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The Mediating Effect of Human Capital on the relationship between Human Resource Management Practices and Employee Performance in Public Sector Organisations in Zambia

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ABSTRACT: This study investigates the effect of Human Resource Management (HRM) practices comprising recruitment and selection, performance management, training and development, compensation and reward, and employee engagement on employee performance in Zambia's public sector, with human capital serving as a mediating variable. A quantitative research design was adopted using a self-administered questionnaire. Data were collected from 833 employees across 23 government ministries and the Public Service Management Division through a stratified sampling technique. Analysis was conducted with SPSS version 25 and guided by the principles of Human Capital Theory. The results provide robust empirical evidence for the mediating role of human capital across all five HRM dimensions. Recruitment and selection as well as employee engagement were fully mediated, indicating that their impact on employee performance is transmitted entirely through the enhancement of workforce skills and competencies. Performance management, training and development, and compensation and reward exhibited partial mediation, with both direct and indirect effects remaining statistically significant. Indirect effect sizes ranged from 0.1426 to 0.2496, while t values ranged from 3.35 to 4.401, confirming the strength of the mediation effects. These findings affirm that human capital amplifies the influence of HRM practices on employee performance, either by fully transmitting their effects or by complementing direct pathways. The study contributes to theory and practice by validating the strategic importance of human capital in strengthening HRM functions and improving employee outcomes. It further provides actionable insights for policymakers and HR practitioners, emphasizing the need for deliberate investment in workforce knowledge, skills, and capabilities to maximize performance and enhance public sector effectiveness in Zambia.

KEYWORDS: Human Resource Management, HRM Practices, Employee Performance, Human Capital, Public Sector Organisations

I. INTRODUCTION

In Zambia's public sector, the effectiveness of government institutions is closely linked to the performance of their employees. Human Resource Management (HRM) practices are a critical determinant of employee outcomes, particularly in contexts where public service delivery is under pressure to improve efficiency and accountability. Employee performance within government ministries is shaped not only by individual competencies but also by the strategic implementation of HRM practices including recruitment and selection, performance management, training and development, compensation, and employee engagement. When effectively applied, these practices contribute to institutional success and foster public trust (Nduati and Wanyoike, 2022). The extent to which HRM interventions yield optimal performance outcomes depends on the development and utilisation of human capital. Human capital, defined as the collective skills, knowledge, and capabilities of employees, plays a mediating role in translating HRM practices into tangible performance improvements. Investment in human capital enhances decision making, strengthens organisational learning, and fosters innovation in service delivery. The COVID 19 pandemic underscored the importance of resilient and adaptable human capital, as employee competencies and commitment became central to sustaining both personal and professional functions during periods of disruption (Verma and Gustafsson, 2020). Recent literature emphasises embedding employee wellbeing, continuous learning, and capability development into HRM strategies, particularly in the wake of the pandemic's acceleration of organisational change across public institutions (Bhoir and Sinha, 2024). Despite this recognition, empirical studies often rely on simplified models that fail to capture the complex interactions between HRM practices and human capital development. This study addresses this gap by examining how human capital mediates the relationship between HRM practices and employee performance in Zambia's public sector. By doing so, it provides a more detailed understanding of the mechanisms driving performance outcomes and contributes to both theoretical development and practical policy formulation. While previous research has established a positive association between HRM and employee performance (Lee, Lee and Wu, 2010; Saridakis, Lai and Cooper, 2017), the mediating role of human capital remains underexplored in Zambia's public sector organisations. This investigation builds on existing literature that highlights the impact of workforce capabilities on competitiveness and operational efficiency (Arranz et al., 2019; Ferreira, Fernandes and Ferreira, 2019), positioning human capital as a key enabler of HRM effectiveness in the public sector.

II. LITERATURE REVIEW

A. Human Capital

Human capital has long been recognised as a central driver of organisational performance, with scholars emphasising the importance of employee skills, knowledge, and capabilities in shaping institutional outcomes. Becker (1964) defined human capital as the collective attributes of individuals, including education, training, health, and values, which enable effective participation in organisational processes. Investments in human capital, particularly through training and development, career progression, and continuous learning, have consistently been linked to improvements in employee performance and organisational effectiveness (O'Flynn et al., 2023). Recent studies highlight that human capital is not only a resource but also a strategic asset that mediates the relationship between HRM practices and performance outcomes. Mwansa and Chanda (2023) argue that recruitment and selection, performance management, compensation, and employee engagement are most effective when they are aligned with initiatives that build employee competencies and commitment. Khan and Rasheed (2024) further demonstrate that organisations that prioritise human capital development experience higher levels of adaptability, innovation, and productivity, which are critical for sustaining competitiveness in dynamic environments. In the public sector, where bureaucratic structures and resource limitations often constrain HRM effectiveness, human capital development becomes even more vital. Schraeder et al. (2022) note that without deliberate investment in employee skills and motivation, HRM practices may fail to translate into meaningful performance improvements. Slack et al. (2022) add that traditional measures of human capital often overlook intangible factors such as organisational culture, employee wellbeing, and leadership support, which are essential for maximising the impact of HRM practices. Human capital also plays a critical role in fostering employee engagement and institutional resilience. Chowdhury and Miah (2025) emphasise that organisations that embed human capital strategies into HRM frameworks are better positioned to achieve long term effectiveness, particularly in resource constrained public institutions. In Zambia's public sector, strengthening human capital through structured training, fair compensation, and supportive performance management systems offers a pathway to improved service delivery and enhanced employee outcomes.

