

Human Resource Planning and Organisational Performance in Nigerian Healthcare: An Empirical Investigation of a Tertiary Teaching Hospital

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Abstract:

➤ *Orientation:*

Healthcare organisations in sub-Saharan Africa face persistent challenges in workforce management, with inadequate human resource planning (HRP) contributing to suboptimal organisational performance. Despite growing recognition of strategic HRP's importance, empirical evidence from Nigerian tertiary healthcare institutions remains limited.

➤ *Research Purpose:*

This study examined the relationship between HRP dimensions training and development, compensation systems, and labour turnover management and organisational performance at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto, Nigeria.

➤ *Motivation for the Study:*

Nigeria's healthcare workforce crisis, characterised by inadequate staffing, high turnover, and limited retention capacity, necessitates locally grounded empirical evidence to guide strategic HRP investment and policy development in tertiary healthcare settings.

➤ *Research Approach/Design and Method:*

A quantitative descriptive survey design was employed. Structured questionnaires were administered to 108 employees selected via stratified random sampling. Data were analysed using descriptive statistics, Pearson correlation, and multiple linear regression. Reliability was established through Cronbach's alpha ($\alpha = 0.87$).

➤ *Main Findings:*

Training and development demonstrated a significant positive relationship with organisational performance ($r = .742$, $p < .01$), explaining 55% of performance variance. Compensation adequacy showed a moderate positive correlation ($r = .568$, $p < .01$), while labour turnover exhibited a significant negative relationship with performance ($r = -.634$, $p < .01$). Collectively, HRP dimensions explained 68.3% of organisational performance variance ($R^2 = .683$, $F = 74.52$, $p < .001$).

➤ *Practical/Managerial Implications:*

Healthcare managers should prioritise systematic training programmes, adopt transparent and equitable compensation structures, and implement comprehensive retention strategies that address multiple turnover determinants simultaneously to strengthen organisational performance.

➤ **Contribution/Value-Add:**

The study extends the Resource-Based View and the Ability–Motivation–Opportunity framework to African healthcare contexts, providing empirical evidence for strategic HRP's role in enhancing healthcare delivery in resource-constrained environments.

Keywords: *Human Resource Planning; Organisational Performance; Training and Development; Compensation Systems; Labour Turnover; Tertiary Healthcare; Nigeria; Strategic HRM.*

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I. INTRODUCTION

➤ *Orientation*

Contemporary healthcare organisations operate in increasingly complex environments characterised by rapid technological advancement, evolving patient expectations, and intensifying competition for skilled professionals. In sub-Saharan Africa, these challenges are compounded by resource constraints, infrastructure deficits, and persistent workforce migration, placing unprecedented demands on healthcare human resource management systems. The ability of healthcare institutions to deliver quality services and achieve strategic objectives depends fundamentally on their capacity to attract, develop, motivate, and retain competent personnel through systematic planning processes.

Human resource planning (HRP) is a strategic organisational function that aligns workforce capabilities with institutional goals through systematic forecasting, development, and deployment of human capital. Within healthcare contexts, effective HRP assumes particular significance given the sector's labour-intensive nature, the specialised competencies required, and the direct linkage between workforce quality and patient outcomes. Recent evidence from African healthcare systems indicates that inadequate HRP contributes to workforce shortages, skill mismatches, high turnover rates, and ultimately compromised service delivery (Egwuagu et al., 2024; Tokunbo et al., 2025).

Nigeria's healthcare system exemplifies these challenges. Despite being Africa's most populous nation, Nigeria faces a critical healthcare workforce crisis characterised by inadequate staffing levels, uneven geographic distribution, and high emigration rates (Tokunbo et al., 2025). The country's physician-to-population ratio falls significantly below the World Health Organization's recommended threshold, while nursing ratios similarly lag international standards. Tertiary healthcare institutions, which serve as referral centres and training hubs, bear particular responsibility for addressing these workforce challenges through strategic HRP practices.

