claimed that the constructs' validity has been established in this study.

#### b. Structural Model Evaluation

Figure 3 and Table 6 provide the result of the structural model evaluation and mediating effect testing. *R* square value is 0.058 (see Fig. 2), indicating that



Table 4. Discriminant validity (HTMT criterion).

Constructs	EC	HFP	HPA	HPF	HSH	HTD	NFP
EC							
HFP	0.089						
HPA	0.725	0.129					
HPF	0.179	0.062	0.217				
HSH	0.594	0.175	0.751	0.150			
HTD	0.539	0.294	0.705	0.140	0.518		
NFP	0.142	0.073	0.149	0.208	0.181	0.138	

Note: HSH: Selective Hiring; HFP: Non-Financial Reward; HPF: Pay-for-Performance; HPA: Performance Appraisal; HTD: Training and Development; EC: Employee Creativity; NFP: Non-Financial Performance.

Table 5. Confidence intervals.

Relationships	BETA	STDEV	P Values	5.0%	95.0%
HPWS -> EC_	0.668	0.046	0.000	0.590	0.739
NFP -> EC_	0.190	0.043	0.000	0.122	0.258
NFP -> HPWS	0.103	0.032	0.001	0.057	0.116

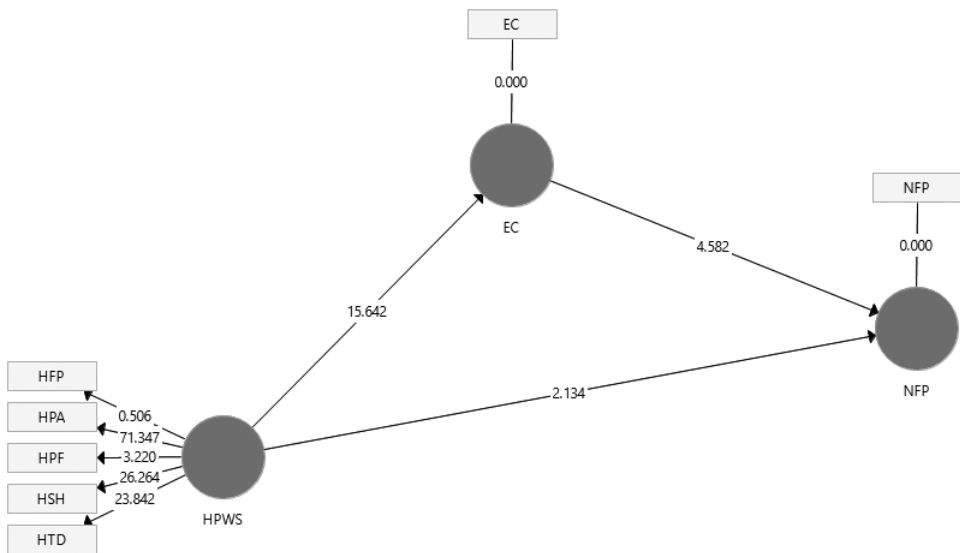


Fig. 3. Structural model.

Table 6. Hypotheses testing.

Hypotheses	Beta	STD	T Stat	P Values	5.0%	95.0%	Decision
<b>Direct Path</b>							
EC_ -> NFP	0.270	0.059	4.582	0.000	0.172	0.362	Supported
HPWS -> EC_	0.606	0.039	15.642	0.000	0.548	0.673	Supported
HPWS -> NFP	-0.132	0.062	2.134	0.017	-0.226	-0.034	Not supported
<b>Mediation Effect</b>							
HPWS -> EC_ -> NFP	0.164	0.037	4.472	0.000	0.104	0.223	Competitive mediation

exogenous latent variables (i.e., HPWS and employee creativity) explain 10% of the variance in the endogenous latent variable which is considered to be minimum acceptable level (Falk and Miller, 1992). With regard to testing of the hypotheses, the direct path regarding relationship between HPWS and non-financial performance (HPWS -> NFP) is significant but negative ( $\beta = -0.132$ ,  $t = 2.134$ ,  $p < 0.05$ ). With this result, hypothesis 1 is not supported. However, the direct paths regarding HPWS-employee creativity nexus and employee creativity-performance nexus are significant and positive ( $\beta = 0.606$ ,  $t = 15.642$ ,  $p < 0.001$ ;  $\beta = 0.270$ ,  $t = 4.582$ ,  $p < 0.001$ ) respectively. The indirect effect (HPWS -> EC -> NFP [ $\beta = 0.164$ ,  $t = 4.472$ ,  $p < 0.001$ ]) is significant, and the 95% confidence intervals do not include zero. Thus, it can be asserted that employee creativity competitively/partially mediates the relationship between HPWS and non-financial performance. Hence, hypotheses 2 is supported.

