

Harnessing Performance Management to Elevate Lecturer Effectiveness in Nigerian Colleges

Saheed Oyeniran*, Yusuf Maryam Adedolapo, Yusuf Habibat Abubakar, Taibat Bolanle Jimoh

University of Ilorin, Nigeria

*Corresponding Author: oyeniran.s@unilorin.edu.ng

<http://doi.org/10.33650/ijess.v3i2.9386>

Received: August 2024, Revised: November 2024, Accepted: December 2024

Abstract:

The role of lecturers is vital in achieving the objectives of colleges of education, necessitating their optimal performance. This study examines the connection between performance management practices such as competency, culture, leadership, measurement and reward-based and lecturer effectiveness in colleges of education in southwest Nigeria. A correlational survey research design to explore relationships between variables and predict outcomes, the study utilized multistage sampling techniques to select regional colleges, including stratified, purposive, and proportionate methods. This sampling method was used due to the large and geographically dispersed population involving different schools. Out of a targeted population of 583, 459 participants were included. Data were gathered using the Performance Management Questionnaire (PMQ) and the Lecturers' Effectiveness Questionnaire (LEQ). The instruments were validated using the ordinal alpha reliability technique, yielding the ordinal alpha reliability coefficient of 0.95 and 0.90 for PMQ and LEQ, respectively. Four research questions were addressed using median descriptive statistics, while one central and four operational hypotheses were tested using the Partial Least Square Structural Equation Model (PLS-SEM). The study revealed that performance management levels are very high in these colleges, and lecturer effectiveness is encouraging. A notable relationship exists between career-based and culture-based performance management and lecturer effectiveness. The study recommends that administrators and managers of colleges of education enhance current performance management practices through policy development and establish a framework to address concerns about the quality of teachers graduating from these institutions.

Key Words: Performance Management, Human Resource Management, School Effectiveness, College of Education

Please cite this article in APA style as:

Oyeniran, S., Adedolapo, Y. M., Abubakar, Y. H., & Jimoh, T. B. (2024). Harnessing Performance Management to Elevate Lecturer Effectiveness in Nigerian Colleges. *Indonesian Journal of Education and Social Studies*, 3(2), 111–126.

INTRODUCTION

Education plays a crucial role in national development, leading governments worldwide to implement educational policies to foster growth and development (Chankseliani et al., 2021; Glavič, 2020; Sá & Serpa, 2020). They allocate resources to ensure quality education, which catalyzes scientific and technological advancements (Keane & Keane, 2020; Madandola & Boussaa, 2023;

Ullah & Usman, 2023). As a result, education is highly prioritized globally, although the emphasis varies between countries. Quality education, such as curriculum relevance, teaching and learning approaches, research and innovation and access and equity, particularly at the tertiary level, is increasingly recognized as vital for human capital development, which underpins economic prosperity and social well-being (Chankseliani et al., 2021; Unterhalter & Howell, 2021; Walker, 2022). National prosperity depends on maintaining a skilled workforce, a competitive research base, and practical knowledge dissemination, with tertiary education central to these goals (Adhikari & Shrestha, 2023; Ashour, 2020; Krstić, 2021).

Globally, advanced manpower training is a key driver of national development, equipping citizens with skills that enhance productivity, creativity, and innovation. Quality tertiary education is crucial for socio-economic growth and technological advancement (Anlimachie & Avoada, 2020; Heleta & Bagus, 2021; Wang et al., 2021). Burbules (2020) argue that quality education at all levels is the ultimate goal for every nation. Tertiary education is pivotal in building a knowledge-based economy and developing human capital, acting as a foundation for strong socio-economic, political, and cultural development. It also serves as a critical mechanism for wealth and human capital generation, with the knowledge produced in these institutions being crucial for national competitiveness.

For Nigeria's tertiary education system to meet societal needs and provide sustainable education, its quality and functionality must be assured. Nigeria's tertiary education system faces several challenges that undermine its ability to deliver quality and functional education that meets societal needs (Ebekoziem & Aigbavboa, 2022; Suleiman et al., 2020; Unterhalter & Howell, 2021). These challenges include underfunding, inadequate infrastructure and overcrowding, brain drain and staff shortages, unstable academic calendar, poor governance and mismanagement, inadequate access and equity, graduate unemployment, insecurity and safety concerns, and cultural and policy challenges. Addressing these challenges requires a multifaceted approach, including increased government funding, policy reforms, stronger institutional governance, and active collaboration with private sector stakeholders (Jansen & Kalas, 2020; Sanderink & Nasiritousi, 2020; Wang et al., 2023). Without these interventions, the system will struggle to fulfil its mandate of providing sustainable, high-quality education that meets Nigeria's developmental needs.

In the past few years, educational stakeholders have expressed concerns about the quality of teachers graduating from teacher training institutions in Nigeria (Chalari et al., 2023; Humphreys et al., 2020; Okolie et al., 2020). Researchers like Zhiyong et al. (2020) have identified several critical factors influencing the quality of teachers from Colleges of Education. These factors include the government's efforts, administrators, lecturers, and administrative policies.

