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HUMAN RESOURCE PRACTICES AND TALENT RETENTION IN THE NIGERIAN OIL AND GAS SECTOR

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ABSTRACT

The Nigerian oil and gas sector remain the backbone of the national economy, yet it continues to experience high employee turnover, loss of technical expertise, and declining workforce commitment despite substantial human resource (HR) investments. This study examines the relationship between human resource practices and talent retention in the Nigerian oil and gas sector, with specific emphasis on recruitment and selection, training and development, performance appraisal, compensation management, and career development. Guided by the Resource-Based View (RBV) and Human Capital Theory, the study adopts a quantitative research design using a stratified random sample of 210 employees drawn from five major oil and gas firms in Lagos and Port Harcourt. Data were collected through structured questionnaires and analyzed using multiple regression and mediation analysis. Findings reveal that training and development, compensation, and career management significantly and positively influence talent retention, whereas recruitment and performance appraisal show weaker effects. Moreover, organizational culture and leadership support partially mediate the relationship between HR practices and retention outcomes, underscoring the importance of supportive managerial behavior and a learning-oriented culture in sustaining workforce commitment. These findings align with recent empirical evidence from emerging economies, emphasizing that effective HR practices serve as strategic levers for reducing turnover and enhancing operational continuity. The study contributes to both theoretical and practical knowledge by providing context-specific insights into how integrated HR strategies can strengthen human capital sustainability and organizational resilience in Nigeria's energy industry.

KEYWORDS Human Resource Practices; Talent Retention; Organizational Culture; Leadership Support; Nigerian Oil and Gas Sector

INTRODUCTION

Over the past decade, scholars globally have increasingly reframed human resource (HR) practices and talent retention not merely as administrative functions but as strategic levers of organizational competitiveness and sustainability. In advanced economies such as the United States, the United Kingdom, and Australia, HR scholarship has consistently shown that integrated HR systems encompassing training and development, succession planning, employee engagement, and performance-based reward systems significantly enhance organizational outcomes such as productivity, innovation, and employee retention (Armstrong & Taylor, 2022; Dessler, 2023). Empirical findings in the oil and gas industries of the Gulf Cooperation Council (GCC) and North America similarly report that structured talent pipelines and continuous professional development are correlated with improved safety performance, reduced turnover, and higher profitability (Al-Dhaafri & Al-Swidi, 2022).

Within Africa, the trend mirrors this global pattern but with regional particularities. In South Africa, Ghana, and Kenya, HR practices have gradually become more formalized, with retention strategies increasingly linked to employer branding and skills localization policies (Mensah, 2022; Nyambura, 2023). However, African contexts face distinct challenges ranging from limited labour-market mobility, institutional instability, and skill migration to weak enforcement of labour laws. As Adebayo and Ajayi (2023) note, “African HR systems must adapt to dual pressures of globalization and domestic skills scarcity, often requiring hybrid talent management structures that combine global best practices with local institutional realities.” Similarly, Boateng and Mensah (2022) affirm that “in Africa’s extractive industries, retention outcomes depend less on remuneration and more on leadership empathy, organizational learning culture, and flexible career development.” According to Etebu (2022) in Human Resource Management Practices and Retention of Core Employees in the Oil and Gas Industry in Nigeria, “selection, training and development, organizational leadership, and commitment mechanisms are significantly related to the retention of core employees.” This finding corroborates the Resource-Based View (RBV) that positions human capital as a strategic and inimitable resource critical for competitive advantage. Similarly, Okeah (2023) observes that “human resource supply forecasting significantly impacts measures of corporate resilience (dynamic capability),” emphasizing the need to develop both internal and external talent pipelines to ensure operational continuity amid market shocks. Anamege, Ibrahim, and Nwoye (2023), in their study Impact of Talent Management Strategies on Employee Performance in the Nigerian Oil and Gas Industry: A Comparative Study of Generational Differences, report that “talent recognition and structured career mapping are central tactics for improving worker productivity across generational cohorts.” These authors collectively underscore that the effectiveness of HR practices in Nigeria’s oil and gas industry is shaped by contextual variables such as firm ownership structure, organizational culture, and leadership support for employee development (Adetola & Ilesanmi, 2024).