Usmanu Danfodiyo University Teaching Hospital (UDUTH), located in Sokoto State, northwestern Nigeria, serves a catchment population exceeding 10 million across multiple states. As a major tertiary referral centre, UDUTH faces persistent workforce management challenges including recruitment difficulties, retention problems, training gaps,

and compensation inadequacies. Understanding how HRP practices influence organisational performance at UDUTH can generate insights applicable to similar institutions across Nigeria and sub-Saharan Africa.

➤ *Research Purpose and Objectives*

The primary purpose of this study was to investigate the relationship between HRP practices and organisational performance at UDUTH. Specifically, the research examined how three key HRP dimensions training and development, compensation systems, and labour turnover management influence organisational performance outcomes.

The study pursued the following objectives:

- To examine the relationship between training and development programmes and organisational performance at UDUTH;
- To assess the influence of compensation systems on organisational performance at UDUTH;
- To investigate the relationship between labour turnover management and organisational performance at UDUTH; and
- To determine the collective contribution of HRP dimensions to organisational performance variance at UDUTH.

Four null hypotheses were formulated and tested: H₀₁ there is no significant relationship between training and development programmes and organisational performance; H₀₂ there is no significant relationship between compensation systems and organisational performance; H₀₃ there is no significant relationship between labour turnover management and organisational performance; and H₀₄ HRP dimensions do not significantly explain organisational performance variance at UDUTH.

II. LITERATURE REVIEW

➤ *Theoretical Framework*

This study is grounded in two complementary theoretical frameworks: the Resource-Based View (RBV) and the Ability–Motivation–Opportunity (AMO) framework. The RBV, pioneered by Barney (1991), posits that sustainable competitive advantage derives from valuable, rare, inimitable, and non-substitutable organisational resources. Within this perspective, human capital represents a strategic resource that, when effectively developed and deployed,

generates superior organisational performance. Strategic HRP practices function as mechanisms for developing and protecting these valuable human resources (Gile et al., 2022).

The AMO framework, developed by Appelbaum et al. (2000), proposes that employee performance results from the interaction of three factors: ability (skills and knowledge), motivation (willingness to perform), and opportunity (organisational systems enabling performance). This framework provides a comprehensive lens for understanding how specific HRP practices influence organisational outcomes. Training and development enhance employee abilities; compensation systems affect motivation; while effective workforce planning and turnover management create opportunities for employees to contribute optimally. Recent applications of the AMO framework in African healthcare contexts demonstrate its relevance for understanding workforce dynamics in resource-constrained settings (Gile et al., 2022).

➤ *Training and Development in Healthcare*

Training and development constitute critical HRP components that enhance employee abilities, update competencies, and build organisational capacity for adaptation and innovation. Human Capital Theory provides a foundational framework for understanding training investments, positing that education and training enhance individual productivity by developing knowledge, skills, and competencies. In healthcare contexts, continuous professional development is particularly important given rapid technological advancement, evolving clinical protocols, and changing regulatory requirements.

Recent empirical research consistently demonstrates positive relationships between training investments and healthcare organisational performance. A study of hospitals in North Lebanon found that training significantly improved employee performance, with structured programmes enhancing clinical competencies, service quality, and patient satisfaction (Candidate et al., 2022). Similarly, research in Kenyan healthcare facilities documented that training and development positively influenced employee performance, with regular skills updating contributing to improved service delivery (Mire et al., 2024). Kiani (2023) found that training interventions significantly enhanced both technical competencies and adaptive capabilities in the healthcare sector.

In the Ethiopian context, Gile et al. (2022) investigated strategic human resource management practices in public hospitals and found that training and development programmes significantly influenced organisational performance through enhanced clinical competencies, improved teamwork, and increased employee engagement. Research in Indonesian healthcare settings identified inadequate continuous training as a major workforce management challenge, with irregular training contributing to competency gaps and employee dissatisfaction (Fuadi, 2025). These findings affirm that training represents a priority investment area for healthcare institutions in resource-constrained settings.

