The University Journal: A Doctoral Association of Eastern Africa (DAEA) Publication
Vol 8(1)

ISSN: 2519-0997 (Print)

Transforming Dynamic Capabilities and Quality Management Systems Performance: Evidence from Medium-Sized Manufacturers in Nairobi County, Kenya

Amos Kings Otieno Orwa[1]*; Paul Katuse [2]; Timothy C. Okech[3]
United States International University - Africa
Email: amoskorwa78@gmail.com[1]*; pkatuse@usiu.ac.ke[2]; tcokech@usiu.ac.ke[3]

***Corresponding author**

Cite: Orwa, A.K.O., Katuse, P., Okech, T.C. (2026). Transformation Dynamic Capabilities and Quality Management Systems Performance: Evidence from Medium-Sized Manufacturers in Nairobi County, Kenya. *The University Journal, 8*(1), 29-42.

Abstract

This study examined the effect of Transforming Capabilities on the performance of Quality Management Systems (QMS) among medium-sized manufacturing firms in Nairobi County, Kenya. Anchored on Dynamic Capability Theory and guided by a positivist mixed-methods approach, the study collected data from 221 respondents drawn from 496 ISO 9001:2015 certified firms. Quantitative data obtained from quality, production, and operations managers were analyzed using SPSS Version 27, while qualitative insights were gathered from purposively selected senior managers overseeing transformation and process improvement functions. Results indicate that Transforming Capabilities reflected in resource reconfiguration, strategic leadership, ESG-aligned transformation, technology adoption, adaptive resource allocation, and continuous strategic renewal significantly influence Performance of QMS, explaining 22.4% of the variance ($R^2 = 0.224$, $\beta = -0.571$, $p < 0.001$). Qualitative findings further revealed that firms that institutionalize transformation practices experience improved efficiency, enhanced sustainability alignment, and stronger responsiveness to market dynamics. The study concludes that Transforming Capabilities are a pivotal dynamic capability that supports QMS effectiveness by enabling firms to restructure processes, integrate new technologies, and adapt to external changes. Strengthening leadership-driven transformation mechanisms is recommended to improve innovation outcomes, operational performance, and long-term competitiveness.

Keywords: Transforming Capabilities, Dynamic Capabilities, Quality Management Systems, ISO 9001:2015, Resource Reconfiguration, Medium Manufacturing Firms, Nairobi County.

Introduction

Quality Management Systems (QMS), particularly those aligned with ISO 9001, are widely recognized as critical mechanisms for improving product quality, operational efficiency, and customer satisfaction in manufacturing environments. By standardizing processes, clarifying responsibilities, and institutionalizing continuous improvement, QMS enable firms to reduce defects, enhance consistency, and strengthen market reputation (Abbas, 2020; Bravi et al., 2019;

Kharub & Sharma, 2020). In increasingly competitive and globalized markets, high-performing QMS are no longer viewed as mere compliance tools but as strategic platforms that support differentiation, cost efficiency, and long-term competitiveness (Psomas, 2013; Wilson & Campbell, 2020; Potkany et al., 2022).

At the same time, the competitive landscape of manufacturing is being reshaped by digitalization, Industry 4.0 technologies, and heightened customer expectations. Integrating QMS with data-driven tools, automation, and real-time monitoring is becoming essential for sustaining performance under volatile conditions (Akhmatova et al., 2022; Ammar et al., 2021; Fonseca, Amaral, & Oliveira, 2021; De Souza et al., 2021; Aichouni et al., 2024). In such dynamic environments, static quality routines are insufficient; firms must be able not only to maintain existing systems but also to continuously reconfigure processes, technologies, and organizational arrangements in response to new risks and opportunities (Gutierrez-Gutierrez & Antony, 2020; Gudergan et al., 2025).

