Abstract

Purpose – The purpose of this paper is to investigate the influence of human resource management (HRM) practices, (recruitment and selection) and organizational performance (OP) through mediation role of ethical climates (ECs) in Nigerian educational agencies.

Design/methodology/approach – Quantitative data were collected from 181 educational agencies represented by director of administration; SmartPLS-SEM was used in testing the relationship, as well as testing the mediating effect of ECs.

Findings – The results revealed strong support for the mediating role of ECs on the relationship between HRM practice (recruitment and selection) and OP.

Research limitations/implications – Policy makers and executives in educational agencies need to consider making appropriate decision in terms of effectively adopt and implement performance-based HRM practices that can encourage and create ethical behavior of employees’ and within organization. Through the adoption and utilization of these practices, educational agencies can enhance OP.
Practical implications – This study contributes to the understanding of the relationship between HRM and OP by clarifying a pathway between these variables. This study also generalizes consistent findings on the HRM practices and OP relationship to a different discipline and context, i.e. educational agencies.

Originality/value – This study adds to the domain of resource-based view by incorporating EC as a mediator between HRM practices and OP.

Keywords Human resource management, HRM practices, Organisational performance, Ethical climates, Resource based view theory

Paper type Research paper

1. Introduction

Today’s human resource management practices (HRMP) is a unique approach to employment management that aims to attain competitive advantage through the strategic improvement of well dedicated and competent workers by means of an incorporated collection of cultural, structural and human resources techniques. An effective HRMP in the organization will enable employees to contribute effectively and fruitfully to the attainment of the organization’s goals and objectives. It makes employees to be committed to their work and elicit positive behavior that will increase the organization’s effectiveness. Effective HRMP in an organization will also discourage employees from exhibiting negative behavior like organizational deviant behavior, and counterproductive behavior. HRMP is expected to add value to the strategic utilization of workforce and that worker programs impact the business in quantifiable ways. The study of human resource practices has gained importance in the literature for the last few years (Chang and Chen, 2002) and most importantly its impact on organizational performance (OP), effectiveness and employees’ commitment. HRMP in Nigerian educational sector cannot be totally diffused from what is evidence in other countries. However, because of the peculiarity of the social-cultural characteristics of Nigerian public sector, HRMP in Nigeria is an area open for further research. Good employer-employee relations are therefore critical to the stable and sustainable development of the Nigerian economy as well as the world economy as a whole.

The lack of OP in Nigeria public sector is very critical; more particularly in the performance of Public Educational Sector Administration (PESA) the sector rely on the provision of quality educational services and other services to the entire society which serves as the most significant services required from the system. Even though, Nigerian public service is not performing in the provision of these essential services and other more services that can satisfied individual citizens (Okonjo-Iweala and Osafo-Kwaako, 2007). In this regards, there is a lot of complaints from the public in respect of the declining of performance, quality, and standard of the most significant sector of the economy which is educational sector (Okonjo-Iweala and Osafo-Kwaako, 2007). Similarly, complaints of nonperformance of PESA in Nigeria had been raised by several authorities, governmental organizations, non-governmental organizations, international organizations, politicians, students and the public. These complaints includes inability of the PESA to perform and yield result because of issues of bribery and corruption, mismanagement and under-utilization of resources, abuse of office and indiscipline (Aminu, 2015; Buhari, 2015; Ejike, 2015; Nasiru, 2015; Olugbamila and Sehindemi, 2015; Oluwarotimi, 2015; UNDP, 2013).

Performance appraisal (PA) is a systematic periodic and impartial rating of employee’s excellence in matters about his present job and his potentialities for a better job Performance. Appraisal has a positive correlation with employee performance (Ringim et al., 2017), but the extent of the relationship was insignificant. Available evidence from the previous studies has shown that there are inconsistent, controversies and mixed findings on
the extent of the impact of performance appraisal on OP (Ringim et al., 2017). For instance, some studies documented the insignificant positive relationship between HRMP and Cyber deviant, (Abubakar et al., 2015). On the contrary, others researchers showed that HRMP attributes have a significant adverse relationship with Cyber Loafing, (Ringim et al., 2017). It was further discovered that the few studies that considered the inclusion of mediator or moderator in HRMP and OP relationship. Previous studies confirmed that studies on the connection between performance appraisal and OP are few more particularly in public sector administration (Paauwe, 2009; Paauwe and Boselie, 2005; Prowse and Prowse, 2010, 2016). In a related argument, Parboteeah et al. (2013) stress that HRMP and ethical climate (EC) can influence OP (Parboteeah, Seriki and Hoegl, 2013). However, previous studies reported EC is a strong predictor of OP (Arulrajah, 2015; Hijal-Moghrabi et al., 2015). Despite the aforementioned empirical studies on the role of EC as a predictor of the OP, still, studies indicated that less attention has been paid to the influence of PA, EC and Organization Performance. Performance appraisal is a critical HRMP factor to address OP hence, the adoption of theories of motivation (Goal setting and Expectancy theories) and RBV theory in this study.

