

## **Impact of Human Resource Management Practices on Employees' Behavioural Outcomes in the Manufacturing Sub-Sector of South-West Nigeria**

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### **Abstract**

*Most authors agree that Human Resources is the most crucial input to any organisation. As such, scholars generally believe that Human Resource Management (HRM) practices positively impact firm performance. This belief persists because positive HRM practices strengthen competence, motivation, commitment and other employee outcomes leading to improved organisational performance. However, limited empirical evidence connects HRM practices to employee outcomes. This study investigated the impact of HRM practices on competence, commitment, job satisfaction, motivation, Cooperation with management, Cooperation with co-workers, employee presence and Compliance in the manufacturing sub-sector of South-Western Nigeria. To this end, the study adopted a cross-sectional survey research design which involved the collection of data from 381 middle-level managers of manufacturing companies in Lagos, Nigeria, selected using stratified and random sampling techniques. A Structural Equation Model (SEM) was used to analyse the data. Results show that HRM practices determine and predict components of employee outcomes. In other words, recruitment and selection, training and development, performance appraisal, compensation management, occupational health and safety, and career growth and development all determine competence, commitment, job satisfaction, motivation, Cooperation with management, Cooperation with co-workers, and Presence and Compliance all in varying degrees. The study justified investment in HRM and recommended a bundled approach to applying HRM practice.*

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**JEL Classification:** *M59; M12; M54.*

## **Introduction**

Human Resources are essential to any organisation (Sikora, Ferris & Van Iddekinge, 2015; Mostapha, Gould-Williams & Bottomley, 2015; Davenport, 1999). Also, the extent to which organisations reach their corporate goals and gain competitive advantage is dependent on the quality and quantity of Human Resources (HR) at their disposal and the extent to which it has been able to extract and utilise the value that HR offers (Heffernan & Dundon, 2016). The relationship between HR policies and practices and employee and organisational outcomes has been a subject of interest among scholars in the past thirty years. Scholars agree that HR policies and practices influence organisational performance through employee outcomes (Katou & Budhwar, 2014). Hence HR policies and practices are targeted at what some scholars call proximal outcomes (employee outcomes such as employee competence, commitment, motivation, job, and satisfaction) with the hope that this will translate into distal outcomes (improvement in profit, sales, innovation, environmental, and sustainability) (Katou & Budhwar, 2014).

The general belief among managers that Human Resource Management (HRM) practices positively influence employee behavioural outcomes encourages many organisations to put in place HR policies requiring enormous resources. For example, Nestle Foods Plc spent over 2 Billion naira on managing its human resources in 2015 (Nestle, 2020). In the same light, Dangote Group Plc spent an excess of 3 billion naira on HRM practices (Dangote Cements Plc, 2020). This massive investment into HR practices is similar to most manufacturing firms in Nigeria. Such enormous investments persist against the backdrop of an underperforming Nigerian manufacturing sector (IMF, 2020).

Such investments led to the introduction of HR policies such as online recruitment, modern performance management techniques, employee benefits that are highly competitive, employee training and development programmes held locally and abroad, job design, and employee participation (Fajana, Owoyemi, Elegbede, & Gbajumo-Sheriff, 2011). Despite these heavy investments, key performance indices show underperformance of the country's manufacturing sector.

This paper studied the influence of the following dimensions of HRM practices (Recruitment and Selection, Training and Development, Compensation Management, Performance Appraisal, Occupational Health and Safety and Career Growth and Development) on Employee Behavioural Outcomes. Therefore, the paper is structured in the following manner: Section 2 explains the statement of this study's problem, while section 3 shows the objectives of this research. Sections 4, 5 and 6 discusses this study's conceptual, theoretical and empirical review. Section 7 deals with the study's methodology. Sections 8 and 9 display the discussion of the findings and conclusion of this research effort.

## **Statement of the Problem**

Scholars believe that employee outcomes respond significantly to Human Resources Policies (Katou, 2011; Mehmood, Awais, Afzal, Shahzadi, & Khalid, 2017). How these relationship

works remain controversial (Glaister, Karacay, Demirbag, & Tatoglu, 2018). This investigation sheds light on the HR policies – employee outcomes relationship.

The HRM practices – employee outcomes relationship has also been a subject of interest among many HRM researchers (Katou & Budhwar, 2014). To this end, there exists much literature on this subject. However, most researchers focused on studying the HR– employee behavioural outcome relationship of companies in North America, Europe and Australia, neglecting developing economies of Africa, Asia and South America (Guthrie, 2001; Absar, Nimalathan, & Jilani, 2016). Fajana et al (2011) believe that the absence of local and complete HRM frameworks is a major hindrance to the practice of HRM in Nigeria.