➤ *Compensation Systems and Organisational Performance*

Compensation represents a critical HRP dimension that influences employee motivation, satisfaction, retention, and performance. Expectancy Theory (Vroom, 1964) proposes that motivation depends on perceived linkages between effort, performance, and valued rewards, while Equity Theory emphasises the importance of perceived fairness in compensation systems. Within the AMO framework, compensation functions as a primary motivational mechanism influencing employee willingness to exert effort and contribute to organisational objectives.

Healthcare workforce compensation represents a persistent challenge across sub-Saharan Africa, with inadequate remuneration contributing to workforce dissatisfaction, migration, and turnover. A comprehensive analysis of compensation packages for healthcare professionals in Ghana found that current remuneration levels were insufficiently competitive to retain talent, with significant gaps between healthcare compensation and comparable professions (Samuel et al., 2024). Research examining compensation impacts on medical personnel turnover in Oyo State, Nigeria, found that inadequate compensation significantly increased turnover intentions, with compensation dissatisfaction emerging as the strongest predictor of intended departure. 67% of respondents considered their compensation inadequate relative to workload and living costs (K et al., 2025).

Shah et al. (2024) investigated unfair compensation impacts on employee morale and performance in Pakistan's health sector, finding that compensation inequity significantly reduced employee morale ($\beta = -0.58$, $p < .001$), job satisfaction ($\beta = -0.62$, $p < .001$), and performance ($\beta = -0.47$, $p < .001$). A systematic review by Essien et al. (2025) found that compensation inadequacy significantly contributed to burnout, turnover, and reduced performance across mission-driven workforces, including healthcare and nonprofit sectors.

➤ *Labour Turnover Management and Organisational Performance*

Labour turnover represents a critical workforce management challenge in healthcare settings, with significant implications for organisational performance, service continuity, and institutional capacity. Social Exchange Theory posits that retention depends on perceived organisational support and fair treatment, while Job Embeddedness Theory (Mitchell et al., 2001) proposes that employees remain when sufficiently embedded through links, fit, and sacrifice. Herzberg's Two-Factor Theory further distinguishes hygiene factors (preventing dissatisfaction) from motivators (generating satisfaction), with both categories influencing turnover decisions (Hassan et al., 2024).

Research examining factors influencing healthcare workers' intention to leave during COVID-19 in low- and middle-income countries found that inadequate compensation, poor working conditions, limited career development opportunities, and insufficient organisational

support significantly increased turnover intentions (Zarei et al., 2024). A study in Puntland, Somalia, found that organisational commitment, job satisfaction, and promotion opportunities collectively explained 65.3% of turnover variance, with job satisfaction as the strongest predictor (Hassan et al., 2024). A comprehensive study in Zambian public hospitals identified inadequate compensation, limited career advancement, and weak management support as primary retention challenges (Tembo et al., 2025).

Healthcare workforce turnover generates multiple negative consequences for organisational performance, including direct recruitment and training costs, reduced productivity during vacancy periods, disrupted team dynamics, and compromised service quality. Research in Nigerian healthcare settings found that high turnover rates significantly compromised organisational performance through reduced service continuity and diminished institutional capacity (Adubasim et al., 2024). A systematic review examining retention strategies for medical doctors in low- and middle-income countries found that approximately 77% of evaluated interventions demonstrated positive retention outcomes, with successful strategies including educational programmes, financial incentives, and improved working conditions (Jinah et al., 2024).

➤ *Integrated HRP and Organisational Performance*

Recent research increasingly examines integrated HRP systems rather than isolated practices, recognising that HRP dimensions interact synergistically to influence organisational performance. Egwuagu et al. (2024) found that comprehensive HRP significantly enhanced patient care quality, operational efficiency, and innovation in southeastern Nigerian tertiary healthcare institutions, with systematic workforce planning generating superior performance compared to fragmented approaches. Research examining workforce planning and healthcare service delivery in Lagos University Teaching Hospital similarly found that strategic workforce planning significantly improved service delivery through enhanced staffing adequacy and better workforce deployment (Oni et al., 2024). Fauziyah et al. (2025) confirmed in a systematic review that strategic HRM practices, including comprehensive HRP, significantly enhanced both clinical and financial performance.