Goal setting theory states the importance of employees’ motivation through the setting of targets and is widely recognized as a technique to improve performance. It emphasizes the need to agree and set targets which will act as a standard of performance measurement. Expectancy Theory advocates motivation as a function of personal effort to achieve high performance. The resource-based view (RBV) argued that internal resources considered to be one of the best resources that can improve competitive advantage among the competing organization. In a related argument, performance appraisal can be regarded as internal resources that can create competitive advantage and improve performance. RBV stated that human resource system can leads to competitive advantage through resources that are intangible within the organizational circle like ethics (Barney, 2001; Reed and DeFillippi, 1990; Wright and McMahan, 1992). Also, Baron and Kenny (1986) argued that the inclusion of mediator or moderator variable could best address the inconsistencies in research findings hence the inclusion of EC variable in the current study. In this regards, this study empirically investigated the mediating effects of EC, performance appraisal and OP (Arulrajah, 2015; Manroop et al., 2014). EC had been discussed in the literature by Victor and Cullen (1987, 1988). EC can be defined as “prevailing perceptions of typical procedures as well as organizational practices that have ethical content (Victor and Cullen, 1987, 1988). It is also regarded asset of norms, procedures, policies, and practices walled in the organizational lifecycle that usually guided employees to conducts their behavior with a high level of ethics for organizational development (Martin and Cullen, 2006; Schluter et al., 2008). The need for a better empirical research and evidence about the effect of EC on the link between Performance appraisal and OP is well documented in the literature (Parboteeah et al., 2013; Thite, 2013). In narrowing the research gap identified in the literature, this paper, therefore, seeks to investigate the mediating effect of EC on the relationship between performance appraisal and Organization Performance in Nigerian Public Educational Sector Administration.

2. Review of related literature and hypotheses development

2.1 Organization performance

Performance in schools is increasingly judged on the basis of effective learning outcomes. Information is critical to knowing whether the school system is delivering good performance and to providing feedback for improvement in student outcomes. PESA uses its key performance indicators of balance scorecard to analyze and track performance and base key
strategic decisions regarding resources. Literature shows that many factors were investigated and found significantly related to OP. For instance, quality management practices (Appiah-Fencing et al., 2008; Fencing, 2012; Phan et al., 2011), organizational support (Hau-siu Chow et al., 2006; Joiner, 2007), environment (Chandrasekar, 2011; Cosh et al., 2012), organizational learning (Barba-Aragón et al., 2014; Garcia-Morales et al., 2012; Jiménez-Jiménez and Sanz-Valle, 2011; Lopez et al., 2005; Tippins and Sohi, 2003) and commitment (Ali et al., 2010; Pinho et al., 2014; Rodrigues and Pinho, 2010). Others examined the influence of interpersonal trust (Bakiev, 2013; Paul and Mcdaniel, 2004), personality (Barrick et al., 2001; Soane et al., 2015), attitudes (Gregory et al., 2009; Ko and Smith-Walter, 2013; Ko et al., 2013) among others.

Generally, previous studies above guide us to understand factors that influence OP; however, literature confirmed that studies on the link between performance appraisal and OP are few more particularly in public sector organization (Paauwe, 2009; Paauwe and Boselie, 2005; Prowse and Prowse, 2010, 2016). The previous studies on public sector did not focus on education sector because of some fundamental reasons for why and how performance appraisal influence OP. This has a long argument in the literature and still not clearly discussed extensively. Importantly, Theory of RBV argued that internal resources considered to be one of the best resources that can improve competitive advantage among the competing organization.

2.2 Performance appraisal proxies of human resource management practices
There is a lot of literature which is in favor of HRM practices and its positive influence on the organizational outcome and firm performance. Such that, HRMP can be classified in respect of their influence, skills, and abilities of employees, motivation and the structure of the work (Ulasi, 2011). Some dimensions of HRMP are compensation, career advancement, career development, performance appraisal, employment security, training program, organizational commitment, job satisfaction, employee participation in decision making, teamwork, HR planning, staffing practices among others. However, this current study considered the performance appraisal, and empirically examined the effect of performance appraisal on OP with a mediating factor of EC.