Performance management (PM) policies play a substantial role in the productivity of teacher training institutions, as effective PM is crucial for achieving more significant institutional goals, mainly when staff perform well in their roles.

A review of the literature, including studies, suggests that the evaluation criteria commonly used in Colleges of Education today have not succeeded in improving the quality of performance and lecturers' effectiveness (Darling-Hammond, 2020; Harrison et al., 2022; Hooda et al., 2022). This is partly because these evaluation methods often underemphasize in-class teaching assessments, which may contribute to teachers' poor performance in Nigerian schools. The current evaluation practices do not provide adequate feedback for improving teaching quality. The present study posits that the existing practices for evaluating academic staff effectiveness in Colleges of Education might be counterproductive. Ongoing public complaints about the declining performance of teachers from these institutions support this assumption.

The poor performance of teachers may be due to a lack of awareness about the importance of PM systems or negligence in adopting such systems to enhance institutional performance and quality. This could explain why teacher training institutions may adopt a *laissez-faire* approach to PM, resulting in insufficient monitoring of academic staff's job effectiveness. Given the foregoing, this research intends to examine the correlation between PM practices and teachers' effectiveness in Colleges of Education in Southwest Nigeria.

The main objective of this study is to investigate the correlation between performance management practices and teachers' effectiveness in Colleges of Education in Southwest Nigeria. In specific terms, the study: a) investigates the level of performance PM practices in Colleges of Education in Southwest Nigeria. b) examine teachers' effectiveness in Colleges of Education in Southwest Nigeria. c) Determine the effects of institutional type on the PM process in the Colleges of Education in the South West, Nigeria. d) Examined the effects of moderating variables (gender, qualification, experience and rank) on teacher effectiveness in the Colleges of Education in the South West, Nigeria. e) Find the relationship between PM practices and teacher effectiveness in South West, Nigeria Colleges of Education.

RESEARCH METHOD

This study employed a survey research design of a correlational nature. The use of a survey research design of correlational type is appropriate for this study because it examines relationships between variables without manipulating them. This design is particularly effective when the goal is to explore and understand the associations between variables as they naturally occur in the population. This design was chosen due to its ability to extensive population reach, cost-effectiveness and help to identify patterns and relationships between variables.

The population included all academic staff from Colleges of Education across Nigeria, focusing on those in Federal, State, and Privately-owned Colleges of Education in Southwest Nigeria. A multistage sampling technique, incorporating stratified, purposive, and proportionate sampling methods, was used to select Colleges of Education across the states in Southwest Nigeria. Stratified sampling determined the sample size of academic staff from six Colleges of Education, two federally owned, two state-owned, and two privately owned, across three Southwest Nigerian states, following the proportionate sampling method guided by the Research (Babarinde et al., 2022).

Two research instruments were used to gather data from the sampled respondents. These are the Performance Management Questionnaire (PMQ) and the Lecturers' Effectiveness Questionnaire (LEQ). The PMQ collected data on performance management aspects, including reward-based, competency-based, team-based, career-based, culture-based, measurement-based, and leadership-based management. It comprised two sections: Section A collected demographic information such as academic qualifications, gender, years of experience, and rank of respondents; Section B contained 23 items, rated on a four-point Likert scale from Strongly Agree (SA) to Strongly Disagree (SD). The LEQ, consisting of 22 items, was designed to assess lecturers' effectiveness in teaching, research, and community service using a four-point Likert scale. In order to determine the reliability of the instruments, a pilot test was carried out on 30 academic staff members of the Kwara State College of Education, Ilorin, Kwara State. The ordinal reliability alpha values generated for PMQ and LEQ were found to be 0.95 and 0.90, respectively.

Data collected from these questionnaires were analyzed using descriptive statistics of median, frequency counts and percentages with the help of the Statistical Package for Social Sciences (SPSS) software version 23.0. Descriptive statistics, specifically the median, were used to address the research questions, while the hypotheses were tested using inferential statistics, specifically Partial Least Square Structural Equation Modeling (PLS-SEM). PLS-SEM was chosen due to the constructs' multidimensional nature and the data's ordinal nature (Gotthardt & Mezhuyev, 2022; Rodríguez et al., 2020; Tomaselli et al., 2021).

RESULT AND DISCUSSION

Result

Performance Management in Higher Institutions

In answering this question, descriptive statistics for all the items of the construct were computed using the median. This is because the dataset for the analysis is ordinal. Four-point Likert response scale of strongly disagree (1) at one end and strongly agree (4) at the other end was used to measure the items for all the items. Therefore, to interpret the scale conveniently, examinees' responses to the four Likert scales were categorized into two, namely, 1- 2.49 as low and 2.5 – 4.0 as high.

Table 1. Level of Performance Management

Performance Management Constructs	Median	Level
Reward-Based Performance Management	2.43	Low
Leadership-Based Performance Management	2.95	High
Competency-Based Performance Management	2.83	High
Culture-Based Performance Management	2.83	High
Career-Based Performance Management	2.33	Low
Measurement-Based Performance Management	2.83	High
Grand Median for Performance Management	2.70	High

Source: Field data (2024)

Table 1 displays the median scores for the six constructs used to measure performance management, ranging from 2.33 to 2.95. Leadership-based performance management received the highest score, while career-based performance management had the lowest. The overall median score for all six constructs was 2.70, corresponding to "Agree" on the scale, indicating the respondents' positive evaluation of performance management. This suggests that the level of performance management in Colleges of Education in Southwest Nigeria is high.

