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

# Idris Adegboyega Onikoyi<sup>1</sup>, Oluwfemi Samuel, Omoyele<sup>2</sup>, James Adetunji, Odumeru<sup>3</sup>, Callistus Destiny Odeh<sup>4</sup>

Abstract: Most authors agree that Human Resources is the most important input available to any organisation. As such, scholars generally believe that Human Resource Management (HRM) practices have positive impact on firm performance. This belief is hinged on the fact that positive HRM practices strengthen competence, motivation, commitment and other employee outcomes leading to an improved organisational performance. However, there exists limited empirical evidence that 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 achieve this objective, the study adopted cross sectional survey research design where data was collected from 381 middle level managers of manufacturing companies in Lagos, Nigeria selected using stratified and random sampling techniques. Data were analysed using Structural Equation Modelling (SEM). 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, presence and compliance all in varying degrees. The study justified investment in HRM and therefore recommends bundled approach to the application of HRM practice. Other results are and implications are discussed in the article.

<sup>&</sup>lt;sup>1</sup> Senior Lecturer, Osun State University, Osogbo, Nigeria, Address: Main Campus, Oke Bale Street, Area 210001, Osogbo, Nigeria, Tel.: +2348039201211, Corresponding author: idris.onikoyi@uniosun.edu.ng.

<sup>&</sup>lt;sup>2</sup> Senior Lecturer, Osun State University, Osogbo, Nigeria, Address: Main Campus, Oke Bale Street, Area 210001, Osogbo, Nigeria, Tel.: +2358035634973, E-mail: olufemi5ng@gmail.com.

 <sup>&</sup>lt;sup>3</sup>Chief Lecturer, Osun State College of Technology, Esa Oke, Osogbo, Nigeria, Address: PVWM+Q83
Peace house Peace, 233130, Esa, Osun, Nigeria, Tel.: +2358035634973, E-mail: tujamng@yahoo.com.
<sup>4</sup>Assistant Lecturer, Osun State University, Osogbo, Nigeria, Address: Main Campus, Oke Bale Street, Area 210001, Osogbo, Nigeria, Tel.: +2347052659146, E-mail: Callistus.odeh@uniosun.edu.ng.

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## **1. Introduction**

Human Resources have proven to be the most important asset available 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 on one hand and employee and organisational outcomes on the other has been a subject of interest among various 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 satisfaction etc) with the hope that this will translate into distal outcomes (improvement in profit, sales, innovation, environmental sustainability etc) (Katou & Budhwar, 2014).

The general belief among managers that Human Resource Management (HRM) practices have positive influence on employee behavioural outcomes encourage many organisations to put in place HR policies which require the investment of huge resources. For example, Nestle Foods Plc invested over N26.6 Billion on HR related activities which include recruitment, talent management, employee engagement, employee involvement, wages, salaries and employee benefits in 2015 alone (Nestle, 2020). Dangote Group on the other hand invested over N4billion on employee related matters including recruitment, pensions and gratuities, wages, salaries and benefits in 2011 alone (Dangote Cements Plc, 2020). This is also similar in most big manufacturing firms in Nigeria. This is 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, employee participation etc. (Fajana, Owoyemi, Elegbede & Gbajumo-Sheriff, 2011).

Despite these heavy investments, key performance indices show underperformance of the country's manufacturing sector. This is in spite of the fact that by size, the Nigerian manufacturing sector is one of the biggest in Africa. Statistical data from the Central bank of Nigeria shows that average manufacturing capacity utilisation keeps hovering around 35% to 45%, a figure that is relatively low compared to the over 70% figure for South Africa and Egypt. The manufacturing sector has also contributed marginally to the growth of the Nigerian economy; growing at less than 1% per annum (Central Bank of Nigeria [CBN], 2019).

Scholars also agree that employee outcomes respond significantly to Human Resources Policies (Katou, 2011; Mehmood, Awais, Afzal, Shahzadi & Khalid, 2017). However, the nature of this relationship is still a subject of controversy (Glaister, Karacay, Demirbag & Tatoglu, 2018). This investigation sheds more light into 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 a lot of literature on this subject. However, most researchers had focused their efforts on studying the HR– employee behavioural outcome relationship within the context of developed economies of North America, Europe and Australia to the neglect of developing economies of Africa, Asia and South America (Guthrie, 2001; Absar, Nimalathasan & Jilani, 2016). According to Fajana et al (2011), lack of indigenous and comprehensive HRM models is one of the challenges of HRM practices in Nigeria. If environmental context matter in the HR – employee outcomes relationship, then it is necessary to develop a model that takes into account the peculiarity of these developing countries.