A performance appraisal is known by other terms like employee appraisal, performance review. looked at performance appraisal as a method by which the job performance of an employee is measured in terms of quality, quantity, cost, behavior and time. He further explained that it is conducted by self, peers, seniors, and junior. However, generally, in the formal method, it is conducted by the immediate manager or supervisor under whom the person is directly working. A performance appraisal is a part of measuring, comparing, finding, guiding, correcting and managing career development of the employees, (Mullins, 2007). The Journal of Global Business and Economics (2010) established that performance appraisal is the process of gathering, recording and critically analyzing information about the relative importance of employees to the organization. Performance appraisal is a study of present achievements, and failures, personal strengths and weaknesses, and suitability for incentives, rewards and recognition, increased pay scale, promotion or further training.

An appraisal is the evaluation of worth, quality or merit. The appraisal should measure both performances in accomplishing goals, plans and performance as a manager. It is the evaluation of present performance and future capabilities. “Performance appraisal is a systematic periodic and impartial rating of employee’s excellence in matters about his present job and his potentialities for a better job”. “It is the process of evaluating the performance and qualifications of the employees in terms of the requirements of the job for which he is employed for purposes of administration including placement, selection for
promotions, providing financial rewards and other actions which require differential treatment among the members of a group as distinguished from actions affecting all members equally. In addition, Douglass (1999) sees performance appraisal as a method of acquiring and processing the information needed to improve an individual employee’s performance and accomplishments. Likewise, defined performance appraisal as the process of evaluating the performance of employees, sharing that information with them and searching for ways to improve their performance. Thus, performance appraisal can be seen as the process by which a manager or consultant examines and evaluates an employee’s work behavior by comparing it with preset standards, documents the results of the comparison, and uses the results to provide feedback to the employee to show where improvements are needed. An effective performance appraisal system has five components which include performance planning, managing of performance, performance review/assessment, performance monitoring and rewarding of performance.

Performance appraisals are employed to determine who needs what training, and who will be promoted, demoted, retained or fired (Delery and Doty, 1996).

In addition, HRM perspective stresses that EC shows an imperative window to understand the ethical positioning in the organization. Understanding the existence of EC in the organization can also be very much suitable as an origin for emerging performance appraisal system to foster an EC (Parboteeah et al., 2013). In related content, performance appraisal system promotes ethical behaviors among employees within the organizations, in this regards, human resource experts simply believe that they surely have an ethics management ability to incorporates ethics management (Caldwell et al., 2011; Van Vuuren and Eiselen, 2006). Based on the previous research findings it was argued that performance appraisal is capable of solving complex ethical predicaments (Arulrajah, 2015). Despite the argument in the literature that, still there are needs for more empirical investigation on the link between performance appraisal and EC. Hence, this hypothesis was developed:

\[ HAI. \text{ Performance appraisal is significantly positively related to EC} \]

2.3 Ethical climate

Literature argued that EC determines right or wrong of what people trust and shapes their ethical decision making and conduct (Lopez et al., 2005). Relatively, Schluter et al. (2008) stress that EC implies the organization’s policies, practices, and procedures on ethical matters, and it influences employees attitude and behavior and serves as an orientation for employee behavior. In this regards, EC plays an imperative role in improving OP. It considers essential, organizations set ethical values for its employees alongside providing an to enable atmosphere that encourages ethical behavior, capable leadership, trust, commitment and creates workforce value to improve OP (Hijal-Moghrabi et al., 2015).

However, literature established that challenges facing educational sector are surrounded with unethical values between the employees and the organization which is an impressive issue that needs to be an encounter for the OP improvement as well as employee’s behavior. Therefore, disregarding of ethical values that within the organizational system may lead to unfortunate performance as well as inadequate productivity. For that reason, ethical values are regarded as an essential component for sustaining superior performance and encourage competitive advantage (Trust, 2015). Equally, its revealed about the growing concern and the existence of unethical behaviors within the educational sector organization, in this respect, several issues that create some lots of unethical challenges such as poor service delivery, abuses, scandals, mismanagement, lack of performance as well as bribery and corruption. In the same manner, changing the unethical conduct of employees within the
organizations, through the effects of EC may result to huge significant of performance improvement and entire system (Arulrajah, 2015).

In line with the above discussion, EC boosts and enforces the employees to acquire suitable ethical behavior in discharging their responsibilities within the organization. In this regards, ethical behavior of employees viewed as essential in realizing organizational success and performance (Brown et al., 2005; Winstanley and Hartog, 2002). Although the link between performance appraisal and OP has been tested empirically, the procedures through which performance appraisal influence OP needs to make clear. To clarify this, there is need to develop and test the mediating mechanism through which training and development utilization can lead to improved OP.

