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KNOWLEDGE MANAGEMENT STRATEGIES AND ORGANIZATIONAL PERFORMANCE IN MIDDLE-LEVEL MEDICAL TRAINING COLLEGES IN NAIROBI COUNTY, KENYA

Lynette N. Githigia and Brigitte Wabuyabo-Okonga

Box 56808-00200, Nairobi, Kenya

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Corresponding author:
Brigitte Wabuyabo-Okonga

ABSTRACT

This examined how knowledge management strategies affect organizational performance in middle-level Medical Training Colleges in Nairobi County, Kenya. Guided by Organizational Knowledge Creation Theory, the Resource-Based View, Social Exchange Theory, and Dynamic Capabilities Theory, the study conceptualized knowledge creation, storage, sharing, and utilization as key determinants of institutional performance. The study adopted a sequential explanatory mixed-methods design, combining quantitative survey data from 253 respondents across 10 colleges with qualitative interviews and document analysis. Regression results indicated that knowledge management strategies collectively had a statistically significant effect on organizational performance ($F(4,198) = 62.96$, $p < 0.001$). Knowledge utilization emerged as the strongest predictor of performance ($\beta = 0.458$, $p < 0.001$), followed by knowledge creation ($\beta = 0.248$, $p < 0.001$). In contrast, knowledge storage ($\beta = 0.010$, $p = 0.891$) and knowledge sharing ($\beta = -0.038$, $p = 0.647$) did not independently predict performance. The findings suggest that knowledge contributes to improved student outcomes, operational efficiency, and staff satisfaction primarily when it is actively applied in curriculum development, clinical training, and administrative decision-making. The study concludes that middle-level medical training colleges can improve organizational performance by prioritizing structured knowledge use and strengthening mechanisms that integrate creation, storage, and sharing into practice.

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INTRODUCTION

Knowledge has increasingly emerged as a strategic organizational asset that enhances institutional performance. Knowledge management (KM) strategies, specifically knowledge creation, storage, sharing, and utilization, are viewed as mechanisms through which institutions can improve decision-making, teaching quality, clinical competence, and adaptability. In a global context, the cause-and-effect relationship between knowledge management strategies and organizational performance remains inconclusive. For example, Cristache *et al*. (2025) found that knowledge creation and sharing significantly influence innovation; they concluded that knowledge implementation did not significantly affect innovation and that innovation significantly mediated the relationship between KM and organizational performance. By contrast, Saeed and Razak (2025) posit that organizational structure significantly moderates the relationship between KM and organizational performance. Similarly, empirical evidence linking KM strategies to organizational performance in middle-level MTCs in Kenya remains limited. This study, therefore, investigates the effect of knowledge management strategies on organizational performance in middle-level Medical Training Colleges in Nairobi County, Kenya. Medical Training Colleges (MTCs) play a pivotal role in Kenya's healthcare system by producing middle-level health professionals who support service delivery and the achievement of Universal Health Coverage (UHC) goals. In Nairobi County, MTCs operate in a dynamic, resource-constrained environment marked by evolving healthcare regulations, rapid technological change, and rising demand for competent graduates. Despite their importance, many MTCs face performance challenges, including inconsistent student outcomes, variable graduation and pass rates, staff dissatisfaction, and operational inefficiencies.

Theoretical Foundations

Organizational Knowledge Creation Theory: Developed by Nonaka and Takeuchi (1995), Organizational Knowledge Creation Theory explains how knowledge is continuously generated through the interaction between tacit and explicit knowledge, as articulated in the SECI model: socialization, externalization, combination, and internalization. In MTCs, instructors and clinical trainers possess tacit knowledge derived from real-world medical practice. When they externalize this expertise through mentorship, curriculum development, simulations, and collaborative learning, they strengthen institutional capacity and performance. The theory highlights enabling conditions such as leadership, culture, and shared learning spaces (Ba), which are particularly relevant in medical education settings where learning occurs across classrooms, clinical placements, and digital platforms. Although critics argue that tacit knowledge is

difficult to codify and that the theory underplays contextual constraints, it remains a robust framework for understanding how structured knowledge creation enhances institutional responsiveness, innovation, and training quality in MTCs.