## **Objectives of the Study**

Therefore, this investigation aims to determine the impact of Human Resource Management practices on employee behavioural outcomes in the manufacturing sub-sector of South-West Nigeria. Specifically, this study examines the impact of six dimensions of HRM practices: recruitment and selection, training and development, compensation management, performance appraisal, occupational health and safety and career growth and development on competence, commitment, job satisfaction, motivation, Presence, Cooperation with management and Cooperation with co-workers. The study will also model the HRM practices – employee behavioural outcome relationship within the context of the manufacturing sector of a developing country such as Nigeria.

## **Conceptual Review**

### **Human resource management practices**

Human Resource Management (HRM) practices have diverse definitions from various scholars (Gelade & Ivery, 2003). Otoo (2019) defined HRM practices as a set of policies and practices designed to HRM practices as intended to ensure that a firm's human capital contributes to achieving its business objectives. Katou (2011) and Katou and Budhwar (2014) described HRM practices as a group of activities to ensure the firm's available human capital contributes optimally to achieving firm objectives. According to Minbaeva (2007), HRM practices are groups of practices used by firms to manage HR, which target developing and strengthening employee firm-specific competencies and other outcomes leading to improved competitive advantage. Similarly, Raeder, Knorr & Hilb (2012) believe that HRM practices are systems set up to attract, retain, motivate and develop employees to ensure the entity's survival and effective implementation of its policies and strategies. Thus, a common element of the definition of HRM practices among many scholars is that it describes a group of HR policies to get maximum value out of available human capital.

HRM practices often involve the bundling of several HRM functions. According to Huselid (1995), HRM practice contains recruitment intensity, more training hours, formal grievance procedures, personnel selection, incentive compensation, career growth and development, employee involvement and information sharing. For Delaney and Huselid (1997), HRM practices consist of recruitment and selection, training and development (as also contained in Diamantidis & Chatzoglou, 2014 and Jacob & Washington, 2013), including participation and reward (also contained in Manas and Graham, 2003). Otoo (2019), on the other hand, viewed HRM practices to include: recruitment and selection, training and development, career planning, performance appraisal and employee participation. Diamantidis and Chatzoglou (2014) and Jacob and Washington (2013) added occupational health and safety to their list of identified HRM practices. Therefore, HRM practices include recruitment and selection, training and development, compensation management, performance appraisal, occupational health and safety

and career growth and development. Nwachukwu and Chladkova (2017) also advanced these elements as constituents of HRM practices as is obtainable in Nigeria.

### **Employee behavioural outcomes**

Employee Behavioural Outcomes are employees' behavioural and attitudinal dispositions in an organisation. Attitudinal disposition consists of the following: Job Satisfaction, commitment, Presence (opposite of absenteeism), and Turnover. On the other hand, Behavioural disposition consists of Motivation, Compliance, Cooperation with Management and Cooperation with Co-employees. Competence is common to behavioural and attitudinal disposition (Posada, Martin-Sierra & Perez, 2017; Katou, 2011; Dava & Bala, 2012; Collins, Ericksen & Allen, 2005; Otoo, 2019; Chartered Institute of Personnel Development, 2016). Bringing all these opinions together, Employee Behavioural Outcomes consist of the following: Commitment, Competence, Motivation Presence, Job Satisfaction, Compliance, Cooperation with Management and Cooperation with Co-employees. Armstrong (2012) believes that motivation, commitment and organisational citizenship are part of Employee Engagement.

## **Theoretical Review**

### **Social exchange theory**

Several theories explain the connection between HRM practices and employee behavioural outcomes. One of such is the social exchange theory, which states that social behaviour is the outcome of an exchange process. Propounded by George Homans in 1961, it believes that people weigh the potential benefits and associated risks of social relationships. When associated risks outweigh rewards, such relationships will be abandoned by one of the parties. Such a relationship will be maintained when associated costs exceed benefits (Cherry, 2020). This theory has been widely applied in various disciplines, including psychology, sociology, political science and the management sciences. Other proponents and supporters of the theory include John Thibaut, Harold Kelly, Peter Blau and Claude Levi-Strauss (Roedelein, 2018). According to Saks (2006), obligations are generated through a series of interactions between parties in a state of reciprocal interdependence. The theory, therefore, states that when organisations invest in their employees, the employees, in turn, will respond in positive ways, primarily through their attitudes and behaviour. By extension, while organisations offer inducements such as improved pecuniary and non-pecuniary benefits, training, and development opportunities, employees respond with positive attitudinal and behavioural dispositions such as commitment, job satisfaction, and motivation (Kuvaas & Dysvik, 2010). However, Cropanzano, Anthony, Daniels and Hall (2016) identified its lack of theoretical precision as a limitation to its applicability. Despite this weakness, the theory has been widely used to explain the social interactions between organisations and employees (Cropanzano et al, 2017).