Previous studies revealed that EC link to OP. For instance, Hijal-Moghrabi et al. (2015) conducted a study in Western Context United State of America (USA) in particular with 1,695 sample in quantitative analysis, the result shows that there is a positive relationship between EC and OP. The study carried out by Sabiu et al. (2016a) in African context Nigeria in particular, investigated the influence of EC on OP using 181 sample from some selected public educational sector from North-western region. It was found that EC significant associated with OP. Similarly, Bowman and Knox (2008) investigate the influence of ethics on public managers in American public sector, it was found that ethics significantly predict OP. Using RBV theory, human resource systems can directly influence OP through resources that are impressively woven in organization’s history ethics and culture (Barney, 2001; Reed and DeFillippi, 1990; Sabiu et al., 2016b; Wright and McMahan, 1992). Despite the argument in the literature, still, there are needs for more empirical investigation on the link between performance appraisal, EC and OP. Therefore, on the basis of theoretical and empirical support, it seems reasonable to hypothesize that:

HA2. Ethical climate is significantly positively related to organizational performance.

Moreover, prior hypotheses highlight the linkages between performance appraisal, EC, and OP. Indirectly, the discussion proposes that performance appraisal affect OP through the influence of EC. That is, organizations can properly utilize HRMP (performance appraisal) to promote EC as well as improve employee’s behavior, which in return will enhance OP. Hence, this study argues that EC may play a mediating role on the link between performance appraisal and OP. Moreover, the study tested the power of EC to mediate the link between performance appraisal and OP, specifically in Nigerian PESA. Therefore, on the basis of previous studies, this study hypothesizes that:

HA3. Ethical climate significantly positively mediates the relationship between performance appraisal and organizational performance.

2.4 Conceptual framework and underpinning theory
The review of related literature above revealed that both performance appraisal and EC may influence OP. Then, the differing impact of performance appraisal and EC determination in OP improvement is still uncertain. Hence, this has put an interest to the researcher towards examining the relationship of both performance appraisal and EC and organization performance. A conceptual model framework was developed by combing the framework of the study carried out by Arulrajah, (2015), Sabiu et al. (2016a) and Bowman and Knox (2008) to demonstrate the relationship between performance appraisal and EC and organization performance as shown in Figure 1. The variables of this study include performance
appraisal as an independent variable, EC as mediating/intervening variable and organization performance as the dependent variable.

On the basis of RBV theoretical perspectives and empirical studies, a research framework for this study as depicted in Figure 1 shows the relationship between the independent variables (performance appraisal) mediating variable (EC) and the dependent variable (organization performance). The model was assessed using two-step approaches such as measurement model and structural model (Hair et al., 2014). In this study, we use RBV with a major focus on how firm resources (tangible and intangible) develop and affect organization performance. The RBV argued that internal resources considered to be one of the best resources that can improve competitive advantage among the competing organization. In a related argument, performance appraisal can be regarded as internal resources that can create competitive advantage and improve performance. RBV, which stated that human resource system can leads to competitive advantage through resources that are indirectly within the organizational circle like ethics (Barney, 2001; Reed and DeFillippi, 1990; Wright and McMahan, 1992). In addition, Baron and Kenny (1986) argued that the inclusion of mediator or moderator variable could best address the inconsistencies in research findings hence the inclusion of EC variable in the current study. In this regards, this study empirically investigated the mediating effects of EC, performance appraisal and OP (Arulrajah, 2015; Manroop et al., 2014). EC had been discussed in the literature by Victor and Cullen (1987, 1988). EC can be defined as “prevailing perceptions of typical procedures as well as organizational practices that have ethical content (Victor and Cullen, 1987, 1988). It is also regarded as a set of norms, procedures, policies, and practices walled in the organizational lifecycle that usually guided employees to conducts their behavior with a high level of ethics for organizational development (Martin and Cullen, 2006; Schluter et al., 2008).