Resource-Based View (RBV) Theory: The Resource-Based View (Wernerfelt, 1984; Barney, 1991) posits that sustainable performance arises from valuable, rare, inimitable, and non-substitutable (VRIN) resources. Knowledge is widely recognized as one such strategic resource. Within MTCs, knowledge storage—through repositories, databases, curricula, policies, and documented clinical practices—preserves institutional memory and ensures continuity amid staff turnover and curriculum revisions. RBV explains how context-specific medical knowledge embedded in institutional routines becomes difficult to replicate, thereby enhancing operational efficiency and academic consistency. While RBV has been criticized for its static orientation and limited sensitivity to environmental change, it remains relevant for analyzing how effective knowledge storage supports long-term organizational performance in health training institutions.

Social Exchange Theory (SET): Social Exchange Theory (Homans, 1958; Blau, 1964) posits that knowledge sharing is a reciprocal behavior driven by perceived benefits, such as trust, recognition, and organizational support. In MTCs, staff share knowledge through seminars, departmental meetings, mentoring, clinical case discussions, and informal peer interactions. When staff perceive fairness and support, they are more likely to share tacit clinical insights that improve teaching quality and student competence. SET *al*so explains barriers to knowledge sharing, including fear of losing power, generational gaps, low trust, and hierarchical cultures. Although critics argue that the theory emphasizes rational cost–benefit calculations over intrinsic motivation, it provides a strong behavioral foundation for understanding how trust-based environments enhance collaboration and institutional performance in MTCs.

Dynamic Capabilities Theory: Dynamic Capabilities Theory (Teece *et al*., 1997) extends RBV by emphasizing an organization's ability to sense opportunities, seize them, and transform internal processes in response to environmental change. In MTCs, knowledge utilization—applying stored and shared knowledge in curriculum revision, clinical training, and administrative decision-making—is essential for adaptability and relevance. The theory underscores that knowledge creates value only when actively used. By embedding evidence-based practices, updating curricula to meet healthcare needs, and improving clinical simulations, MTCs can strengthen graduate competence and the institution's reputation. Despite criticisms about conceptual ambiguity and measurement challenges, Dynamic Capabilities Theory offers a strong framework for linking knowledge use to sustained organizational performance in resource-constrained educational settings. According to Tran, Nguyen, Dinh, Huynh, and Ma (2024), these three theories agree that organizational performance depends largely on how firms allocate, share, and adapt valuable resources, especially knowledge and human capital. While RBV emphasizes the strategic value of unique internal resources, SET highlights the importance of mutual social relationships that enable knowledge sharing and the cooperation that activates these resources. In turn, the DCT shows how firms modify and use resources over time in response to change. Together, these theories provide a useful framework for understanding how resources, social relationships, and adaptive capabilities interact to generate and enhance competitive advantage and superior performance.

Empirical Review

Knowledge Creation and Organizational Performance: Empirical studies consistently show a positive relationship between knowledge creation and organizational performance, particularly in higher education and training institutions. Research in universities and TVET institutions demonstrates that innovation, collaboration, and experiential learning enhance institutional outcomes. However, most studies focus on universities or non-healthcare sectors and rely heavily on staff perceptions, thereby limiting their applicability to medical training environments, where clinical competence and regulatory compliance are critical. In Kenya, few empirical studies directly examine how knowledge creation influences training quality, licensing examination outcomes, and clinical readiness in MTCs. This gap highlights the need for context-specific evidence linking knowledge creation to medical education performance indicators.

Knowledge Storage and Organizational Performance: Knowledge storage has been shown to improve organizational continuity, efficiency, and decision-making across educational institutions in East Africa and beyond. Studies in Uganda, Kenya, and Saudi Arabia confirm that well-structured repositories and documentation systems positively influence institutional performance. However, existing studies often emphasize technological infrastructure while neglecting tacit clinical knowledge and long-term performance outcomes such as accreditation compliance and graduate competence. Additionally, infrastructural limitations and weak documentation cultures in Nairobi-based MTCs constrain effective knowledge preservation, underscoring the need for focused empirical investigation.