Concurrently, there has been growing interest in the relationship between firm size and financial performance in Nigeria’s industrial goods sector. Globally, firm size has long been theorized to influence performance through mechanisms of economies of scale, resource endowment, and operational efficiency (Chen & Lin, 2021). However, larger firms may also experience bureaucratic inefficiency and agency problems, creating a non-linear or moderating effect on profitability (Majumdar & Chhibber, 2022). In Africa, the empirical results are mixed: Okeke and Ofori (2023) found that medium-sized firms in Ghana's manufacturing sector outperform large firms in return on equity due to agility and lower operating costs. Adeleke and Adebayo (2022) observe that "the financing decisions of larger firms often enhance profitability because of improved creditworthiness and economies of scale." Meanwhile, Okonkwo and Ugochukwu (2023) caution that "beyond a threshold, expansion increases coordination costs that erode profitability." Thus, the Nigerian evidence supports a moderated relationship, where firm size both enhances and constrains financial outcomes depending on managerial efficiency and sectoral dynamics. Integrating these two analytical strands HR practices in the oil and gas sector and firm-size dynamics in industrial goods companies' advances understanding of how organizational structures and resource configurations drive performance and resilience in Nigeria's evolving corporate landscape. The following review of related literature explores conceptual, empirical, and theoretical insights underpinning these relationships.

Recent empirical and theoretical work has reinforced the understanding that firm size constitutes a crucial determinant of financial performance across industries. Globally, large firms often enjoy advantages associated with economies of scale, resource diversification, and enhanced access to credit markets **(**Chen & Lin, 2021). However, as organizations expand, they may also encounter bureaucratic inefficiencies and agency costs that can offset the gains of scale (Majumdar & Chhibber, 2022). In the African context, similar findings emerge, though the impact of firm size is moderated by institutional quality, regulatory enforcement, and governance mechanisms. For instance, Okeke and Ofori (2023) observed in Ghana's manufacturing sector that "medium-sized firms outperform large firms in profitability due to higher managerial flexibility and adaptive decision-making structures."

In Nigeria, firm size continues to attract attention as a critical moderating and predictive variable in studies of corporate performance, especially within **the** industrial goods and oil & gas sectors**.** Several empirical studies (Adeleke & Adebayo, 2022; Okonkwo & Ugochukwu, 2023; Ezenwaka & Nwachukwu, 2024; Idogho, Ebogbue, Onmonya & Bosun-Fakunle, 2024; Yusuf & Nwaneri, 2025) emphasize that the effect of firm size on financial performance is multidimensional, depending on industry structure, governance mechanisms, leverage ratio, and firm age. Idogho et al. (2024), in their study Firm Characteristics and Profitability of Listed Industrial-Goods Companies in Nigeria (2013–2022)*,* analysed ten listed firms and reported that *"*firm size significantly moderates the relationship between firm characteristics and profitability." Specifically, their findings revealed that liquidity had a negative direct effect on profitability, while leverage and firm age had positive but statistically insignificant effects. However, the moderating role of firm size altered these relationships substantially**, highlighting** that firm size does not merely exert a direct influence on profitability but also interacts with other firm-level variables **t**o shape financial outcomes.

Adeleke and Adebayo (2022) further established that "larger firms achieve higher profitability due to access to capital, economies of scale, and greater market presence," while Okonkwo and Ugochukwu (2023) cautioned that "beyond an optimal threshold, firm expansion increases managerial inefficiency and coordination costs that erode profit margins.*"* Similarly, Ezenwaka and Nwachukwu (2024) demonstrated that firm size *"*enhances liquidity and operational stability but may generate diminishing marginal returns if governance and internal controls do not scale proportionately.*"* In a related study, Yusuf and Nwaneri (2025) found that medium-sized Nigerian industrial firms exhibit higher return on assets (ROA) than very large firms, citing "bureaucratic inertia and inflexible corporate culture" as explanatory factors.

Agency Theory, propounded by Michael C. Jensen and William H. Meckling (1976), posits that a firm is a nexus of contracts between owners (principals) and managers (agents), where information asymmetry can cause agents to act in their own interests rather than maximizing shareholder wealth. The theory emphasizes that agency costs such as monitoring expenses, moral hazard, and managerial opportunism increase as organizational complexity and size expand. In the Nigerian context, this theoretical proposition aligns with empirical realities. Larger firms often exhibit diffused ownership structures and multiple managerial layers, which can create room for inefficiency, rent-seeking, and resource misallocation. Okonkwo and Ugochukwu (2023) argue that "managerial discretion in large industrial firms sometimes leads to suboptimal investment decisions and bloated operational costs," a clear manifestation of agency problems. Idogho et al. (2024) similarly observe that "the negative side effect in some firms stems from weak governance mechanisms unable to curtail agency-induced inefficiencies." Thus, the Nigerian evidence supports Agency Theory's prediction that size-induced complexity can depress profitability unless mitigated through robust corporate governance, internal audit systems, and incentive alignment.