In this mediation model, employee creativity represents an appropriate mechanism to explain the relationship between HPWS and non-financial performance. Hence, the positive indirect effect via the mediator variable (employee creativity) reveals the 'true' relationship between HPWS and non-financial performance (Hair et al., 2017), because an estimated cause-effect relationship between HPWS and non-financial performance may not be the 'true' effect, if employee creativity (i.e., mediating variable or suppressor variable) is not accounted for in this research model. Overall, this result implies that HPWS may not necessarily enhance non-financial performance. Ill-configured HPWS could jeopardize non-financial performance, but HPWS that stimulates employee creativity would enhance non-financial performance.

In furtherance of the inferential analysis, the effect size of the exogenous constructs on the endogenous construct, firm performance was examined. The result indicates that firm performance is explained by both HPWS and employee creativity with effect size ( $f^2$ ) of 0.02 (Cohen, 1988; Hair et al., 2016), indicating that HPWS and employee creativity have small effect on non-financial performance.

## Discussion

Although the existing literature (see Ogunyomi and Bruning, 2016; Shin and Konrad, 2014), the findings of this study reveal further that the positive effect of HPWS on performance depends on employee creativity which serves as a mechanism that unpacks the vague process between HPWS and firm performance. Moreover, in the strategic HRM literature, it is held that the creativity-inducing HPWS is crucial to organisational effectiveness and performance. Drawing upon RBV, the result of this research indicates that the way in which human resources are managed forms a potential source of sustainable competitive advantage for the firms (Guest, 2011).

The mediating role of employee creativity in HPWS-performance link is consistent with many studies such as Chang et al. (2014); Martinaityte (2014); Kehoe and Wright (2013); Messersmith et al. (2011). This result indicates that employee-oriented bundles of HR architectures, which enhance employees' KSAs and employees' empowerment via discretionary use of time and talent and employees' motivation, will drive employee creativity by getting employees out of their comfort's zone and make them explore new way or method of doing things with no fear of failure. HPWS can stimulate employees to wield the desired behaviour that is compatible with the organisational strategy.

Moreover, this result complements the componential theory of creativity which postulates that HPWS, which is a macro-level system, can induce a creative situation that will lead to meso-level individual creativity bordering on task motivation, domain-relevant skills and creativity-relevant skills (Amabile, 1983). For example, training can broaden employees' repertoire of domain-relevant knowledge and skills required for being creative (Amabile, 1983). Recurrent performance appraisal for various HR management purposes (Murphy and Cleveland, 1995; Rynes et al., 2005) and associated feedback which has a developmental purpose delivered in an informational manner would improve employee creativity, given the fact that such kind of appraisal avails the employees of areas of improvements in terms of their domain-relevant skills (Shalley and Perry-Smith, 2001; Zhou and Oldham, 2001). Generally, the findings of this research corroborate some of the existing literature such as Ismail et al. (2018), Ismail et al. (2015); Mansour et al. (2014) and Werner (2011). For instance, Ismail et al. (2015) study signifies that employee creativity play a mediating role in the relationship between HPWS and performance. This indicates that HPWS enhances performance. Yet, HPWS is not enough to stimulate high performance until it induces employee creativity which will in turn precipitate higher firm performance.

In summary, this study contributes to the present body of knowledge on HPWS-performance link. The findings of the study can be a useful guide for the

stakeholders and policy makers in Nigeria on how they can boost the performances of organisations, which will in turn facilitate Nigeria to become one of the top 20 economies in the world by 2020. Nevertheless, given that the data used for this study were collected from Nigerian firms' managers, future research should replicate the research in another context to improve generalisability of the study's findings. Also, data were collected from the organisations' managers and thus indicating organisational unit of analysis but investigating employees' perspective regarding HPWS and firm performance would constitute a viable research direction for the future studies. The reason is that examining employee' perspectives on HPWS-performance nexus would expand the understanding and enrich the body of knowledge in the research field.