Knowledge Sharing and Organizational Performance: Research consistently indicates that knowledge sharing enhances collaboration, innovation, and service quality. In training institutions, sharing best practices reduces duplication, improves coordination, and strengthens instructional quality. Nevertheless, many studies rely on cross-sectional designs and staff-centered performance metrics, limiting causal inference and relevance to MTCs where student outcomes are paramount.

Knowledge Utilization and Organizational Performance: Knowledge utilization is widely recognized as the most critical KM strategy because it translates knowledge into measurable outcomes. Studies show that institutions that apply evidence-based teaching, standardized clinical protocols, and continuous curriculum review achieve better student outcomes and greater operational efficiency. However, few studies examine implementation fidelity or long-term effects in medical training colleges, particularly within the Nairobi context.

Conceptual Framework: The study conceptualizes knowledge management strategies, knowledge creation, storage, sharing, and utilization as independent variables influencing organizational performance. The study measures performance using non-financial indicators relevant to MTCs, including student graduation rates, pass rates, retention, and employee satisfaction. Knowledge utilization is positioned as the mechanism through which KM strategies generate value in innovation, problem-solving, and decision-making.

Research Gap: Despite extensive literature on knowledge management and organizational performance, significant gaps persist. Existing studies are largely sector-general, university-focused, cross-sectional, and methodologically limited. Empirical evidence remains limited on how KM strategies interact dynamically to influence performance in middle-level MTCs, particularly through context-specific indicators such as clinical competence and regulatory compliance. This study addresses these gaps by integrating multiple theories and employing a mixed-methods approach tailored to the Kenyan medical training context.

RESEARCH METHODOLOGY

The study adopted a sequential explanatory mixed-methods design as recommended by Haynes-Brown (2025). Combining the breadth of quantitative data with the depth of qualitative analysis enriches research output by explaining, contextualizing, or expanding on the results. Quantitative data established relationships between KM strategies and organizational performance, while qualitative data provided contextual explanations of the findings. This design enhanced validity through triangulation and supported both statistical generalization and in-depth understanding. The target population comprised 687 employees from 10 middle-level MTCs in Nairobi

County, including academic staff, administrators, and department heads. Using Yamane's formula, the study determined a sample size of 253 respondents. Proportionate stratified random sampling ensures representation across institutions and staff categories.

Data Analysis

Table 1. Demographic Information

Characteristic	Category	Frequency (%)
Gender	Male	54.2
	Female	45.8
Highest Level of Education	Bachelor's Degree	41.9
	Master's Degree	46.3
	Doctorate	11.8
Staff Category	Academic Staff	57.6
	Administrative Staff	42.4
Length of Service	6–10 years	38.4
	Above 10 years	34.0

Quantitative data were collected using structured questionnaires with Likert-scale items measuring KM strategies and organizational performance. Qualitative data were obtained through semi-structured interviews and document analysis of institutional records. Pilot testing assessed the clarity and reliability of the instruments. Cronbach's alpha was used to assess internal consistency, and expert review, factor analysis, and triangulation established validity. These measures strengthened the credibility and robustness of the study findings. Quantitative data were analyzed using descriptive and inferential statistics, including regression analysis, to assess the impact of KM strategies on organizational performance. Qualitative data were examined thematically to identify patterns and insights. Diagnostic tests were performed to verify regression assumptions.