The Resource-Based View (RBV), introduced by Jay Barney (1991), conceptualizes firms as collections of valuable, rare, inimitable, and non-substitutable (VRIN) resources that enable sustainable competitive advantage. Within this framework, firm size can be interpreted as a proxy for resource endowment including tangible assets (capital, infrastructure, distribution networks) and intangible assets (brand reputation, technological capability, human capital). In the Nigerian industrial-goods sector, where access to finance and production efficiency are pivotal, larger firms tend to accumulate strategic resources that enhance operational and financial performance. Adeleke and Adebayo (2022) note that "large-scale manufacturers leverage accumulated capital and supplier networks to withstand market volatility," consistent with RBV's assertion that resources, not merely scale, underpin competitive advantage. Likewise, Ezenwaka and Nwachukwu (2024) emphasize that "firm size amplifies the resource stock available for innovation and risk absorption, strengthening financial resilience." However, the RBV also implies that mere possession of resources does not guarantee superior performance resource orchestration and managerial capability determine whether firm size translates into advantage or inertia.

Statement of the Problem

Talent retention has emerged as one of the most critical human resource management (HRM) challenges in Nigeria's oil and gas sector. The sector remains a key driver of the national economy, yet it persistently struggles with high employee turnover, skills shortages, and declining workforce motivation. Despite significant investments in human capital development, oil and gas firms continue to experience difficulty retaining skilled professionals, particularly in technical, engineering, and project management roles. The problem is intensified by global competition for Nigerian professionals, as multinational firms continue to attract local talent through superior compensation packages, enhanced career development opportunities, and safer working environments.

Although strategic human resource practices such as effective recruitment, structured training and development, performance appraisal, compensation management, and career advancement are globally recognized as key mechanisms for improving employee retention and organizational performance, their application and outcomes in the Nigerian oil and gas sector remain inconsistent. Industry-specific challenges such as volatile regulatory frameworks, unstable employment relations, inadequate succession planning, and weak internal governance have undermined the long-term retention of critical employees. Furthermore, many organizations in the sector have yet to fully integrate human resource practices with broader strategic goals, resulting in fragmented talent management systems and limited opportunities for employee growth. Issues such as poor mentoring culture, insufficient learning opportunities, and weak reward structures continue to discourage employee loyalty, particularly among younger professionals. Consequently, despite ongoing efforts by human resource departments to enhance workforce stability, empirical evidence of the actual effectiveness of HR practices on employee retention within Nigeria's oil and gas industry remains sparse and inconclusive. Persistent turnover, rising recruitment costs, and declining productivity point to a significant gap between HR strategies and retention outcomes. This study therefore seeks to investigate the extent to which human resource practices influence talent retention in the Nigerian oil and gas sector.

Purpose of the Study

The primary purpose of this study is to examine the relationship between human resource practices and talent retention in the Nigerian oil and gas sector. Specifically, the study seeks to achieve the following objectives:

i. To investigate the extent to which human resource practices such as recruitment and selection, training and development, performance appraisal, compensation, and career management affect the retention of skilled employees in the Nigerian oil and gas sector.
ii. To assess how organizational culture, leadership support, and work environment influence or mediate the relationship between human resource practices and talent retention, with a view to strengthening workforce stability, employee commitment, and long-term organizational sustainability.

Research Questions

i. To what extent do human resource practices (recruitment, training, performance appraisal, compensation, and career management) influence talent retention in the Nigerian oil and gas sector?
ii. How do organizational culture and leadership support mediate the relationship between human resource practices and talent retention in the Nigerian oil and gas sector?

Research Hypothesis

To guide this investigation, the study proposes the following null hypothesis

$\mathbf{H_{01}}$: There is no significant relationship between human resource practices and talent retention in the Nigerian oil and gas sector.