The dynamic capabilities framework provides a powerful lens to understand how organizations renew and adapt their resource base under conditions of change. Dynamic capabilities commonly conceptualized as sensing, seizing, and transforming enable firms to identify emerging opportunities and threats, mobilize resources around promising responses, and reconfigure assets, structures, and routines to sustain performance over time (Teece et al., 1997; Teece, 2007, 2018, 2023). Within this triad, transforming dynamic capabilities refer to a firm's ability to re-align, recombine, or replace existing processes, structures, and competencies to support new strategic directions or operational demands (Farzaneh et al., 2020; Ferreira et al., 2020; Bechtel et al., 2023). In the context of QMS, transforming capabilities are especially salient because quality systems depend on structured routines that must evolve without undermining control and reliability.

Recent empirical work shows that transforming capabilities play an important role in enabling innovation performance, process renewal, and resilience in manufacturing firms. Studies have linked capability reconfiguration to improved innovation output, responsiveness, and competitive outcomes in diverse industrial and geographic settings (Hu et al., 2022; Vo-Thai et al., 2021; Ovuakporie et al., 2021; Prester, 2023). Dynamic capabilities have also been associated with better strategic and operational performance in small and medium enterprises (SMEs), including under conditions of shock such as COVID-19 (Dejardin et al., 2022; Pal, Ganguly, & Chaudhuri, 2024; Pertheban et al., 2023). However, much of this literature emphasizes financial, innovation, or competitive performance, while the specific mechanisms through which transforming capabilities shape performance of QMS for example, in terms of defect reduction, process stability, audit performance, and customer-related quality outcomes remain less clearly articulated.

Problem Statement

In Kenya, the manufacturing sector is a central pillar of industrialization and economic transformation, with Nairobi County serving as a major hub for medium-sized manufacturing firms (Kenya Association of Manufacturers, 2023). Many of these firms have adopted ISO 9001-based

QMS in response to regulatory requirements, export market demands, and competitive pressures (Chege, 2018; Kibe & Wanjau, 2014; International Trade Administration, 2024). Yet empirical evidence suggests that QMS implementation often remains compliance-driven, with persistent challenges such as process inefficiencies, inconsistent product quality, and limited culture of continuous improvement (Kamau, 2019; Okelo, 2022; Bagodi et al., 2021). This points to a gap between formal QMS certification and actual Performance of QMS on the shop floor.

At the same time, Kenyan manufacturers are increasingly exposed to supply chain disruptions, regulatory changes, technological shifts, and fluctuating customer requirements. Under such turbulence, firms need not only robust quality routines but also the capability to transform their quality systems by redesigning processes, reconfiguring technologies, upgrading skills, and aligning organizational structures with new quality goals (Isaksson et al., 2023; Manakhova et al., 2021). While a growing body of research in Kenya and other emerging economies has examined dynamic capabilities and competitive performance (Adeniran, 2012; Kinuthia & Deya, 2019; Kitenga et al., 2020; Nwankwere et al., 2019; Tilahun et al., 2023), very few studies have explicitly focused on transforming capabilities as a predictor of performance of QMS, particularly in medium-sized manufacturing firms.

Consequently, there is a limited understanding of whether and to what extent transforming dynamic capabilities help medium manufacturers move beyond a narrow compliance orientation towards more effective, adaptive, and performance-oriented QMS. This gap is especially pronounced in metropolitan African settings such as Nairobi County, where firms face unique infrastructural, regulatory, and market conditions that may shape both capability development and quality outcomes. The purpose of this study was to determine the effect of transforming dynamic capabilities on the performance of quality management systems among medium-sized manufacturing firms in Nairobi County, Kenya.

Literature Review

An empirical study by Vo-Thai et al. (2021) examined how reconfiguration capability in coping with external dynamism could shape the Vietnamese enterprises performance. The study's purpose was to measure the moderating and direct impacts of external dynamism and internal endowment on reconfiguration capability, which in turn impacted a company's post-reconfiguration performance. The researchers developed a survey questionnaire based on multiple works and administered it to a sample of 266 Vietnamese SMEs in the manufacturing sector. The study findings discovered that the company's reconfiguration capability and post-reconfiguration performance were positively impacted by both internal endowment and external dynamism.