## 1.1. Objective of the Study

The objective of this investigation is therefore 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.

## 2. Literature Review

## 2.1. Human Resource Management Practices

Human Resource Management (HRM) practices have been diversely defined by various scholars (Gelade & Ivery, 2003). Otoo (2019) defined HRM practices as a set of internally consistent policies and practices designed and implemented to ensure that a firm's human capital contribute to the achievement of its business objectives. Katou (2011) and Katou and Budhwar (2014) described HRM practices as a group of activities aimed at ensuring the firms available human capital contributes optimally to the achievement to firm objectives. According to Minbaeva (2007), HRM practices are set groups of practices used by firms to manage HR which are targeted at developing and strengthening employee firm specific competencies and other outcomes leading to improved competitive advantage. Similarly, Raeder, Knorr & Hilb (2012) believes 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 that are implemented to get maximum value out of available human capital

There are several HRM functions that are often bundled together to form HRM practices. According to Huselid (1995), HRM practice is made up of 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 is made up of recruitment and selection, training and development, (as also contained in Diamantidis & Chatzoglou, 2014; 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. Synthesising the opinion of these scholars, this study defines HRM practices to consist of recruitment and selection, training and development, compensation management, performance appraisal, occupational health and safety and career growth and development. These constituents of HRM practices as it pertains to Nigeria's manufacturing sector was also put forward by Nwachukwu and Chladkova (2017).

### 2.2. Employee Behavioural Outcomes

Employee behavioural outcomes is defined as behavioural and attitudinal disposition of employees in an organisation. Attitudinal disposition include job satisfaction, commitment, presence (opposite of absenteeism), and turnover. Behavioural disposition is made up of motivation, compliance cooperation with management and cooperation with co-employees. Common to both behavioural and attitudinal disposition is competence (Posada, Martin – Sierra & Perez, 2017; Katou, 2011; Dava & Bala, 2012; Collins, Ericksen & Allen, 2005; Otoo, 2019; Charted Institute of Personnel Development, 2016). Synthesising the opinion of these scholars, employee behavioural outcomes is defined to consist of the following: commitment, competence, motivation presence, job satisfaction, compliance, cooperation with management and cooperation with co employees. Armstrong (2013) believes that motivation, commitment and organisational citizenship are contained in what is known as employee engagement.

#### 2.3. Theoretical Review

There are a number of theories that 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 weighs the potential benefits and associated risks of social relationships such that when associated risks outweighs rewards, the relationship will be abandoned. Otherwise, the relationship will be maintained (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 (Roeckelein, 2018). According to Saks (2006), obligations are generated through a series of interactions between parties who are in a state of reciprocal interdependence. The theory therefore believes that when organisations invest in their employees, the employees in turn will respond in positive ways mostly through their attitudes and behaviour. By extension, while organisations offer inducements such as improved pecuniary and non-pecuniary benefits, training and development opportunities etc, employees respond with positive attitudinal and behavioural dispositions such as commitment, job satisfaction, motivation etc (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 that exists between organisations and employees (Crepanzano et al, 2016).

Similar to the social exchange theory is the Organisational Support Theory (OST) which states that employees form a generalised perception on the extent to which the

firm value their contribution and cares about their well-being (Kurtessis, Eisenberger, Ford, Buffardi, Stewart & Adis, 2015). The theory also hold that the perception that employees have about how the firm values and supports them have strong effect on employee behavioural outcomes such as commitment, motivation, turnover and organisational citizenship behaviour (Kurtessis et al, 2015; Kuvaas & Dysvik, 2010). First mentioned in Eisenberger, Huntington, Hutchinson and Sowa (1986), the OST identified the following HRM practices that influences Perceived Organisational Support (POS): compensation management, performance appraisal, occupational health and safety, training and development, employee career management (career growth and development), family support and work-life balance (Krishnan & Mary 2012)

This study adopts both the social exchange theory and organisational support theory as theoretical underpinning for this investigation. This is because both theories proposed a connection between HRM practices and employee behavioural outcomes.