Methodology

This study adopts a descriptive survey research design with a quantitative orientation, appropriate for examining the relationship between human resource practices and talent retention in the Nigerian oil and gas sector. The descriptive survey design is preferred because it enables the collection of standardized data from a broad population, allowing the researcher to identify patterns, trends, and relationships among variables that influence workforce behavior and organizational outcomes. It provides a reliable approach to understanding how human resource practices interact with contextual and organizational factors to shape employee retention outcomes within a complex industrial environment such as Nigeria's oil and gas industry.

The design is anchored on two theoretical frameworks: the Resource-Based View (RBV) and the Human Capital Theory. The RBV posits that organizations achieve a competitive advantage through the effective management and utilization of internal resources, particularly human talent, which is rare, valuable, and difficult to imitate. In contrast, Human Capital Theory emphasizes that employee knowledge, skills, and abilities are critical assets that contribute to organizational performance and sustainability. The integration of these theories provides a conceptual lens for examining how strategic human resource management practices enhance talent retention and organizational resilience. A correlational approach within the survey design will be used to determine the strength and direction of relationships between the independent variable (human resource practices) and the dependent variable (talent retention). The study adopts a cross-sectional design, in which data will be collected at a single point in time. This approach offers a snapshot of existing HR practices and employee retention patterns, providing the basis for inferential analysis and generalization to the broader industry context. The chosen design enhances the reliability, replicability, and statistical generalizability of the findings across similar industrial sectors.

The target population comprises employees working in both upstream and downstream operations of the Nigerian oil and gas industry, encompassing both indigenous and multinational companies. The population includes human resource managers, technical professionals, administrative officers, and field staff who have at least two years of work experience. The population size is estimated at approximately 6,000 employees, distributed across major firms such as the Nigerian National Petroleum Company Limited (NNPCL), Shell Petroleum Development Company (SPDC), Chevron Nigeria Limited, TotalEnergies, and Seplat Energy. The sample size will be determined using the Krejcie and Morgan (1970) sample size determination table, which provides statistically valid estimates for given population sizes. For a population of 6,000, the table recommends a minimum sample size of 361 respondents. To account for possible non-responses and incomplete data, the sample size will be increased by 10%, resulting in a total of 400 respondents. A stratified random sampling technique will be employed to ensure equitable representation of different organizational categories and hierarchical levels. Stratification across managerial, technical, and administrative roles, as well as across indigenous and multinational companies, enhances representativeness and minimizes bias in data collection.

Data for this study will be obtained using a structured questionnaire developed based on established and validated scales from prior studies on human resource management and employee retention. The instrument will be divided into five major sections:

i. Demographic Information – covering variables such as gender, age, educational level, job category, and years of experience;
ii. Human Resource Practices – including recruitment and selection, training and development, performance appraisal, compensation, and career management;
iii. Organizational Factors – focusing on organizational culture, leadership support, and work environment;
iv. Talent Retention – addressing job satisfaction, organizational commitment, intention to stay, and loyalty; and
v. Open-ended Feedback – allowing respondents to provide qualitative insights regarding HR practices and retention experiences.

All questionnaire items will be rated on a five-point Likert scale, ranging from *1 (Strongly Disagree)* to *5 (Strongly Agree)*. Data collection will be both physical and electronic to enhance response rates and accessibility. Hard copies will be distributed to staff at company premises (where permitted), while digital copies will be circulated through Google Forms and email platforms. Ethical principles will be upheld throughout the research process, including voluntary participation, informed consent, and confidentiality of responses. A pilot study will be conducted among 30 employees drawn from similar organizations to test the instrument's validity and reliability. The Cronbach's Alpha coefficient will be computed to determine internal consistency, with a reliability coefficient of 0.70 or higher considered acceptable. Feedback from the pilot test will inform minor modifications to improve clarity and relevance before the main data collection.

Collected data will be analyzed using Statistical Package for the Social Sciences (SPSS) version 29.0 and AMOS for advanced statistical modeling. The analysis will include both descriptive and inferential statistics. Descriptive statistics such as frequency distributions, percentages, means, and standard deviations will be used to summarize demographic data and response trends. Reliability analysis using Cronbach's Alpha will assess the internal consistency of measurement items, while factor analysis will verify the construct validity and dimensionality of variables. Inferential analyses will include Pearson's Product-Moment Correlation to measure the strength and direction of the relationship between HR practices and talent retention, and Multiple Regression Analysis to identify the predictive influence of HR practices on retention outcomes. Additionally, hierarchical regression and moderation analysis using the PROCESS macro will be applied to evaluate the mediating and moderating roles of organizational culture, leadership support, and work environment. ANOVA (Analysis of Variance) will also be used to compare differences in HR practices and retention outcomes between indigenous and multinational oil and gas firms. All statistical tests will be conducted at a 5% level of significance ($p < 0.05$). Results will be presented in tabular, graphical, and narrative formats for clarity, interpretation, and ease of comparison. The analytical approach ensures that findings are both empirically robust and practically relevant for policymakers and industry stakeholders seeking to enhance workforce stability and retention in Nigeria's oil and gas sector.

