

Assessing the Influence of Strategic Orientation on Sustained Competitive Advantage: A Study of the Kenyan Pharmaceutical Industry

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Abstract

The pharmaceutical industry in Kenya operates within an increasingly competitive and regulated environment characterized by market fragmentation, supply chain constraints, rising healthcare demands, and growing pressure to improve organizational performance. Sustained competitive advantage has therefore become a strategic imperative for pharmaceutical firms seeking long-term survival and growth. While strategic orientation has been widely recognized as a critical driver of organizational success, limited empirical evidence exists on the combined influence of product, market, alliance, and entrepreneurial orientations on sustained competitive advantage within the Kenyan pharmaceutical sector. This study examined the influence of strategic orientation on sustained competitive advantage among pharmaceutical firms in Kenya. The study adopted a post-positivist research philosophy and an explanatory research design. Data were collected from functional managers and senior executives drawn from pharmaceutical firms operating in Kenya using a structured questionnaire. A total of 343 valid responses were analyzed. Pearson correlation analysis, multiple regression analysis, and analysis of variance were used to examine the relationships between strategic orientation dimensions and sustained competitive advantage. The findings revealed that all strategic orientation dimensions were positively associated with sustained competitive advantage. Product orientation exhibited a significant positive relationship with sustained competitive advantage ($r = 0.272$, $p < 0.001$), followed by alliance orientation ($r = 0.268$, $p < 0.001$), market orientation ($r = 0.230$, $p < 0.001$), and entrepreneurial orientation ($r = 0.194$, $p < 0.001$). The multiple regression model was statistically significant ($F = 20.219$, $p < 0.001$) and explained 19.3% of the variation in sustained competitive advantage ($R^2 = 0.193$). Product orientation emerged as the strongest predictor of sustained competitive advantage ($\beta = 0.392$, $p < 0.001$), followed by alliance orientation ($\beta = 0.344$, $p < 0.001$) and market orientation ($\beta = 0.341$, $p < 0.001$). Entrepreneurial orientation demonstrated a positive but marginally non-significant effect ($\beta = 0.170$, $p = 0.053$). The study concludes that strategic orientation is a significant determinant of sustained competitive advantage among pharmaceutical firms in Kenya. Product orientation, market orientation, and alliance orientation exert robust and independent influences on competitive performance, while entrepreneurial orientation plays a complementary role.

Pharmaceutical firms should strengthen product development capabilities, enhance market responsiveness, and cultivate strategic partnerships to improve their long-term competitiveness. The findings provide important insights for managers, policymakers, and industry stakeholders seeking to enhance the competitiveness and sustainability of Kenya's pharmaceutical sector.

Keywords: Strategic orientation; Product orientation; Market orientation; Alliance orientation; Entrepreneurial orientation; Sustained competitive advantage; Pharmaceutical firms; Kenya.

Introduction

The pharmaceutical industry plays a critical role in strengthening health systems, ensuring access to essential medicines, and supporting economic development. Globally, pharmaceutical firms operate in an increasingly complex environment characterized by rapid technological change, evolving regulatory requirements, intensified competition, and growing demands for affordable and high-quality healthcare products. These dynamics have heightened the importance of sustained competitive advantage as a strategic objective for pharmaceutical organizations seeking long term growth and survival. Firms are increasingly required to develop distinctive capabilities that enable them to respond effectively to changing market conditions while maintaining superior performance relative to competitors. Consequently, understanding the strategic factors that contribute to sustained competitive advantage has become a major concern for both scholars and practitioners in strategic management and pharmaceutical business development.

Strategic orientation has emerged as one of the most important organizational capabilities influencing long term firm performance. Strategic orientation refers to the principles and strategic behaviors that guide how organizations interact with their external environment, allocate resources, identify opportunities, and pursue competitive positioning. Prior studies suggest that firms with strong strategic orientations are better able to adapt to environmental uncertainty, create value for customers, and sustain competitive performance over time (Hakala et al., 2019; Teece, 2018). Among pharmaceutical firms, strategic orientation is particularly important because organizations operate in markets characterized by stringent regulatory controls, high research and development costs, lengthy product development cycles, and intense competition from both local and multinational manufacturers. Consequently, firms must adopt strategic approaches that simultaneously strengthen internal capabilities and enhance responsiveness to external market conditions.