## 2.4. Empirical Revie

Many previous study on the relationship between HR policies and employee outcome were carried out as a part of the study of how HR policies and practices affect organisational performance. The following is a review of some previous study

Otoo (2019) studied the mediating role of employee competence in the HRM practices–organisational performance relationship. In this study, a total of 600 employees of selected hotels were given structured questionnaire to elicit relevant data which was subsequently analysed using SEM. The study found that HRM practices significantly determine employee competence which also mediate 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 employee engagement to significantly mediate the HRM practices – organisational performance relationship. However, a gap in this study is that it ignores other relevant components of employee outcome. 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 determine employee creativity which is a component of employee competence. Sev, Alabar, Avenenge, Emakwu & Ugba (2016) on the other

hand found motivational factors to significantly determine employee commitment. A major gap in these studies is their piecemeal approach to the study of the determinants of employee outcomes.

Jiang, Lepak, Hu & Baer (2012) studied the influence of HR on organisational outcomes with a focus on the mediating mechanisms in the relationship. The research aimed to investigate the differential effects of the different components of HR systems on organisational outcomes; how they affect proximal outcomes (competencies, motivation and job satisfaction) and distal outcomes (employee turnover and financial performance). Research design was a meta-analysis involving data from 31,463 organisations across 116 articles representing 120 independent samples. Data was analysed using the Meta-analytic Structural Equation Model. The results found that the three dimensions of HR systems have differential influence on human capital and employee motivation which in turn exert influence on voluntary turnover and operational outcomes and were further associated with financial outcomes. The study also found a direct link between skill and motivation enhancing HR practices and organisational performance. According to the authors: 'Specifically, we found that given no change in other conditions, a one standard deviation increase in skill enhancing, motivation-enhancing, or opportunity enhancing HR practices was related to a .13, .18, or.09 standard deviation increase in financial outcomes'.

In the same vein, Kovak & Dysvik (2010) studies 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 which as analysed using SEM, the study found perceived investment in employee development to significantly determine selected employee outcomes.

Majority of research efforts into the HRM – employee outcomes relationship had been conducted within the context of economies of the US and some European countries. In order to add the Asian flavour to the HRM – employee outcomes discourse, Singh (2014) studied the impact of HR practices on perceived firm level performance in India. Research design was cross sectional survey and data collected from 120 manufacturing firms in India was analysed using Structural Equation Model (SEM). The study found that key HR practices such as selection, training, job definition, performance appraisal, employee participation and compensation are positively related to perceived measure of employee outcomes.

Katou (2011) also investigated the causal relationship between HRM and performance from the Greek manufacturing sector perspective. This study was carried out using data collected from 178 senior managers from all 23 sectors of the Greek manufacturing industry. Data was analysed using SEM LISREL (Structural

Equation Modelling Linear Structural Relationship) and Maximum Likelihood Estimate (MLE). HRM outcomes were found to mediate the HRM policies – organisational performance relationship. Also business strategy was found to significantly influence HRM policies. However, the influence of organisational context on business strategy was found not to be significant.

## 3. 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 employee; motivation, commitment, job satisfaction, compliance and presence as suggested by Katou (2011) and Armstrong (2013). The conceptual framework for this study is shown on the diagram below



**Figure 1. Conceptual Framework** Source: Author's Conceptual Illustration, 2021

### 4. Results and Discussion

The following hypotheses are tested in this study:

 $H_1$ : 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)

 $H_2$ : 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 was collected by administering 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 Stock Exchange 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 forms). 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 stratified random sampling technique where each stratum is made up of Nigeria Stock Exchange classification of industries in Nigeria's manufacturing sector. Sample size wad determined using the Yamane formula at e = 0.05 which gives a minimum sample size of 376 respondents. However, 400 samples were selected as respondents out of which 381 filled questionnaires were found to be useful. Table 1 shows the organisations from which samples are drawn and the number of sampled respondents.