### Conclusion

This study offers a unique theoretical model and empirical analysis that unearth the 'black box' in the HPWS-Performance nexus. The result proves that employee creativity mediates the relationship between HPWS and non-financial performance, and thus employee creativity represents an appropriate mechanism that explains the relationship between HPWS and non-financial performance. As explicated earlier, the positive indirect effect via the mediator variable (employee creativity) reveals the 'true' relationship between HPWS and non-financial performance (Hair *et al.*, 2017), and an estimated cause-effect relationship between HPWS and non-financial performance may not be the 'true' effect, if employee creativity (i.e., mediating variable or suppressor variable) is not accounted for in this research model. Overall, this result implies that HPWS may not necessarily enhance non-financial performance. Configured HPWS could jeopardize non-financial performance, but HPWS that stimulates employee creativity would enhance non-financial performance.

### Appendix A. Demographic Variable

**Please tick the option that best describes you and your firm**

- (1) Which of the following best describes your position in the company? [ ] Executive Director; [ ] HR Manager; [ ] Marketing Manager; [ ] Others (specify):\_\_\_\_\_.
- (2) Kindly tick the industry to which your firm belongs? [ ] Agriculture; [ ] Food products & Beverages; [ ] Business Services; [ ] Construction & Building

Materials; [ ] Logistics & Packaging; [ ] Oil, Energy, Solar, Greentech; [ ] Computer Software Engineering; [ ] Financial Services; [ ] Manufacturing; [ ] Information Technology, Services, IT, Telecommunications, Wireless & Mobile; [ ] Mechanical & Industrial Engineering; [ ] Medical Practice & Equipment; [ ] Other (Please specify):\_\_\_\_\_.

- (3) How long has your firm been in operation in Nigeria? [ ] years.
- (4) Which of the following describes the type of your company ownership? [ ] Sole proprietorship; [ ] Partnership; [ ] Private Limited Liability Company; [ ] Cooperative; [ ] Faith-Based Organization; [ ] others (specify):\_\_\_\_\_.
- (5) What is the total number of employees in your company? [ ] 10–100 employees [ ] 101–150 employees [ ] 151–200 employees.
- (6) Which category best approximates the percentage of your total annual operating expenses accounted for by labor costs in your firm? (Please circle one category). (a) 5%–25% (b) 26–50% (c) 51–75% (d) >75%.

**Please tick one option that best describes HR practices your firm**  
**Options: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree**

S/N	Statement	1	2	3	4	5
<b>Selective Hiring</b>						
1.	Our firm’s recruitment emphasises traits and abilities required for creativity.					
2.	Our firm’s recruitment emphasises job-specific traits and abilities.					
3.	Our firm gives preference to candidates’ potential to learn and develop new skills.					
4.	Our firm selects the best all-around candidates					
<b>Non-Financial Rewards and Pay-For-Performance</b>						
5.	In our firm, employees are rewarded with non-monetary reward for creative ideas.					
6.	In our firm, employees are rewarded with public recognition for creative ideas.					
7.	In our firm, employees are rewarded partially based on individual merit or performance.					
8.	In our firm, pay for performance is adopted in order to attract and retain employees.					
<b>Performance Appraisal</b>						
9.	In our firm, employees receive developmental performance appraisal.					
10.	In our firm, performance appraisal is very much focused on the accomplishment of results.					
11.	In our firm, employees receive developmental feedback for their creative ideas.					

(Continued)

S/N	Statement	1	2	3	4	5
<b>Training and Development</b>						
12.	In our firm, employees do receive training on general skills that are not necessarily related directly to their jobs.					
13.	In our firm, employees are trained on a variety of job skills.					
14.	In our firm, employees receive training on problem solving techniques.					
15.	In our firm, employees receive training on creativity.					
16.	During the induction, creative approach to problem-solving is emphasised in our firm.					

**Please tick one option that best describes HR practices your firm**  
**Options: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree;**  
**5 = Strongly Agree**

S/N	Statement	1	2	3	4	5
<b>Employee Creativity</b>						
1.	Workers in our firm accomplish their works in innovative ways.					
2.	Workers in our firm accomplish their tasks in ways that are resourceful.					
3.	Workers in our firm do come up with new ideas in their work.					
4.	Workers in our firm do generate and evaluate multiple alternatives for novel work-related problems.					
5.	Workers in our firm have fresh perspectives on old problems.					
6.	Workers in our firm do improvise methods for solving a problem when solution is not available yet.					
7.	Workers in our firm do generate creative work-related ideas.					