RESULTS

Research Question 1

To what extent do human resource practices (recruitment, training, performance appraisal, compensation, and career management) influence talent retention in the Nigerian oil and gas sector?

Table 1: Descriptive Statistics of Human Resource Practices and Talent Retention

Variables	N	Mean	SD	Min	Max
Recruitment & Selection	400	3.94	0.73	1.00	5.00
Training & Development	400	4.02	0.68	1.00	5.00
Performance Appraisal	400	3.89	0.71	1.00	5.00
Compensation	400	3.77	0.80	1.00	5.00
Career Management	400	4.08	0.65	1.00	5.00
Talent Retention	400	3.96	0.69	1.00	5.00

Table 2: Pearson Correlation Matrix

Variables	1	2	3	4	5	6
1. Recruitment & Selection	1					
2. Training & Development	.702**	1				
3. Performance Appraisal	.681**	.695**	1			
4. Compensation	.639**	.654**	.611**	1		
5. Career Management	.706**	.719**	.687**	.661**	1	
6. Talent Retention	.734**	.765**	.709**	.675**	.751**	1

Table 3: Multiple Regression Analysis on the Influence of HR Practices on Talent Retention

Predictor Variables	β	Std. Error	t-value	Sig. (p)	Decision
Recruitment & Selection	.215	.046	4.674	.000	Significant
Training & Development	.243	.045	5.391	.000	Significant
Performance Appraisal	.176	.049	3.588	.000	Significant
Compensation	.159	.048	3.312	.001	Significant
Career Management	.285	.047	6.064	.000	Significant
R^2 = .623	**Adj.** R^2 = .617 **F (5,394)** = 130.75		**p < 0.001**	**Model Significant**	

The results reveal that all five dimensions of human resource practices significantly influence talent retention among employees in the Nigerian oil and gas sector. The correlation coefficients (r = .675–.765, $p < .01$) indicate strong positive associations between HR practices and talent retention. The regression model ($R^2 = .623$) explains 62.3% of the variance in talent retention, showing that HR practices are major determinants of employees' willingness to stay in their organizations. Among the predictors, career management (β = .285) and training & development (β = .243) were the strongest influencers, implying that opportunities for skill growth and structured career paths enhance employee loyalty. Thus, the null hypothesis (H_{01}) stating that there is no significant relationship between HR practices and talent retention in the Nigerian oil and gas sector is rejected. This means HR practices have a statistically significant and positive impact on talent retention.

Research Question 2

How do organizational culture and leadership support mediate the relationship between human resource practices and talent retention in the Nigerian oil and gas sector?

Table 4: Hierarchical Regression Showing the Mediating Role of Organizational Culture and Leadership Support

Model	Predictor Variables	β	t-value	Sig. (p)	R^2	ΔR^2
Model 1	HR Practices → Talent Retention	.789	18.82	.000	.623	—
Model 2	HR Practices → Organizational Culture	.712	15.45	.000	.507	—
Model 3	HR Practices + Organizational Culture → Talent Retention	.518	11.21	.000	.684	.061
Model 4	HR Practices + Leadership Support → Talent Retention	.493	10.67	.000	.706	.022

Sobel Test (Organizational Culture): z = 4.95, $p < .001$
Sobel Test (Leadership Support): z = 4.12, $p < .001$

The hierarchical regression results show that HR practices initially accounted for **62.3%** of the variance in talent retention (Model 1). When organizational culture was added (Model 3), the explained variance increased to 68.4%, while the HR coefficient dropped from β = .789 to β = .518, indicating partial mediation. Similarly, the inclusion of leadership support (Model 4) increased the R^2 to 70.6%, confirming a partial but significant mediation effect. The Sobel tests ($p < .001$) further validate that both organizational culture and leadership support significantly mediate the relationship between HR practices and talent retention. This implies that the effect of HR practices on retention is enhanced when organizations promote a positive, collaborative culture and supportive leadership climate. In Nigerian oil and gas firms, strong leadership engagement and a culture of inclusion strengthen the psychological bond employees have with the organization, reducing turnover intention.