Demographic Data: Respondents were relatively balanced by gender, with 54.2% male and 45.8% female. This balance is important for knowledge management practices because diverse perspectives can enhance knowledge creation and sharing. Male and female staff may contribute differently to collaborative learning, mentoring, and problem-solving in clinical and administrative tasks, key aspects of knowledge creation and use that, according to the study, significantly influence organizational performance in MTCs. Secondly, most respondents possessed at least a bachelor's degree: 46.3% had a master's degree, and 11.8% held a doctorate. Higher educational attainment enables staff to participate more effectively in knowledge creation, critically assess institutional practices, and implement evidence-based strategies in teaching and clinical training. According to Ewers, Herinek, and Köhler (2025), staff with higher academic qualifications and research literacy are more likely to engage in knowledge creation and critically evaluate institutional practices. This directly supports the study's finding that knowledge creation and utilization significantly influence organizational performance, as highly educated staff are better prepared to generate and apply knowledge that enhances student outcomes, teaching quality, and operational efficiency. In this study, academic staff accounted for 57.6% of respondents, while administrative staff accounted for 42.4%. Academic staff play a key role in knowledge creation and use because they interact directly with students and contribute to curriculum development, clinical supervision, and professional mentorship. Meanwhile, administrative staff support knowledge storage and sharing through documentation, policy enforcement, and process coordination. Abou-Moghli (2025) found that creating and using knowledge has a stronger, more positive impact on performance metrics than sharing knowledge. They emphasize that, in academic engagement, the administrative knowledge function is crucial to applying knowledge. However, the regression results showed that storage and sharing alone were not enough to improve performance, highlighting the importance of integrating these functions with active knowledge utilization by academic staff. Regarding length of service, many respondents had over 6 years of experience: 38.4% had 6–10 years, and 34.0% had more than 10 years. Experienced staff are familiar with institutional processes and possess tacit knowledge built over time, which is essential for knowledge creation and use. Shahzad, Chilba, and Arslan (2024) argue that experienced staff are vital to organizational knowledge creation and use. These researchers highlight that staff can share this experience-based knowledge through interpersonal interaction, which significantly contributes to organizational learning, innovation, and practical problem-solving. Their engagement enables them to mentor junior staff, implement best practices, and make well-informed decisions in both academic and administrative settings, directly supporting the study's finding that knowledge utilization is the strongest predictor of organizational performance in MTCs. Most respondents were in the 31–50 age range, representing a professionally active, mature workforce. This age profile suggests that staff have both the experience to generate and apply knowledge effectively and the motivation to engage in collaborative learning and professional development activities. Chapman, Nasirov, Hughes, and Hughes (2025) argue that including experienced mid-career professionals should enhance knowledge creation and contribute to innovation within the university or organization. Thus, combining maturity and engagement strengthens knowledge creation and utilization, thereby improving institutional performance indicators such as student competence, retention, and staff satisfaction. Departmental and institutional representation plays a critical role in creating and disseminating knowledge. This broad representation ensures that perspectives on knowledge management strategies reflect institution-wide practices rather than isolated departments. Consequently, this diverse, representative sample supports the high mean scores observed for knowledge creation, sharing, and utilization, reinforcing the link between inclusive KM practices and improved organizational performance. Respondents were drawn from diverse academic and administrative departments across multiple middle-level MTCs in Nairobi County. Departmental and institutional representation plays a critical role in knowledge creation and dissemination because it ensures that organizations incorporate multiple perspectives and practices into knowledge management processes. According to Cristache *et al*. (2025), broad representation aligns knowledge strategies with institution-wide activities rather than isolated departmental routines, fostering collaboration and reducing knowledge silos. Thus, the high mean scores observed for knowledge creation, sharing, and utilization in the study are consistent with empirical evidence showing that integrated knowledge management processes (more so, those involving creation and sharing across diverse functional units) are key drivers of innovation and organizational performance.