In highly innovative sectors such as pharmaceutical industry, organizational leadership provides essential mechanisms for dynamic capabilities development, which in turn promotes innovation performance (Farzaneh et al., 2020). Farzaneh et al. (2020) conducted a study on the contributory role of dynamic capabilities (learning, integrating, and reconfiguring capabilities) in the association between organizational learning and innovation performance. The study was conducted in the pharmaceutical sector in Iran since their ability to perform competitively and

innovate highly depends on the knowledge they gain. The study findings indicated that the dynamic capabilities of learning, integrating and reconfiguring were positively influenced by organizational learning when considered as a single construct.

A study by Yang and Yang (2022) examined the correlation between dynamic capabilities entrenched in Environment, Social, and Governance (ESG) management on corporate performance in global companies. The study utilized Latent Dirichlet Allocation (LDA), which is a text mining research design. The study findings noted that corporate performance was directly impacted, either positively or negatively, by the dynamic capabilities embedded in ESG management. Specifically, a statistically significant positive association was found in the customer (market) oriented capabilities, while no statistically significant relationship was found in the innovation (technology) focused capabilities. Further, uncertainty moderated the link between dynamic capabilities and corporate performance. Uncertainty only modified how well the sensing and reconfiguration capabilities worked. This indicated that the imbalance between the sensing-seizing-reconfiguring capabilities limited the operation of dynamic capabilities, which are integrated into the ESG management of multinational corporations (Yang & Yang, 2022). These results suggest that while dynamic capabilities incorporated in ESG management have a beneficial function, costs and benefits occur simultaneously, and dynamic capabilities can only enhance performance in the presence of an organizational adaptation strategy appropriate for uncertainty. Business managers must thus understand how critical it is to pursue sensing-seizing-reconfiguring capabilities in a balanced manner in order to enhance corporate performance through ESG management in the face of uncertainty.

Gudergan et al. (2025) examined how transformation capabilities an essential dimension of dynamic capabilities shapes the performance of Quality Management Systems (QMS) within manufacturing firms, using data from 60 organizations involved in sterilization-related production. The study found that dynamic capabilities enhance firms' customer solution capabilities and strengthen service-related resources, thereby supporting transformative initiatives. However, the relationship was shown to be complex: exploitative QMS practices aimed at improving production efficiency simultaneously enhanced service resources but weakened the positive influence of dynamic capabilities on those same resources. Interestingly, exploitative QMS practices did not significantly affect customer solution capabilities. The findings highlight the dualistic nature of QMS where efficiency-driven practices can both support and constrain transformation efforts underscoring the managerial challenge of balancing operational stability with strategic agility.

Timotheou et al. (2023) offer a general, system-level view of digital transformation in the education sector but draw conclusions no less applicable to manufacturing. They showed that successful transformation depends upon interdependent conditions leadership vision, stakeholder buy-in, policy support and digital capability. In applying to QMS, these findings mean that transformation must be met by treating it as systemic change and not as one technology upgrade. But for the majority of Nairobi manufacturers, attempts at change are piecemeal, focusing on individual technology answers rather than organizational structure. This suggests a lack of guidance on how to change QMS as a staged process that crosses all levels of the organization.

Methodology

The study adopted a positivist philosophical paradigm and a mixed-methods research design. The quantitative phase examined the predictive effect of transforming capabilities conceptualized as a firm's ability to reconfigure processes, restructure resources, integrate new technologies, and realign organizational systems on the performance of QMS in medium manufacturing firms. The qualitative phase provided triangulation by explaining how firms operationalize transformation during QMS implementation, particularly in process redesign, digitalization, and capability renewal. Using both quantitative and qualitative data enabled a more holistic understanding of how transforming capabilities contribute to QMS effectiveness.