### **Organisational support theory**

The Organizational Support Theory (OST) believes that employees are generally convinced that the company values their contribution and that their well-being is positively impacted by it (Kurtessis, Eisenberger, Ford, Buffardi, Stewart & Adis, 2017 ). As part of the theory, it is also believed that employees' perceptions of the firm's values and support affect their behavioural and attitudinal outcomes (Kurtessis et al, 2017; Kuvaas & Dysvik, 2010). Eisenberger, Huntington, Hutchinson and Sowa (1986) believe that HRM practices determine Perceived Organisational Support (POS). Such HRM practices include: reward management, performance management, workplace safety, human resources development, family support and work-life balance (Krishnan & Mary 2012)

This study adopts the social exchange and organisational support theories as theoretical underpinnings for this investigation. These theories are chosen because both proposed a connection between HRM practices and employee behavioural outcomes.

## **Empirical Review**

Many previous studies on HR policies-employee outcomes relationship were conducted within HRM practices-organisational performance studies. The following is a review of some previous studies.

Otoo (2019) studied the mediating role of employee competence in the HRM practices – organisational performance relationship. In this study, 600 employees of selected hotels were given a copy of a structured questionnaire to elicit relevant data, which was subsequently analysed using SEM. The study found that HRM practices significantly determine employee competence, mediating the HRM practices – organisational performance relationship.

Taib, Saludin and Hanafi (2018) investigated the mediating role of employee engagement (a component of employee outcomes) in the HRM practice – organisational performance relationship. Data was collected from 318 public sector employees in Malaysia and analysed using SEM. Results show a significant relationship between HRM practices and employee engagement. The study also found that employee engagement significantly mediates the HRM practices – organisational performance relationship. However, a gap in this study is that it ignores other relevant components of employee outcomes. This study hopes to fill this gap.

Sothan, Baoku & Xiang (2016) studied the relationship between commitment and employee creativity. Analysing data from 342 sampled respondents drawn from hotels in Cambodia using Structural Equation Modelling (SEM), the study found that commitment significantly determines employee creativity which is a component of employee competence. Teryima et al (2016), on the other hand, found that motivational factors significantly determine employee commitment. A gap in these studies is their piecemeal approach to studying the determinants of employee outcomes.

Jiang, Lepak, Hu & Baer (2012) investigated the impact of HR on firm performance with emphasis on factors that intervene in the relationship. The study sourced data from 31,463 firms in 116 articles representing 120 unbiased samples. Analysis was carried out using Structural Equation Model. Three elements of HR systems were found to have varying impacts on employee behavioural outcomes and organisational performance. The link between HR practices and organisational performance was also established. The authors found that an increase in HR practices by one standard deviation (SD) led to an increase in a firm's financial performance by SD a .13, .18, or.09.

In the same vein, Kovak & Dysvik (2010) studied the effect of perceived investment in employee development (learning and development) on employee outcomes (affective commitment, turnover intentions, work effort and organisational citizenship behaviour). Using cross-sectional data collected from 331 employees from Norwegian telecommunication firms, analysed using SEM, the study found that perceived investment in employee development significantly determines selected employee outcomes.

Singh (2014) investigated the influence of HRM practices on organisational outcomes in India. To this end, data were gathered from 120 companies in India were processed with SEM. The investigation discovered that important HRM practices positively influenced employee behavioural outcomes.

## Methodology

This study measures HR Policies in six dimensions as suggested by Otoo (2019): recruitment and selection, training and development, compensation management, performance appraisal, occupational health and safety and career growth and development. Employee behavioural outcomes are Competence, Cooperation with Management, Cooperation with Employees, Motivation, Commitment, Job Satisfaction, Compliance, and Presence, as suggested by Katou (2011) and Armstrong (2013). Figure 1 illustrates the conceptual framework for this study:

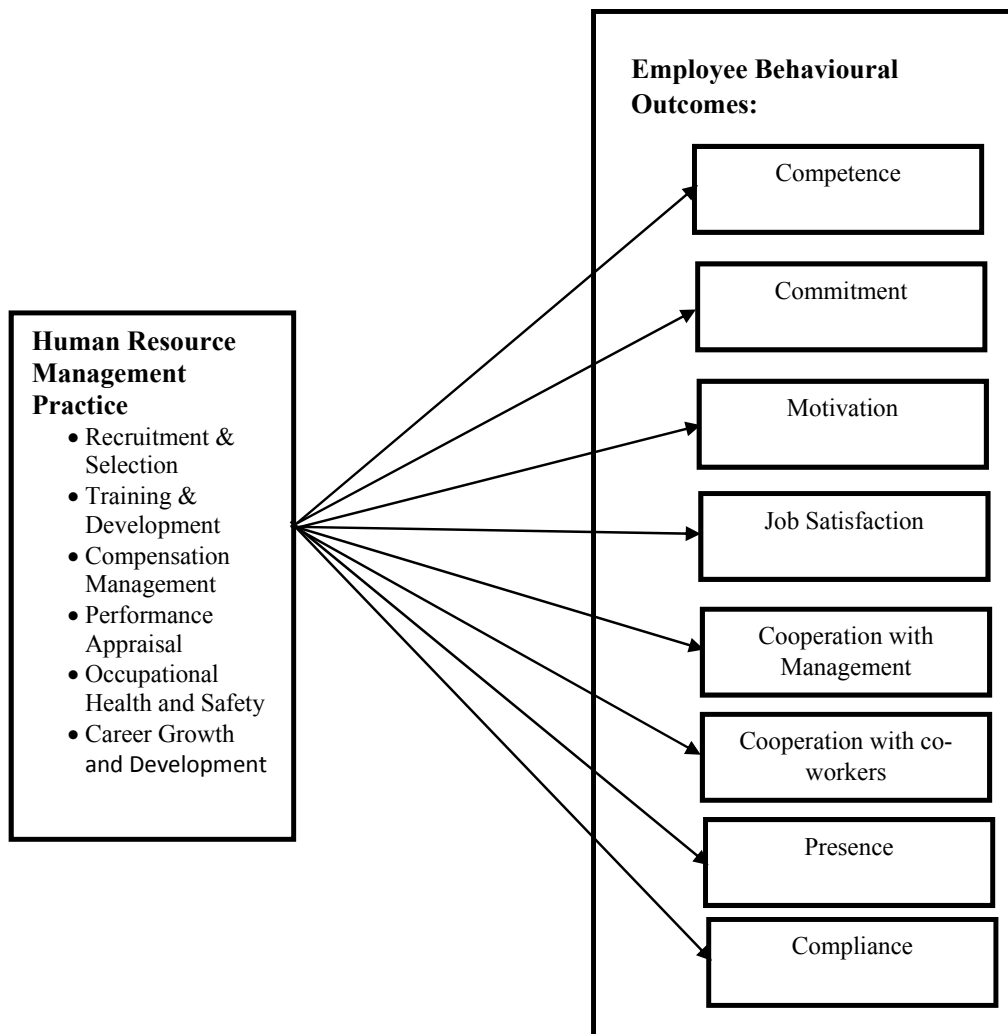


Fig. 1. Conceptual framework

Source: Authors' Conceptual Illustration, 2021.

The following hypotheses are tested in this study:

*H1: There is no significant contribution of HRM practices to employee behavioural outcomes (Competence, Commitment, Motivation, Job Satisfaction, Cooperation with Management, Cooperation with Co-workers, Presence and Compliance)*

*H2: There is no significant relationship between HRM practices and employee behavioural outcomes (Competence, Commitment, Motivation, Job Satisfaction, Cooperation with Management, Cooperation with Co-workers, Presence and Compliance)*



The study adopts a cross-sectional survey research design. Data were collected by administering a structured questionnaire to a sample of 400 respondents drawn from a population of 28,299 middle-level managers of manufactured firms quoted on the Nigerian Exchange Limited but located in Lagos State, Nigeria (figure of 28,299 middle-level managers was arrived at based on figures extracted from published financial statements of selected manufacturing firms). The choice of Lagos state was based on the fact that Lagos state hosts 70% of all manufacturing activities in Nigeria in terms of output volume (Manufacturers Association of Nigeria, 2021). These samples were selected via a stratified random sampling technique where each stratum is comprised of Nigeria Exchange Limited's classification of industries in Nigeria's manufacturing sector. A sample size of 376 respondents was calculated using the Yamane formula at  $e = 0.05$ . However, 400 samples were selected as respondents, out of which 381 filled questionnaires were found to be valid. Table 1 shows the organisations from which samples are drawn and the number of sampled respondents.

**Table 1.** Respondents according to industries used

Name of Firm	Strata	Number of Samples
Nestle foods Plc	Consumer Goods	36
Nigeria Bottling Company Plc	Consumer Goods	57
Dangote Cements Plc	Industrial Goods	20
Guinness Nigeria Plc	Consumer Goods	43
Fidson Healthcare	Healthcare	23
GlaxoSmithKline	Healthcare	22
May and Baker Nigeria Plc	Healthcare	24
Berger Paints	Industrial Goods	22
CAP Plc	Industrial Goods	23
Honeywell Flour Mill	Consumer Goods	34
Eterna Oil	Oil and Gas (Lubricants)	25
Capital Oil	Oil and Gas (Lubricants)	21
Nigeria Breweries Plc	Consumer Goods	31
<b>Total</b>		<b>381</b>

Source: Field Survey (2021).

According to the Nigeria Exchange Limited classification of listed firms, manufacturing companies are grouped into consumer goods, industrial goods, healthcare and oil and gas. These groups form the strata from which samples are drawn. Data extracted from firm financial statements show that the consumer goods sector accounts for over 60% of middle-level managers working in the manufacturing sector. Thus the number of samples from the sector was determined using this proportion.