Teachers' Effectiveness in Higher Institutions

In answering this question, descriptive statistics for all the items of the construct were computed using the median. This is because the dataset for the analysis is ordinal. Four-point Likert response scale of strongly disagree (1) at one end and strongly agree (4) at the other end was used to measure the items for all the items. Table 2 presents the descriptive statistics for teachers' effectiveness; for straightforward interpretation, the responses to the four Likert scales were grouped into 1- 2.49 as low and 2.5 – 4.0 as high.

Table 2. Level of Teacher Effectiveness

Items	Median	Level
Teaching Effectiveness	3.42	Very high
Research Effectiveness	3.31	Very high
Community Service Effectiveness	3.08	High
Grand Median for Teacher Effectiveness	3.27	Very high

Table 2 shows that the three constructs defining lecturer effectiveness have median scores ranging from 3.08 to 3.42. Teaching effectiveness received the highest median score of 3.42, research effectiveness with a median of 3.32, and community service effectiveness with the lowest score of 3.08. The overall median for these three constructs is 3.27, corresponding to "Strongly Agree" on the scale used, indicating an excellent rating of lecturer effectiveness. This suggests a very high level of lecturer effectiveness in the Colleges of Education in Southwest Nigeria.

The Effects of Institutional Type on Performance Management in Colleges of Education in Kwara State

The study revealed that the type of institution does not significantly influence the performance management process in educational colleges in Kwara State. These findings suggest that the performance management practices are uniform regardless of whether the college is administered by the federal, state, or private government. This may be due to uniform accreditation standards, centralized policy oversight, and common managerial challenges to these institutions. Thus, these results highlight the importance of a consistent performance management approach across all institutions to ensure equitable quality of education and the achievement of national education goals.

Table 3. Institutional Type of Performance Management

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Institutional type -> Performance Management	0.635	0.639	0.040	15.674	0.000

Table 3 revealed that institutional type significantly affected performance management in all institutions. This implies that performance management processes in the Southwest federal, state or private education colleges are the same. This might be due to uniform accreditation standards, centralized policy oversight, common challenges in institutional management, training and professional development and adherence to national educational goals. The implication is that the type of institution has no influence on determining the extent of performance management processes in the colleges.

The Effects of Moderating Variables on Teacher Effectiveness

Table 4. Demographic Variables Relationship with Performance Management and Teachers' Effectiveness

Items	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Experience -> Teachers Effectiveness	0.073	0.073	0.039	1.979	0.051
Gender -> Teachers Effectiveness	0.021	0.020	0.036	0.573	0.567
Qualification -> Teacher Effectiveness	-0.003	-0.002	0.040	0.067	0.947
Rank -> Teachers Effectiveness	-0.008	-0.009	0.042	0.190	0.849

Table 4. shows the relationship between several factors (experience, gender, qualifications, and rank) and teaching effectiveness. For experience (0.073), a statistical T-value of 1.979 indicates a significant positive relationship, although the p-value (0.051) is close to the significance threshold of 0.05. Gender (0.021) and qualifications (-0.003) had very high p-values (0.567 and 0.947), which suggests no significant relationship between these factors and teaching effectiveness. The magnitude (-0.008) also shows a very high p-value (0.849), meaning no significant influence exists. Overall, only experience could influence teaching effectiveness, although it was still not strong enough to be considered significant at the conventional level (0.05). Other factors do not have a significant influence.

Hypothesized Model

The hypothesized model was presented in Figure 1, which has an independent construct known as performance management with sub-components such as RBPM, LBPM, CBPM, CPM and MBPM measuring it. The dependent construct includes Teachers Effectiveness with sub-components such as TE, RE and CSE measuring the primary construct. Furthermore, gender, qualification, rank and experience had a direct causal link to teachers' effectiveness, while institutional type had a direct causal link to performance management. However, all sub-constructs of performance management had a direct causal link to teachers' effectiveness. They are all measured reflectively, according to Figure 1.