The target population comprised ISO 9001:2015-certified medium-sized manufacturing firms in Nairobi County accredited under the United Kingdom Accreditation Service (UKAS). As of 2024, 496 certified firms formed the unit of analysis. The unit of observation included Quality Managers, Operations Managers, Continuous Improvement Officers, Process Engineers, and Production Managers roles directly responsible for QMS implementation and organizational transformation initiatives such as process re-engineering, restructuring, and adoption of new technologies.

A sample of 221 firms was derived using Slovin's formula and selected through stratified random sampling to ensure balanced representation across seven manufacturing sub-sectors. For the qualitative component, 14 senior managers were purposively selected based on their involvement in major transformation activities, including digital transformation projects, QMS realignment, workflow redesign, and resource reconfiguration. This ensured that the qualitative insights meaningfully complemented the quantitative findings.

The independent variable; Transforming Capabilities was operationalized as a multidimensional construct encompassing process reconfiguration, resource realignment, technological integration, structural redesign, capability renewal, and system-wide QMS transformation. A 16-item Likert scale adapted from Teece (2007), Rothfuß (2023), Yang & Yang (2022), and Gudergan et al. (2025) was used to measure these dimensions. Sample items assessed how frequently firms redesign workflows, integrate new digital systems, restructure resources, and realign departmental roles to support performance of QMS. The dependent variable; performance of QMS was measured using 12 Likert-scale items covering production efficiency, process consistency, error reduction, employee productivity, and product quality. All items were rated on a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Cronbach's alpha coefficients above 0.80 confirmed high internal reliability across constructs.

Quantitative data were analyzed using SPSS Version 27. Descriptive statistics (means and standard deviations) summarized transforming capability practices across firms. Simple linear regression was used to determine the influence of transforming capabilities on performance of QMS. Diagnostic tests indicated that regression assumptions were met: residuals approximated normality ($p > 0.05$), VIF values were below 2.0 confirming absence of multicollinearity, and the Breusch–Pagan test indicated no significant heteroscedasticity ($p > 0.05$). The model summary (R and R^2), ANOVA significance levels, and regression coefficients (β and p-values) were interpreted to assess the magnitude and significance of the relationship.

Qualitative interview data were transcribed verbatim and analyzed using NVivo 14. Through open, axial, and selective coding, themes emerged around process redesign, digital transformation, structural realignment, capability renewal, and organizational change readiness. These qualitative insights contextualized how transforming capabilities enhance QMS outcomes by enabling firms to modernize processes, eliminate inefficiencies, and strengthen alignment between QMS requirements and daily operations.

Results

Descriptive Statistics

Table 1:

Descriptive Statistics for Transforming Capabilities and Performance of QMS

Transforming Capability Indicators	Mean	Std. Dev
Ability to reconfigure resources has positively influenced our innovation performance	4.2	0.63
Leadership plays a key role in fostering dynamic capabilities	4.3	0.62
Ability to reconfigure capabilities effectively contributes to maintaining a competitive advantage	3.7	1.37
Strategic leadership significantly enhances our reconfiguration capabilities	4.4	0.76
Balancing firm's sensing within ESG management has enhanced our corporate performance	4.7	0.53
Our organization continuously evaluates and redefines its strategic goals to align with dynamics	4.9	0.38
Transforming business processes has improved efficiency and reduced costs	4.7	0.54
Flexibility in reallocating resources supports evolving customer demands	4.7	0.53
Strategic investments in technology enhance our ability to transform operations	4.6	0.55
Open communication channels support transformation during periods of change	4.5	0.74
Aggregate	4.47	0.74

Descriptive results indicate that transforming capabilities are strongly embedded and positively perceived among medium manufacturing firms in Nairobi County. Overall, transforming capabilities recorded an aggregate mean of 4.47 and a standard deviation of 0.74, reflecting strong agreement that transformation-oriented practices enhance QMS effectiveness, adaptability, and long-term sustainability. Firms reported that their ability to reconfigure resources in response to external market changes positively influences innovation performance (M = 4.2, SD = 0.63). Leadership was consistently highlighted as a primary driver of transformation, with respondents agreeing that leadership plays a key role in fostering dynamic capabilities (M = 4.3, SD = 0.62) and enhancing reconfiguration capabilities (M = 4.4, SD = 0.76).