With the authors' permission, this study adopted items in the structured questionnaire used by Katou and Budhwar (2012) and Demo, Nieva, Nunez and Rozzett (2012). Specifically, the study adopts Demo et al (2012) items to measure HRM practices and Katou and Budhwar (2012) questionnaire items to measure Employee behavioural outcomes. Additional input into the design of questionnaire items was provided by a subject matter expert in HRM, Armstrong (2013) and Nanjundeswaraswamy (2019). HRM practices were measured with a Likert scale with polar anchors 1: strongly disagree, 2: disagree, 3: indifferent, 4: agree and 5: strongly agree. Employee behavioural outcomes were also measured using the Likert scale with similar polar anchors.

It is widely agreed that cross-sectional data is weak in establishing causal relationships (George, 2012; Groves). As such, this study attempted to mitigate this weakness by structuring the measuring instrument in a way that requires respondents to provide information over the past three years.

Consistency and reliability of items were tested using Cronbach coefficient alpha, and the results are shown in Table 2:

**Table 2.** Cronbach coefficient alpha

Construct	Items	Number of Items	Cronbach Alpha
HRM practices	Recruitment and Selection	6	0.84
	Learning & Development	6	0.88
	Reward Management	5	0.81
	Performance Appraisal	5	0.86
	Occupational Health and Safety	9	0.92
	Career Growth and Development	4	0.95
Employee Behavioural Outcomes	Commitment	4	0.85
	Competence	3	0.92
	Job Satisfaction	3	0.95
	Motivation	3	0.96
	Cooperation with management	5	0.8
	Cooperation with co-workers	4	0.86
	Presence	2	0.97
	Compliance	3	0.97

Source: Extract from Cronbach Coefficient Alpha Computation using SPSS23.0 (2021),

Table 2 shows the results of the Cronbach Coefficient Alpha. From the table, the lowest coefficient is 0.8, meaning that all items are consistent and reliable (Nunnally, 1978). Data were analysed using SEM multiple regression statistical analysis, and computation was done using SPSS version 23.

Coefficients of the following model were estimated using the Ordinary Least Squares (OLS) method:

$$EO_1 = \alpha_1 + \beta_1HRM_1 + \beta_2HRM_2 + \beta_3HRM_3 + \beta_4HRM_4 + \beta_5HRM_5 + \beta_6HRM_6 + \varepsilon_1 \quad (1)$$

$$EO_2 = \alpha_2 + \beta_7HRM_1 + \beta_8HRM_2 + \beta_9HRM_3 + \beta_{10}HRM_4 + \beta_{11}HRM_5 + \beta_{12}HRM_6 + \varepsilon_2 \quad (2)$$

$$EO_3 = \alpha_3 + \beta_{13}HRM_1 + \beta_{14}HRM_2 + \beta_{15}HRM_3 + \beta_{16}HRM_4 + \beta_{17}HRM_5 + \beta_{18}HRM_6 + \varepsilon_3 \quad (3)$$

$$EO_4 = \alpha_4 + \beta_{19}HRM_1 + \beta_{20}HRM_2 + \beta_{21}HRM_3 + \beta_{22}HRM_4 + \beta_{23}HRM_5 + \beta_{24}HRM_6 + \varepsilon_4 \quad (4)$$

$$EO_5 = \alpha_5 + \beta_{25}HRM_1 + \beta_{26}HRM_2 + \beta_{27}HRM_3 + \beta_{28}HRM_4 + \beta_{29}HRM_5 + \beta_{30}HRM_6 + \varepsilon_5 \quad (5)$$

$$EO_6 = \alpha_6 + \beta_{31}HRM_1 + \beta_{32}HRM_2 + \beta_{33}HRM_3 + \beta_{34}HRM_4 + \beta_{35}HRM_5 + \beta_{36}HRM_6 + \varepsilon_6 \quad (6)$$

$$EO_7 = \alpha_7 + \beta_{37}HRM_1 + \beta_{38}HRM_2 + \beta_{39}HRM_3 + \beta_{40}HRM_4 + \beta_{41}HRM_5 + \beta_{42}HRM_6 + \varepsilon_6 \quad (7)$$

$$EO_8 = \alpha_8 + \beta_{43}HRM_1 + \beta_{44}HRM_2 + \beta_{45}HRM_3 + \beta_{46}HRM_4 + \beta_{47}HRM_5 + \beta_{48}HRM_6 + \varepsilon_8 \quad (8)$$

Where: EO1 = Competence; EO2 = Commitment; EO3 = Motivation; EO4 = Cooperation with Management; EO5 = Cooperation with Co-workers; EO6 = Job Satisfaction, EO7 = Presence and EO8 = Compliance; HRM1 = Recruitment and Selection; HRM2 = Training & Development; HRM3 = Performance Appraisal; HRM4 = Compensation Management; HRM5 = Occupational Health and Safety; HRM6 = Career Growth and Development;  $\alpha_1, \alpha_2, \dots, \alpha_7$  = Constants (Intercepts),  $\beta_1, \beta_2, \dots, \beta_{48}$  = regression coefficients;  $\varepsilon_1, \varepsilon_2, \dots, \varepsilon_8$  = Stochastic Disturbance Term.