Product orientation represents one of the principal dimensions through which pharmaceutical firms pursue competitive advantage. Product oriented firms emphasize innovation, quality enhancement, regulatory compliance, and continuous improvement of pharmaceutical products to differentiate themselves from competitors. In the pharmaceutical sector, where product reliability, safety, and therapeutic effectiveness are central determinants of customer trust and regulatory approval, product orientation enables firms to build strong reputations and achieve market differentiation. Investments in product quality, formulation improvements, manufacturing excellence, and innovation have been associated with superior organizational outcomes and stronger competitive positioning in both developed and emerging pharmaceutical markets (Nguyen & Timilsina, 2023; Bhatnagar et al., 2023).

Market orientation constitutes another critical strategic capability that enables firms to align their products and services with customer needs, competitor actions, and changing market conditions. Market oriented firms systematically gather and utilize market intelligence to improve decision making, anticipate customer preferences, and respond effectively to environmental changes. Within the pharmaceutical industry, market orientation extends beyond patients to include healthcare providers, regulators, distributors, and public health institutions whose decisions significantly influence market success. Firms that effectively understand and respond to stakeholder expectations are better positioned to maintain customer loyalty, strengthen brand reputation, and achieve superior performance outcomes (Haneda & Ono, 2024; Shanka et al., 2025).

Alliance orientation has also gained increasing prominence as pharmaceutical firms seek to access complementary resources, reduce operational risks, and accelerate innovation. Strategic partnerships with suppliers, distributors, research institutions, government agencies, and healthcare organizations provide firms with opportunities to strengthen their capabilities while overcoming resource constraints. The growing complexity of pharmaceutical supply chains, regulatory requirements, and product development processes has made collaboration an increasingly important mechanism for enhancing competitiveness. Studies suggest that alliance-oriented firms are more likely to achieve innovation success, improve operational efficiency, and strengthen their long-term market position through access to shared knowledge, technologies, and distribution networks (Prashant & Harbir, 2009; Morales Alonso et al., 2025).

Entrepreneurial orientation provides a complementary strategic perspective by emphasizing innovativeness, proactiveness, and risk-taking behavior. Entrepreneurially oriented firms actively seek new opportunities, challenge existing market structures, and invest in innovative approaches that create competitive differentiation. In pharmaceutical markets characterized by technological disruption, changing disease patterns, and evolving consumer expectations, entrepreneurial orientation enables firms to respond proactively to emerging opportunities and environmental uncertainties. Through innovation, experimentation, and strategic flexibility, entrepreneurial firms can strengthen their adaptive capacity and sustain competitiveness in dynamic business environments (Seo & Park, 2022).

The importance of strategic orientation is particularly evident within Kenya's pharmaceutical industry. The sector operates within an environment characterized by heavy dependence on imported pharmaceutical inputs, increasing competition from multinational corporations, regulatory complexity, fragmented distribution systems, and growing demand for affordable healthcare products. Although the industry has experienced significant growth over the past decade, many firms continue to face challenges related to innovation capacity, market access, supply chain efficiency, and long-term competitiveness (Ministry of Health, 2020; Kimotho & Kariuki, 2024). These challenges have intensified the need for pharmaceutical firms to adopt strategic orientations that strengthen their ability to compete effectively while adapting to evolving market conditions.

Despite growing recognition of the importance of strategic orientation, existing studies have largely examined product orientation, market orientation, alliance orientation, and entrepreneurial orientation as independent constructs. Consequently, limited empirical evidence exists regarding their combined influence on sustained competitive advantage, particularly within the context of pharmaceutical firms operating in emerging economies. Furthermore, much of the available

literature has been conducted in developed economies whose institutional environments differ substantially from those found in Kenya. As a result, the applicability of existing findings to the Kenyan pharmaceutical sector remains uncertain.

The persistence of competitive challenges within Kenya's pharmaceutical industry suggests that many firms continue to struggle in translating strategic initiatives into sustainable performance outcomes. Although firms invest in product quality improvement, customer engagement, strategic partnerships, and innovative business practices, variations in competitive performance remain evident across the sector. These disparities indicate that the relationship between strategic orientation and sustained competitive advantage is not yet fully understood within the Kenyan context. Without robust empirical evidence, managers and policymakers lack sufficient guidance regarding the strategic capabilities that contribute most significantly to long term competitiveness.

Addressing this knowledge gap is important given the strategic role of the pharmaceutical industry in supporting national health outcomes and economic development. Understanding how strategic orientation influences sustained competitive advantage can provide valuable insights for organizational leaders seeking to strengthen competitiveness while informing policy interventions aimed at enhancing the performance of local pharmaceutical firms. This study therefore sought to examine the influence of strategic orientation on sustained competitive advantage among pharmaceutical firms in Kenya.