III. RESEARCH DESIGN AND METHOD

➤ *Research Approach*

A positivist research philosophy was adopted, consistent with the study's quantitative orientation and hypothesis-testing objectives. The positivist approach assumes an objective reality that can be measured and analysed through systematic empirical investigation, enabling rigorous examination of relationships between HRP dimensions and organisational performance through statistical analysis.

➤ *Research Design and Setting*

A descriptive survey research design was employed to investigate HRP-performance relationships at UDUTH, a tertiary healthcare facility serving northwestern Nigeria. The cross-sectional design enables systematic collection of standardised data from a representative sample and examination of relationships between variables through correlation and regression analyses. This design has been widely validated in organisational research examining HRM-performance relationships (Gile et al., 2022; Hassan et al., 2024).

➤ *Population, Sampling, and Participants*

The target population comprised all employees of UDUTH, totalling approximately 2500 staff members across various categories including medical doctors, nurses, allied health professionals, administrative staff, and support personnel. The sample size was determined using Taro Yamane's formula for finite populations ($n = N / [1 + N(e)^2]$), yielding a target of 345. Adjusted to 360 to account for potential non-response, the study ultimately analysed 108 completed questionnaires (30% usable response rate). While lower than the targeted sample, this response rate is comparable to similar healthcare studies in Nigerian contexts and provides adequate statistical power for the planned analyses (Egwuagu et al., 2024).

Stratified random sampling was employed to ensure proportional representation of five employee categories: medical doctors, nursing staff, allied health professionals, administrative staff, and support personnel. Within each stratum, respondents were randomly selected using a random number generator, ensuring equal selection probability. Table 1 presents the demographic profile of respondents.

Table 1 Demographic Characteristics of Respondents (N = 108).

Characteristic	Category	f	%
Gender	Male	58	53.7%
	Female	50	46.3%
Age group	20–30 years	24	22.2%
	31–40 years	42	38.9%
	41–50 years	28	25.9%
	Above 50 years	14	13.0%
Educational qualification	Secondary	12	11.1%
	Diploma/NCE	18	16.7%
	Bachelor's degree	45	41.7%
	Master's degree	24	22.2%
	PhD/Professional doctorate	9	8.3%
Job category	Medical doctor	15	13.9%

	Nursing staff	32	29.6%
	Allied health professional	21	19.4%
	Administrative staff	25	23.1%
	Support personnel	15	13.9%
Length of service	Less than 5 years	28	25.9%
	5–10 years	35	32.4%
	11–15 years	26	24.1%
	Above 15 years	19	17.6%

Note: F, Frequency.

➤ *Data Collection*

A structured questionnaire comprising five sections was developed through systematic item generation, expert review, and pilot testing. Section A gathered demographic information. Sections B, C, and D assessed training and development (10 items), compensation systems (10 items), and labour turnover management (10 items) respectively. Section E measured organisational performance (12 items). All substantive items employed a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The overall instrument demonstrated high internal consistency reliability (Cronbach's $\alpha = 0.87$), with subscale reliabilities of: training and development ($\alpha = 0.84$), compensation systems ($\alpha = 0.81$), labour turnover management ($\alpha = 0.79$), and organisational performance ($\alpha = 0.88$). Content validity was established through expert review, and construct validity was confirmed through confirmatory factor analysis.

Data collection occurred over a four-week period in October 2024. Of 360 distributed questionnaires, 120 were returned (33.3% response rate) and 108 deemed complete and suitable for analysis.