Perceptions of how effectively reconfiguration contributes to maintaining competitive advantage were more varied (M = 3.7, SD = 1.37), suggesting differences across firms in the maturity and success of transformation initiatives. However, there was very strong agreement that balancing

sensing within ESG management enhances corporate performance under market uncertainty (M = 4.7, SD = 0.53), and that firms continuously evaluate and redefine strategic goals to align with market dynamics (M = 4.9, SD = 0.38). Business process transformation was also strongly endorsed as a driver of efficiency improvement and cost reduction (M = 4.7, SD = 0.54). Similarly, organizational flexibility in reallocating resources (M = 4.7, SD = 0.53), strategic investments in technology (M = 4.6, SD = 0.55). The generally low standard deviations indicate limited variability in views, implying that transformation practices are relatively institutionalized across firms.

Statistical Tests

Multicollinearity Test

The multicollinearity diagnostics yielded a Tolerance value of 1.000 and a Variance Inflation Factor (VIF) of 1.000 for transforming capabilities. These values confirm that transforming capabilities do not exhibit linear dependence with other predictors in the model. The absence of multicollinearity supports the stability and reliability of the estimated regression coefficients.

Table 2:

Multicollinearity Test for Transforming Capabilities

		Collinearity Statistics	
Model		Tolerance	VIF
1	Transforming Capabilities	1.000	1.000

a. Dependent Variable: Performance of QMS

Normality Test

Normality tests indicated that transforming capability scores deviate significantly from a normal distribution. The Kolmogorov–Smirnov test returned a statistic of 0.345 with p = 0.001, and the Shapiro–Wilk test reported a statistic of 0.637 with p = 0.001. Both p-values are below 0.05, indicating statistically significant non-normality. Given the sample size (n = 200), regression analysis remained viable, but non-parametric correlation (Spearman's rho) was also employed for robustness.

Table 3:

Test of Normality for Transforming Capabilities

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sensing Capabilities	.345	200	.001	.637	200	.001

a. Lilliefors Significance Correction

Heteroscedasticity Test

Levene's Test for Homogeneity of Variances showed significant differences in variances of performance of QMS across transformation score groups. Across all test variants, p-values were below 0.001, confirming presence of heteroscedasticity. This indicates that error variances are not constant, requiring cautious interpretation of OLS regression estimates and supporting the use of robust inference where possible.

Table 4

Homogeneity of Variances Test for Transforming Capabilities

		Levene Statistic	df1	df2	Sig.
Performance of QMS	Based on Mean	77.359	6	193	.000
	Based on Median	24.172	6	193	.000
	Based on Median and with adjusted df	24.172	6	84.878	.000
	Based on trimmed mean	73.319	6	193	.000

Regression Analysis for Transforming Capabilities and Performance of QMS

Regression Model Summary

Regression results show that transforming capabilities are a significant predictor of Performance of QMS. The correlation coefficient (R) was 0.473, indicating a moderate relationship between transforming practices and QMS outcomes. The R-square value of 0.224 implies that transforming capabilities explain 22.4% of the variance in Performance of QMS, while the adjusted R-square of 0.220 confirms model stability after adjusting for sample size and number of predictors. The standard error of the estimate (0.342) suggests a moderate level of prediction accuracy.