The primary objective of the study was to examine the influence of strategic orientation on sustained competitive advantage among pharmaceutical firms in Kenya. Specifically, the study evaluated the influence of product orientation, market orientation, alliance orientation, and entrepreneurial orientation on sustained competitive advantage. To empirically test these relationships, the study was guided by the following hypotheses:

- i. H₀₁: Product orientation has no statistically significant influence on sustained competitive advantage among pharmaceutical firms in Kenya.
- ii. H₀₂: Market orientation has no statistically significant influence on sustained competitive advantage among pharmaceutical firms in Kenya.
- iii. H₀₃: Alliance orientation has no statistically significant influence on sustained competitive advantage among pharmaceutical firms in Kenya.
- iv. H₀₄: Entrepreneurial orientation has no statistically significant influence on sustained competitive advantage among pharmaceutical firms in Kenya.

This study contributes to theory, policy, and managerial practice within the pharmaceutical sector. Theoretically, it extends strategic management literature by examining strategic orientation as a multidimensional capability that influences sustained competitive advantage in a highly regulated and knowledge intensive industry. Empirically, the study provides evidence on the relative contribution of product, market, alliance, and entrepreneurial orientations to long term competitive performance among pharmaceutical firms operating in an emerging economy. From a managerial perspective, the findings offer guidance to pharmaceutical executives on the strategic capabilities that should be prioritized to strengthen organizational competitiveness. The study also provides insights for policymakers and industry stakeholders seeking to support the growth, resilience, and sustainability of Kenya's pharmaceutical industry through policies that encourage innovation, collaboration, market responsiveness, and strategic capability development.

Materials and Methods

Study Design and Setting

This study adopted a post-positivist research philosophy and employed an explanatory research design to examine the influence of strategic orientation on sustained competitive advantage among pharmaceutical firms in Kenya. Explanatory research designs are appropriate when the objective is to establish and quantify causal relationships among variables and test theoretically derived hypotheses using empirical evidence (Creswell & Creswell, 2018; Saunders et al., 2019). The design enabled the study to evaluate the extent to which product orientation, market orientation, alliance orientation, and entrepreneurial orientation influence sustained competitive advantage within pharmaceutical firms operating in a dynamic and highly regulated environment.

The study was conducted among pharmaceutical firms operating in Kenya, including local manufacturers, importers, distributors, and wholesale pharmaceutical organizations. Kenya's pharmaceutical sector is one of the most developed in East Africa and plays a critical role in ensuring access to medicines and healthcare commodities. However, the sector operates within an increasingly competitive environment characterized by stringent regulatory requirements, dependence on imported raw materials, market fragmentation, supply chain disruptions, and growing competition from multinational corporations (Ministry of Health, 2020; Mackintosh et al., 2018). These structural characteristics make the industry an appropriate context for examining how strategic orientation contributes to sustained competitive advantage. Furthermore, increasing pressure on pharmaceutical firms to innovate, strengthen market responsiveness, develop strategic partnerships, and pursue entrepreneurial opportunities has heightened the importance of strategic management capabilities as determinants of long-term competitiveness.

Study Population and Sampling

The target population comprised functional managers and senior executives drawn from registered pharmaceutical firms operating in Kenya. These respondents included managers responsible for strategy, operations, marketing, business development, regulatory affairs, supply chain management, finance, and organizational performance oversight. Their inclusion was considered appropriate because they possess direct knowledge of strategic decision-making processes and organizational initiatives related to product development, market engagement, alliance formation, entrepreneurial activities, and competitive positioning.

Sampling refers to the process of selecting a representative subset of individuals from a population to facilitate valid inferences regarding the broader population under investigation (Bryman, 2016). To ensure adequate representation across different categories of pharmaceutical firms, the study employed a stratified random sampling technique. Stratification was considered appropriate because the pharmaceutical industry consists of firms that vary substantially in terms of operational scope, ownership structure, and market orientation. By dividing the population into homogeneous strata and subsequently selecting respondents through random sampling procedures, the study enhanced representativeness and reduced sampling bias (Saunders et al., 2019).

The study targeted 460 respondents drawn from the identified pharmaceutical firms. A total of 343 valid questionnaires were successfully completed and returned, representing a response rate of 74.6 percent. According to Babbie (2020), response rates exceeding 70 percent are considered highly satisfactory in organizational research and provide sufficient confidence regarding the

representativeness of collected data. Similarly, Baruch and Holtom (2008) argue that response rates above 70 percent substantially reduce concerns regarding non-response bias and support robust statistical inference. Consequently, the achieved sample was considered adequate for regression analysis and hypothesis testing.