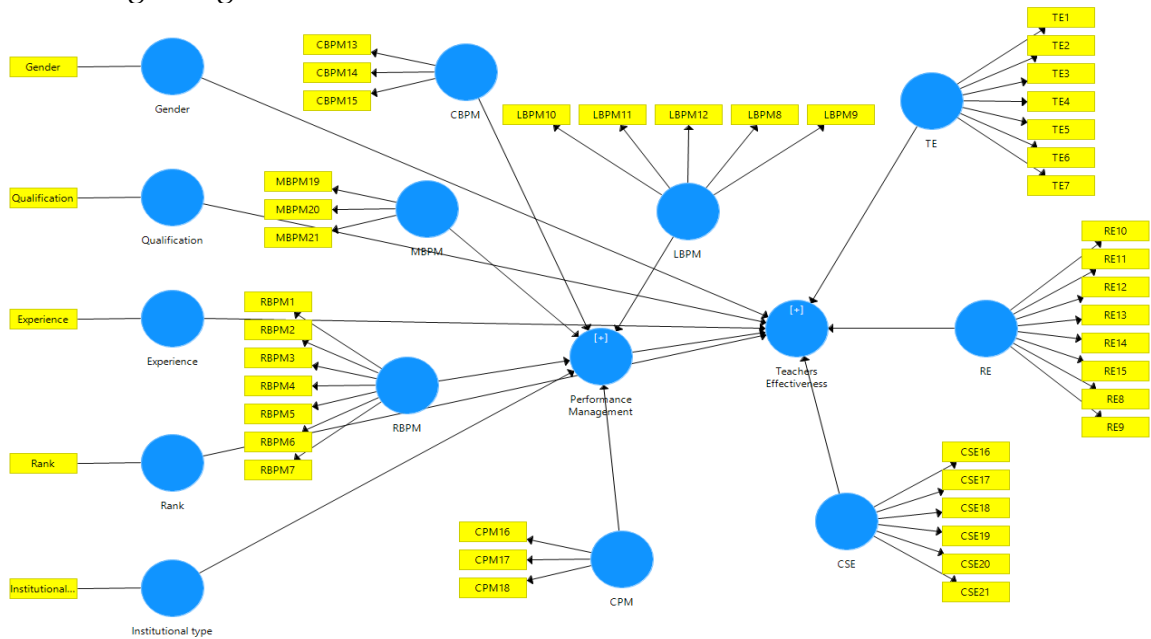


Figure 1. Hypothesized Non-Recursive Model of All the Variables in the Study

The hypothesized model included latent variables, which were multidimensional and comprised performance management and teachers' effectiveness. Due to the nature of these latent variables, a second-order PLS-SEM model was developed using a two-stage approach. In the first stage, the sub-factors of the latent variables were treated as constructs, and their convergent and discriminant validity were assessed. Once these validities were confirmed, the second stage involved using the latent scores from the sub-factors as indicators for the primary construct. Figure 2 presents the results of the measurement model.

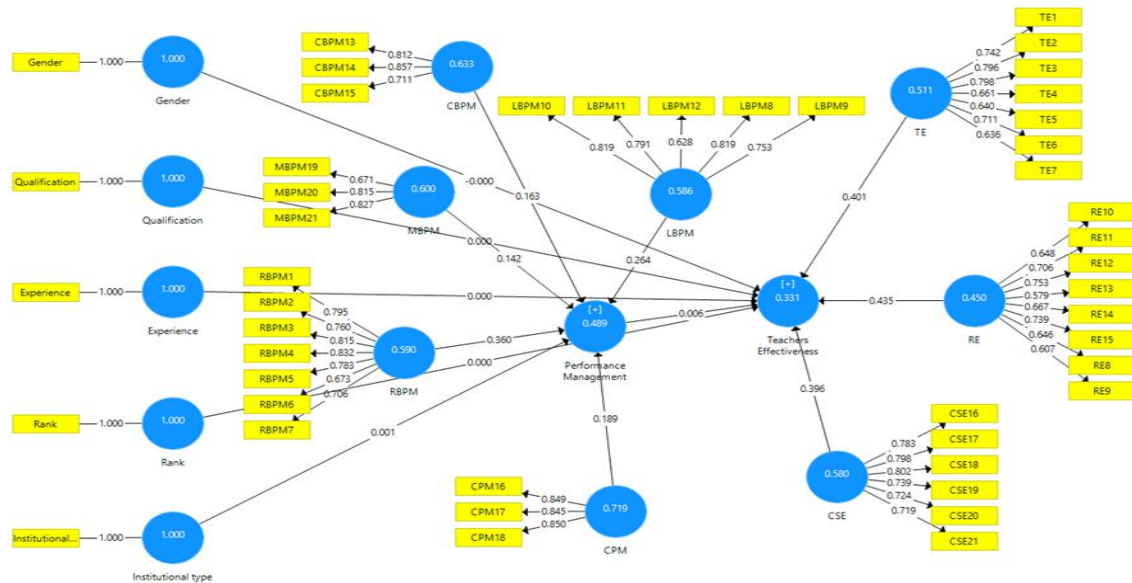


Figure 2. Measurement Model

Evaluation of Structural Model

In evaluating the structural model, standard assessment criteria are outlined. These include the Q^2 value, derived from the blindfolding-based cross-validated redundancy measure, and the statistical significance of the path coefficients. The Q^2 value assesses the predictive relevance of the model, indicating how well the model can predict the endogenous constructs. Additionally, the significance of the path coefficients is essential to determine whether the hypothesized relationships between variables are statistically meaningful. Figure 3. illustrates the hypothesized model based on the latent scores derived from the first stage of the two-stage approach. This approach allows for a clearer understanding of the relationships between constructs by separating the measurement and structural models, ensuring a more robust assessment of the model's fit and predictive power. The combination of these criteria offers a comprehensive evaluation of the structural model's effectiveness.