This study contributes to the growing body of literature by examining how human capital mediates the relationship between HRM practices and employee performance. By situating the analysis within Human Capital Theory, it provides evidence based insights into the mechanisms through which workforce capabilities amplify the effectiveness of HRM interventions, offering practical guidance for policymakers and HR professionals seeking to modernise public sector operations.

B. Human Resource Management Practices

Human Resource Management practices provide the foundation through which organisations organise, develop, and sustain their workforce in pursuit of institutional goals. In Zambia's public sector, these practices are increasingly acknowledged as central to improving employee performance and strengthening organisational effectiveness. Recruitment and selection remain critical entry points, ensuring that individuals with the right competencies and values are placed in roles that match institutional needs. Contemporary recruitment approaches incorporate digital platforms and advanced screening tools, enhancing efficiency and accuracy in candidate evaluation (Phiri & Phiri, 2022; Zhang, 2022; Cascio & Aguinis, 2019). Performance management builds on recruitment by providing mechanisms to evaluate employee contributions, set clear expectations, and support professional growth. Effective performance management systems encourage collaboration, transparency, and adaptability, often supported by digital technologies that facilitate real time feedback and accountability (Milukutu and Siachisa, 2023; Kim et al., 2024). Training and development complement these processes by addressing skill gaps and fostering innovation. Recent scholarship highlights the importance of personalised learning and continuous professional development, which enable employees to adapt to changing organisational demands and contribute more effectively to institutional success (Mwansa and Chanda, 2023; Koch and McGrath, 2023; Smith et al., 2022).

Compensation and reward systems serve as powerful motivators, influencing employee retention, satisfaction, and productivity. Both financial and non-financial incentives play a role in shaping performance outcomes, yet inconsistencies in public sector compensation structures often undermine equity and alignment with performance objectives (Tripathy and Rhohidas, 2022; Lee et al., 2023). Employee engagement further enhances organisational outcomes by promoting participative decision making, collaborative work cultures, and stronger commitment to institutional goals. Leadership support and interactive tools have been shown to strengthen engagement by enabling communication, fostering inclusion, and creating opportunities for personalised development (Chen et al., 2023; Shuck and Wollard, 2019; Bartram, 2025). Although the value of HRM practices is well established, gaps remain in understanding their long term and context specific effects within public institutions. Recent evidence from Zambia's National Assembly demonstrates that strategic HRM practices significantly influence organisational performance, underscoring the importance of aligning HRM systems with employee development priorities (Phiri and Phiri, 2022). This study therefore examines how recruitment and selection, performance management, training and development, compensation and reward, and employee engagement collectively shape employee performance in Zambia's public sector. By situating the analysis within Human Capital Theory, the study highlights the mediating role of human capital in amplifying the effectiveness of HRM practices and provides insights into how these practices can be strategically leveraged to improve service delivery and institutional resilience.

C. Employee Performance

Employee performance refers to the extent to which individuals effectively carry out their responsibilities, contribute to organisational objectives, and demonstrate behaviours that align with institutional values and expectations. In the public sector, performance extends beyond task completion to include the quality, efficiency, and responsiveness of service delivery. Amha and Brhane (2020) emphasise that employee performance is a central factor in achieving organisational mandates, underscoring its role in shaping institutional success. Shah et al. (2015) expand this perspective by identifying systemic barriers such as weak governance structures and inadequate HR systems that constrain optimal performance outcomes. Recent scholarship highlights that employee performance is influenced by a combination of organisational and individual factors. Barnes (2023) identifies job satisfaction, organisational culture, leadership, and training as critical determinants of performance. Nguyen (2022) and Gomez (2024) stress the importance of employee engagement, noting that engaged employees are more likely to demonstrate higher levels of productivity, creativity, and commitment. Yuan and Chen (2023) together with Kim and Lee (2022) refine this understanding by linking performance to effective management practices such as continuous feedback and structured appraisals, which enhance motivation and strengthen alignment with organisational goals.

Emerging studies in African public sector contexts further demonstrate that employee performance is shaped by the interaction between HRM practices and workforce capabilities. Mwansa and Chanda (2023) argue that recruitment, training, and fair compensation are essential for building a motivated workforce, while Khan and Rasheed (2024) highlight that investment in human capital fosters adaptability and innovation, both of which are crucial for sustaining performance in resource constrained environments. Employee performance is best understood as a multidimensional construct shaped by individual competencies, organisational systems, and strategic HRM interventions. In Zambia's public sector, where service delivery is closely tied to citizen trust and institutional legitimacy, strengthening employee performance through effective HRM practices and human capital development remains a strategic priority.