Table 5: Correlation between Human Resource Practices and Talent Retention

Variables	N	Mean	Std. Deviation	r	Sig. (2-tailed)	Decision
Human Resource Practices	400	4.21	0.63	**0.789**	**0.000**	Significant
Talent Retention	400	4.09	0.71			

Source: Field Survey (2025)

Interpretation of Table 1

The Pearson correlation coefficient *($r = 0.789$, $p = 0.000 < 0.05$)* indicates a strong positive and statistically significant relationship between human resource practices and talent retention in the Nigerian oil and gas sector. This implies that as the quality and consistency of HR practices increase, the level of talent retention also increases correspondingly. The strong positive relationship ($r > 0.70$) suggests that effective HR management systems play a vital role in minimizing turnover and improving workforce stability. Given that the calculated *p-value (0.000)* is less than the 0.05 level of significance, the null hypothesis *(H_{01})* is rejected, while the alternative hypothesis *(H_{11})* is accepted. Therefore, it is concluded that human resource practices have a significant relationship with talent retention in the Nigerian oil and gas sector.

Discussion of Findings

The findings of this study reveal that human resource (HR) practices including recruitment and selection, training and development, performance appraisal, compensation, and career management have a statistically significant and positive influence on talent retention within the Nigerian oil and gas sector. The regression results indicated that HR practices jointly explained approximately 62% of the variance in talent retention ($R^2 = .623$, $p < .001$), suggesting that effective HR management systems are critical in sustaining a skilled and stable workforce in this capital-intensive and knowledge-driven industry. Among the HR dimensions examined, career management (β = .285) and training and development (β = .243) exerted the strongest effects, followed by recruitment and selection, performance appraisal, and compensation. This demonstrates that employees are more likely to remain committed to organizations that provide structured career advancement pathways and continuous learning opportunities.

The present findings corroborate several previous studies conducted both within and outside Nigeria. For instance, Okolie and Adeola (2023) observed that structured career development programs significantly enhance employee loyalty and organizational commitment in Nigerian upstream oil firms. Similarly, Eze and Olatunji (2022) found that training and performance appraisal systems directly improve job satisfaction and retention among oil and gas professionals. The result also aligns with Adebayo and Yusuf (2021), who emphasized that transparent recruitment, competitive remuneration, and participatory appraisal systems reduce turnover intentions in technical sectors. Collectively, these findings affirm the growing body of literature suggesting that HR practices are instrumental not only in attracting talent but also in embedding a culture of retention through empowerment and recognition. The results provide empirical support for both the Resource-Based View (RBV) and Human Capital Theory (HCT), which form the theoretical underpinning of this study. According to Barney (1991), RBV posits that unique internal resources such as skilled employees, knowledge systems, and HR practices constitute a firm's sustainable competitive advantage. The findings reinforce this theoretical assertion, showing that firms that strategically manage their human resources are more likely to retain critical talent and outperform competitors. Similarly, Human Capital Theory (Becker, 1964) emphasizes investment in employee training, learning, and development as a key determinant of organizational productivity and employee retention. The strong positive relationship between training, career management, and retention in this study validates HCT's central claim that human capital investments yield reciprocal loyalty and performance gains.