This section is about the performance of your company. Please circle the most appropriate number for each statement. Relative to the industry average, how do you rate your company's current performance in the following areas?

**Options: 1 = Very Weak; 2 = Weak; 3 = Not Sure; 4 = Strong; 5 = Very Strong**

S/N	Statement	1	2	3	4	5
<b>Financial Performance</b>						
1.	In terms of profitability.					
2.	In terms of financial strength.					
3.	In terms of operating efficiency.					
4.	In terms of performance stability.					
5.	In terms of ability to raise capital.					
6.	In terms of level of indebtedness.					
<b>Non-Financial Performance</b>						
7.	In terms of public image and goodwill.					
8.	In terms of employees' morale.					
9.	In terms of adaptability.					
10.	In terms of innovativeness.					
11.	In terms of customers patronage.					
12.	In terms of growth rate of number of employees.					

### References

Allen, MR and PM Wright (2007). Strategic management and HRM. In *The Oxford Handbook of Human Resource Management*, PF Boxall, J Purcell and PM Wright (eds.), pp. 88–107. Oxford, UK: Oxford University Press.

Alreck, PL and RB Settle (1995). *The Survey Research Handbook*, 2nd Ed. Boston: Irwin.

Amabile, TM (1983). Social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, 45(2), 997–1013.

Amabile, TM (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10(1), 123–167.

Amabile, TM (1996). *Creativity in context: Update to the Social Psychology of Creativity*. Hachette UK: Westview Press.

Amabile, TM, R Conti, H Coon, J Lazenby and M Herron (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154–1184.

Appelbaum, E, T Bailey, PB Berg, AL Kalleberg and TA Bailey (2000). *Manufacturing advantage: Why High-Performance Work Systems Pay Off*. Cornell University Press.

Armstrong, M (1993). *Managing Reward Systems*. Buckingham: Open University Press.

Armstrong, M (2005). *A Handbook of Human Resource Management Practice*, 5th Ed. Ohio: Kogan Page.

Arthur, JB (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3), 670–687.



- Baer, M (2010). The strength-of-weak-ties perspective on creativity: A comprehensive examination and extension. *Journal of Applied Psychology*, 95(3), 592.
- Baer, M (2012). Putting creativity to work: The implementation of creative ideas in organizations. *Academy Management Journal*, 55(5), 1102–1119.
- Bamberger, P and I Meshoulam (2000). *Advanced Topics in Organizational Behavior: Human Resource Strategy: Formulation, Implementation, and Impact*. Thousand Oaks, CA: SAGE Publications, doi: <http://dx.doi.org/10.4135/9781452204680>.
- Barney, J (1997). *Gaining and Sustaining Competitive Advantage*. New York: Addison Wesley.
- Baron, RM and DA Kenny (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Behrends, T (2007). Recruitment practices in small and medium size enterprises: An empirical study among knowledge-intensive professional service firms. *Management Revue*, 18(1), 55–74.
- Binyamin, G and A Carmeli (2010). Does structuring of human resource management processes enhance employee creativity? The mediating role of psychological availability. *Human Resource Management*, 49(6), 999–1024.
- Boachie-Mensah, F and OD Dogbe (2011). Performance-based pay as a motivational tool for achieving organizational performance: An exploratory case study. *International Journal of Business and Management*, 6(12), 270–285.
- Boxall, P and J Purcell (2003). *Strategy and Human Resource Management*. New York: Palgrave MacMillan.
- Boxall, P and K Macky (2009). Research and theory on high-performance work systems: Progressing the high-involvement stream. *Human Resource Management Journal*, 19(1), 3–23.
- Boxall, P (2012). High-performance work systems: What, why, how and for whom? *Asia Pacific Journal of Human Resources*, 50(2), 169–186.
- Byron, K and S Khananchi (2012). Rewards and creative performance: A meta-analytic test of theoretically derived hypotheses. *Psychological Bulletin*, 138, 809–830.
- Chadwick, C and A Dabu (2009). Human resources, human resource management, and the competitive advantage of firms: Toward a more comprehensive model of causal linkages. *Organization Science*, 20(1), 253–272.
- Chang, S, L Jia, R Takeuchi and Y Cai (2014). Do high-commitment work systems affect creativity? A multilevel combinational approach to employee creativity. *Journal of Applied Psychology*, 99(4), 665.
- Chen, G, JL Farh, EM Campbell-Bush, Z Wu and X Wu (2013). Teams as innovative systems: Multilevel motivational antecedents of innovation in R&D teams. *Journal of Applied Psychology*, 98(6), 1018–1027.
- Chiang, Y-H, C-C Hsu and HA Shih (2015). Experienced high-performance work system, extroversion personality, and creativity performance. *Asia Pacific Journal of Management*, 32(2), 531–549.