Table 3 shows all independent variables' Pearson Correlation Coefficients. Significant correlation coefficients suggest the presence of multicollinearity among the independent variables (Kock & Lynn, 2012). However, results from the table show a weak correlation coefficient all at  $P > 0.05$ , showing that the correlation coefficient among independent variables in the model is not significant, thus ruling out the presence of multicollinearity.



**Table 3.** Multicollinearity test

	HRM <sub>1</sub>	HRM <sub>2</sub>	HRM <sub>3</sub>	HRM <sub>4</sub>	HRM <sub>5</sub>	HRM <sub>6</sub>
HRM <sub>1</sub>	1					
HRM <sub>2</sub>	.11	1				
HRM <sub>3</sub>	.13	.15	1			
HRM <sub>4</sub>	.18	.13	.08	1		
HRM <sub>5</sub>	.21	.21	.11	.13	1	
HRM <sub>6</sub>	.15	.14	.2	.21	.1	1

Note:  $P > 0.05$ .

Source: Extract of results from SPSS23.0.

## Discussion of Findings

Table 4 shows the computed unstandardised coefficients. Thus, Occupational Health and Safety (HRM5) has the most significant impact on competence with an unstandardised coefficient of 0.481, but the impact is insignificant at  $P > 0.05$ . However, Recruitment and Selection (HRM1), Training and Development (HRM2), Performance Appraisal (HRM3), Compensation Management (HRM4), and Career Growth and Development (HRM6) all have a significant impact on employee competence (EO1) at  $P < 0.05$ . This outcome agrees with the position of several scholars (Katou, 2011; Katou & Budhwar, 2012; Glaister et al, 2018).

**Table 4.** Unstandardised Beta ( $\beta$ ) coefficients and level of significance

	EO <sub>1</sub> $\beta$ Value	EO <sub>2</sub> $\beta$ Value	EO <sub>3</sub> $\beta$ Value	EO <sub>4</sub> $\beta$ Value	EO <sub>5</sub> $\beta$ Value	EO <sub>6</sub> $\beta$ Value	EO <sub>7</sub> $\beta$ Value	EO <sub>8</sub> $\beta$ Value
HRM <sub>1</sub>	.115*	.105**	.116**	.156*	.040**	.094**	.065**	.03**
HRM <sub>2</sub>	.162*	.051*	.013*	.116**	.041**	.134*	.097**	.241*
HRM <sub>3</sub>	.176*	.141*	.039*	.002*	.028**	.255*	.135**	.051**
HRM <sub>4</sub>	.006*	.055*	.086*	.096*	.089**	.070*	.056*	.025**
HRM <sub>5</sub>	.481**	.211*	.099*	.096*	.075**	.072*	.218*	.541*
HRM <sub>6</sub>	.415*	.94*	.87*	.87*	.54*	.754*	.873*	.625*

Dependent Variables: EO1, EO2, EO3, EO4, EO5, EO6, EO7, EO8, \* $P < .05$ ; \*\* $P > .05$

Source: Extract of results from SPSS23.0.

Similarly, Training and Development (HRM2), Performance Appraisal (HRM3), Compensation Management (HRM4), Occupational Health and Safety (HRM5) and Career Growth and Development (HRM6) all have significant positive impacts on Commitment (EO2) at  $P < 0.05$ . However, Recruitment and Selection do not significantly impact EO2 with  $P > 0.05$ . This result is also in tandem with the position of several researchers (Collins et al, 2005; Diamantidis & Chatzoglou, 2014; Manas & Graham, 2003; and Sothan et al, 2016).

The result also shows that Training and Development (HRM2), Performance Appraisal (HRM3), Compensation Management (HRM4), Occupational Health and Safety (HRM5) and Career Growth and Development (HRM6) all have a significant impact on Motivation (EO3) at  $P < 0.05$ . However, Recruitment and Selection (HRM1) do not significantly impact Motivation (EO3). This outcome also agrees with Demo et al, 2012; Sev et al, 2016; and Raeder et al, 2012. Results also show that Cooperation with Management (EO4) significantly determines HRM1, HRM3, HRM4, HRM5 and HRM6 at  $P < 0.05$ . However, the impact of HRM2 on EO4 is insignificant at  $P < 0.05$ . On the other hand, HRM6 significantly determine Cooperation with

co-workers (EO5). Nevertheless, the impact of HRM1, HRM2, HRM3, HRM4 and HRM5 on EO5 is insignificant at  $P < 0.05$ . This result conforms to the position of several authors, including Kuvaas & Dysvik (2010), Taib et al (2018), and Mehmood et al, 2017. On the other hand, job satisfaction (EO6) is significantly impacted by HRM2, HRM3, HRM4, HRM5 and HRM6 at  $P < 0.05$ . However, the impact of HRM1 on EO5 is insignificant at  $P > 0.05$ . This position is in agreement with several authors, including Taib et al, (2018), Yanadori & Yaasveld (2014), Sawitri & Suswati (2016), and Posada et al, (2017). The result also shows that HRM4 significantly determines Presence (EO7), HRM5 and HRM6 at  $P < 0.05$ , while the impact of HRM1, HRM2, and HRM3 is not significant at  $P > 0.05$  (Katou, 2009; Katou, 2011; Katou & Budhwar, 2012; Katou & Budhwar, 2014)