D. HRM Practices, Human Capital, and Employee Performance

The relationship between Human Resource Management (HRM) practices and employee performance has been widely examined, with increasing recognition that human capital plays a mediating role in strengthening this link. Human capital refers to the skills, knowledge, competencies, and capabilities that employees contribute to their organisations, and it is increasingly viewed as the mechanism through which HRM practices are translated into improved performance outcomes (Becker, 1993; Mwansa and Chanda, 2023). HRM practices such as recruitment and selection, performance management, training and development, compensation and reward, and employee engagement establish the structural and cultural conditions necessary for employees to acquire and apply these capabilities.

Recruitment and selection processes ensure that individuals with the appropriate qualifications and potential are placed in positions where they can contribute meaningfully to organisational objectives. When combined with effective training and development initiatives, these practices enhance employee skills and adaptability, thereby strengthening human capital (Khan and Rasheed, 2024). Performance management systems provide continuous feedback and structured appraisals that align employee efforts with organisational goals, while compensation and reward systems motivate employees to invest in their own growth and commitment. Employee engagement further contributes to the development of human capital by fostering collaboration, innovation, and a sense of ownership in organisational outcomes (Barnes, 2023; Yuan and Chen, 2023). Recent studies highlight that human capital mediates the relationship between HRM practices and employee performance by transmitting the benefits of HRM interventions into tangible outcomes. Mahfouz et al. (2021) found that HRM practices significantly influence employee performance, but the strength of this relationship is enhanced when employee commitment and capabilities are considered as mediating factors. Similarly, Mohammad et al. (2014) demonstrated that recruitment, selection, and compensation practices are strongly correlated with performance, particularly when employees possess the necessary skills and motivation to apply them effectively. In Zambia's public sector, where resource constraints and bureaucratic structures often hinder HRM effectiveness, investment in human capital provides a pathway to improved service delivery and institutional resilience (Milukutu and Siachisa, 2023).

The rationale for this mediation is that HRM practices alone may not directly yield optimal performance outcomes unless they are accompanied by deliberate efforts to build and sustain human capital. Employees who are well trained, fairly compensated, and actively engaged are more likely to demonstrate higher levels of productivity, creativity, and commitment, thereby amplifying the impact of HRM practices on organisational success (Nguyen, 2022; Gomez, 2024). Human capital therefore functions as the driver between HRM practices and employee performance, ensuring that institutional investments in HRM are translated into measurable improvements in efficiency, responsiveness, and accountability. Building on this discussion, the study hypothesised that human capital mediated the relationship between HRM practices and employee performance in Zambia's public sector. The proposed mediation model offered a framework for explaining how workforce capabilities functioned as the connecting link between HRM interventions and performance outcomes, while also providing theoretical contributions and practical guidance for policymakers and HR professionals aiming to enhance public service delivery.

III. THEORETICAL FRAMEWORK

A. Human Capital Theory

Human Capital Theory emphasises the importance of cultivating employees' skills, knowledge, and abilities as fundamental drivers of productivity and organisational performance. Becker (1964) defines human capital as the skills, knowledge, health, and values that individuals possess, which enable them to perform effectively within organisational contexts. Investments in training programmes, career progression opportunities, and continuous learning initiatives are therefore seen as critical pathways to improving employee performance. In public sector organisations, where resources are often more constrained than in the private sector, human capital development assumes particular significance. Recent studies demonstrate that HRM practices such as training initiatives, career development opportunities, and performance evaluations positively influence employee performance in public institutions (O'Flynn et al., 2023). Research further shows that investment in human capital enhances adaptability, innovation, and productivity, thereby strengthening institutional effectiveness (Khan and Rasheed, 2024). Within Zambia's public sector, Human Capital Theory provides a valuable framework for assessing the effectiveness of HRM practices including recruitment and selection, performance management, training and development, compensation, and employee engagement (Mwansa and Chanda, 2023).

Despite its relevance, Human Capital Theory faces critiques regarding its applicability in resource constrained environments. Scholars argue that traditional measures of human capital may not adequately capture intangible factors such as employee motivation, organisational culture, and leadership support, which are critical to performance outcomes (Slack et al., 2022). Bureaucratic hurdles and limited resources can also hinder the effective implementation of HRM practices, thereby reducing the potential impact of human capital investments (Schraeder et al., 2022). While the theory underscores the importance of investing in employee knowledge and capabilities for organisational growth, its adaptation to the unique challenges of public sector organisations requires careful consideration of contextual constraints. Human Capital Theory remains a powerful lens for understanding how HRM practices influence employee performance, but its effectiveness depends on recognising the broader organisational environment in which these practices are applied.