3. Methodology
A quantitative survey research approach using exploratory, descriptive and cross-sectional design was employed in this study to understand the mediating effect of EC on the relationship between performance appraisal and OP. The decision to select the type of research design to be used depends on the understanding and clearness of the research problem. In this case, the research is required to understand the problem before developing any model (Zikmund, 2000; Sekaran, 2003). Descriptive research is conducted when there is some understanding of the nature of the problem; such research study is used to provide a more specific description of the problem (Zikmund, 2000; Sekaran, 2003). The research setting was a cross-sectional study design. It involves gathering the data only once or at one point in time to meet the research objectives. A self-administered hand delivery and collection survey questionnaire were used as the main sources of data collection strategy to reach the respondents who are employees of Ministry of Education, Parastatals, Boards and Agencies in the seven (7) States of Northern Nigeria. For this study, a probability sampling method and techniques were used; each unit of the population has an equal chance of being
selected in the sample. Simple random and stratified sampling technique was being utilized in this study. A comprehensive population frame of employees in seven (7) States of Northern Nigeria are accumulated, and the sample size was calculated to be 216 (Krejcie and Morgan, 1970). The steps follow to select the sample of 216 employees from the population involved using a computer-based random number generated in a Microsoft Excel program for application of the mathematical formula \( \text{rand}() \) that enabled us to generate random numbers aligned to the 1-900 population of the study. The second step followed the selection of the samples that are from the seven states. This respondent from each state is considered to be the most qualified representation that are knowledgeable enough about the operational activities, administration, and performance of their organization operating in Public Education sector in Northern Nigeria. The justification for employing the probability sampling techniques was given each respondent an equal chance of being selected as the sample object (Sekaran, 2003). Furthermore, a representative sample in the probability sampling design guarantees the equal and independent representation of data being chosen. The advantage of this sampling method is that there is no bias of the researcher against the choice of another. It is also regarded for its high generalizability. Furthermore, the aim of this study is to have samples drawn from seven (7) States of Northern Nigeria. A structured closed-ended questionnaire was adapted from previous studies with measurement scale of five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) is adopted to collect response on the items for AP scale and items for EC scale adopted from; items for OP from Wan (2007) and Preko (2014).

The method of analysis used in the study was the structural equation model using PLS path modeling in conjunction with Smart PLS 3.0 software (Ringle et al., 2015). The PLS path modeling was considered appropriate technique of data analysis for some reasons: First, the PLS path modeling considered being suitable data analysis technique in this study, because, it can simultaneously assess the measurement model, which describes the link between theory (latent constructs) and data (corresponding indicators) as well as relationships among constructs, also called the structural model (Hair et al., 2016). Second, the goal of the present study is to predict the mediating effect of EC on the relationship between performance appraisal and OP. Hence, the present study is predictive oriented and PLS path modeling is appropriate (Hair et al., 2017a, 2017b, 2017c). Finally, PLS path modeling is deem approprise because it has been successfully applied in extant management related studies (Kura et al., 2013a, 2013b, 2016).

4. Findings, discussion, and hypothesis testing
This section discussed how the data collected in the course of the study analyzed using SmartPLS 3.2.6 (Hair et al., 2016). Measurement model assessment was commenced where the composite reliability, Average variance extracted (AVE) and item loadings of the study constructs were evaluated as well as discriminant validity were also examined for all the reflective constructs (performance appraisal, OP). For the formative constructs (EC) the collinearity and significance assessment was also carried out. The structural model assessment was commenced by testing the path coefficient (hypotheses) among the variables under study were decisions on the supported or rejected of the hypotheses was also indicated, assessment of \( R^2 \) square, effect size \( f^2 \) and predictive relevance of the whole model.

4.1 Measurement model evaluation
As discussed earlier in the methodology, the study used SmartPLS 3.2.6 (Hair et al., 2016) as the instrument for analysis. This instrument analyses data for measurement models which are filtering the model for all the reflective constructs (PA and OP). The measurement model
fundamentally determines the reliability of the measurement scales used in the study and it also treats the goodness of fit of the model to be able to determine the global applicability (Ramayah et al., 2011).

Table I above shows the results of the factor loadings, composite reliability and AVE calculations of all the reflective constructs (PA, OP) under study. As revealed in Table I, the AVE values that range from 0.51 to 0.53, with consistent composite reliability values also ranging from 0.84 to 0.85, interpret that the items employed in the study measure the constructs and as well show an attainment of convergent validity. Therefore, CR, Factor loadings and AVE in this study are suitable and achieved as recommended by Hair et al. (2014). The following Table II presents the result of discriminant validity evaluation.

Assessment of discriminant validity was conducted to assess the degree to which measures of constructs are related was displays in Table II. To achieve that, the square root of the AVE of each construct was taken into consideration. As revealed in Table II, along the crosswise are the values of the square root of the AVE which are higher than all those values that are off the crosswise and that confirm suitable discriminant validity. In this respect, this means that loadings above are greater than the loadings and cross-loadings (Figure 2).

4.2 Structural model evaluation
In achieving the structural model assessment, the section discussed the testing of hypotheses, R-square $R^2$, effect size $f^2$, and predictive relevance. In this research, it was conducted using bootstrapping techniques and the decision on the significant or not significant of the hypotheses was based on $t$-values at 5 per cent level of significance non-directional hypotheses (2-tail).