➤ *Data Analysis*

Data were analysed using SPSS version 26.0. Descriptive statistics (frequencies, means, standard deviations) summarised sample characteristics and perceptions. Pearson product-moment correlation coefficients examined bivariate relationships between HRP dimensions and organisational performance. Multiple linear regression examined the collective contribution of HRP dimensions to performance variance. Statistical significance was assessed using $\alpha = 0.05$. Prior to inferential analyses,

assumptions of normality, linearity, homoscedasticity, and multicollinearity were verified, with all VIF values below 3.0 and a Durbin-Watson statistic of 1.89.

➤ *Ethical Considerations*

Formal ethical approval was obtained from the Research Ethics Committee of Usmanu Danfodiyo University Teaching Hospital (Approval reference: UDUTH/REC/2024/[number]) prior to data collection. The study was conducted in accordance with the Declaration of Helsinki (2013 revision). Administrative permission was also obtained from hospital management. All participants provided voluntary informed consent; questionnaires were anonymous and returned in sealed envelopes. Data were stored securely in password-protected files accessible only to the research team. Results are reported in aggregate to prevent identification of individual respondents.

IV. RESULTS

➤ *Descriptive Statistics*

Table 2 presents descriptive statistics for the four study variables. Compensation systems received notably low ratings ($M = 2.65$, $SD = 1.02$), reflecting significant dissatisfaction with remuneration levels. Labour turnover management received moderate ratings ($M = 3.19$, $SD = 0.94$), while training and development was rated moderately ($M = 3.28$, $SD = 0.89$). Organisational performance was rated moderately high ($M = 3.41$, $SD = 0.86$). Notably, although formal retention strategies were perceived as weak, respondents expressed relatively high organisational commitment ($M = 3.67$) and intention to remain ($M = 3.58$), suggesting that professional identity and intrinsic motivation partially buffer the effects of formal HRP limitations.

Table 2 Descriptive Statistics for Study Variables.

Variable	M	SD
Training and development	3.28	0.89
Compensation systems	2.65	1.02
Labour turnover management	3.19	0.94
Organisational performance	3.41	0.86

Note: M, Mean; SD, Standard Deviation.

➤ *Correlation Analysis*

Table 3 presents the correlation matrix for all study variables. Training and development demonstrated the strongest positive correlation with organisational performance ($r = .742$, $p < .01$), accounting for approximately 55% of performance variance ($r^2 = .550$). Labour turnover management showed a strong positive relationship with

performance ($r = .634$, $p < .01$; $r^2 = .402$). Compensation systems demonstrated a moderate positive correlation ($r = .568$, $p < .01$; $r^2 = .323$). Significant positive intercorrelations were observed among the HRP dimensions (r range: .487–.618), suggesting that they function as an integrated system rather than isolated practices. All four null hypotheses (H_{01} – H_{03}) concerning bivariate relationships were rejected.

Table 3 Pearson Correlation Matrix for Study Variables.

Variable	1	2	3	4
1. Training and development	1			
2. Compensation systems	.524**	1		
3. Labour turnover management	.618**	.487**	1	
4. Organisational performance	.742**	.568**	.634**	1

Note: ** Correlation is Significant at the 0.01 Level (2-Tailed).

➤ *Regression Analysis*

Multiple linear regression was conducted to examine the collective contribution of HRP dimensions to organisational performance variance. The overall model was statistically significant ($F[3, 104] = 74.52, p < .001$), with HRP

dimensions collectively explaining 68.3% of performance variance ($R^2 = .683, \text{Adjusted } R^2 = .674$). The Durbin-Watson statistic of 1.89 indicated no significant autocorrelation. Table 4 presents the regression coefficients.

Table 4 Multiple Regression Analysis HRP Dimensions Predicting Organisational Performance.

Predictor	B	SE	β	t	p
(Constant)	.542	.287	–	1.889	.062
Training and development	.485	.068	.502	7.132	.000
Compensation systems	.178	.058	.211	3.069	.003
Labour turnover management	.245	.064	.268	3.828	.000

Note: $R^2 = .683; \text{Adjusted } R^2 = .674; F(3, 104) = 74.52; p < .001$.

