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Research article

Measuring institutional support strategies and faculty job effectiveness

H.O. Falola^{a,*}, A.A. Adeniji^a, J.O. Adeyeye^b, E.E. Igbinnoba^a, T.O. Atolagbe^a

^a Department of Business Management, Covenant University, Ota, Ogun State, Nigeria
^b Alex Ekwueme Federal University Ndufu-Alike, Abakaliki, Ebonyi State, Nigeria

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This study examines the influence of institutional support strategies on the effectiveness of Faculty core job responsibilities in some selected public universities in Nigeria. Survey research design was adopted for the assessment of the subject matter. Six hundred (600) respondents were surveyed across all the colleges/faculties of universities selected in Nigeria with the use of stratified sampling technique. Only four hundred and twenty nine (429) copies of questionnaire representing (71.5%) response rate were returned and used for this study. Structural Equation Model (AMOS 22) was used for the analysis to find the influence institutional support initiative on efficacy of job responsibilities of Faculty. Results show research support, pedagogical support and technical support are predictors of Faculty responsiveness to quality research productivity, quality knowledge sharing and administrative efficiency. The study emphasised the need for review of the various institutional support in order to determine the appropriateness and relevance of the initiative. The study contributes to the exiting knowledge in HRM and Facility job performance. The insights from this study would be of great value to the management of universities, and other stakeholders to develop and invest in appropriate institutional support that will enhance job effectiveness of Faculty members.

1. Introduction

One of the most indispensable assets of any university is its human resource and the persistent transformation which has become essential in a university today has employee development values. The evolving competition and changing environment of university system has called for increasing demand for high performance. To succeed and sustain performance in the highly competitive academic environment, universities need to ensure that the requisite competences of Faculty are developed and essential institutional support strategies that will enhance effectiveness of modern knowledge sharing practices, quality research productivity and sizeable administrative processes among others are provided for the employees. The effectiveness of job performance of Faculty therefore, plays a significant role in achieving the pivotal goal of the university. The ultimate goal of a university is to develop and equip people mentally, morally and physically, and thereby, confers degrees to those who are found worthy in character and learning (Idogho, 2011).

Others researchers have acknowledged that universities should initiate and provide excellent leadership training/learning, build robust economy and ideal society, provides quality education via comprehensive and life applicable courses that will revolutionise theory into practice (Adeyeye, 2009; Aina, 2010; Falola et al., 2016). In addition, Falola et al. (2018) only presented data on the moderating role of institutional support in determining the relationship between Faculty commitment and effectiveness of job performance of Faculty members in private universities in Nigeria. Thus, in this paper, attention is given to institutional support strategies as independent variable and it influences on effectiveness of job responsibilities of Faculty. It is believed that institutional support strategies will drive state of the art research outputs and suitable/contemporary knowledge sharing such as problem based learning, students' centred learning and other modern learning pedagogy as well as in loco parentis in the public universities in Nigeria. The present level of institutional support in terms of research grants, conference sponsorship, and publication support among others is not encouraging in Nigeria. In addition, the dilapidated teaching and research facilities is making the roles of Faculty complex and uninteresting and they are also facing increasing demands for more research outputs, teaching quality for which they are not adequately equipped.

There are element of knowledge lacuna in the existing literature on the subject of institutional support strategies and effectiveness of job responsibilities of the Faculty in Nigerian universities. It must be noted that existing studies focused on the moderating role of institutional

* Corresponding author. *E-mail address:* hezekiah.falola@covenantuniversity.edu.ng (H.O. Falola).

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support in examining the relationship between employee participation, job commitment, employees' engagement as well as the influence of institutional support on e-learning, business orientation, innovation and performance. Others focused mainly on the influence of institutional support on SMEs performance. However, this current study focuses on the strategic institutional supports and how it will drive the strategic goal of the universities via outstanding job performance of the Faculty in public universities. This has not been widely researched into in Nigeria. In addition, most existing study used regression and correlation analysis for the analysis of the data collected, however, the present study uses Structural Equation modelling which is used to analyse the structural relationship measured variable and latent constructs. Factor model which shows the level of reliability and the degree of fitness as well as construct validity which was carried out via convergent and discriminant analyses was also used. This present study addresses this fundamental gap in the literature by taken a deeper look at the influence of institutional support strategies on effectiveness of Faculty job responsibilities with the following specific objectives which are to: examine the influence of research support on job responsibilities; investigate the effect of technical support on the Faculty job responsibilities and to determine the influence of pedagogical support on Faculty job responsibilities. A more relatively improved methodology was used for the analysis of the data collected.