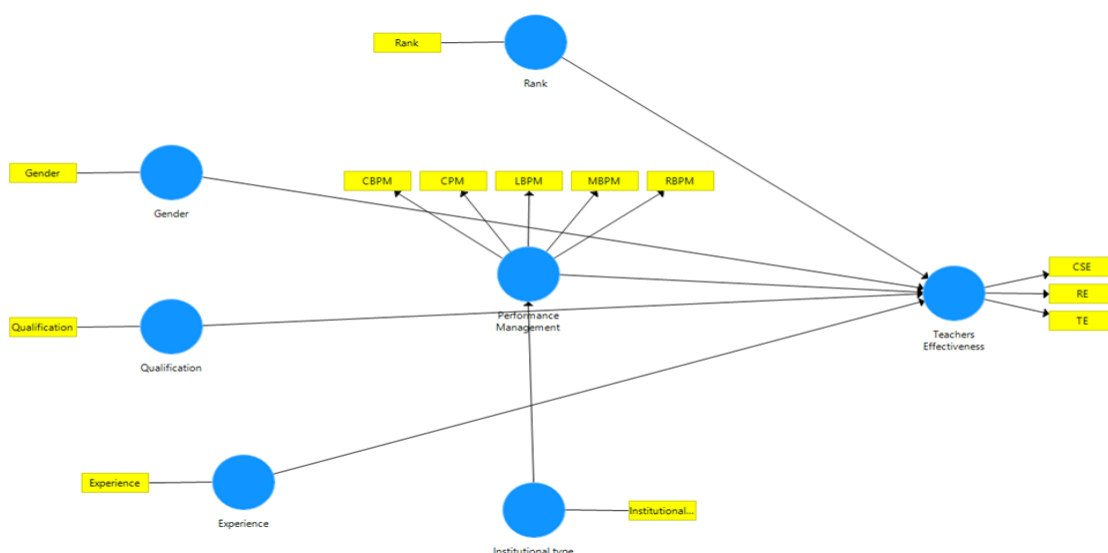


Figure 3. Proposed Structural Model

Also, the collinearity issue in the structural model was assessed using variance inflation factors (VIF), and a value of VIF less than three is said to be standard, but less than five is ideal. Thus, Table 5 depicts that all the VIF values for all the independent variables are less than 5. It was concluded that there was no collinearity among the latent variables.

Table 5. Variance Inflated Factor (VIF) of all the Constructs in the Model

Construct	VIF
CBPM	3.130
CPM	3.423
CSE	1.807
LBPM	4.215
MBPM	2.236
RBPM	3.356
RE	1.940
TE	1.228

Table 5. shows the relationship between several factors (experience, gender, qualifications, and rank) and teaching effectiveness. For experience (0.073), a statistical T-value of 1.979 indicates a significant positive relationship, although the p-value (0.051) is close to the significance threshold of 0.05. Gender (0.021) and qualifications (-0.003) had very high p-values (0.567 and 0.947), which suggests no significant relationship between these factors and teaching effectiveness. The magnitude (-0.008) also shows a very high p-value (0.849), meaning no significant influence exists. Overall, only experience could influence teaching effectiveness, although it was still not strong enough to be considered significant at the conventional level (0.05). Other factors do not have a significant influence.

Hypothesis Testing for Sub-Constructs Direct Causal Relationship

Testing the hypothesis for the direct causal relationship between sub-constructs is an important step in evaluating the structural model's strength and the significance of the relationship between variables. At this stage, the main objective is to identify whether there is a significant direct influence between one sub-construct and another and assess whether the relationship supports or contradicts the hypothesis proposed. Using precise statistical techniques, such as path analysis or regression, testing this hypothesis allows researchers to evaluate how much each sub-construct contributes to the independent and dependent variables in the model. The results of this test provide a clearer picture of the dynamics of the relationships between sub-constructs and strengthen the understanding of the structure of the model being studied. Therefore, testing this hypothesis is a key step for theoretical and practical validation in this study.

Table 6. Hypothesis Testing for Sub-Constructs Direct Causal Relationship

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values	Remarks
CBPM -> Teacher Effectiveness	0.104	0.102	0.068	1.533	0.126	Not Sig.
CPM -> Teacher Effectiveness	0.115	0.115	0.069	1.664	0.097	Not Sig.
LBPM -> Teacher Effectiveness	0.287	0.281	0.088	3.277	0.001	Sig.
MBPM -> Teacher Effectiveness	0.226	0.234	0.070	3.250	0.001	Sig.
RBPM -> Teacher Effectiveness	0.117	0.119	0.062	1.883	0.060	Not Sig.

Table 6 presents the results of hypothesis testing for the direct causal relationship between sub-constructs and teaching effectiveness. In the relationship between CBPM and Teacher Effectiveness, the T-statistics of 1.533 and the P-value of 0.126 were more significant than the threshold of 0.05, indicating that this relationship is insignificant. Therefore, this hypothesis is rejected. Similarly, the relationship between CPM and Teacher Effectiveness, which has a T-statistic of 1.664 and a P-value of 0.097, which is also greater than 0.05, indicates that this relationship is not significant, and the hypothesis is rejected. In contrast, the relationship between LBPM and Teacher Effectiveness showed significant results with T-statistics of 3.277 and a P-value of 0.001, much smaller than 0.05. This indicates that the relationship between LBPM and teaching effectiveness is significant, so this hypothesis is accepted.