- Chin, WW (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295–336.
- Choi, JN (2004). Individual and contextual predictors of creative performance: The mediating role of psychological processes. *Creativity Research Journal*, 16(2–3), 187–199.
- Choi, JH (2014a). The HR-performance link using two differently measured HR practices. *Asia Pacific Journal of Human Resources*, 52(3), 370–387.
- Choi, JH (2014b). Who should be the respondent? Comparing predictive powers between managers' and employees' responses in measuring high-performance work systems practices. *The International Journal of Human Resource Management*, 25(19), 2667–2680.
- Choi, JH and KP Lee (2013). Effects of employees' perceptions on the relationship between HR practices and firm performance for Korean firms. *Personnel Review*, 42(5).
- Chuang, CH and HUI Liao (2010). Strategic human resource management in service context: Taking care of business by taking care of employees and customers. *Personnel Psychology*, 63(1), 153–196.
- Coelho, F, M Augusto and LF Lages (2011). Contextual factors and the creativity of frontline employees: The mediating effects of role stress and intrinsic motivation. *Journal of Retailing*, 87(1), 31–45.
- Cohen, J (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd Ed. Hillsdale, NJ: Lawrence Erlbaum.
- Datta, DK, JP Guthrie and PM Wright (2005). Human resource management and labor productivity: Does industry matter? *Academy of Management Journal*, 48(1), 135–145.
- Delaney, JT and MA Huselid (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949–969.
- Demirbag, M, DG Collings, E Tatoglu, K Mellahi and G Wood (2014). High performance work systems and organizational performance in emerging economies: Evidence from MNEs in Turkey. *Management International Review*, 54(3), 325–359.
- DeNisi, AS and RD Pritchard (2006). Performance appraisal, performance management and improving individual performance: A motivational framework. *Management and Organization Review*, 2(2), 253–277.
- Falk, RF and NB Miller (1992). *A Primer for Soft Modeling*. University of Akron Press.
- Fan, D, L Cui, MM Zhang, CJ Zhu, CE Härtel and C Nyland (2014). Influence of high performance work systems on employee subjective well-being and job burnout: Empirical evidence from the Chinese healthcare sector. *The International Journal of Human Resource Management*, 25(7), 931–950.
- Fiorito, J, DP Bozeman, A Young and JA Meurs (2007). Organizational commitment, human resource practices, and organizational characteristics. *Journal of Managerial Issues*, 19, 186–207.
- Florida, R (2002). *The Rise of the Creative Class*. New York, USA: Basic Books.
- Fu, N (2013). Exploring the impact of high performance work systems in professional service firms: A practices-resources-uses performance approach. *Consulting Psychology Journal: Practice and Research*, 65(3), 240–257.