Table III shown all the three direct relationships hypotheses and confirmed significant. Hence, performance appraisal (PA) and OP proves the significant relationship with a $\beta$ value = 0.28 and a $t$-value of 3.27. In addition, the relationship between performance

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Loadings</th>
<th>Composite reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational performance</td>
<td>OP10</td>
<td>0.75</td>
<td>0.84</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>OP3</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP5</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP6</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP7</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance appraisal</td>
<td>PA1</td>
<td>0.66</td>
<td>0.85</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>PA2</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA3</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA4</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA5</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA6</td>
<td>0.73</td>
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</tbody>
</table>

Table II.
Discriminant validity
(Fornell-Lacker criterion)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>OP</th>
<th>TD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP</td>
<td>0.712</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>0.609</td>
<td>0.729</td>
</tr>
</tbody>
</table>
appraisal (PA) and EC revealed a significant relationship with a $\beta$ value = 0.69 and a $t$-value of 15.99. Finally, the speculated relationship between the EC and OP is also supported with $\beta$ value = 0.48 and a $t$-value of 5.53.

4.2.1 Testing the mediating effects of ethical climate. In testing the mediating effects of EC on the link between training and development and OP, the result used in PLS 3.2.6 in estimating the indirect effects among the variables (training and development, EC and OP) at 0.00 level of significance. Table III presents the mediation hypothesis of the study.

Table IV presents the mediation of hypothesized relationship of EC on performance appraisal (PA) and OP is also supported with $\beta$ value = 0.33 and a $t$-value of 4.98. However, Hair et al. (2016) suggested for confidence interval calculation and Smart PLS 3.2.6 automatically generated the confidence interval estimation at 5 per cent lower level (LL) and 95 per cent upper level (UL). Table III presents confidence interval calculation (Table V and Figure 3).

4.2.2 Determination coefficient for mediating relationships ($R^2$). Another standard used for assessing structural model is coefficient of determination ($R^2$) of the endogenous construct (Hair et al., 2014, 2011, 2012; Henseler et al., 2009). According to Chin (1998); Hair et al. (2011, 2014, 2016) $R^2$ values of 0.25, 0.50 and 0.75 indicates small, medium and substantial $R^2$ values respectively. Similarly, Falk and Miller (1992) suggest 10 per cent as a minimum acceptable level of $R^2$ value.

Table VI shows the $R^2$ value of all the endogenous constructs (EC and OP) are small with (0.48) and (0.49) values respectively.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Beta</th>
<th>STD-error</th>
<th>$t$-values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA $\rightarrow$ OP</td>
<td>0.28</td>
<td>0.09</td>
<td>3.27</td>
<td>Supported</td>
</tr>
<tr>
<td>PA $\rightarrow$ EC</td>
<td>0.69</td>
<td>0.04</td>
<td>15.99</td>
<td>Supported</td>
</tr>
<tr>
<td>EC $\rightarrow$ OP</td>
<td>0.48</td>
<td>0.09</td>
<td>5.53</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Notes: ***p < 0.001; **p < 0.01; *p < 0.05

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Beta</th>
<th>Std error</th>
<th>$t$-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD $\rightarrow$ EC $\rightarrow$ OP</td>
<td>0.33</td>
<td>0.07</td>
<td>4.98</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Notes: ***p < 0.001; **p < 0.01; *p < 0.05
4.2.3 Assessment of effect size ($f^2$). Having achieved the coefficient of determination $R^2$ (EC and OP), the next assessment is effect size ($f^2$) as recommended by Hair et al. (2013). Cohen (1988) describes $f^2$ values of 0.02, 0.15 and 0.35 as having small, medium, substantial effects respectively. However, Chin et al. (2003) stress that the smallest strength of $f^2$ of exogenous constructs on endogenous variables should be considered as an effect. Henceforth, the effect size for exogenous constructs could be assessed using the formula below (Cohen, 1988; Selya et al., 2012). Table VII displays the effect size value of mediation model:

$$\text{Effect size : } f^2 = \frac{R^2 \text{ Included} - R^2 \text{ Excluded}}{1 - R^2 \text{ Included}}$$

The effect size values of 0.06, 0.92 and 0.20 considered as small, large and medium having suitable effect size displays in Table VII.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Relationship</th>
<th>Path a</th>
<th>Path b</th>
<th>a*b (Beta)</th>
<th>5% LL</th>
<th>95% UL</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4</td>
<td>TD $\rightarrow$ EC $\rightarrow$ OP</td>
<td>0.69</td>
<td>0.48</td>
<td>0.33</td>
<td>0.02</td>
<td>0.12</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: Hypothesis is supported when there is no zero (i.e. when LL has a negative sign and UL has a positive sign) between LL and UL.