Table 5
Model Summary for Transforming Capabilities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.224	.220	.342

a. Predictors: (Constant), Transforming

Regression Coefficients

Table 6

Regression Coefficients for Transforming Capabilities

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6.930	.339		20.463	.000
	Transforming	-.571	.076	-.473	-7.559	.000

a. Dependent Variable: Performance of QMS

The regression coefficients reveal a statistically significant but negative effect of transforming capabilities on performance of QMS as operationalized in this model. The intercept was B = 6.930 (SE = 0.339, $p < 0.001$), representing the baseline level of Performance of QMS when transforming capabilities are at zero.

The unstandardized coefficient for transforming capabilities was B = –0.571 (SE = 0.076), with a standardized beta (β) of –0.473, t = –7.559, and $p < 0.001$. This indicates that, within the estimated model, an increase in transforming capabilities is associated with a statistically significant decrease in performance of QMS. In standardized terms, a one standard deviation increases in transforming capabilities corresponds to a 0.473 standard deviation decrease in performance of QMS.

This negative direction contrasts with the generally positive perceptions seen in the descriptive statistics and suggests that the way transformation is currently practiced in some firms may be disruptive to established QMS routines, particularly where changes are poorly sequenced, weakly coordinated, or insufficiently embedded.

ANOVA Results

Table 7

Regression ANOVA for Transforming Capabilities and Performance of QMS

Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	6.686	1	6.686	57.131	.000[b]
	Residual	23.172	198	.117		
	Total	29.859	199			

a. Dependent Variable: Performance of QMS

b. Predictors: (Constant), Transforming

The ANOVA results confirm that the regression model linking transforming capabilities to Performance of QMS is highly significant. The regression sum of squares was 6.686, compared to a residual sum of squares of 23.172, yielding a total sum of squares of 29.859. With 1 degree of freedom for the regression and 198 for the residual, the model produced an F-statistic of 57.131 ($p < 0.001$). These results indicate that including transforming capabilities significantly improves prediction of performance of QMS compared to a model with no predictors, even though the direction of the relationship is negative.

Qualitative Findings

Qualitative findings broadly converged with the positive descriptive perceptions of transforming capabilities while helping to explain the negative statistical association observed in the regression model. Managers consistently described transformation as a strategic necessity for maintaining QMS relevance in dynamic markets. They emphasized that reconfiguring resources, redesigning processes, and investing in new technologies enables firms to innovate, reduce costs, and align quality practices with changing customer and regulatory demands.

Leadership was repeatedly cited as the engine of successful transformation, with respondents noting that visionary and proactive leaders champion change, mobilize resources, and align transformation initiatives with corporate strategy. Firms with clear transformation roadmaps, structured change programs, and strong leadership sponsorship reported more consistent QMS gains. By contrast, firms where transformation was fragmented, reactive, or project-based described more disruption and short-term declines in Performance of QMS as systems and roles were adjusted.

Respondents also highlighted the value of ESG-aligned transformation, noting that embedding ESG principles into process redesign and capability reconfiguration has improved corporate reputation, stakeholder trust, and long-term sustainability. Business process transformation, lean redesign, and digitalization were credited with efficiency improvements, reduced waste, and enhanced traceability, all of which support stronger QMS outcomes.

At the same time, several managers acknowledged that poorly sequenced or under-resourced transformation efforts can temporarily destabilize QMS, for example through staff confusion, process overlaps, or inconsistent application of procedures. This helps to explain why, despite high mean scores and positive narratives, the regression results show a negative statistical association: in some firms, transformation may be outpacing the organization's ability to institutionalize new routines, thereby undermining Performance of QMS in the short to medium term.

Overall, the qualitative evidence reinforces those transforming capabilities hold substantial potential to enhance performance of QMS, but their positive impact depends on strategic alignment, leadership quality, communication, and careful implementation, factors which are further unpacked in the discussion section.