Human Capital Theory has been criticised for overlooking intangible factors such as motivation, organisational culture, and employee wellbeing, which limits its applicability in resource constrained public sectors. Slack et al. (2022) contend that traditional metrics fail to capture these nuances, thereby challenging the theory's effectiveness in environments burdened by bureaucracy and limited flexibility. More recent studies highlight that without supportive leadership and institutional reforms, investments in human capital may not yield the expected improvements in performance (Chowdhury and Miah, 2025).

IV. CONCEPTUAL FRAMEWORK

This study develops a conceptual framework that integrates Human Resource Management (HRM) practices, human capital, and employee performance within Zambia's public sector. The independent variables consist of five core HRM practices: recruitment and selection, performance management, training and development, compensation and reward, and employee engagement. Human capital serves as the mediating variable, positioned to explain how these HRM practices translate into improved employee performance. The dependent variable is employee performance, which reflects the extent to which individuals effectively execute their responsibilities, contribute to organisational objectives, and enhance service delivery.

The framework assumes that HRM practices alone may not directly yield optimal performance outcomes unless they are accompanied by deliberate investment in human capital. Recruitment and selection ensure that qualified individuals enter the organisation, but their impact on performance is strengthened when employees are provided with opportunities for training, fair compensation, and meaningful engagement. Performance management systems align employee efforts with organisational goals, while reward structures and engagement initiatives motivate employees to invest in their own growth. Together, these practices build human capital by enhancing skills, knowledge, and commitment, which in turn mediate the relationship between HRM practices and performance outcomes. The configuration and the sixteen hypothesised interactions among these variables are illustrated in the conceptual framework presented in Figure 1. Specifically, the framework proposes that each HRM practice exerts a positive influence on employee performance through the mediating role of human capital. These hypothesised relationships capture both the direct effects of HRM practices on performance and the indirect effects transmitted through human capital. This conceptual framework provides a structured basis for empirical analysis and offers insights into how workforce capabilities amplify the effectiveness of HRM interventions in Zambia's public sector.

H1-5. There is a significant positive relationship between HRM practices and employee performance.

H6-10. There is a significant positive relationship between HRM practices and Human Capital

H11. There is a significant positive relationship between Human Capital and Employee Performance

H12-16. Human Capital mediates the relationship between HRM practices and employee performance