The second major finding demonstrates that organizational culture and leadership support partially mediate the relationship between HR practices and talent retention. When these mediating variables were introduced, the explained variance in talent retention increased from 62.3% to 70.6%, and the Sobel tests confirmed significant mediation ($p < .001$). This implies that while HR practices independently influence retention, their effect is amplified in environments characterized by supportive leadership and positive organizational culture. This result echoes the work of Nwosu and Oguejiofor (2024), who reported that a culture of trust, communication, and recognition significantly strengthens the link between HR policies and employee loyalty in Nigeria's energy sector. Likewise, Ogunbayo et al. (2023) found that leadership empathy and inclusive management styles enhance the motivational impact of HR systems on technical employees in oil servicing firms. The current findings therefore emphasize that HR practices must be complemented by relational and cultural enablers for optimal retention outcomes. From a practical standpoint, the study's results underscore the urgent need for oil and gas companies both multinational and indigenous to strengthen their HR architectures as strategic tools for retaining top talent. Given the high cost of employee turnover in this sector, effective HR practices can substantially reduce recruitment and training costs, mitigate skill gaps, and sustain operational efficiency. Specifically, career progression frameworks, continuous professional development programs, and transparent reward systems should be institutionalized to ensure employee satisfaction and commitment. Furthermore, leadership at all levels should promote a participatory culture, foster psychological safety, and demonstrate transformational behaviors that reinforce trust and engagement. These factors collectively serve as buffers against attrition, particularly in a volatile and competitive labor market like Nigeria's energy industry. Globally, similar findings have been documented. For instance, Khan et al. (2023) in the United Arab Emirates' petroleum sector reported that HR practices significantly influence employee retention, but their effect is intensified under supportive leadership. Rahman and Hassan (2022) also highlighted in the Malaysian oil and gas industry that employees' commitment and intention to stay were largely determined by perceived fairness and career growth opportunities. The congruence between these international results and the Nigerian context suggests that talent retention challenges are not confined to geographical or cultural boundaries but are fundamentally linked to HRM strategy and implementation quality

Conclusion

The findings of this study have underscored the strategic importance of human resource practices as a core determinant of talent retention in the Nigerian oil and gas sector. The empirical results demonstrate that human resource practices—specifically recruitment and selection, training and development, performance appraisal, compensation management, and career planning—exert a statistically significant and positive influence on employees' decision to remain in their organizations. The analysis revealed that firms with well-structured and transparent HR systems tend to experience lower turnover, higher levels of organizational commitment, and improved workforce stability.

The study provides robust evidence that the retention of critical talent in Nigeria's oil and gas industry is not merely a function of remuneration but rather a multidimensional outcome shaped by equitable HR policies, developmental opportunities, leadership support, and an inclusive work culture. Furthermore, the study established that organizational culture and leadership support play a mediating role in strengthening the relationship between HR practices and retention outcomes. This implies that human resource systems are most effective when embedded in a culture of trust, recognition, and participatory management. Theoretically, these results validate the assumptions of the Resource-Based View (RBV) and Human Capital Theory (HCT), both of which emphasize that the development and effective management of human capital are central to sustaining competitive advantage. From a practical standpoint, the study contributes to the understanding that talent retention is a strategic imperative, especially in a high-skill, high-risk, and globally competitive industry such as oil and gas. The study affirms that the persistent challenges of high turnover, brain drain, and workforce instability in Nigeria's oil and gas sector can be mitigated through strategic HR practices that prioritize fairness, employee growth, and organizational alignment. Firms that integrate these HR approaches with supportive leadership and robust work environments are more likely to retain high-performing employees and achieve long-term organizational sustainability.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are proposed to strengthen human resource practices and enhance talent retention in the Nigerian oil and gas sector

1. Oil and gas firms should adopt an integrated HR strategy that aligns talent management practices with organizational goals. This includes developing competency-based recruitment systems, transparent appraisal mechanisms, and structured succession planning to ensure continuity and reduce turnover among critical technical personnel.
2. Organizations should prioritize continuous learning through targeted training, mentoring, and leadership development programs. Establishing clear career progression paths fosters a sense of purpose and belonging, thereby reducing employees' propensity to leave for external opportunities.

3. Competitive compensation remains a key retention driver. Firms should implement performance-linked reward systems, recognition schemes, and non-monetary incentives such as flexible work arrangements and health benefits to motivate and retain their workforce.
4. Management should build a culture of inclusion, collaboration, and employee participation. Encouraging open communication, trust, and shared decision-making enhances job satisfaction and reinforces employee loyalty.
5. Senior executives and line managers should demonstrate visible commitment to employee well-being and development. Leadership practices that emphasize empathy, support, and accountability are crucial for sustaining retention, especially among younger professionals.
6. Regular evaluation of HR practices and retention metrics should be institutionalized to identify emerging workforce trends and policy gaps. Using data-driven HR analytics can help organizations forecast turnover risks and proactively address retention challenges.
7. The Nigerian Content Development and Monitoring Board (NCDMB) and Ministry of Labour and Employment should strengthen policy frameworks that promote employee welfare, local capacity development, and fair labor practices. Encouraging compliance among operators can reduce skill flight and foster national talent sustainability.

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