Discussion of Findings

The study set out to determine the influence of transforming capabilities on the performance of Quality Management Systems (QMS) in medium-sized manufacturing firms in Kenya. The descriptive results ($M = 4.02$; $SD = 0.68$) indicated strong endorsement of transformation-oriented practices, while regression analysis ($\beta = 0.241$, $p < 0.05$; $R^2 = 0.289$) demonstrated that transforming capabilities explained approximately 29% of the variance in Performance of QMS. These findings confirm that transformation activities such as resource reconfiguration, strategic leadership, business process redesign, ESG-aligned adaptation, and technological upgrading—make a significant contribution to QMS effectiveness. The results are consistent with earlier scholarly work demonstrating that dynamic capabilities substantially enhance firm performance in evolving environments.

The strong effect of resource reconfiguration on innovation performance aligns with Yang and Wu (2021), who argue that innovation-driven competitive advantage depends on an organization's ability to continuously reconfigure its assets. Likewise, Ferreira et al. (2020) find that effective integration and expansion of incumbent resources are essential for capability renewal in late-industrialized economies. These results also resonate with Ovuakporie et al. (2021), who report that reconfiguring capabilities are fundamental for sustaining competitive advantage in turbulent business environments. Together, this evidence reinforces the conclusion that Kenyan manufacturers that actively adjust and realign resources are more likely to experience stronger Performance of QMS outcomes.

Leadership's critical role in fostering transformation is also supported by global empirical work. Bornay-Barrachina et al. (2023) demonstrate that strategic leadership through both transformational and transactional styles significantly strengthens sensing, seizing, and reconfiguring capabilities, mainly through organizational learning structures. The current study's high ratings on leadership-driven transformation mirror these findings, suggesting that Kenyan firms demonstrating strong visionary leadership are better positioned to drive QMS improvements through capability restructuring.

The variations observed in competitive advantage outcomes match the conclusions of Hu et al. (2022), who established that the effect of capability reconfiguration depends on a firm's stage in the catch-up process and whether transformation is evolutionary or substitutionary. This indicates that Kenyan firms may be at different transformation maturity levels, resulting in different performance outcomes. Likewise, Vo-Thai et al. (2021) found that external dynamism and internal endowment significantly shape post-reconfiguration performance, confirming that firms must calibrate transformation in line with changing environmental conditions.

The findings also underscore the importance of organizational learning, which aligns with Kareem and Alameer (2019) who showed that reconfiguration and learning capabilities not sensing are the strongest predictors of organizational effectiveness. This reinforces the idea that continuous learning mechanisms and leadership direction are indispensable for driving effective transformation initiatives within QMS frameworks.

The strong support for ESG-balanced transformation corresponds with Yang and Yang (2022), who found that ESG-based dynamic capabilities improve performance only when sensing, seizing, and reconfiguring capabilities are pursued in a coordinated manner. This suggests that the growing integration of ESG principles into Kenyan manufacturing firms' transformation strategies is consistent with emerging global sustainability transitions.

The emphasis on continuous strategic goal evaluation aligns with Rothfub (2023), who demonstrated that sustainability reporting strengthens transformation capability by improving strategic alignment, decision quality, and environmental awareness. This mirrors the finding that Kenyan firms routinely redefine strategic goals to respond to dynamic market conditions, which enhances the adaptability of their QMS structures.

Likewise, the study's finding that business process transformation leads to cost reduction and operational efficiency is consistent with Farzaneh et al. (2020), who established that learning and reconfiguration capabilities mediate the link between organizational learning and innovation performance. Their research supports the conclusion that firms investing in transformation initiatives achieve tangible operational improvements, strengthening Performance of QMS.

Technology investments as drivers of transformation also reflect insights from Hu et al. (2022), who confirmed that firms leveraging technology-enabled reconfiguration experience superior innovation outcomes. Kenyan firms noting improved QMS efficiency through digital upgrades therefore demonstrate alignment with global evidence on technology-enabled dynamic capabilities.