Likewise, the relationship between MBPM and Teacher Effectiveness showed a T-statistic of 3.250 and a P-value of 0.001, which means that the relationship is significant and this hypothesis is accepted. Finally, the relationship between RBPM and Teacher Effectiveness had a T-statistic of 1.883 and a P-value of 0.060, which was more significant than 0.05, suggesting that this relationship was not significant, and the hypothesis was rejected.

Discussion

The significant findings of this study align with previous research on the relationship between performance management and lecturers' effectiveness. The study found that performance management levels in Colleges of Education in Southwest Nigeria are very high. This may be due to the active involvement of stakeholders, such as the Federal Ministry of Education, the National University Commission (NUC), the National Board for Technical Education (NBTE), and the National Commission for Colleges of Education (NCCE), who are responsible for maintaining quality in Nigerian tertiary education. Specifically, the NCCE oversees academic standards and accredits teacher education programs, contributing to lecturers' effectiveness through effective performance management.

The study also highlighted that lecturers' effectiveness in these institutions is notably high. This supports the notion that lecturers are key assets and significant stakeholders in tertiary education. Lecturers remain highly motivated despite their extensive responsibilities, including administrative tasks and other activities that may conflict with their primary academic roles. This finding is consistent with Szromek (2020), who noted that despite the extensive roles assigned to academic staff, including administrative duties and large class sizes, lecturers continue to perform their responsibilities effectively, enhancing their overall efficiency.

The core aim of this study was to examine the relationship between performance management practices and lecturers' effectiveness in Colleges of Education in Southwest Nigeria. The findings reveal that competency-based, culture-based, and team-based performance management practices significantly and positively impact lecturers' effectiveness. This supports the assertion of Amjad (2021) that human resource management practices, including performance management, significantly improve organizational performance. Similarly, Mitosis et al. (2021) found that competency, culture, and leadership-based performance management positively affect individual and institutional performance. However, the study found that career-based performance management does not significantly impact lecturers' effectiveness. This aligns with Heleta and Bagus's (2021) view that performance management mainly enhances teachers' competence and commitment, potentially leading to better performance and improved student outcomes.

Additionally, the study found that performance management practices in public educational institutions aim to enhance institutional quality. Indicators such as reward, competency, and culture demonstrated a strong relationship with lecturers' effectiveness. This is supported by Anlimachie and Avoada (2020), who argued that performance evaluation models and indicators are crucial for assessing institutional performance at the school level. Krstić et al. (2021) further emphasized that performance indicators should be defined at multiple levels according to the responsibilities within public education institutions, leading to significant relationships with lecturers' effectiveness.

This study makes an original and theoretical contribution by identifying a significant relationship between performance management practices and lecturer effectiveness in colleges of education in Southwestern Nigeria. Initially, the study used a correlational survey design and multistage sampling technique to collect data from a large and diverse population, providing strong empirical insights into performance management practices in the Nigerian higher education context. Theoretically, the article extends goal-setting theory's application by showing how performance management elements, such as competency-based, culture, and leadership, can enhance lecturer effectiveness. The findings highlight the need to develop better policies and frameworks to improve the quality of teacher education, which can contribute to improving the overall quality of education in Nigeria. Thus, this article adds to the literature on human resource management in education and offers practical recommendations for educational policy development in developing countries.

CONCLUSION

This study revealed that performance management practices are significantly related to lecturer effectiveness in colleges of education in Southwest Nigeria. The findings highlight the importance of competency-based management, culture, and leadership in improving lecturer performance. Thus, this study provides new insights into how performance management practices can effectively be integrated into higher education to improve teaching quality and learning outcomes. From a theoretical perspective, this study strengthens the understanding of the application of goal-setting theory in educational settings. In contrast, from a practical perspective, the findings highlight the need for better policy development to improve teacher education quality.

This study enriches the existing literature by updating the perspective on performance management in higher education and proposing a more focused approach to key elements that influence lecturer effectiveness. By introducing new variables such as culture-based management and leadership, this study offers new insights relevant to education in developing countries. However, this study has limitations, including the limited scope to a specific geographical area and the survey method used. To gain a more comprehensive picture, further research is needed to explore other aspects, such as gender differences, age, and

a wider range of survey methods. This is important to ensure that the findings can be applied more widely and form the basis for more effective and inclusive education policies in the future.

ACKNOWLEDGMENT

The authors gratefully acknowledge the University of Ilorin for its institutional support and resources. We sincerely thank the academic staff of Colleges of Education in Southwest Nigeria for their participation and insights. Special thanks to colleagues and peer reviewers for their constructive feedback, which strengthened the quality of this work.