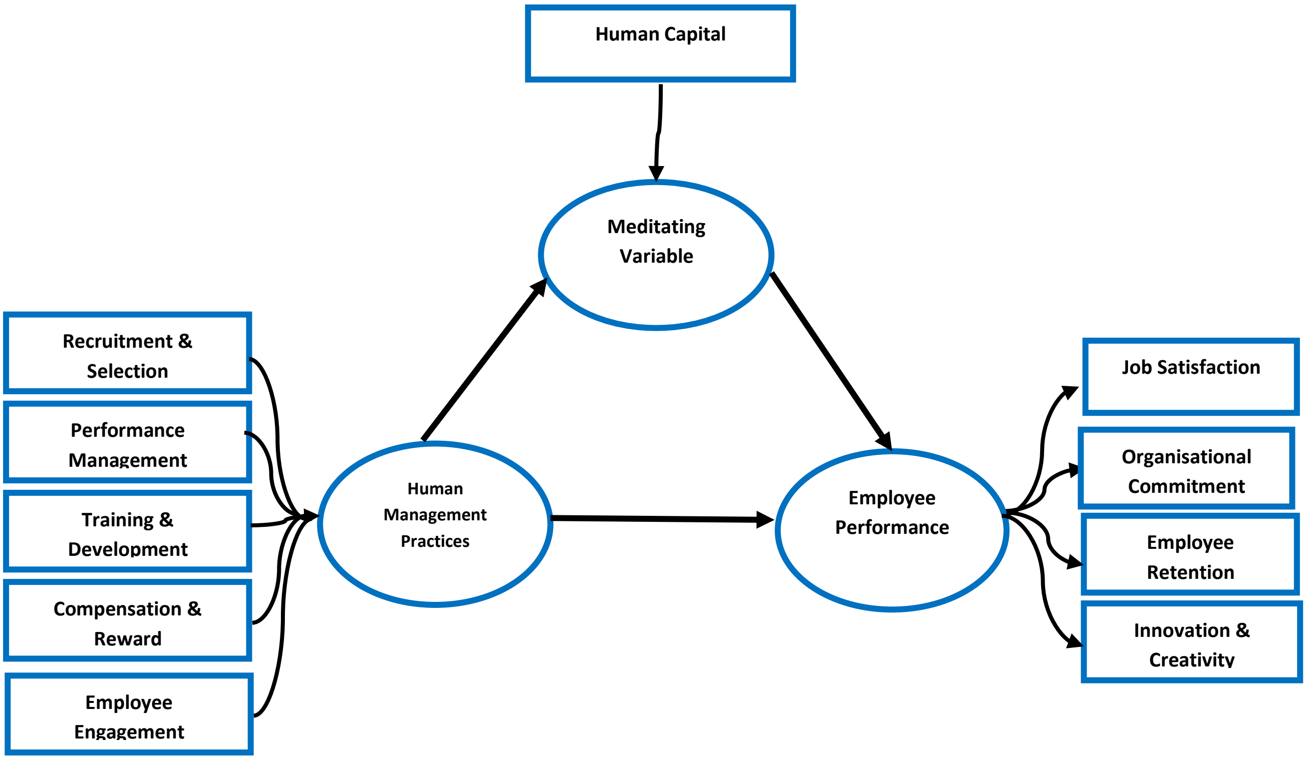

Figure: 1. Conceptual Framework

V. METHODOLOGY

A. Research Design

The research design outlines the overall plan that guided the systematic process of data collection, analysis, and interpretation. It establishes the methodological pathway through which the study was conducted, ensuring coherence between the research objectives and the procedures employed. This investigation adopted a quantitative approach, grounded in a positivist philosophy, to examine the relationships among Human Resource Management practices, human capital, and employee performance in Zambia's public sector. The study followed a deductive reasoning process, testing pre formulated hypotheses through empirical evidence and statistical validation. Data were collected using structured questionnaires, which served as the primary research instrument. The questionnaire was constructed with a five point Likert scale to capture respondents' perceptions and attitudes in a consistent and measurable manner. Reliability of the instrument was assessed using Cronbach's alpha, with both the pilot and main study producing values above 0.80, confirming strong internal consistency. To ensure analytical robustness, the data were processed using the Statistical Package for the Social Sciences (SPSS), version 25, which enabled both descriptive and inferential statistical procedures aligned with the study's objectives.

The target population comprised employees from twenty three government ministries and the Public Service Management Division. A stratified sampling technique was employed to achieve proportional representation across different organisational categories and hierarchical levels. A total of 833 respondents participated in the study, providing a comprehensive dataset that reflects diverse perspectives within the public service. The unit of analysis included both senior management and general employees, allowing for comparative insights across organisational tiers. Employing this design ensured methodological rigour and provided a reliable foundation for examining how HRM practices influence employee performance through the mediating role of human capital.

B. Sampling

The sampling strategy was designed to capture a representative cross section of employees within Zambia's public sector. The target population consisted of staff drawn from twenty three government ministries together with the Public Service Management Division. To ensure balanced representation across diverse organisational categories and hierarchical levels, a stratified sampling technique was employed. This approach allowed the study to reflect the perspectives of both senior management and general employees, thereby providing a comprehensive view of the dynamics between Human Resource Management practices, human capital, and employee performance. A total of 833 respondents participated in the study. Data were collected primarily through structured questionnaires, which were distributed across the selected institutions. The questionnaire design ensured consistency in capturing perceptions of HRM practices, human capital development, and performance outcomes. By including respondents from different organisational tiers, the study was able to examine variations in experiences and expectations across the public service. The collected data were processed and analysed using the Statistical Package for the Social Sciences (SPSS), version 25. This facilitated the application of descriptive and inferential statistical techniques, ensuring rigorous examination of the hypothesised relationships. The sampling framework thus provided a solid foundation for testing the mediating role of human capital in the relationship between HRM practices and employee performance, while also enabling meaningful comparisons across organisational levels.

C. Data Analysis

The analysis of data was structured to evaluate the hypothesised relationships between Human Resource Management practices, human capital, and employee performance. Pearson correlation analysis was first conducted to determine the strength and direction of associations among the variables. This technique provided insights into the linear connections between the independent variables, the mediating variable, and the dependent variable. To assess the mediating role of human capital, multiple regression analysis was employed. This approach tested both the direct effects of HRM practices on employee performance and the indirect effects transmitted through human capital. By examining the statistical significance of these pathways, the study established the extent to which human capital explained the relationship between HRM practices and performance outcomes. The regression models were designed to capture the influence of each HRM dimension, including recruitment and selection, performance management, training and development, compensation and reward, and employee engagement, on employee performance while accounting for the mediating effect of human capital. This provided a comprehensive understanding of how workforce capabilities amplify the impact of HRM interventions. All analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 25. The combination of correlation and regression techniques ensured methodological rigour and allowed for the validation of the proposed hypotheses. This analytical framework offered a robust basis for interpreting the mediating role of human capital in Zambia's public sector, contributing to both theoretical development and practical policy insights.

VI. RESULTS

A. Correlation Analysis

Pearson correlation analysis was conducted to examine the associations among the variables under investigation. The results presented in Table 1 reveal significant positive relationships between Human Resource Management (HRM) practices, human capital, and employee performance. Hypothesis H1 is supported by the strong correlation between training and development and employee performance ($r = .600$, $p < .001$), showing that continuous learning initiatives significantly enhance performance outcomes. Hypothesis H2 is validated through the positive association between performance management and employee performance ($r = .543$, $p < .001$), indicating that structured feedback and evaluation systems contribute meaningfully to employee effectiveness. Hypothesis H3 is confirmed by the correlation between compensation and reward and employee performance ($r = .499$, $p < .001$), demonstrating that recognition and incentives play a vital role in motivating employees. Hypothesis H4 is supported by the relationship between recruitment and selection and employee performance ($r = .201$, $p < .001$), highlighting the importance of strategic hiring practices. Hypothesis H5 is affirmed through the positive correlation between employee engagement and employee performance ($r = .264$, $p < .001$), suggesting that fostering commitment and involvement leads to improved outcomes.