This study also provides insight into how institutional supports can be leveraged to improve research productivity, teaching qualities and excellent community service. Similarly, this study provides a platform for the management of higher institutions and National Universities Commission to formulate and implement policies that will promote timely institutional supports that are targeted at improving performance. Hence, in order to accomplish the set objective of this study, the first section centers on the background to the study while the second section gives attention to the review of literature in line with the specific objectives of the study. Also, the third section focuses on the methodology adopted for the study while data analysis, discussion the findings, conclusions, limitations and recommendations for further studies were captured in the last section of the study.

2. Literature review

2.1. Institutional support

The institutional support in this context refers to the organisational active encouragements in form of policies, regulations, monetary and non-monetary help that propel employees to perform their responsibilities in a very effective and productive manner. Any organisation including the institutions of higher learning that want to earn their employees commitment must be ready to give adequate support. For Instance, some of the institutional support that can be provided by institutions of higher learning include: research support in form of conference sponsorship, research grants, publication support; technical support as well as pedagogical support particularly in a knowledge-based economy (Al-Enazi, 2016; Saint et al., 2003).

Research is essential for new findings, innovations, development and adequate dissemination and implementation of knowledge in a broad spectrum of fields in a knowledge-based modern culture (Altbach & Balan, 2007). Universities are anticipated to be the powerhouses of studies and resources that stakeholders can invest in securing a nation's future in an increasingly vulnerable and unpredictable environment (Creswell, 2008; Hottenrott and Lawson, 2013; Sawyer, 2004).

As noted by Faborode (2016), research is one of the main reasons why universities are established. This indicates that universities' pivotal role is to generate fresh knowledge via quality research outputs and outstanding discoveries that will enhance quality learning and ultimately proffer solutions to any issues of concern. However, universities in Nigeria had over the years experienced a significant decline in this regards. National Universities Commission (NUC) also noted that the quantity and quality of research outputs in Nigerian tertiary institutions was the best in sub-Saharan Africa (Okebukola, 2010). Presently, Nigerian universities are experiencing "vicious national dilemma of a badly managed and plundered non-commodity economy and a self-afflicted and degraded education system that ultimately lost its once vivacity and global reputation" (Faborode, 2016:12). The quantity and quality of research had declined and still declining (Okebukola, 2008). This is not unexpected as government and management of the universities are not providing adequate institutional supports that will help to improve the bad state of Nigerian universities.

As noted by Okebukola (2008) and Imhonopi and Urim (2013), some of the factors contributing to the decline in quantity and quality of research include but not limited to: poor funding, incessant industrial actions, lack of modern research skills, aging facilities to conduct state of the art research, poor research mentorship and motivation, and difficulty in accessing research funds. This suggest that for the university system to move forward and compete favourably with their counterparts around the globe, there is need for more institutional support in the areas of research grants, conference sponsorship, publication support and collaboration (Okiki, 2013). This will help in redeeming the image of the universities. Universities that give support and attention to good research image and provide appropriate research laboratories and other modern research facilities that permit research at the highest possible level will most likely do well. However, some of the institutional support that can enhance the quality of research and teaching quality in form of knowledge sharing include the following: Research support, technical support and pedagogical support.

Similarly, research which is one of the strong pillars of ranking that accounted to 30% in the Times Higher Education ranking of the world universities has made some universities particularly in the developed economy to invest in their research endeavours thereby christened as research-oriented universities. Kazeem and Ige (2010) noted that Nigerian universities need to build their research capacity. Okebukola (2010) noted that the universities in Nigeria need to equip and provide institutional support in terms of research grants, conference sponsorship, publication support, international linkages and collaboration to enhance research skills of their Faculty.