REFERENCES

- Adhikari, D. R., & Shrestha, P. (2023). Knowledge Management Initiatives for Achieving Sustainable Development Goal 4.7: Higher Education Institutions' Stakeholder Perspectives. *Journal of Knowledge Management*, 27(4), 1109–1139. <https://doi.org/10.1108/JKM-03-2022-0172>
- Amjad, F., Abbas, W., Zia-UR-Rehman, M., Baig, S. A., Hashim, M., Khan, A., & Rehman, H. ur. (2021). Effect of Green Human Resource Management Practices on Organizational Sustainability: The Mediating Role of Environmental and Employee Performance. *Environmental Science and Pollution Research*, 28(22), 28191–28206. <https://doi.org/10.1007/s11356-020-11307-9>
- Anlimachie, M. A., & Avoada, C. (2020). Socio-Economic Impact of Closing the Rural-Urban Gap in Pre-Tertiary Education in Ghana: Context and Strategies. *International Journal of Educational Development*, 77, 102236. <https://doi.org/10.1016/j.ijedudev.2020.102236>
- Ashour, S. (2020). Quality Higher Education Is the Foundation of a Knowledge Society: Where Does the UAE Stand? *Quality in Higher Education*, 26(2), 209–223. <https://doi.org/10.1080/13538322.2020.1769263>
- Babarinde, S. A., Omoyele, O. S., & ... (2022). Assessing the Impact of Mentoring Programs on Career Development of Junior Teaching Staff: Empirical Evidence From Selected. *Journal of Positive Psychology*, 2236–2250. <https://journalppw.com/index.php/jpsp/article/view/3619>
- Burbules, N. C., Fan, G., & Repp, P. (2020). Five Trends of Education and Technology in a Sustainable Future. *Geography and Sustainability*, 1(2), 93–97. <https://doi.org/10.1016/j.geosus.2020.05.001>
- Chalari, M., Onyefulu, C., & Fasoyiro, O. (2023). Teacher Educators' Perceptions of Practices and Issues Affecting Initial Teacher Education Programmes in Jamaica, Greece and Nigeria. *Power and Education*, 15(1), 102–121. <https://doi.org/10.1177/17577438221102683>

- Chankseliani, M., Qoraboyev, I., & Gimranova, D. (2021). Higher Education Contributing to Local, National, and Global Development: New Empirical and Conceptual Insights. *Higher Education*, 81(1), 109–127. <https://doi.org/10.1007/s10734-020-00565-8>
- Darling-Hammond, L. (2020). Accountability in Teacher Education. *Action in Teacher Education*, 42(1), 60–71. <https://doi.org/10.1080/01626620.2019.1704464>
- Ebekozien, A., & Aigbavboa, C. (2022). Evaluation of Built Environment Programmes Accreditation in the 21st Century Education System in Nigeria: Stakeholders' Perspective. *International Journal of Building Pathology and Adaptation*, 41(6), 102–118. <https://doi.org/10.1108/IJBPA-02-2022-0027>
- Glavič, P. (2020). Identifying Key Issues of Education for Sustainable Development. *Sustainability (Switzerland)*, 12(16), 6500. <https://doi.org/10.3390/su12166500>
- Gotthardt, M., & Mezhyuev, V. (2022). Measuring the Success of Recommender Systems: A PLS-SEM Approach. *IEEE Access*, 10, 30610–30623. <https://doi.org/10.1109/ACCESS.2022.3159652>
- Harrison, R., Meyer, L., Rawstorne, P., Razee, H., Chitkara, U., Mears, S., & Balasooriya, C. (2022). Evaluating and Enhancing Quality in Higher Education Teaching Practice: A Meta-Review. *Studies in Higher Education*, 47(1), 80–96. <https://doi.org/10.1080/03075079.2020.1730315>
- Heleta, S., & Bagus, T. (2021). Sustainable Development Goals and Higher Education: Leaving Many Behind. *Higher Education*, 81(1), 163–177. <https://doi.org/10.1007/s10734-020-00573-8>
- Hooda, M., Rana, C., Dahiya, O., Rizwan, A., & Hossain, M. S. (2022). Artificial Intelligence for Assessment and Feedback to Enhance Student Success in Higher Education. *Mathematical Problems in Engineering*, 2022(1), 5215722. <https://doi.org/10.1155/2022/5215722>
- Humphreys, S., Dunne, M., Durrani, N., Sankey, S., & Kaibo, J. (2020). Becoming a Teacher: Experiences of Female Trainees in Initial Teacher Education in Nigeria. *Teaching and Teacher Education*, 87, 102957. <https://doi.org/10.1016/j.tate.2019.102957>
- Jansen, L. J. M., & Kalas, P. P. (2020). Improving Governance of Tenure in Policy and Practice: A Conceptual Basis to Analyze Multi-Stakeholder Partnerships for Multi-Stakeholder Transformative Governance Illustrated With an Example From South Africa. *Sustainability (Switzerland)*, 12(23), 1–30. <https://doi.org/10.3390/su12239901>
- Keane, T., & Keane, W. (2020). A Vision of the Digital Future: Government Funding as a Catalyst for 1 to 1 Computing in Schools. *Education and Information Technologies*, 25(2), 845–861. <https://doi.org/10.1007/s10639-019-09988-y>