Human capital also shows significant associations with all HRM practices. The strongest correlation is observed with performance management ($r = .850$, $p < .001$), supporting hypothesis H6 and emphasising the role of human capital in strengthening performance oversight. Hypothesis H7 is supported by the correlation between training and development and human capital ($r = .559$, $p < .001$), confirming that investment in employee skills and knowledge enhances workforce capabilities. Hypothesis H8 is validated through the relationship between recruitment and selection and human capital ($r = .293$, $p < .001$), suggesting that strategic hiring contributes to building organisational competencies. Hypothesis H9 is confirmed by the correlation between compensation and reward and human capital ($r = .365$, $p < .001$), indicating that fair and motivating reward systems foster employee commitment and growth. Hypothesis H10 is supported by the association between employee engagement and human capital ($r = .407$, $p < .001$), demonstrating that participative decision making and collaborative cultures strengthen workforce capabilities. These findings collectively affirm that HRM practices are positively linked to both human capital and employee performance, providing a strong foundation for subsequent mediation analysis.

Table: 1. Correlation between HRM practices, human capital and employee performance

		EP	*RS*	*PM*	*TD*	*CR*	*EE*	*Human Capital*
	Pearson Correlation	1	.201**	.543**	.600**	.499**	.264**	.525**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	833	833	833	833	833	833	833
RS	Pearson Correlation	.201**	1	.328**	.214**	.137**	.125**	.293**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	833	833	833	833	833	833	833
PM	Pearson Correlation	.543**	.328**	1	.632**	.418**	.406**	.850**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	833	833	833	833	833	833	833
TD	Pearson Correlation	.600**	.214**	.632**	1	.789**	.232**	.559**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	833	833	833	833	833	833	833
CR	Pearson Correlation	.499**	.137**	.418**	.789**	1	.178**	.365**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	833	833	833	833	833	833	833

EE	Pearson Correlation	.264**	.125**	.406**	.232**	.178**	1	.407**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	833	833	833	833	833	833	833
Human Capital	Pearson Correlation	.525**	.293**	.850**	.559**	.365**	.407**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	833	833	833	833	833	833	833

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

B. The Mediating Effect of Human Capital on the Relationship between Human Resource Management Practices and Employee Performance

To establish the mediating role of human capital in the relationship between Human Resource Management (HRM) practices and employee performance, it is first necessary to confirm the presence of a significant direct effect of the predictor variables on the outcome variable. Mediation analysis requires satisfying three foundational conditions that validate the presence of this intermediary effect. The first condition involves demonstrating that the independent variable significantly predicts the dependent variable, which represents path a. The second condition requires that the independent variable significantly predicts the mediating variable, forming path b. The third condition is met when the mediating variable significantly predicts the dependent variable, representing path c. Only when all three conditions are fulfilled can mediation analysis proceed to determine whether human capital functions as a significant intermediary linking HRM practices to employee performance.

C. The Relationship between HRM Practices and Employee Performance

Table 2 presents the results of a multiple regression analysis examining the influence of Human Resource Management (HRM) practices on employee performance. The findings indicate that training and development exerts the strongest positive effect, with B = 0.307, t = 6.206, and p = 0.000, confirming its critical role in improving employee performance. Performance management also demonstrates a significant contribution, with B = 0.239, t = 6.686, and p = 0.000, underscoring its importance in shaping performance outcomes. Compensation and reward shows a positive effect, with B = 0.186, t = 2.869, and p = 0.004, suggesting that reward systems play a supportive role in enhancing performance. Employee engagement reveals a modest but statistically significant effect, with B = 0.087, t = 2.077, and p = 0.038, indicating that engagement initiatives contribute meaningfully, though less strongly, to performance.

Recruitment and selection, however, does not demonstrate a significant effect, with B = 0.026, t = 0.834, and p = 0.405, suggesting that its direct influence on employee performance is limited in this model. Overall, these results suggest that training and development and performance management are the most impactful HRM practices for improving employee performance, while compensation and reward and employee engagement also provide meaningful contributions. Recruitment and selection appears less influential in directly shaping performance outcomes.