It is also important to note that one of the things that can make job effective and interesting is the availability and access to functional help desk and users friendly e-learning platforms (Atkinson and Stewart, 2013). As civilisation and technology evolved, institutions of higher learning cannot afford to be left behind. The technical support provided by the institutions will make the Faculty more effective and efficient particularly when they receive prompt responses to any technical issues while carrying out their responsibilities. In a related development, use of ICT in classrooms is one of the practices of the institution of higher learning to impact and share knowledge (Eurydice, 2011). If properly managed, it helps to foster a very strong collaborative ties with students thereby enhancing students learning outcomes this will invariably help Faculty to develop evidence-based teaching practices as well as reflective teaching practices. The pedagogical support helps to share best practices and ultimately improve the learning outcomes of students and pedagogical practices of Faculty. Universities should be ready to provide relevant training for the Faculty on the usage of ICT in Learning (Pouris and Pouris, 2009). In addition, the universities also need to make the lecture halls flexible and detachable to facilitate learning particularly if the learning is problem based. It has been noted by Oziengbe and Obhiosa (2014) that the way the class rooms is arranged determines the pedagogy that will be adopted. University support for pedagogical development will positively influence student learning motivation and outcomes, student evaluation/assessment design, classroom management, curriculum design, teaching innovation among others.

The effectiveness of teaching quality or knowledge sharing depends largely on the use of pedagogical techniques which ultimately determines the learning outcomes. As noted by Falola et al. (2016), the quality of knowledge shared involves several dimensions, which include but not limited to effective design of curriculum, a variety of learning platforms such as problem based learning, project based learning, experimentation, independent leaning properly-guided or facilitated by experienced Faculty among others. It has been discovered that fostering quality knowledge sharing or teaching takes place at three inter-related levels i.e. institutional, programme as well as individual levels. Therefore, supporting knowledge sharing at all levels is very key in the knowledge economy.

3. Methodology

The main objective of this research is to examine the relationship and resultant effect of Institutional support strategies on effectiveness of job responsibility of Faculty of selected universities. Institutional support strategies were measured using research support, pedagogical support and technical support while effectiveness of job responsibility were measured using quality research productivity, quality knowledge sharing and administrative efficiency. It is also imperative to note that descriptive research design was adopted for this study. This design helps to assess the degree of the relationship between variables, adopt one time observation and also help in determining sample at the specific time without necessarily altering the behaviour or trying to make casual statements. In an attempt to harmonise and analyse the data, SPSS and AMOS 22(SEM) were used to examine the degree of goodness-of-fit and the influence of institutional support strategies on job responsibilities of Faculty.

However, reliability and the degree of fitness were carried out while convergent and discriminant analyses were used for the determination of construct validity. All the sixteen (16) public universities in Southwest Nigeria constituted the population of the study out of which seven (7) universities representing 43.7% were selected to participate in the survey. The selection of the participating universities was based on the year of establishment and the ranking status of the universities by various ranking agencies. The rationale for choosing public universities was because they enjoy a lot of supports from government and other donors. Because of the large number of Faculty in the selected universities, administering copies of questionnaire to all of them becomes difficulty, therefore, a sample of 600 respondents was chosen. The sample size was determined using the Yamane's sample size formula noted by (Daniel and Terrell, 2006). The multistage sampling techniques which include purposeful, stratified and simple random sampling techniques were adopted for the study. Purposeful sampling was used because only the Faculty were considered in the survey. This agrees with the literature that samples can be purposive in order to permit a realistic pursuit of information. Stratified sampling was also adopted because the population is made up of different strata and within each stratum, every Faculty was given equal opportunity of been selected using simple random sampling. The sampling frame for this study consists of the list of all Faculty members in the seven (7) selected Universities in Southwest Nigeria. In addition, sample was drawn from all categories of Faculty for their opinion on the extent of influence of institutional support strategies on effectiveness of job performance. Data for this study were obtained via structured questionnaire based on the literature reviewed on the subject matter. The 5-point Likert scale was used. This helps to determine the extent to which respondents or participants agree with the specific item of the instrument. In order to ensure that data presented are precise and adequate, the procedures for the assumptions of the analysis as suggested by Hair et al. (2009) were carefully checked. Thus, the acceptance values and variance inflation factor values were within the threshold >0.2 and >5.0 respectively. The normality and linearity were analysed and 171 respondents from the original sample of 600 were removed using Mahalanobis Distance Criterion. Listwise deletion method was used to eliminate missing data which was less than 5 percent. The final sample for the study was four hundred and twenty nine (429) representing (71.5%) of respondents which is considered to be accurate. The unidimensionality, reliability, and validity were assessed after the amendment of the final measurement model. The factor loading, indicator reliability, error variance, compose reliability and average variance extracted estimate for the final measurement are depicted in Table 1.