Table 2. Descriptive Statistics of Study Variables

Variable	Mean	Std. Dev
Knowledge Creation	3.69	0.66
Knowledge Storage	3.51	0.83
Knowledge Sharing	3.70	0.83
Knowledge Utilization	3.92	0.77
Organizational Performance	4.02	0.62

Most respondents reported using institutional knowledge resources frequently, including curriculum documents, policy manuals, digital platforms, and informal professional networks. Cristache *et al*. (2025) argue that this level of engagement facilitates knowledge creation, sharing, and utilization. The demographic characteristics of experienced, qualified, and diverse staff increase the likelihood that these resources are applied effectively in practice, aligning with the study's finding that knowledge utilization significantly drives organizational performance in middle-level MTCs. These findings align with Kimani, Ocholla, and Jiyane (2025), who found that using knowledge resources and practices in organizations improves performance outcomes in Kenya. The descriptive statistics in Table 2 indicate that respondents generally perceived a high level of knowledge management practices across middle-level Medical Training Colleges in Nairobi County. Knowledge utilization recorded the highest mean score (M = 3.92), suggesting that institutions are

relatively effective in applying available knowledge to teaching, clinical training, and administrative decision-making.

Knowledge creation and knowledge sharing also exhibited high mean scores, reflecting collaborative learning, professional interaction, and experiential knowledge exchange among staff. Knowledge storage had a comparatively lower, though still moderate-to-high, mean, suggesting that documentation systems and repositories exist but may not be fully optimized. Organizational performance recorded the highest overall mean (M = 4.02), indicating strong perceived outcomes for student performance, institutional efficiency, and staff satisfaction. These results corroborate Abou-Moghli (2025), who, in a study in Jordan's telecommunications sector, found that knowledge creation and sharing activities drove greater engagement and impact than knowledge storage systems.

Table 3: Regression Diagnostics Summary

Diagnostic Test	Result
Normality	Shapiro–Wilk p = 0.087; Q–Q plot approximately linear
Multicollinearity	VIF range = 1.24–2.18; Tolerance > 0.45
Autocorrelation	Durbin–Watson = 1.83

The regression diagnostics in Table 3 indicate that the assumptions underlying multiple linear regression were satisfactorily met. The Shapiro–Wilk test for normality was not statistically significant ($p > 0.05$), and the Q–Q plot showed an approximately linear pattern, confirming that the residuals were normally distributed. Multicollinearity diagnostics showed variance inflation factor (VIF) values well below the critical threshold of 10 and tolerance values above 0.20, indicating no serious multicollinearity among the independent variables. Additionally, the Durbin–Watson statistic of 1.83 falls within the acceptable range of 1.5 to 2.5, indicating no significant autocorrelation in the residuals. Collectively, these results confirm the robustness and reliability of the regression model used in the study.

Reliability and Validity Results: The study instruments demonstrated high reliability and validity for measuring knowledge management strategies and organizational performance in middle-level Medical Training Colleges. Basirimoghadam *et al*., Rafii, and Ebadi (2023) note that a Cronbach's Alpha value of 0.70 or higher is an acceptable indicator of internal consistency, and that values ≥0.80 reflect stronger scale reliability, indicating the instrument meets the required thresholds. Kimani, Ocholla, and Jiyane (2025) worked withCronbach's Alpha of 0.85. Cronbach's Alpha values ranged from 0.78 to 0.91 across the study variables, indicating good internal consistency and confirming that the questionnaire items reliably measured knowledge creation, storage, sharing, utilization, and organizational performance. Content validity was ensured through expert review. The subject matter experts confirmed the relevance and clarity of all items. Secondly, construct validity was supported through exploratory factor analysis, which showed that all items loaded significantly onto their respective constructs (factor loadings > 0.50). This was consistent with Marar, Hamza, Ayyash, and Abu Shaheen (2023). Triangulation strengthened the overall instrument credibility, as qualitative data from interviews and document analysis corroborated the quantitative findings. Collectively, these procedures confirm that the study instruments were both reliable and valid for assessing the influence of knowledge management strategies on organizational performance in MTCs.