Training and development emerged as the strongest predictor ($\beta = .502, t = 7.132, p < .001$), followed by labour turnover management ($\beta = .268, t = 3.828, p < .001$) and compensation systems ($\beta = .211, t = 3.069, p = .003$). All three

HRP dimensions made statistically significant unique contributions to organisational performance, supporting the rejection of H_{04} . Table 5 summarises hypothesis testing outcomes.

Table 5 Summary of Hypothesis Testing Results.

Hypothesis	Null statement	Test statistic	Decision
H_{01}	No significant relationship between training and development and organisational performance	$r = .742, p < .01$	Rejected
H_{02}	No significant relationship between compensation systems and organisational performance	$r = .568, p < .01$	Rejected
H_{03}	No significant relationship between labour turnover management and organisational performance	$r = .634, p < .01$	Rejected
H_{04}	HRP dimensions do not significantly explain organisational performance variance	$R^2 = .683, F = 74.52, p < .001$	Rejected

V. DISCUSSION

➤ *Outline of Results*

This study investigated the relationship between HRP dimensions and organisational performance at a Nigerian tertiary teaching hospital. All four null hypotheses were rejected, providing robust empirical support for HRP's significant influence on organisational performance. HRP dimensions collectively explained 68.3% of performance variance — a substantial proportion that underscores the strategic importance of workforce management in healthcare contexts. Training and development emerged as the strongest predictor, followed by labour turnover management and compensation systems.

➤ *Training and Development*

The strong positive relationship between training and development and organisational performance ($r = .742, \beta = .502$) represents the central finding of this study and aligns with Human Capital Theory's proposition that investments in employee development enhance productivity and organisational outcomes. This finding is consistent with

recent empirical research in diverse healthcare contexts (Candidate et al., 2022; Mire et al., 2024; Kiani, 2023; Gile et al., 2022).

Several mechanisms explain this strong relationship. First, training enhances clinical and technical competencies, enabling healthcare workers to deliver higher-quality services more efficiently. Second, training signals organisational investment in employees, enhancing motivation, commitment, and engagement through social exchange processes. Third, training facilitates knowledge sharing and team coordination, strengthening collective capabilities beyond individual skill enhancement. Fourth, training builds adaptive capacity, enabling organisations to respond effectively to environmental changes.

The descriptive findings reveal important nuances at UDUTH. While respondents acknowledged that training improves performance when available, they reported limited access to external training opportunities ($M = 2.78$) and inadequate systematic needs assessment ($M = 2.84$). This pattern suggests that training effectiveness could be

substantially enhanced through increased accessibility, systematic needs assessment, and integration with career development pathways. The strong training-performance relationship observed, despite reported training limitations, suggests substantial untapped potential for performance enhancement through strengthened training systems.

➤ *Compensation Systems*

The moderate positive relationship between compensation systems and organisational performance ($r = .568$, $\beta = .211$) provides empirical support for compensation's role in influencing outcomes, while suggesting that compensation functions differently from training as a performance driver. This aligns with Herzberg's Two-Factor Theory, which positions compensation as a hygiene factor its inadequacy causes dissatisfaction and turnover, but adequacy alone is insufficient to drive high performance without complementary practices.

The descriptive findings reveal significant compensation inadequacy at UDUTH ($M = 2.65$), consistent with broader literature documenting widespread compensation inadequacies in African healthcare systems (Samuel et al., 2024; K et al., 2025; Tokunbo et al., 2025). The moderate rather than strong compensation-performance relationship may reflect several contextual factors: universal compensation inadequacy reduces variance and attenuates the statistical relationship; intrinsic motivation and professional identity partially buffer compensation inadequacy's effects; and limited alternative employment opportunities in northwestern Nigeria may reduce compensation's influence on retention behaviour. These findings suggest that while policy-level compensation reforms are necessary, healthcare managers can simultaneously enhance motivation through improved equity, transparency, and non-financial rewards within existing budgetary constraints.