- Gephart, MA and ME Van Buren (1996). Building synergy: The power of high-performance work systems. *Training & Development*, 50(10), 21–9.
- Gilson, LL (2008). Why be creative: A review of the practical outcomes associated with creativity at the individual, group, and organizational levels. In *Handbook of organizational creativity*, JZACE Shalley (ed.), pp. 303–322. NY: Laurence Erlbaum.
- Gong, Y, KS Law, S Chang and KR Xin (2009). Human resource management and firm performance: The differential role of managerial affective and continuance commitment. *Journal of Applied Psychology*, 94, 263–275.
- Gong, Y, J Zhou and S Chang (2013). Core knowledge employee creativity and firm performance: The moderating role of riskiness orientation, firm size, and realized absorptive capacity. *Personnel Psychology*, 66, 443–482.
- Grobler, P, S Warnich, MR Carell, NF Elbert and RD Hatfield (2006). *Human Resource Management in South Africa*. South Africa: Cengage Learning EMEA.
- Gronum, S, ML Verreynne and T Kastle (2012). The role of networks in small and medium-sized enterprise innovation and firm performance. *Journal of Small Business Management*, 50(2), 257–282.
- Guest, D (1997). Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management*, 8(3), 263–276.
- Guest, DE (1987). Human resource management and industrial relations. *Journal of Management Studies*, 24(5), 503–521.
- Guest, DE (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, 21(1), 3–13.
- Hair Jr. JF, GTM Hult, C Ringle and M Sarstedt (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage publications.
- Hair, JF, GTM Hult, CM Ringle and M Sarstedt (2014). *A Primer on Partial Least Squares Structural Equation Modeling*. Thousand Oaks: Sage.
- Hair, JF, GTM Hult, C Ringle and M Sarstedt (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications.
- Hair, JF, CM Ringle and M Sarstedt (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, JF, M Sarstedt, CM Ringle and JA Mena (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433.
- He, C, J Gu and H Liu (2018). How do department high-performance work systems affect creative performance? A cross-level approach. *Asia Pacific Journal of Human Resources*, 56(3), 402–426.
- Hennessey, BA and TM Amabile (2010). *Creativity*. *Annual Review of Psychology*, 61, 569–598.
- Henseler, J, CM Ringle and M Sarstedt (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135.
- Hilman, HA (2009). The relationship of competitive strategy, strategic flexibility and sourcing strategy on organizational performances. Unpublished Doctoral dissertation.

- Ho, LA (2008). What affects organizational performance? The linking of learning and knowledge management. *Industrial Management & Data Systems*, 108(9), 1234–1254.
- Ichniowski, C, K Shaw and G Prennushi (1997). The effects of human resource management practices on productivity: A study of steel finishing lines. *The American Economic Review*, 87(3), 291–313.
- Ismail, AI, A Abdul-Halim and M Joarder (2016). High performance work system-SMEs performance Nexus: A conceptual model. *International Journal of Entrepreneurship and Small & Medium Enterprise (IJESME)*, 115–130.
- Ismail, A, SE Abdelrahman and A-HA Majid (2018). Closing strategic human resource management research lacunas with mediating role of employee creativity. *Academy of Strategic Management Journal*.
- Ismail, A, A-H Abdul-Majid and MHR Joarder (2017). Management philosophy: An internal boundary condition to HPWS-SME performance nexus in Nigeria. *Academy of Strategic Management Journal*.
- Ismail, AI (2014). *The mediating role of distributive fairness in the relationship between performance-based pay, career incentives, organizational benefits and employee performance*. Unpublished Master thesis, Universiti Utara Malaysia.
- Ismail, AI, AM Abdul-Halim and MHR Joarder (2015). Mediating role of distributive justice in the relationship between career incentives and employee performance. *Journal of Economics, Business and Management*, 3(10), 929–935.
- Ittner, CD and DF Larcker (1996). Measuring the impact of quality initiatives on firm financial performance. *Advances in the Management of Organizational Quality*, 1(1), 1–37.
- Jeffrey, S (2003). *Non-Monetary Rewards: Employees' Choices and Organizational Practices*. Retrieved on the April, 11th 2015 from: <http://www.maritzrewards.com/pdfs/sitebenefits>.
- Jiang, J, S Wang and S Zhao (2012). Does HRM facilitate employee creativity and organizational innovation? A study of Chinese firms. *The International Journal of Human Resource Management*, 23(19), 4025–4047.
- Kaplan, RS and DP Norton (1992). The balanced scorecard: Measures that drive performance. *Harvard Business Review*, 70(1), 71–79.
- Kaplan, RS and DP Norton (1996). *The Balanced Scorecard: Translating Strategy into Action*. Harvard Business Press.
- Kaplan, RS and DP Norton (2000). *The Strategy Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. Boston, MA: Harvard Business School Press.
- Kaufman, BE (2010). SHRM theory in the post-Huselid era: Why it is fundamentally misspecified. *Industrial Relations. A Journal of Economy and Society*, 49(2), 286–313.
- Kehoe, RR and PM Wright (2013). The impact of high-performance human resource practices on employees' attitudes and behaviors. *Journal of Management*, 39(2), 366–391.