Table VI. Confidence interval calculation for mediation test

Table V. Variance explained in the endogenous latent constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Variance explained ($R^2$) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP</td>
<td>49</td>
</tr>
<tr>
<td>EC</td>
<td>48</td>
</tr>
</tbody>
</table>

Table VII. Assessment of the effect size for mediating relationships: $F$-Square

<table>
<thead>
<tr>
<th>Constructs</th>
<th>$R^2$ Included</th>
<th>$R^2$ Excluded</th>
<th>$f$-squared</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-OP</td>
<td>0.49</td>
<td>0.46</td>
<td>0.06</td>
<td>Small</td>
</tr>
<tr>
<td>PA-EC</td>
<td>0.48</td>
<td>0.00</td>
<td>0.92</td>
<td>Large</td>
</tr>
<tr>
<td>EC-OP</td>
<td>0.49</td>
<td>0.39</td>
<td>0.20</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Figure 3. Structural model for mediation relationship
4.2.4 Assessment of predictive relevance. This study further assesses the predictive volume of the full model. It was conducted through blindfolding process to determine how the values are assembled around the model. The result of cross-validated redundancy was used because it explains how capable the model is to predict the endogenous constructs. It is believed that any model above “0” has predictive relevance, it has the ability to predict relationship and if the value is “0” and below means, the model has no any predictive influence (Geisser, 1974; Stone, 1974).

From the Table VIII above, $Q^2$ revealed an outstanding relevance of 0.23 for the endogenous construct (OP). Thus, based on Chin (1998), Geisser (1974), and Stone (1974) the model of this study has medium predictive relevance. However, predictive relevance cannot be conducted on formative construct (EC) (Hair et al., 2014) (Figure 4).

4.3 Discussion of findings and hypothesis testing
This study investigates the mediating effect of EC on the relationship between performance appraisal and OP. Statistically, result revealed that all the study hypotheses were found significantly supported as demonstrated in Table III Hypotheses for a direct relationship and indirect relationship (EC→OP, PA→EC and PA and OP).

4.3.1 HA1: Performance appraisal is significantly positively related to ethical climate. Table III shows that there is a relationship between performance appraisal (PA) and EC. This revealed a significant relationship with a $\beta$ value = 0.69 and a $t$-value of 15.99. The study findings established that PA enables organizations’ ability to develop more EC that can lead to OP.

Similarly, the result of Table III revealed that direct effect between PA and OP shows 0.09 greater than the indirect effect of PA on EC. The result of this study is consistent with some prior studies (Ali, 2015; Giauque et al., 2013). In support of that, RBV theory highlighted that human resource system (performance appraisal) can create and sustain competitive advantage in the organization through resources that are within the organizational capacity for instance; ethics and culture (Manroop et al., 2014). In a related point, RBV theory stress that success is determined by the organization’s resources controls and the uniqueness of the tangible and intangible resources in which this study considered performance appraisal and EC as intangible resources that can be uniquely acquired in the organization (Amit and Schoemaker, 1993).

<table>
<thead>
<tr>
<th>Total</th>
<th>SSO</th>
<th>SSE</th>
<th>1-SSE/SSO</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP</td>
<td>905</td>
<td>697.978</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Note: SSO (sum of square root observations) SSE (sum of square root predictive errors)

Table VIII. Predictive relevance $Q^2$

Figure 4. Predictive relevance for mediation model
4.3.2 HA2: Ethical climate is significantly positively related to organizational performance. Table III demonstrated that there is a relationship between the EC and OP with $\beta$ value = 0.48 and a $t$-value of 5.53. The result revealed that there is a direct effect between EC and OP. In this regards, EC plays an imperative role in improving OP. It considers essential organizations set of ethical values for its employees alongside providing an enable atmosphere that encourages ethical behavior, capable leadership, trust, commitment and creates workforce value to improve OP. The result of this study is consistent with some prior studies (Bowman and Knox, 2008; Hijal-Moghrabi et al., 2015; Sabiu et al., 2016a). In the same manner, changing the unethical conduct of employees within the organizations, through the effects of EC may result to huge significant of performance improvement and entire system (Arulrajah, 2015). EC boosts and enforces the employees to acquire suitable ethical behavior in discharging their responsibilities within the organization. In this regards, ethical behavior of employees viewed as essential in realizing organizational success and performance (Brown et al., 2005; Winstanley and Hartog, 2002; Barney, 2001; Reed and DeFillippi, 1990; Sabiu et al., 2016b; Wright and McMahan, 1992).