➤ *Labour Turnover Management*

The strong positive relationship between labour turnover management and organisational performance ($r = .634$, $\beta = .268$) underscores workforce stability's importance for organisational functioning, consistent with theoretical predictions from Job Embeddedness Theory and Social Exchange Theory. This finding aligns with empirical research documenting turnover's disruptive effects on capacity and performance (Hassan et al., 2024; Adubasim et al., 2024; Jinah et al., 2024).

An interesting finding was the disconnect between formal retention strategies and employee commitment. Respondents reported relatively weak formal retention strategies ($M = 2.87$) yet expressed high organisational commitment ($M = 3.67$) and retention intentions ($M = 3.58$). This suggests that commitment may be driven by factors beyond formal HRP practices, including professional identity, intrinsic motivation, limited alternative opportunities, or social embeddedness. This has important implications for retention strategy design: strategies that strengthen professional identity, foster supportive workplace relationships, and create meaningful work experiences may

generate substantial retention benefits in resource-constrained contexts where financial incentives are limited.

➤ *Integrated HRP Systems*

The regression analysis revealed that HRP dimensions collectively explained 68.3% of organisational performance variance substantially more than any single dimension alone. This supports the proposition that HRP functions as an integrated system rather than isolated practices, consistent with recent research emphasising comprehensive HRP approaches (Egwuagu et al., 2024; Oni et al., 2024; Fauziyah et al., 2025). The significant intercorrelations among HRP dimensions further affirm this systems perspective.

From a theoretical standpoint, the integrated systems finding aligns with the AMO framework's proposition that performance results from the interaction of ability, motivation, and opportunity. Training enhances abilities, compensation influences motivation, and effective workforce planning creates opportunities for optimal contribution. When these elements align, they generate synergistic performance effects exceeding the sum of individual contributions. The practical implication is that healthcare institutions should adopt comprehensive, integrated HRP approaches rather than addressing dimensions in isolation.

➤ *Theoretical Contributions*

This study makes several theoretical contributions. First, it extends the RBV to African healthcare contexts, demonstrating that human capital represents a critical strategic resource that generates performance advantages even in resource-constrained settings. Second, it validates the AMO framework's applicability to African healthcare contexts, demonstrating that ability, motivation, and opportunity collectively determine performance. Third, it contributes to understanding of contextual factors shaping HRP effectiveness in resource-constrained settings most notably, the finding that strong training-performance relationships persist even where training resources are limited, suggesting high marginal returns on training investment in under-resourced contexts. Fourth, it extends understanding of compensation's role in mission-driven, resource-constrained contexts, demonstrating that intrinsic motivation and professional identity can partially buffer the effects of compensation inadequacy on retention and performance.

VI. PRACTICAL IMPLICATIONS

➤ *Implications for Healthcare Management*

Given the strong training-performance relationship ($r = .742$, $\beta = .502$), training and development should be prioritised in resource allocation decisions. Healthcare managers should establish systematic training needs assessment processes, develop comprehensive training plans across diverse modalities (in-service, online, mentoring), allocate dedicated training budgets, and integrate training with career development pathways. Even modest, well-targeted training investments can generate significant performance returns. Creating internal training capacity through train-the-trainer programmes reduces dependence on

expensive external facilitators while building institutional knowledge.

While compensation reform requires policy-level intervention beyond individual institutional control, managers can enhance compensation effectiveness within existing constraints. Regular compensation benchmarking, improved transparency in pay structures, performance-based incentives, and strengthened non-financial rewards (recognition programmes, flexible work arrangements, professional development opportunities) can partially compensate for financial limitations and improve perceived equity. Advocacy for policy reforms, supported by documentation of compensation inadequacy's impacts on recruitment, retention, and performance, is equally important.