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
Total		381

**Table 1. Respondents According to Industries Used** 

Source: Field Survey (2021)

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

Items of the structured questionnaire used by Katou and Budhwar (2012) and Demo, Nieva, Nunez and Rozzett (2012) was adopted for this study with permission. 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 was measured with Likert scale with polar anchors 1: strongly disagree, 2: disagree, 3: indifferent, 4: agree and 5: strongly agree. Employee behavioural outcomes was also measured using 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 through 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 below:

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	4	0.95
	Development		
Employee	Commitment	4	0.85
Behavioural	Competence	3	0.92
Outcomes	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

Table 2. Cronbach Coefficient Alpha

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

Table 1 shows the results of the Cronbach Coefficient Alpha. From the table, the least 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 Ordinary Least Squares (OLS) method:

 $EO_{1} = \alpha_{1} + \beta_{1}HRM_{1} + \beta_{2}HRM_{2} + \beta_{3}HRM_{3} + \beta_{4}HRM_{4} + \beta_{5}HRM_{5} + \beta_{6}HRM_{6} + \varepsilon_{1}$   $EO_{2} = \alpha_{2} + \beta_{7}HRM_{1} + \beta_{8}HRM_{2} + \beta_{9}HRM_{3} + \beta_{10}HRM_{4} + \beta_{11}HRM_{5} + \beta_{12}HRM_{6} + \varepsilon_{2}$   $EO_{3} = \alpha_{3} + \beta_{13}HRM_{1} + \beta_{14}HRM_{2} + \beta_{15}HRM_{3} + \beta_{16}HRM_{4} + \beta_{17}HRM_{5} + \beta_{18}HRM_{6} + \varepsilon_{3}$   $EO_{4} = \alpha_{4} + \beta_{19}HRM_{1} + \beta_{20}HRM_{2} + \beta_{21}HRM_{3} + \beta_{22}HRM_{4} + \beta_{23}HRM_{5} + \beta_{24}HRM_{6} + \varepsilon_{4}$   $EO_{5} = \alpha_{5} + \beta_{25}HRM_{1} + \beta_{26}HRM_{2} + \beta_{27}HRM_{3} + \beta_{28}HRM_{4} + \beta_{29}HRM_{5} + \beta_{30}HRM_{6} + \varepsilon_{5}$   $EO_{6} = \alpha_{6} + \beta_{31}HRM_{1} + \beta_{32}HRM_{2} + \beta_{33}HRM_{3} + \beta_{34}HRM_{4} + \beta_{35}HRM_{5} + \beta_{36}HRM_{6} + \varepsilon_{6}$   $EO_{7} = \alpha_{7} + \beta_{37}HRM_{1} + \beta_{38}HRM_{2} + \beta_{39}HRM_{3} + \beta_{40}HRM_{4} + \beta_{41}HRM_{5} + \beta_{42}HRM_{6} + \varepsilon_{7}$   $EO_{8} = \alpha_{8} + \beta_{43}HRM_{1} + \beta_{44}HRM_{2} + \beta_{45}HRM_{3} + \beta_{46}HRM_{4} + \beta_{47}HRM_{5} + \beta_{48}HRM_{6} + \varepsilon_{8}$ Where:

 $EO_1 = Competence$ ;  $EO_2 = Commitment$ ;  $EO_3 = Motivation$ ;  $EO_4 = Cooperation with Management$ ;  $EO_5 = Cooperation with Co-workers$ ;  $EO_6 = Job$  Satisfaction,  $EO_7 = Presence$  and  $EO_8 = Compliance$ 

 $HRM_1$  = Recruitment and Selection;  $HRM_2$  = Training & Development;  $HRM_3$  = Performance Appraisal;  $HRM_4$  = Compensation Management;  $HRM_5$  = Occupational Health and Safety;  $HRM_6$  = Career Growth and Development

	HRM <sub>1</sub>	HRM <sub>2</sub>	HRM <sub>3</sub>	HRM <sub>4</sub>	HRM5	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		
HRM5	.21	.21	.11	.13	1	
HRM <sub>6</sub>	.15	.14	.2	.21	.1	1
P>0.05						

Table 3. Multi-Collinearity Test

Source: Extract of results from SPSS23.0

Table 3 is a table of Pearson Correlation Coefficients of all independent variables. Correlation coefficients that are significant suggests the presence of multicollinearity among the independent variables (Kock & Lynn, 2012). However, results from the Table shows 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 on multi-collinearity