Confirmatory Factor Analysis (CFA) was used to demonstrate the measurement using the following indices: CFA loading, construct composite reliability, error variance, construct average variance extracted estimate. CFA loading, and construct composite reliability according to the yardstick should exceed the minimum benchmark of 0.70 and 0.80 respectively. In addition, error variance should be less than 0.5 while construct average variance extracted estimate should be above 0.5. The outcome of CFA with the specific indices is presented in Table 1.

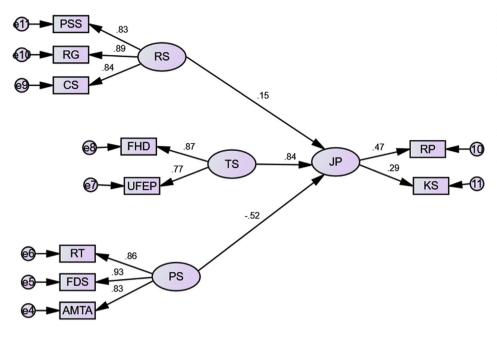
In order to determine the degree fitness of the measurement, fitness indices such as: chi-square/degree of freedom ($\chi 2/df$), GFI, CFI, NFI, IFI and RMSEA were analysed and the result is shown in Figure 1.

The following model fit indicators: X2/DF = Chi-square/degree of freedom, P-value = Significant, IFI = Incremental Fix Index, NFI = Normed Fit Index CFI = Comparative Fit Index GFI = Goodness-of-Fit Index, AGFI = Adjusted Goodness of fit and RMSEA = Root Mean Square Error of Approximation were used to determine whether or not the formulated hypotheses as depicted in the model is adjudged fit. It becomes imperative to state that all the model fit indicators are within the recommended threshold of each model fit indicators as depicted in Table 3.

Further to the data presented in Tables 1 and 2 which depicts the outcomes of the Goodness-of-fit of various indicators, the findings show that all the formulated hypotheses as shown in the model greatly fit the sample data. This suggests that the predictive capability of effectiveness of job responsibility of Faculty on institutional support strategies is statistically significant. Meanwhile, the values of the path diagram of institutional support strategies and Faculty job effectiveness model

Constructs and Indicators	Loading	Indicator Reliability	Error Variance	Composite Reliability	Cronbach Alpha	AVE
Research Support					0.87	0.7791
Publication Supports (PSS)	0.892	0.7957	0.2043	0.7957		
Research Grant (RG)	0.906	0.8208	0.1792	0.8208		
Conference Sponsorship (CS)	0.849	0.7208	0.2792	0.7208		
Technical Support					0.89	0.7733
Functional Help Desk (FHD)	0.887	0.7868	0.2132	0.7868		
User friendly e-learning platform (UFEP)	0.878	0.7709	0.2291	0.7709		
Pedagogical Support					0.83	0.7966
Relevant Training to enhance usage of ICT in Learning (RT)	0.868	0.7534	0.2466	0.7534		
Flexible and detachable classroom (FDC)	0.935	0.8742	0.1258	0.8742		
Availability of Modern Teaching Aid (AMTA)	0.873	0.7621	0.2379	0.7621		

Table 1. Convergent reliability.



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Figure 1. Institutional Support Strategies and Faculty Job Effectiveness Model. RS: Research Support; TS: Technical Support; PS: Pedagogical Support; PSS: Publication Support System; RG: Resreach Grant; CS: Conference Sponsorship; FHD: Functional Help Desk; UFEP: User Friendly e-Learning Platform; RT: Relevant Training to enhance usage of ICT in Learning; FDS: Flexible and Detachable Classroom; AMTA: Availability of Modern Teaching Aid, JP: Job Performance or Responsibility; RP: Research Productivity, KS: Knowledge Sharing.

presented in Figure 1, it shows the beta values of all the endogenous and exogenous variables. The beta value also known as standardized regression coefficient shows the direct effect of institutional support strategies on effectiveness of Faculty job responsibilities or performance in the path model. However, Figure 1 highlights the positive β value of 0.150 between research support and job performance of Faculty. This suggests that research support has 15.0% influence on effectiveness of Job responsibilities of the Faculty members. In a related development, the figure also shows that technical support has β value of 0.840 which suggest that technical support has 84.0% influence on effectiveness of job responsibilities of the Faculty. Pedagogical support has β value of -0.520 which suggests that Pedagogical support also has 52.0% influence on effectiveness of job responsibilities of Faculty.