Comprehensive retention strategies should address multiple turnover determinants simultaneously. Effective strategies integrate competitive compensation (within available resources), professional development opportunities, supportive work environments, participatory management, recognition programmes, and clear career progression pathways. Regular exit interviews and employee engagement surveys can identify evolving retention challenges and enable proactive intervention. Succession planning systems that identify critical positions and develop high-potential employees further enhance institutional continuity and retention.

➤ *Implications for Policy*

At the policy level, the findings support several interventions. First, government agencies should increase healthcare workforce compensation to competitive levels capable of supporting recruitment and retention, informed by benchmarking data and cost-of-living analyses. Second, dedicated national training funds should be established to support continuous professional development, financed through budget allocations, training levies, or development partner support. Third, national HRP frameworks should be developed to provide guidance, tools, and standards for healthcare workforce planning. Fourth, retention incentive programmes targeting underserved areas and critical specialties including financial incentives, career development support, and improved working conditions should be scaled up, informed by the evidence on effective retention strategies (Jinah et al., 2024).

VII. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Several limitations should be considered when interpreting these findings. First, the cross-sectional design limits causal inference; longitudinal research examining HRP impacts over time would strengthen causal claims and illuminate temporal dynamics. Second, the single-institution focus limits generalizability; multi-site comparative research across diverse Nigerian and African healthcare institutions would enhance external validity. Third, self-report data introduce potential common method bias; future research should integrate multiple data sources including objective performance metrics (patient outcomes, efficiency indicators,

financial data) and supervisor ratings. Fourth, the 30% usable response rate, while comparable to similar Nigerian healthcare studies, raises non-response bias concerns. Fifth, the study focused on three HRP dimensions, omitting potentially important factors including recruitment and selection, performance management, and organisational culture.

Future research should employ longitudinal panel designs and quasi-experimental methods to strengthen causal inference. Multi-site comparative research examining HRP-performance relationships across diverse institutional contexts, incorporating mediation and moderation analyses to illuminate mechanisms and boundary conditions, would substantially advance theoretical understanding. Intervention studies evaluating the impacts of structured training programmes, comprehensive retention strategies, and integrated HRP systems on measurable performance outcomes would generate particularly valuable evidence for policy and practice. Qualitative research exploring managerial experiences with HRP implementation would enrich understanding of enabling and constraining contextual factors. Finally, research on digital HRM transformation in Nigerian healthcare contexts offers promising opportunities, given the potential for technology to enhance HRP effectiveness through improved data analytics, online training systems, and automated performance management (Adias, 2025).

VIII. CONCLUSION

This study investigated the relationship between human resource planning dimensions and organisational performance at Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria. The findings provide robust empirical evidence that strategic HRP significantly enhances organisational performance, with training and development, compensation systems, and labour turnover management collectively explaining 68.3% of performance variance ($R^2 = .683$, $F = 74.52$, $p < .001$).

Training and development emerged as the strongest predictor, demonstrating that investments in workforce capability development generate substantial performance returns even in resource-constrained contexts. The finding is particularly significant given the reported limitations in training accessibility and systematic needs assessment at UDUTH, suggesting high potential for performance improvement through strengthened training systems. Compensation systems showed moderate positive relationships with performance, with significant dissatisfaction documented a finding consistent with broader literature on African healthcare and one that requires coordinated policy-level response. Labour turnover management demonstrated significant performance impacts, and the observed disconnect between weak formal retention strategies and high employee commitment suggests that professional identity and intrinsic motivation play important buffering roles in this context.

The study extends the Resource-Based View and AMO framework to African healthcare contexts and contributes to the limited empirical literature on Nigerian healthcare HRM. For healthcare institutions navigating resource constraints, workforce migration, and increasing service demands, strengthening HRP systems particularly through systematic training investment, equitable compensation, and integrated retention strategies offers a promising and evidence-based pathway toward enhanced organisational performance and sustainable healthcare delivery. As African health systems pursue universal health coverage, strategic human resource planning will remain a foundational enabler of progress.

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