## 4.1. Discussion of Findings

Table 4 shows the computed unstandardized coefficients

	EO1 β Value	EO2 β Value	EO3 β Value	EO4 β Value	EO5 β Value	EO6 β Value	EO7 β Value	EO8 β Value
HR M1	.115*	.105 **	.116**	.156*	.040**	.094* *	.065* *	.03**
HR M2	.162*	.051 *	.013*	.116**	.041**	.134*	.097* *	.241*
HR M3	.176*	.141 *	.039*	.002*	.028**	.255*	.135* *	.051**
HR M4	.006*	.055 *	.086*	.096*	.089**	.070*	.056*	.025**
HR M5	.481* *	.211 *	.099*	.096*	.075**	.072*	.218*	.541*
HR M6	.415*	.94*	.87*	.87*	.54*	.754*	873*	.625*

Table 4. Unstandardised Beta (B) Coefficients and Level Of Significance

Dependent Variables: EO1, EO2, EO3, EO4, EO5, EO6, EO7, EO8, \*P < .05; \*\*P > .05 Source: Extract of results from SPSS23.0

From Table 4, Occupational Health and Safety (HRM<sub>5</sub>) has the biggest impact on competence with an unstandardized coefficient of 0.481 but the impact is not significant at P > 0.05. However, 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>), and Career Growth and Development (HRM<sub>6</sub>) all have significant impact on employee competence (EO<sub>1</sub>) at P < 0.05. This outcome agrees with the position of several scholars (Katou, 2011; Katou & Budhwar, 2012; Glaister et al, 2018).

Similarly, 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>) all have significant positive impacts on Commitment (EO<sub>2</sub>) at P < 0.05. However, Recruitment and Selection has do not have a significant impact on EO<sub>2</sub> with P > 0.05. This is also in tandem with the position of several researchers (Collins et al, 2005; Diamantidis & Chatzoglou, 2014; Manas & Graham, 2003; Sothan et al, 2016 etc).

The result also show that 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>) all have significant impact on Motivation (EO<sub>3</sub>) at P < 0.05. However, Recruitment and Selection (HRM<sub>1</sub>) do not have significant impact on Motivation (EO<sub>3</sub>). This also agree with the position of a number of authors (Demo et al, 2012; Sev et al, 2016; Raeder et al, 2012).

Results also show that Cooperation with Management (EO4) is significantly determined HRM<sub>1</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> at P < 0.05. But the impact of HRM<sub>2</sub> on EO<sub>4</sub> is not significant at P < 0.05. On the other hand, HRM<sub>6</sub> significantly determine Cooperation with co-workers (EO<sub>5</sub>). But the impact of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub> and HRM<sub>5</sub> on EO<sub>5</sub> are not significant at P < 0.05. This conforms to the position of several authors including Kuvaas & Dysvik (2010), Taib et al (2018), Mehmood et al, 2017 etc.

Job satisfaction (EO<sub>6</sub>) on the other hand is significantly impacted by HRM<sub>2</sub>, HRM<sub>3</sub>, HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> at P < 0.05. However, the impact of HRM<sub>1</sub> on EO<sub>5</sub> is not significant at P > 0.05. This position is in agreement with several authors including Taib et al, (2018), Yanadori & Yaasveld (2014), Sawitri & Suswati (2016), Posada et al, (2017) etc.

The result also show that Presence (EO<sub>7</sub>) is significantly determined by HRM<sub>4</sub>, HRM<sub>5</sub> and HRM<sub>6</sub> at P < 0.05 while the impact of HRM<sub>1</sub>, HRM<sub>2</sub>, HRM<sub>3</sub> is not significant at P > 0.05 (Katou, 2009; Katou, 2011; Katou & Budhwar, 2012; Katou & Budhwar, 2014).

The result also show that Compliance (EO8) is significantly determined by HRM2, HRM5 and HRM6 at P < 0.05 and 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:

 $EO_1 = 1.23 + 0.115HRM_1 + 0.162HRM_2 + 0.176HRM_3 + 0.006HRM_4 + 0.401HRM_5 + 0.415HRM_6$  ( $R^2 = .57$ , r = .75; p < .05);

 $EO_2 = 1.56 + 0.105HRM_1 + 0.056HRM_2 + 0.141HRM_3 + 0.055HRM_4 + 0.211HRM_5 + 0.94HRM_6$  ( $R^2 = .63$ , r = .79; p < .05);