- Kinicki, AJ, KJ Jacobson, SJ Peterson and GE Prussia (2013). Development and validation of the performance management behavior questionnaire. *Personnel Psychology*, 66(1), 1–45.
- Krejcie, RV and DW Morgan (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Legge, K (1995). *Human Resource Management-Rhetorics and Realities*. Basingstoke: MacMillan Press.
- MacDoughall, SL and RH Pike (2003). Consider your options: Changes to strategic value during implementation of advanced manufacturing technology. *Omega*, 31(1), 115.
- Madjar, N, GR Oldham and MG Pratt (2002). There's no place like home? The contributions of work and non-work creativity support to employees' creative performance. *Academy of Management Journal*, 45(4), 757–767.
- Mansour, N, E Gara and C Gaha (2014). Getting inside the black box. *Personnel Review*, 43(4), 490–514.
- Martinaityte, I (2014). *Leveraging Employee Creativity Through High Performance Work Systems: A Multilevel Perspective*. Doctoral Dissertation, Aston University.
- Martinaityte, I and CA Sacramento (2013). When creativity enhances sales effectiveness: The moderating role of leader–member exchange. *Journal of Organizational Behavior*, 34(7), 974–994.
- Maskell, B (1992). *Performance Measurement for World Class Manufacturing*. Corporate Controller, January/February 44–8.
- Matsumura, EM and JY Shin (2004). An empirical analysis of a relative performance-based incentive plan: Evidence from a postal service.
- Messersmith, JG and JP Guthrie (2010). High performance work systems in emergent organizations: Implications for firm performance. *Human Resource Management*, 49(2), 241–264.
- Messersmith, JG, PC Patel, DP Lepak and JS Gould-Williams (2011). Unlocking the black box: Exploring the link between high-performance work systems and performance. *Journal of Applied Psychology*, 96(6), 1105.
- Michie, J and M Sheehan (2005). Business strategy, human resources, labour market flexibility and competitive advantage. *The International Journal of Human Resource Management*, 16(3), 445–464.
- Mihail, DM and PV Kloutsiniotis (2016). Modeling patient care quality: An empirical high-performance work system approach. *Personnel Review*, 45(6), 1176–1199.
- Miller, CC, NT Washburn and WH Glick (2013). Perspective — The myth of firm performance. *Organization Science*, 24(3), 948–964.
- Moulang, C (2015). Performance measurement system use in generating psychological empowerment and individual creativity. *Accounting & Finance*, 55(2), 519–544.
- Muduli, A, S Verma and SK Datta (2016). High performance work system in India: Examining the role of employee engagement. *Journal of Asia-Pacific Business*, 17(2), 130–150.
- Murphy, KR and J Cleveland (1995). *Understanding Performance Appraisal: Social, Organizational, and Goal-based Perspectives*. Sage Publications.

- Mushrush, W (2002). Reducing employee turnover. Missouri small business development and technology center.
- Neckermann, S and M Kosfeld (2008). *Working for Nothing?* The effect of non-material awards on employee performance, Goethe-University Frankfurt, Germany.
- Neely, A (2002). *Business Performance Measurement: Theory and Practice*. Cambridge: Cambridge University Press.
- Neely, AD, C Adams and M Kennerley (2002). *The Performance Prism: The Scorecard for Measuring and Managing Business Success*. London: Financial Times/Prentice Hall.
- Ogunyomi, P and NS Bruning (2016a). Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria. *The International Journal of Human Resource Management*, 27(6), 612–634.
- Ogunyomi, P and NS Bruning (2016b). Human resource management and organizational performance of small and medium enterprises (SMEs) in Nigeria. *The International Journal of Human Resource Management*, 27(6), 612–634.
- Ojokuku, RM (2012). Human resources management demands and challenges in small and medium scale enterprises. *International Journal of Economic Development Research and Investment*, 3(3), 1–10.
- Paauwe, J and R Richardson (1997). Strategic human resource management and performance: Introduction. *International Journal of Human Resource Management*, 8(3), 257–262.
- Peloza, J and L Papania (2008). The missing link between corporate social responsibility and financial performance: Stakeholder salience and identification. *Corporate Reputation Review*, 11(2), 169–181.
- Pfeffer, J (1998). *The Human Equation: Building Profits by Putting People First*. Boston, MA: Harvard Business School Press.
- Posthuma, RA, MC Campion, M Masimova and MA Campion (2013). A high-performance work practices taxonomy: Integrating the literature and directing future research. *Journal of Management*, 39(5), 1184–1220.
- Pritchard, RD, H Holling, F Lammers and BD Clark (2002). *Improving Organizational Performance with the Productivity Measurement and Enhancement System: An International Collaboration*. Huntington, NY: Nova Science.
- Runco, MA (2004). Creativity. *Annual Review of Psychology*, 55, 657–687.
- Ryan, RM and EL Deci (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Rynes, SL, B Gerhart and L Parks (2005). Personnel psychology: Performance evaluation and pay for performance. *Annual Review of Psychology*, 56, 571–600.
- Salkind, NJ (1997). *Exploring Research*, 3rd edn. New Jersey, Upper Saddle River: Prentice Hall.
- Seidu, Y (2011). *Human Resource Management and Organizational Performance: Evidence from the Retail Banking Sector*. Unpublished Doctoral dissertation, Aston University.