The result also shows that HRM2 significantly determines Compliance (EO8), HRM5 and HRM6 at  $P < 0.05$  and is insignificantly determined by HRM1, HRM3 and HRM4 at  $P > 0.05$  (Glaister et al, 2018; Jiang et al, 2012; Sikora et al, 2016).

Fitting these results into the model produces the following:

$$EO1 = 1.23 + 0.115HRM1 + 0.162HRM2 + 0.176HRM3 + 0.006HRM4 + 0.401HRM5 + 0.415HRM6 \quad (R^2 = .57, r = .75; p < .05) \quad (9)$$

$$EO2 = 1.56 + 0.105HRM1 + 0.056HRM2 + 0.141HRM3 + 0.055HRM4 + 0.211HRM5 + 0.94HRM6 \quad (R^2 = .63, r = .79; p < .05) \quad (10)$$

$$EO3 = 1.63 + 0.116HRM1 + 0.013HRM2 + 0.039HRM3 + 0.086HRM4 + 0.099HRM5 + 0.87HRM6 \quad (R^2 = .55, r = .74; p < .05) \quad (11)$$

$$EO4 = 1.85 + 0.156HRM1 + 0.116HRM2 + 0.002HRM3 + 0.096HRM4 + 0.096HRM5 + 0.87HRM6 \quad (R^2 = .52, r = .72; p < .05) \quad (12)$$

$$EO5 = 1.690 + 0.40HRM1 + 0.041HRM2 + 0.028HRM3 + 0.089HRM4 + 0.079HRM5 + 0.54HRM6 \quad (R^2 of .61, r = .78; p < .05) \quad (13)$$

$$EO6 = 1.96 + 0.094HRM1 + 0.134HRM2 + 0.255HRM3 + 0.070HRM4 + 0.072HRM5 + 0.754HRM6 \quad (R^2 of .52, r = .72; p < .05) \quad (14)$$

$$EO7 = 1.01 + 0.065HRM1 + 0.097HRM2 + 0.135HRM3 + 0.056HRM4 + 0.218HRM5 + 0.87HRM6 \quad (R^2 of .58, r = .75; p < .05) \quad (15)$$

$$EO8 = 1.01 + 0.065HRM1 + 0.097HRM2 + 0.135HRM3 + 0.056HRM4 + 0.218HRM5 + 0.625HRM6 \quad (R^2 of .58, r = .89; p < .05) \quad (16)$$

Equation (9) expresses the impact of Recruitment and Selection (HRM<sub>1</sub>), Training and Development (HRM<sub>2</sub>), Performance Appraisal (HRM<sub>3</sub>), Compensation Management (HRM<sub>4</sub>), Occupational Health and Safety (HRM<sub>5</sub>) and Career Growth and Development (HRM<sub>6</sub>) on Competence (EO<sub>1</sub>). The Coefficient of Determination ( $R^2$ ) for this model is 0.57, meaning 57% of the variations in competence are accounted for by independent variables at  $P < 0.05$ . The Pearson correlation coefficient  $r$  is 0.75 indicating a strong positive correlation between dependent and independent variables

Equation (10) describes the impact of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> on Commitment (EO<sub>2</sub>). The coefficient of Determination ( $R^2$ ) is 0.63, indicating that 63% of variations in commitment are caused by the independent variables at  $P < 0.05$ . The Pearson Correlation Coefficient is 0.79, indicating a strong positive relationship between dependent and independent variables

Equation (11) describes the influence of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> on Motivation (EO<sub>3</sub>). Like the previous equations, all dependent variables positively influence the independent variables. Also, the Coefficient of Determination ( $R^2$ ) shows that 55% of changes in motivation are caused by the dependent variables at  $P < 0.05$ . Also, the Pearson Correlation

Coefficient of 0.74 means there exists a strong positive correlation between dependent and independent variables

Equation (12) describes the impact of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> on Cooperation with Management (EO<sub>4</sub>). All independent variables positively determine the dependent variables. Also, the Coefficient of Determination shows that 52% of variations in Cooperation with Management are accounted for by the independent variables at P < 0.05. Also, a Pearson Correlation Coefficient of 0.72 shows a substantial positive degree of relationship between dependent and independent variables

Equation (13) shows the influence of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> on Cooperation with Co-workers (EO<sub>5</sub>). All independent variables positively impact the dependent variable with an R<sup>2</sup> of 0.61 and r of 0.78 at P < 0.05. This result means that the dependent variables account for 61% of variations in the dependent variable, and there exists a strong positive interaction between dependent and independent variables

Equation (14) describes the impact of independent variables on Job Satisfaction (EO<sub>6</sub>). Like the other results, the equation shows that each independent variable contributes positively to the dependent variables, as shown by the positive coefficients. The r of 0.72 show a positive joint relationship between dependent and independent variables, and the R<sup>2</sup> shows that changes in the independent variables cause 52% of variations in Job Satisfaction.