- Krstić, M. (2021). Higher Education as Determinant of Competitiveness and Sustainable Economic Development. *Critical Studies on Corporate Responsibility, Governance and Sustainability*, 14(16), 15–34. <https://doi.org/10.1108/S2043-905920210000015002>
- Madandola, M., & Boussaa, D. (2023). Cultural Heritage Tourism as a Catalyst for Sustainable Development: The Case of Old Oyo Town in Nigeria. *International Journal of Heritage Studies*, 29(1–2), 21–38. <https://doi.org/10.1080/13527258.2023.2169332>
- Mitosis, K. D., Lamnisos, D., & Talias, M. A. (2021). Talent Management in Healthcare: A Systematic Qualitative Review. *Sustainability (Switzerland)*, 13(8), 4469. <https://doi.org/10.3390/su13084469>
- Okolie, U. C., Igwe, P. A., Nwosu, H. E., Eneje, B. C., & Mlanga, S. (2020). Enhancing Graduate Employability: Why Do Higher Education Institutions Have Problems With Teaching Generic Skills? *Policy Futures in Education*, 18(2), 294–313. <https://doi.org/10.1177/1478210319864824>
- Rodríguez, P. G., Villarreal, R., Valiño, P. C., & Blozis, S. (2020). A PLS-SEM Approach to Understanding E-SQ, E-Satisfaction, and E-Loyalty for Fashion E-Retailers in Spain. *Journal of Retailing and Consumer Services*, 57, 102201. <https://doi.org/10.1016/j.jretconser.2020.102201>
- Sá, M. J., & Serpa, S. (2020). The COVID-19 Pandemic as an Opportunity to Foster the Sustainable Development of Teaching in Higher Education. *Sustainability (Switzerland)*, 12(20), 1–16. <https://doi.org/10.3390/su12208525>
- Sanderink, L., & Nasiritousi, N. (2020). How Institutional Interactions Can Strengthen Effectiveness: The Case of Multi-Stakeholder Partnerships for Renewable Energy. *Energy Policy*, 141, 111447. <https://doi.org/10.1016/j.enpol.2020.111447>
- Suleiman, M. M., Yahya, A. T., & Tukur, M. (2020). Effective Utilization of ICT Tools in Higher Education. *Journal of Xidian University*, 14(9), 7–20. <https://doi.org/10.37896/jxu14.9/061>
- Sanderink, L., & Nasiritousi, N. (2020). How Institutional Interactions Can Strengthen Effectiveness: The Case of Multi-Stakeholder Partnerships for Renewable Energy. *Energy Policy*, 141, 111447. <https://doi.org/10.1016/j.enpol.2020.111447>
- Suleiman, M. M., Yahya, A. T., & Tukur, M. (2020). Effective Utilization of ICT Tools in Higher Education. *Journal of Xidian University*, 14(9), 7–20. <https://doi.org/10.37896/jxu14.9/061>
- Szromek, A. R., & Wolniak, R. (2020). Job Satisfaction and Problems Among Academic Staff in Higher Education. *Sustainability (Switzerland)*, 12(12), 4865. <https://doi.org/10.3390/SU12124865>

- Tomaselli, V., Fordellone, M., & Vichi, M. (2021). Building Well-Being Composite Indicator for Micro-Territorial Areas Through PLS-SEM and K-Means Approach. *Social Indicators Research*, 153(2), 407–429. <https://doi.org/10.1007/s11205-020-02454-0>
- Ullah, A., & Usman, M. (2023). Role of Libraries in Ensuring Quality Education at Higher Education Institutions: A Perspective of Pakistan. *Inverge Journal of Social Sciences*, 2(4), 13–22. <https://invergejournals.com/index.php/ijss/article/view/57>
- Unterhalter, E., & Howell, C. (2021). Unaligned Connections or Enlarging Engagements? Tertiary Education in Developing Countries and the Implementation of the SDGs. *Higher Education*, 81(1), 9–29. <https://doi.org/10.1007/s10734-020-00651-x>
- Walker, M. (2022). Sustainable Development Goals and Capability-Based Higher Education Outcomes. *Third World Quarterly*, 43(5), 997–1015. <https://doi.org/10.1080/01436597.2022.2039063>
- Wang, D., Zhou, T., Lan, F., & Wang, M. (2021). ICT and Socio-Economic Development: Evidence from a Spatial Panel Data Analysis in China. *Telecommunications Policy*, 45(7), 102173. <https://doi.org/10.1016/j.telpol.2021.102173>
- Wang, H., Coyte, P. C., Shi, W., Zong, X., & Zhong, R. (2023). Social Governance and Sustainable Development in Elderly Services: Innovative Models, Strategies, and Stakeholder Perspectives. *Sustainability (Switzerland)*, 15(21), 15414. <https://doi.org/10.3390/su152115414>
- Zhiyong, S., Muthukrishnan, P., & Sidhu, G. K. (2020). College English Language Teaching Reform and Key Factors Determining EFL Teachers' Professional Development. *European Journal of Educational Research*, 9(4), 1393–1404. <https://doi.org/10.12973/eu-jer.9.4.1393>