The researchers also tested for the discriminant validity in an attempt to validate the items. Following from Table 3, it is discovered that all the items in the scale had loading of more than 0.7 which means that all items were statistically significant. The investigation of the measurement model which can be investigated through shared AVE and the analysis of correlations among the constructs to find out whether there is any extreme large correlations are the basic approaches for the determinant of discriminate validity. Since the AVE for each construct exceeds the square correlation between the constructs, it shows that there is no problem of discriminant validity.

4. Discussion of the findings

Further to Figure 1, the interaction effect model shows that the variance in job responsibilities of Faculty is explained by the variables used in the interaction regression. The regression also reveals that predicting the effectiveness of job responsibilities from these specific interaction variables is statistically significant. The regression weight between research support (publication support system, resreach grant, conference sponsorship) in the prediction of effectiveness of job responsibilities (research productivities and knowledge sharing) shows the

Table 3. Discriminant validity.					
Construct	RS	TS	PS		
(RS)	.8827				
(TS)	.351**	.8794			
(PS)	.232**	.217**	.8925		
** Correlation is significant at the 0.01 level (2 tailed)					

^{**} Correlation is significant at the 0.01 level (2-tailed).

path coefficient of .15 (p < 0.001). This suggests that when research support goes up by 1 standard deviation, the level of Faculty job performance in terms of research outputs and knowledge sharing will go up by 0.15. The implication of this is that, if institutional supports (conference sponsorship, research grants and publication support) are given priority by the universities' management, it will impact significantly on the Faculty level of job performance which will invariably enhance institutional research image and academic excellence. In addition, it also suggests that if the universities in developing economy give adequate financial support to Faculty members for meaningful research, it will enhance the quality and quantity of research outputs that will generate solutions to local problems with global impact. This validates the findings of Faborode (2016:10) in his paper title "benchmarking the quality and relevance of higher education for national development". This finding also corroborate with the submission of Okiki (2013:28) in his finding on "availability of information resources for research output, the perception of Faculty members in Nigerian Federal Universities". This was also established by Falola et al. (2018) and Falola et al. (2018). Faborode (2016) noted that the inability of the institutions to fund research has remain a major challenge to the universities in Nigeria. The subvention given to the universities by the Federal government is inadequate to carry out state of the art research. One will begin to wonder why the government keep establishing more universities when the existing universities are not adequately and sufficiently funded. Salaries are not paid as at when due, infrastructures are coming decaying and the budget for

Table 2. Goodness of fit statistics.								
Model	X ² /DF	P-value	IFI	NFI	CFI	GFI	AGFI	RMSEA
Parameters Recommended	<3.0	< 0.05	>0.9	>0.9	>0.9	>0.8	>0.8	<0.08
Goodness of Fit	51.267	0.000	0.976	0.977	0.971	0.914	0.903	0.6543

education cannot accommodate some of the challenged faced by the public universities in Nigeria.

This according to Igbinoba et al. (2018) and Salau, et al. (2016) has led to several industrial actions by the Academic Staff Union of Universities. In another development, Falola et al. (2018) also noted that the behavioural outcomes of Faculty depend largely on the level of institutional support provided by the institutions of higher learning, they suggest that work institutional support has a significant influence on the effectiveness of Faculty job performance. In a related development, the regression weight between technical support and the effectiveness of Faculty job responsibilities is .84 (p < 0.001) which indicates that when technical support goes up by 1 standard deviation, Faculty job responsibilities goes up by 0.84. Therefore, institutions' willingness to provide adequate technical supports for their Faculty will likely rub-off on their performance. This corroborates the findings of Falola et al. (2018) who noted that institutional support makes employees to be more committed to their basic responsibilities particularly in the highly competitive academic environment that is characterised by the evolvement of sophisticated technology. This was also validated by Pouris and Pouris (2009) as well as Oziengbe and Obhiosa (2014). The implication of this finding is that any university that gives adequate technical support to its Faculty is more likely to compete favourably with other universities in the world.