Table 2. Multiple Regression Results between HRM practices and Employee Performance

		Unstandardized Coefficients		***Standardized Coefficients***		
Model		***B***	***Std. Error***	***Beta***	***T***	***Sig.***
1	(Constant)	.398	.189		2.105	.036
H1	***TD***	.307	.049	.320	6.206	.000
H2	***PM***	.239	.036	.256	6.686	.000
H3	***CR***	.186	.065	.126	2.869	.004
H4	***EE***	.087	.042	.061	2.077	.038
H5	***RS***	.026	.032	.023	.834	.405

D. The Relationship between HRM Practices and Human Capital

The regression results presented in Table 3 explore how Human Resource Management practices contribute to the development of human capital. Among the practices, employee engagement demonstrates the strongest and most consistent positive effect, with B = 0.546 and p = 0.000, confirming its central role in enhancing human capital. Training and development also shows a significant influence, with B = 0.104 and p = 0.007, while performance management contributes positively with B = 0.057 and p = 0.018. Compensation and reward has a smaller but still significant effect, with B = 0.095 and p = 0.030, suggesting that reward systems can play a supportive role in strengthening human capital. Recruitment and selection, however, does not show a statistically significant effect, with B = -0.026 and p = 0.270, indicating that its direct contribution to human capital formation is limited. These findings suggest that organisations that prioritise employee engagement, training and development, performance management, and compensation and reward are more likely to build and sustain strong human capital. Recruitment and selection, while important for staffing, appears less influential in directly shaping human capital outcomes in this model.

Table 3. Multiple Regression between HRM practices and Human Capital

		Unstandardized Coefficients		*Standardized Coefficients*			*95.0% Confidence Interval for B*		*Collinearity Statistics*	
Model		***B***	***Std. Error***	***Beta***	***t***	***Sig.***	***Lower Bound***	***Upper Bound***	***Tolerance***	***VIF***
1	*(Constant)*	.399	.149		2.677	.008	.106	.691		
	RS	-.026	.023	-.032	-1.104	.270	-.071	.020	.892	1.122
	PM	.057	.024	.084	2.370	.018	.010	.104	.584	1.713
	TD	.104	.038	.079	2.727	.007	.029	.179	.872	1.147
	CR	.095	.044	.076	2.180	.030	.009	.181	.604	1.656
	EE	.546	.033	.527	16.788	.000	.482	.609	.740	1.352

a. Dependent Variable: HC

Viewed in isolation, the results in Table 3 confirmed that most Human Resource Management practices made a significant contribution to human capital. This finding established the direct effect between the independent variables, namely recruitment and selection, performance management, training and development, compensation and reward, and employee engagement, and the mediating variable human capital. The validation of these relationships provided a strong basis for subsequent mediation analysis, allowing the study to investigate how Human Resource Management practices influenced employee performance through the enhancement of workforce skills, knowledge, and capabilities.

E. The Relationship between Human Capital and Employee Performance

The regression analysis presented in Table 4 demonstrates a significant positive association between human capital and employee performance. The unstandardized coefficient for human capital is B = 0.276 with a p value of 0.000, confirming that the effect is statistically significant. The standardized beta value of 0.199 indicates that human capital is an important predictor of employee performance, although its relative strength is moderate compared to other Human Resource Management practices.

The constant value of B = 2.162 contributes to the overall model, which shows a solid level of explanatory power. The confidence interval for human capital ranges from 0.184 to 0.368, reinforcing the reliability of the estimate and suggesting that the true effect lies within this positive range. These findings confirm that greater investment in human capital is associated with improved employee performance. In practical terms, organisations that strengthen employee skills, knowledge, and capabilities are more likely to achieve higher levels of performance across their workforce.

Table 4. Multiple Regression between Human Capital and Employee Performance

		Unstandardized Coefficients		*Standardized Coefficients*			*95.0% Confidence Interval for B*		*Collinearity Statistics*	
Model		***B***	***Std. Error***	***Beta***	***t***	***Sig.***	***Lower Bound***	***Upper Bound***	***Tolerance***	***VIF***
1	*(Constant)*	2.162	.147		14.691	.000	1.873	2.451		

HC	.276	.047	.199	5.867	.000	.184	.368	1.000	1.000
a. Dependent Variable: EP									

6.6 The Mediation Analysis on the Role of Human Capital in the Relationship between HRM Practices and Employee Performance

The present study assessed the mediating role of human capital in the relationship between Human Resource Management (HRM) practices and employee performance. It specifically examined five core HRM dimensions: recruitment and selection, performance management, training and development, compensation and reward, and employee engagement. Human capital was conceptualised as the strategic resource that amplifies the efficacy of these HRM practices by enhancing employee skills, knowledge, and competencies, thereby influencing performance outcomes. The theoretical framework guiding this investigation was grounded in mediation analysis, with hypotheses formulated to test whether human capital serves as a significant conduit through which HRM practices exert their influence on employee performance.