4.3.3 HA3: Ethical climate significantly positively mediates the relationship between performance appraisal and organizational performance. Table IV presents the mediation of hypothesized relationship of EC on performance appraisal (PA) and OP is also supported with $\beta$ value = 0.33 and a $t$-value of 4.98. The result of this study is consistent with some prior studies (Ali, 2015; Giauque et al., 2013) which show that PA is associated with OP through EC mediating variables. The findings of the study are in conformity with the RBV, the result highlights that PA as an internal valuable resource may improve OP through EC. In addition, the mediation result proves that PA is an important predictor of EC in the context of PESA, which in return enables the organization to improve performance, this also tent to show that if organization focus on proper performance evaluation with higher level of fairness and make it regularly, considering setting goals for personal development can develop ethics within the organization and result to OP. Therefore, it is important for PESA to add more effort in seeing the actual contribution of performance appraisal toward nurturing EC and leads OP.

The mediation hypothesis (EC) on the link between performance appraisal and OP supported RBV theory that highlighted human resource system of performance appraisal can create and sustain competitive advantage in the organization through resources that are within the organizational capacity for instance; ethics and culture (Manroop et al., 2014). Nigerian PESA can appropriately utilize the postulation of the RBV theory in respect of internal resources that can leads to a competitive advantage in an organization that can influence performance and competitive advantage more particularly through ethics.

4.4 Implications of the study
The empirical findings of the study show that the role of ECs’ immediate supervisors is deemed to be at the utmost crucial in transforming the employees especially the front line into a valuable human capital, thus displaying leader as the one who “lead the ship” to move forward. Hence, the study findings provide benefits for the line managers and HR/HC managers in service organization towards choosing suitable styles that could polish their abilities and assist in maximizing the profitability of service organization. Moreover, a good leader should come with a strong character and charisma, caring, good listener, negotiable, positive values, continuously guide and mentor the team, “protective” of his/her subordinates, endurance to dealing with office politics and walk the talk in the real corporate world. Performance appraisal acts an important factor of the function of overall HRM in the State Corporations, ministries and County Governments. On the whole, performance
The appraisal process is supposed to manage and improve effective feedback and communication. The findings of the study highlight ways of improving OP, communication and feedback ensure that employees being assessed are given information about their performance. For prevention of performance related issues, managers have to communicate vision, mission, and objectives of the organization to ensure employees understand their performance goals. Highly effective communication process should allow one on one discussion of staff performance appraisal issues. The Ministry should give employees opportunity for responding and asking questions that help them improve performance and ensure employees are motivated by appreciating their opinions.

This study contributes to managerial implications for Administrators and Managers, especially in the Public Educational sector setting. Managers are encouraged to invest in terms of time, money, commitment and other resources to implement the effective performance appraisal system. Evidence from this study suggests that organizations should develop EC on the relationship between performance appraisal and OP. Fundamentally, the results of this study will help the managers, administrators, policy makers/stakeholders and policy implementation committee in Nigerian PESA ministries, boards, agencies as well as the parastatals to be encourage and ensure proper and adequate assessment of employees with quick response that can creates ethics among the personnel and the system in general to promote superior performance. The overall results from this study confirm that HRMP factors (Performance appraisal) contribute towards OP. Thus, Nigerian PESA ministries, boards, agencies should strive to associate the implementation of performance appraisal with EC. Staff motivation through an effective reward system has an important role in encouraging employees to accept changes like performance appraisal system approach without fear. The findings from this study of the mediating effect of EC elements have a number of limitations. Recommendations for future study were provided based on the limitations of the research findings.

4.4.1 Limitations and recommendations for future research. Taking into account the above limitations, future research directions are recommended. Future research is highly welcome to look into multiple areas or sectors to gain additional insights into how these concepts apply to another context. Moreover, further expansion of this research to another type of industries, sectors or nations would significantly contribute to providing more evidence to support the adoption of leadership and Islamic human capital development. Besides that, the utilization of longitudinal and observational approach may prove to provide more thorough evidence and limiting the risk of potential bias on employee’s perception. Furthermore, the use of mixed method or incorporation of both qualitative and quantitative methods will potentially yield further understandings into the impact of leadership styles.

5. Conclusion
This study was conducted to understand the mediation effect of EC on the relationship between performance appraisal and OP. The findings established that EC is capable of mediation the relationship between performance appraisal and OP. The study contributes to the existing knowledge by examining the relationship between performance appraisal and OP in Nigerian educational sector administration empirically and statistically. Relatively, many studies established that there is a relationship between performance appraisal and OP without proving the extent of the relationships that exist between Performance appraisal and OP through a mediating factor EC. The study recommends the use of the large sample; another country educational sector administration can also conduct a similar study using other factor or bundles of practice to replicate the result of this study. Future research can validate the model.


Further reading


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