The regression weight between pedagogical support in the prediction of the effectiveness of Faculty responsibilities is .52 (p < 0.001). This indicates that when pedagogical support goes up by 1 standard deviation, effectiveness of Faculty job responsibilities goes up by .52 standard deviation. Any institution that wants to get the best from its Faculty must as a matter of necessity provide adequate pedagogical support. Falola et al. (2016) noted that adequate training and development should be provided for the Faculty on how to use various pedagogy techniques that can enhance the quality delivery of their teaching responsibility particularly in this highly technology driven institutions. The institutions as noted by Al-Enazi (2016) and Kazeem and Ige (2010) should ensure good and flexible and detachable classroom that can facilitate good leaning. The flexibility of the class or lecture rooms in Nigerian universities will promote problem based learning (PBL), students centred learning (SCL) and other learning initiatives that will aid understanding and assimilation of what is being thought in the class. This will likely address some of the growing concern of the education sector particularly institutions of higher learning in Nigeria. This is also supported by Ajavi et al. (2015) and Falola et al. (2018), that the work environment and the institutional supports received, determine the engagement and the commitment of employees and their performance outcomes.

5. Conclusion

Every university strives to gain competitive advantage, thus, the influence of institutional support on the effectiveness of job performance of Faculty in universities cannot be over emphasized. The need for improved job performance of Faculty in the academic environment is becoming more imperative. Faculty of public universities in Nigeria are faced with major problems surrounding quality research productivity, teaching facilities among others. Most of the Faculty are willing to be effective and efficient in their responsibilities. Institutional support can be used to motivate them to be highly engaged in their core job responsibilities which include but not limited to outstanding research productivity, collaboration, citations, industry partnership, outstanding teaching/transfer of knowledge, mentoring and community service. The institutional supports in terms of research grants, conference support, publication support, user friendly e-learning platforms, teaching aids among others will make the staff to be productive and compete favourably with the colleagues around the globe. It is therefore imperative for university management and National Universities Commission (NUC) to formulate and implement policies that will promote strategic

institutional supports to drive outstanding and productive engagement of the Faculty. This will also enhance the ranking status of Nigerian universities. Out of 16 public universities in Southwest Nigeria, only two (2) universities (University of Ibadan and University of Lagos) were ranked by Times Higher Education (THE) ranking of world universities for year 2020 ranking. University of Ibadan ranked 534th while University of Lagos ranked 901st (THE, 2019). Since the ranking parameters are usually around quality research productivity, outstanding teaching, citations and industry partnership, adequate and timely support to Faculty for the aforementioned cardinal ranking parameters will definitely improve the ranking status of Nigerian universities.

It is therefore inevitable for universities to provide institutional support such as conference sponsorship, publication support, research grant and other incentives that will stimulate Faculty commitment to the outstanding research, knowledge sharing and community impact. Also, management of universities in Nigeria should strive to provide more supports to encourage Faculty to be more productive and engaged. This is because of the fact that the value of the institutional support will likely influence job engagement and commitment outcomes of the Faculty. The implications suggest cordial relationship between management of universities and the Faculty in order to establish more unified institutional support that will drive outstanding job performance. As universities integrate better institutional support, they will be better equipped to cope with a rapid changing and competitive academic environment.

6. Limitations and suggestions for further studies

The study is limited in scope because it covers only seven (7) public universities in Southwest, Nigeria. This implies that the findings may not be applicable to other universities in the other five geo-political zones in Nigeria. Therefore, further studies can increase the scope of the study. In addition, it is possible that the effect of institutional support on the effectiveness of job responsibilities of Faculty can be influenced by other factors. It is recommended that other factors like work environment, industry collaboration and partnership, organisational energy among others can be introduced as intervening variables. In addition, it is also suggested that future studies can adopt mixed methods since this study only used quantitative approach.

Declarations

Author contribution statement

Falola H.O: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Adeniji, A.A: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Adeyeye, J.O: Performed the experiments; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Igbinoba, E.E: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Atolagbe, T.O: Contributed reagents, materials, analysis tools or data; Wrote the paper.

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Competing interest statement

The authors declare no conflict of interest.

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Additional information

No additional information is available for this paper.

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