- Sekaran, U (2003). *Research Methods for Business: A Skill Building Approach*, 4th Ed. New York: John Wiley & Sons.
- Shalley, CE and LL Gilson (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15(1), 33–53.
- Shalley, CE and JE Perry-Smith (2001). Effects of social-psychological factors on creative performance: The role of informational and controlling expected evaluation and modeling experience. *Organizational Behavior and Human Decision Processes*, 84(1), 1–22.
- Shields, J (2007). *Managing Employee Performance and Reward: Concepts, Practices, Strategies*. Cambridge: Cambridge University Press.
- Shin, D and AM Konrad (2014). Causality between high-performance work systems and organizational performance. *Journal of Management*, 43(4), 973–997.
- Shin, D and AM Konrad (2017). Causality between high-performance work systems and organizational performance. *Journal of Management*, 43(4), 973–997.
- Stevens, J (1992). *Applied Multivariate Statistics for the Social Sciences*, 2nd Ed. Hillsdale, NJ, US: Lawrence Erlbaum Associates.
- Subramony, M (2009). A meta-analytic investigation of the relationship between HRM bundles and firm performance. *Human Resource Management*, 48(5), 745–768.
- Takeuchi, R, DP Lepak, H Wang and K Takeuchi (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology*, 92(4), 1069–1083.
- Taylor, S, O Levy, NA Boyacigiller and S Beechler (2008). Employee commitment in MNCs: Impacts of organizational culture, HRM and top management orientations. *The International Journal of Human Resource Management*, 19(4), 501–527.
- Truss, C (2001). Complexities and controversies in linking HRM with organizational outcomes. *Journal of Management Studies*, 38(8), 1121–1149.
- Ulrich, D (1997). *Human Resource Champions: The Next Agenda for Adding Value and Delivering Results*. Boston: Harvard Business School Press.
- Van der Stede, WA (2001). Measuring 'tight budgetary control'. *Management Accounting Research*, 12(1), 119–137.
- Vandenberg, RJ, HA Richardson and LJ Eastman (1999). The impact of high involvement work processes on organizational effectiveness. *Group & Organization Management*, 24(3), 300–339.
- Wang, G and RG Netemeyer (2004). Salesperson creative performance: Conceptualization, measurement, and nomological validity. *Journal of Business Research*, 57(8), 805–812.
- Werner, S (2011). High performance work systems in the global context: A commentary essay. *Journal of Business Research*, 64(8), 919–921, <http://doi.org/10.1016/j.jbusres.2010.09.002>.
- Yen, H-Y (2015). National Central University.
- Yuan, F and RW Woodman (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, 53(2), 323–342.



A. I. Ismail et al.

- Zhang, Y and S Li (2009). High performance work practices and firm performance: Evidence from the pharmaceutical industry in China. *International Journal of Human Resource Management*, 20(11), 2331–2348.
- Zhou J and CE Shalley (2008). Expanding the scope and impact of organizational creativity research. In *Handbook of Organizational Creativity*, J Zhou, CE Shalley (eds.), pp. 347–368. New York, NY: Erlbaum.
- Zhou, J and GR Oldham (2001). Enhancing creative performance: Effects of expected developmental assessment strategies and creative personality. *The Journal of Creative Behavior*, 35(3), 151–167.
- Zikmund, WG and BJ Babin (2010). *Essentials of Marketing Research*, 4th Ed. Mason, OH: South-Western, Cengage Learning.