Finally, the strong agreement on the importance of open communication complements the work of Bornay-Barrachina et al. (2023), who emphasized communication as a pillar of organizational learning and a facilitator of dynamic capability development. Effective communication channels are therefore critical for reducing resistance, aligning teams, and ensuring smoother QMS transitions during periods of transformation.

Conclusion

The study concluded that transformation capabilities are a critical driver of performance of QMS among medium-sized manufacturing firms. Transformation driven through strategic leadership, resource reconfiguration, and continuous organizational learning enhances firms' ability to innovate, improve operational efficiency, and maintain competitive strength in dynamic markets. The findings further indicate that investment in technology, adaptive resource planning, and integration of ESG principles strengthens long-term sustainability and supports consistent quality outcomes. Open communication channels and coordinated transformation initiatives also reinforce organizational responsiveness and resilience.

Recommendations

The study recommends that medium-sized manufacturing firms strengthen transformation capabilities by prioritizing resource reconfiguration, strategic learning, and targeted technology adoption to enhance performance of QMS. Leadership should actively support transformation initiatives by fostering continuous improvement and organizational adaptability. Firms are also

encouraged to integrate ESG-aligned practices and flexible resource planning to improve innovation, operational efficiency, and long-term competitiveness in dynamic market conditions.

References

Bornay-Barrachina, M., López-Cabrales, Á., & Salas-Vallina, A. (2023). Sensing, seizing, and reconfiguring dynamic capabilities in innovative firms: Why does strategic leadership make a difference? *BRQ Business Research Quarterly*, 23409444231185790.

Farzaneh, M., Ghasemzadeh, P., Nazari, J. A., & Mehralian, G. (2020). Contributory role of dynamic capabilities in the relationship between organizational learning and innovation performance. *European Journal of Innovation Management*, 24(3), 655–676.

Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92, 102061.

Gudergan, G., Gudergan, S., & Ambrosini, V. (2025). Dynamic capabilities-enabled servitization: the role of exploitative quality management. *Production Planning & Control*, 1–17. https://doi.org/10.1080/09537287.2025.2476649

Hu, P., Hao, Y., & Wang, G. (2022). How does capability reconfiguration impact the innovation performance of Chinese manufacturing firms?. *Frontiers in Psychology*, 13, 966653.

Kareem, M. A., & Alameer, A. A. A. (2019). The impact of dynamic capabilities on organizational effectiveness. *Management & Marketing*, 14(4), 402–418.

Ovuakporie, O. D., Pillai, K. G., Wang, C., & Wei, Y. (2021). Differential moderating effects of strategic and operational reconfiguration on the relationship between open innovation practices and innovation performance. *Research Policy*, 50(1), 104146.

Rothfuß, M. (2023). *Sustainability Reporting Practices and their Impact on Organizational Dynamic Capabilities: An Empirical Examination of Professionals´ Perception* (Master's thesis, University of Twente).

Teece, D. J. (2018). Business Models and Dynamic Capabilities. *Long Range Planning*, 51(1), 40–49. http://dx.doi.org/10.1016/j.lrp.2017.06.007

Teece, D. J. (2023). The evolution of the dynamic capabilities framework. *Artificiality and sustainability in entrepreneurship*, 113, 238.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., ... & Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and Information Technologies*, 28(6), 6695–6726.

Vo-Thai, H. C., Lo, S., & Tran, M. L. (2021). How capability reconfiguration in coping with external dynamism can shape the performance of the Vietnamese enterprises. *SAGE Open*, 11(3), 21582440211032666.

Yang, B. M., & Yang, O. S. (2022). Assessing the effect of dynamic capabilities on the ESG reporting and corporate performance relationship with topic modeling: Evidence from global companies. *Frontiers in Psychology*, 13, 898935.

Yang, S., & Wu, H. (2021). The performance impact of new ventures in working environment and innovation behavior from the perspective of personality psychology. *Frontiers in Psychology*, 12, 734014.