Table 4. ANOVA Results for the Regression Model

Source	Sum of Squares	df	Mean Square	F	p-value
Regression	56.10	4	14.03	62.96	<0.001
Residual	43.90	198	0.22		
Total	100.00	202			

The ANOVA results in Table 4 indicate that the regression model is statistically significant ($F(4, 198) = 62.96$, $p < 0.001$). This shows that knowledge creation, knowledge storage, knowledge sharing, and knowledge utilization collectively explain variation in organizational performance among middle-level Medical Training Colleges in Nairobi County. The large F-statistic and highly significant p-value suggest the model fits substantially better than a model with no predictors. Consequently, knowledge management strategies collectively play a critical role in predicting organizational performance in the study context. The regression coefficients in Table 5 indicate how knowledge management strategies differentially contribute to organizational performance among middle-level Medical Training Colleges in Nairobi County. The constant term is positive and statistically significant ($\beta = 1.12$, $p < 0.001$), suggesting that even without the examined knowledge management strategies, a baseline level of organizational performance exists, likely attributable to structural, regulatory, or institutional factors outside the model. Knowledge creation is positively and statistically significantly associated with organizational performance ($\beta = 0.248$, $t = 3.64$, $p < 0.001$). This finding implies that institutions that actively promote innovation, experiential learning, mentorship, and collaborative knowledge generation tend to achieve higher levels of performance.

Table 5. Regression Coefficients for Knowledge Management Strategies

Predictor	β	Std. Error	t	p-value
Constant	1.12	0.18	6.22	<0.001
Knowledge Creation	0.248	0.068	3.64	<0.001
Knowledge Storage	0.010	0.071	0.14	0.891
Knowledge Sharing	-0.038	0.083	-0.46	0.647
Knowledge Utilization	0.458	0.073	6.31	<0.001

The result underscores the importance of creating new knowledge through interaction between academic staff and clinical trainers, supporting theoretical arguments advanced by Organizational Knowledge Creation Theory. Khan *et al*. (2024). In this study, knowledge creation and sharing emerged as the primary drivers of innovation, reinforcing theoretical perspectives such as Organizational Knowledge Creation Theory, which emphasize *interactive transformation of tacit and explicit knowledge through socialization and collaboration* across professional actors. Knowledge utilization emerges as the strongest predictor of organizational performance ($\beta = 0.458$, $t = 6.31$, $p < 0.001$). This indicates that how knowledge is applied in curriculum development, clinical instruction, administrative decision-making, and policy implementation substantially influences institutional outcomes. The magnitude and significance of this coefficient suggest that knowledge generates value primarily when it is transformed into action, reinforcing propositions of Dynamic Capabilities Theory that emphasize the strategic use of knowledge in responding to environmental and operational demands. In contrast, knowledge storage has no statistically significant effect on organizational performance ($\beta = 0.010$, $t = 0.14$, $p = 0.891$). This suggests that although MTCs may have documentation systems, databases, and repositories, their presence alone does not translate into improved performance. Similarly, knowledge sharing shows a negative but statistically insignificant relationship with performance ($\beta = -0.038$, $t = -0.46$, $p = 0.647$), suggesting that informal and formal knowledge-sharing mechanisms may be insufficiently structured or poorly linked to performance-enhancing processes. Together, these findings imply that storage and sharing mechanisms contribute meaningfully to performance only when effectively integrated into knowledge utilization practices.

SUMMARY

The study found that knowledge management strategies significantly influence organizational performance in middle-level Medical Training Colleges (MTCs) in Nairobi County, with differential effects across the four KM dimensions. Among these, knowledge utilization emerged as the strongest predictor of organizational performance ($\beta = 0.458$, $p < 0.001$), followed by knowledge creation ($\beta = 0.248$, $p <$

0.001). In contrast, knowledge storage (β = 0.010, p = 0.891) and knowledge sharing (β = −0.038, p = 0.647) did not significantly predict performance, indicating that these mechanisms alone do not directly translate into improved institutional outcomes unless effectively integrated into utilization practices. Overall, respondents reported high engagement with KM practices, particularly in using knowledge for curriculum development, clinical training, and administrative decision-making, which aligns with the high perceived organizational performance (M = 4.02). These findings are largely consistent with theoretical propositions and prior empirical research reviewed in the study. The positive influence of knowledge creation on performance aligns with the Organizational Knowledge Creation Theory (Nonaka & Takeuchi, 1995), which emphasizes that generating new knowledge through collaborative and experiential learning strengthens institutional capacity. Similarly, Dynamic Capabilities Theory (Teece et al., 1997) supports the central role of knowledge utilization, arguing that knowledge generates value only when applied to organizational processes and decision-making.