 $EO_3 = 1.63 + 0.116HRM_1 + 0.013HRM_2 + 0.039HRM_3 + 0.086HRM_4 + 0.099HRM_5 + 0.87HRM_6 (R^2 = .55, r = .74; p < .05);$ 

 $EO_4 = 1.85 + 0.156HRM_1 + 0.116HRM_2 + 0.002HRM_3 + 0.096HRM_4 + 0.096HRM_5 + 0.87HRM_6$  ( $R^2 = .52$ , r = .72; p < .05);

 $EO_5 = 1.690 + 040HRM_1 + 0.041HRM_2 + 0.028HRM_3 + 0.089HRM_4 + 0.079HRM_5 + 0.54HRM_6$  (*R*<sup>2</sup> of .61, r = .78; p < .05);

 $EO_6 = 1.96 + 0.094HRM_1 + 0.134HRM_2 + 0.255HRM_3 + 0.070HRM_4 + 0.072HRM_5 + 0.754HRM_6$  (*R<sup>2</sup> of .52, r = .72; p < .05*);

 $EO_7 = 1.01 + 0.065HRM_1 + 0.097HRM_2 + 0.135HRM_3 + 0.056HRM_4 + 0.218HRM_5 + 0.87HRM_6 (R^2 of .58, r = .75; p < .05);$ 

 $EO_8 = 1.01 + 0.065HRM_1 + 0.097HRM_2 + 0.135HRM_3 + 0.056HRM_4 + 0.218HRM_5 + 0.625HRM_6$  (*R<sup>2</sup> of .58, r = .89; p < .05*).

The first equation 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<sup>2</sup>) for this model is 0.57 meaning that 57% of the variations in competence is accounted for by the independent variables at P < 0.05. The Pearson correlation coefficient r is 0.75 indicating a strong positive correlation between dependent and independent variables

The second mathematical expression 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>). Coefficient of Determination ( $R^2$ ) is 0.63 indication that 63% of variations in commitment is 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.

The third equation 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 HRM6 on Motivation (EO<sub>3</sub>). Like the previous equations, all dependent variables have positive influence on the independent variables. Also, Coefficient of Determination ( $\mathbb{R}^2$ ) shows that 55% of changes in motivation is caused by the dependent variables at P < 0.05. Also, Pearson Correlation Coefficient of 0.74 means there exists a strong positive correlation between dependent and independent variables.

The fourth equation describes the impact of  $HRM_1$ ,  $HRM_2$ ,  $HRM_3$ ,  $HRM_4$ ,  $HRM_5$ and  $HRM_6$  on Cooperation with Management (EO<sub>4</sub>). All independent variables positively determine the dependent variables. Also, Coefficient of Determination shows that 52% of variations in Cooperation with Management is account for by the independent variables at P < 0.05. Also, a Pearson Correlation Coefficient of 0.72 shows a strong positive degree of relationship between dependent and independent variables.

The fifth equation 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 (EO5). All independent variables positively impact the dependent variable with an  $R^2$  of 0.61 and r of 0.78 at P < 0.05. This

means that 61% of variations in the dependent variable is accounted for by the dependent variables and there exists a strong positive relationship between dependent and independent variables.

The sixth equation describes the impact of independent variables on Job Satisfaction  $(EO_6)$ . Like the other results, the equation shows that each of the equations contribute positively to the dependents 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 52% of variations in Job Satisfaction is caused by changes in the independent variables.

The seventh equation 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  $R^2$  of 0.58 and r of 0.75 all at P < 0.05. This show a strong positive correlation between all independent and dependent variables. Also, 58% of changes in Presence is determined by the dependent variables.

The last equation describes how Compliance (EO<sub>8</sub>) connects with the dependent variables. From the equation  $R^2$  shows that 58% of variations in Compliance is 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 agrees with the position of a number of authors (Heffernan & Dundon, 2016; Sawitri, Suswati & Huda, 2016; Yanadori & Yaazveld, 2014; AlDamoe, Yamaz & Hamid, 2013; Boselie, Dietz & Boon, 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).

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

From the above, the following is the hypotheses test results.

**Table 5. Hypotheses Test Results** 

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

Source: Authors' hypotheses test results

## 5. 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 Coworkers, 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; Boselie, Dietz, & Boon, 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; Sothan et al, 2016; Katou, 2011; Katou & Budhwar, 2012; Katou & Budhwar, 2014 etc). As such, it is hereby 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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