Equation (15) describes how the independent variables affect the dependent variable (Presence [EO<sub>7</sub>]). From the equation, all independent variables positively impact the dependent variables at R<sup>2</sup> of 0.58 and r of 0.75, all at P < 0.05. This result shows a robust positive correlation between all independent and dependent variables. Also, the dependent variables determine 58% of changes in presence.

Equation (16) describes how Compliance (EO<sub>8</sub>) connects with the dependent variables. Equation R<sup>2</sup> shows that 58% of variations in Compliance are accounted for by variations in the independent variables at P < 0.05. Pearson Correlation Coefficient of 0.89 shows a strong positive relationship between dependent and independent variables.

The results above also agree with the position of several authors (Heffernan & Dundon, 2016; Sawitri, Suswati & Huda, 2016; Yanadori & Yaazveld, 2014; AlDamoe, Yamaz & Hamid, 2013; Boon, Boselie & Dietz, 2008; Armstrong, 2005; Youndt, Snell, Dean & Lepak, 1996; Delaney & Huselid, 1997; Fajana et al, 2011; Paauwe, 2009; Paauwe & Boselie, 2005; Katou & Budhwar, 2012; Foss & Laursen, 2000; Way, 2002; Wright, Gardner, Moynihan & Allen, 2005; Wright, McCormick, Sherman, & McMahan, 1999).

A significant limitation of this study is the generalisability of its outcome across various sectors, as this research focuses on Nigeria's manufacturing sector. In addition to this, the study is hinged on a self-reporting questionnaire with the possible existence of Common Methods of Bias (Podsakoff, Podsakoff, McKenzie & Lee, 2003; Hancock, 2015; Ittner & Larker, 2001; Wright, Gardner, Moynihan, Park, Gerhart, & Delery, 2001)

Implications of these equations on the hypotheses for this investigation are shown in Table 5.

**Table 5.** Hypotheses test results

<b>Hypotheses</b>	<b>Result</b>
There is no significant contribution of HRM practices to employee behavioural outcomes (Competence, Commitment, Motivation, Job Satisfaction, Cooperation with Management, Cooperation with Co-workers, presence and Compliance)	Reject
<i>There is no significant relationship between HRM practices and employee behavioural outcomes (Competence, Commitment, Motivation, Job Satisfaction, Cooperation with Management, Cooperation with Co-workers, presence and Compliance)</i>	Reject

Source: Authors' hypotheses test results.

Table 5 shows that all null hypotheses are rejected based on the results indicated in equations (1) to (5). The rejections imply that all dimensions of HRM practices have significant impacts on and relationship with the organisational performance of companies in Nigeria's manufacturing sector.

## Conclusion and Recommendation

The study determined the degree of influence of key dimensions of HRM practices (Recruitment and Selection, Training and Development, Compensation Management, Performance Appraisal, Occupational Health and Safety and Career Growth and Development) on employee behavioural outcomes (Competence, Commitment, Motivation Cooperation with Management, Cooperation with Co-workers, Job Satisfaction, Presence and Compliance). The study found all dimensions of HRM practices to determine and predict all dimensions of employee behavioural outcomes. This conclusion agrees with the position of many scholars (Heffernan & Dundon, 2016; Sawitri, Suswati & Huda, 2016; Yanadori & Yaazveld, 2014; AlDamoe, Yamaz & Hamid, 2013; Boon, Boselie, & Dietz, 2008; Armstrong, 2005; Youndt, Snell, Dean & Lepak, 1996; Delaney & Huselid, 1997; Fajana et al, 2011; Paauwe, 2009; Paauwe & Boselie, 2005; Katou & Budhwar, 2011; Foss & Laursen, 2000; Way, 2002; Wright, Gardner, Moynihan & Allen, 2005; Wright, McCormick, Sherman, & McMahan, 1999; Diamantidis & Chatzoglou, 2014; Manas & Graham, 2003; Dothan et al, 2016;; Katou, 2011; Katou & Budhwar, 2012; Katou & Budhwar, 2014 etc). It is suggested that organisations hoping to improve on key Employee Behavioural Outcomes such as Job Satisfaction, Commitment, Competence, Motivation, Presence, and Cooperation should put in place requisite HRM practices. This study also justifies continued investment in HRM practices.

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