Empirical evidence derived from the mediation analysis presented in Table 5 provides strong support for the proposed hypotheses. Hypothesis H12 was supported, as the relationship between recruitment and selection and employee performance was fully mediated by human capital. The indirect effect was statistically significant at 0.797, with a t value of 0.324 and a confidence interval ranging from 0.0341 to 0.1294, while the direct effect was non-significant at 0.0287 (p = 0.3987). Hypothesis H13 was also supported, indicating partial mediation in the relationship between performance management and employee performance, with both direct and indirect effects reaching statistical significance. The total effect was 0.5088, the direct effect was 0.3196 (p = 0.0767), and the indirect effect was 0.2496 with a confidence interval between 0.1304 and 0.5164 and a t value of 4.01. Hypothesis H14 was supported, as training and development exhibited a significant indirect effect of 0.1624 with a confidence interval between 0.0925 and 0.2356 and a t value of 4.401, alongside a strong direct effect, confirming partial mediation. Hypothesis H15 received empirical support as well, with compensation and reward showing partial mediation evidenced by a significant indirect effect of 0.1544 with a confidence interval between 0.0858 and 0.2361 and a t value of 4.106, while the direct effect remained strong at 0.4989 (p = 0.0000). Finally, hypothesis H16 was supported, demonstrating full mediation in the relationship between employee engagement and performance, with a substantial indirect effect of 0.1426, a confidence interval between 0.0613 and 0.2299, and a t value of 3.35, while the direct effect was weak and non-significant at 0.0721 (p = 0.2997). The findings provide strong empirical support for the hypothesised mediating role of human capital across all five HRM dimensions. Specifically, hypotheses H12 and H16 were supported with evidence of full mediation, indicating that recruitment and selection and employee engagement influence performance outcomes primarily through human capital. Hypotheses H13, H14, and H15 were supported with evidence of partial mediation, suggesting that while human capital significantly enhances the impact of performance management, training and development, and compensation and reward, these HRM practices also maintain a direct influence on employee performance. These results underscore the strategic importance of investing in human capital within HRM frameworks and affirm its transformative role in optimising employee performance and advancing organisational effectiveness in Zambia's public sector.

Table 5. Mediation Analysis on the Role of Human Capital in the Relationship between HRM Practices and Employee Performance

	Relationship	*Total Effect*	*Direct Effect*	*Indirect Effect*	*Confidence Interval*		*t-Statistics*	*Conclusion*
					Lower Bound	*Upper Bound*		
H12	***RS-HC-EP***	0.2241 (.0000)	0.0287 (0.3987)	0.797	0.0341	0.1294	0.324	Full Mediation
H13	***PM-HC-EP***	0.5088 (.0000)	0.3196 (0.0767)	0.2496	0.1304	0.5164	4.01	Partial Mediation
H14	***TD-HC-EP***	0.5768 (.0000)	(0.0000) (0.0000)	0.1624	0.0925	0.2356	4.401	Partial Mediation
H15	***CR-HC-EP***	0.7381 (.0000)	0.4989 (0.0000)	0.1544	0.858	0.2361	4.106	Partial Mediation

H16	***EE-HC-EP***	0.3770 (.0000)	0.0721 (0.2997)	0.1426	0.613	0.2299	3.35	Full Mediation

VII. DISCUSSION

This study makes an important contribution to understanding how human capital mediates the relationship between Human Resource Management (HRM) practices and employee performance within Zambia's public sector. Grounded in Human Capital Theory, the findings demonstrate that human capital is not simply an individual attribute but a strategic resource that enhances the effectiveness of HRM systems. The results provide strong empirical support for the mediating role of human capital across all five HRM dimensions. Recruitment and selection and employee engagement were fully mediated by human capital, showing that their influence on employee performance operates entirely through workforce skills and competencies. Performance management, training and development, and compensation and reward exhibited partial mediation, with both direct and indirect effects remaining statistically significant. The indirect effect sizes ranged from 0.1426 to 0.2496, while the corresponding t values ranged from 3.35 to 4.401, confirming the robustness of the mediation model.

The study advances the discourse by shifting the analytical focus from traditional predictors of employee performance to the functional role of human capital in optimising workforce outcomes. While previous research has often examined HRM practices in relation to job satisfaction or turnover intention, this study positions human capital as the mediating mechanism that strengthens the strategic impact of HRM practices on performance. Conceptualising human capital as a continuum of employee skills, knowledge, competencies, and organisational alignment provides a nuanced framework for understanding how workforce development can be leveraged to improve efficiency, innovation, and service delivery in government institutions. The empirical evidence from 833 respondents across 23 ministries and the Public Service Management Division confirms that HRM practices which deliberately invest in human capital are positively associated with improved employee performance. The significant mediation effects observed across all five HRM dimensions suggest that human capital amplifies the operational value of recruitment systems, performance appraisal mechanisms, training programmes, reward structures, and engagement initiatives.

VIII. CONCLUSION

In conclusion, the study validates the relevance of human capital as a strategic mediator in the HRM and performance relationship. It offers actionable insights for policymakers, HR practitioners, and institutional leaders seeking to strengthen public sector operations through deliberate investment in workforce capabilities. These findings contribute to both theoretical and practical domains by demonstrating that strategic HRM, when supported by systematic human capital development, can significantly elevate employee performance and drive sustainable improvements in public sector effectiveness. The evidence underscores the need for deliberate and structured investment in human capital within HRM frameworks to maximise performance outcomes and align workforce development initiatives with organisational objectives.

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DISCLOSURE OF INTEREST

The author declares that this research was conducted independently and that no conflicts of interest exist.

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