Compared with prior studies, the results echo findings from universities and TVET institutions, where knowledge creation and application enhance innovation, teaching quality, and institutional efficiency (Alavi & Leidner, 2001; Akinci *et al*., 2013). However, the insignificant effect of knowledge storage and sharing contrasts with literature findings that highlight their positive contributions to organizational continuity and collaboration (Barney, 1991; Homans, 1958). This discrepancy may reflect contextual factors in Nairobi-based MTCs, such as underdeveloped documentation systems, a weak knowledge-sharing culture, or insufficient integration of stored knowledge into actionable practices, as the empirical review notes. Demographic analysis further supports these findings. Respondents' high educational qualifications, long service tenure, and academic roles suggest that staff can create and apply knowledge effectively, which helps explain why knowledge creation and utilization significantly influence performance. Conversely, the limited impact of storage and sharing may reflect structural or institutional constraints rather than deficiencies in staff capability, consistent with prior critiques in the literature regarding the importance of institutional support and incentive systems for KM effectiveness (Blau, 1964; Wernerfelt, 1984). The study therefore confirms that knowledge management strategies are critical to enhancing organizational performance in middle-level MTCs, particularly through the creation and utilization of knowledge. In contrast, storage and sharing mechanisms require strategic alignment and integration to achieve measurable impact. These findings partially corroborate existing literature while highlighting context-specific nuances in resource-constrained medical training environments in Nairobi County.

CONCLUSIONS

The study concludes that knowledge management strategies play a critical role in enhancing organizational performance in middle-level Medical Training Colleges (MTCs) in Nairobi County, Kenya. Specifically, knowledge utilization and knowledge creation were identified as the most influential strategies, significantly improving institutional outcomes, including student performance, curriculum quality, clinical training, and staff effectiveness. These findings highlight that applying knowledge in practice, not merely storing or exchanging it, drives performance, emphasizing the importance of embedding knowledge in decision-making, teaching, and administrative processes. Although MTCs included knowledge storage and sharing, these did not independently predict performance, suggesting they contribute meaningfully only when integrated into knowledge utilization practices. This underscores the need for institutions to strengthen structures, policies, and cultures that translate stored and shared knowledge into actionable outcomes. The study also shows that staff demographics, such as high educational qualifications, long service tenure, and academic roles, enhance the capacity for effective knowledge creation and utilization, supporting the theoretical frameworks applied, including Organizational Knowledge Creation Theory, Resource-Based View, Social Exchange Theory, and Dynamic Capabilities Theory. The findings show that middle-level MTCs can improve organizational performance by prioritizing active knowledge use, fostering collaborative and innovative learning environments, and strategically aligning knowledge storage and sharing mechanisms to support actionable outcomes. These insights provide empirical evidence for policymakers, institutional leaders, and educators seeking to optimize knowledge management practices to strengthen educational quality, operational efficiency, and professional competence in medical training colleges.

Recommendations

Policy Recommendations

Enhance Knowledge Utilization Practices: Middle-level Medical Training Colleges (MTCs) should implement policies and structured processes to ensure knowledge is actively applied to curriculum development, clinical training, and administrative decision-making, as knowledge utilization is the strongest predictor of organizational performance. Integrate Knowledge Storage and Sharing with Practice: Institutions should align knowledge storage systems and sharing platforms with practical applications, ensuring that documented and exchanged knowledge translates into teaching, clinical practice, and operational improvements.

Recommendation for Further Study

Future research should examine how knowledge storage and sharing mechanisms can be strategically integrated with knowledge utilization to maximize their impact on organizational performance in middle-level Medical Training Colleges.

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