Table 1:
Target Population and Sample Size Distribution

Stratum (Functional Managers)	Total No.	Sample %	Sample No.
Pharmaceutical Manufacturers	54	7%	34
Importing And Wholesale Distribution Pharmaceutical Firms	682	93%	426
Total	736	100%	460

Data Collection Procedures

Primary data were collected using a structured questionnaire administered to functional managers and senior executives within the selected pharmaceutical firms. The questionnaire was developed based on established measures from strategic management literature and operationalized the study variables using multiple indicators measured on a five-point Likert scale ranging from one representing strongly disagree to five representing strongly agree. Product orientation was assessed using indicators related to product quality, innovation, reliability, regulatory compliance, and continuous improvement. Market orientation was measured through items capturing customer responsiveness, competitor awareness, and market intelligence utilization. Alliance orientation focused on strategic partnerships, collaborative relationships, and resource sharing arrangements, while entrepreneurial orientation captured innovativeness, proactiveness, and risk-taking tendencies. Sustained competitive advantage was operationalized using indicators relating to market positioning, organizational performance, competitive resilience, and long-term strategic success.

Composite indices for each construct were generated through mean aggregation of the respective scale items. Mean aggregation is widely recommended in organizational research because it preserves scale properties while facilitating interpretation of regression coefficients and relationships among variables (Hair et al., 2022). Prior to the main survey, the questionnaire was subjected to validity and reliability assessment. Construct validity was evaluated using exploratory factor analysis, while internal consistency reliability was assessed using Cronbach's alpha coefficients. All study constructs exceeded the minimum reliability threshold of 0.70 recommended by Nunnally and Bernstein (1994), confirming acceptable reliability of the measurement scales.

Data Analysis Techniques

Data were coded, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including means and standard deviations, were computed to summarize respondents' perceptions regarding strategic orientation dimensions and sustained

competitive advantage. Descriptive analysis facilitated assessment of central tendencies and variability within the study variables prior to inferential analysis (Hair et al., 2022).

Inferential analysis was undertaken using Pearson correlation analysis and multiple regression analysis. Pearson correlation coefficients were computed to determine the direction and strength of the relationships between product orientation, market orientation, alliance orientation, entrepreneurial orientation, and sustained competitive advantage. Multiple regression analysis was subsequently employed to examine the combined influence of the strategic orientation dimensions on sustained competitive advantage. Multiple regression is considered appropriate when assessing the predictive contribution of multiple independent variables on a single dependent variable while controlling for the effects of other predictors (Field, 2018; Gujarati & Porter, 2009).

The regression model was specified as:

$$SCA = \beta_0 + \beta_1 PO + \beta_2 MO + \beta_3 AO + \beta_4 EO + \varepsilon$$

Where:

SCA = Sustained Competitive Advantage

PO = Product Orientation

MO = Market Orientation

AO = Alliance Orientation

EO = Entrepreneurial Orientation

β_0 = Constant term

β_1 – β_4 = Regression coefficients

ε = Error term

The overall significance of the regression model was assessed using the F statistic, while explanatory power was evaluated using the coefficient of determination (R^2). Statistical significance of individual regression coefficients was assessed using t tests at a significance level of 0.05. Prior to model estimation, diagnostic tests for normality, homoscedasticity, independence of errors, and multicollinearity were conducted to verify compliance with the assumptions underlying multiple regression analysis (Field, 2018; Hair et al., 2022). This analytical framework enabled the study to determine the extent to which strategic orientation contributes to sustained competitive advantage among pharmaceutical firms in Kenya.

Results

A total of 343 valid questionnaires were included in the analysis. Pearson correlation analysis was conducted to examine the relationships among the strategic orientation dimensions and sustained competitive advantage. As shown in Table 2, all four strategic orientation dimensions were positively and significantly associated with sustained competitive advantage.

Table 2:

Pearson Correlation Matrix for Strategic Orientations and Sustained Competitive Advantage

Variable	Measure	Product Orientation	Market Orientation	Alliance Orientation	Entrepreneurial Orientation	Sustained Competitive Advantage
Product Orientation	Pearson Correlation	1.000	0.033	0.062	0.020	0.272**
	Sig. (2-tailed)		0.544	0.252	0.710	0.000
	N	343	343	343	343	343
Market Orientation	Pearson Correlation	0.033	1.000	0.023	0.050	0.230**
	Sig. (2-tailed)	0.544		0.665	0.354	0.000
	N	343	343	343	343	343
Alliance Orientation	Pearson Correlation	0.062	0.023	1.000	0.363**	0.268**
	Sig. (2-tailed)	0.252	0.665		0.000	0.000
	N	343	343	343	343	343
Entrepreneurial Orientation	Pearson Correlation	0.020	0.050	0.363**	1.000	0.194**
	Sig. (2-tailed)	0.710	0.354	0.000		0.000
	N	343	343	343	343	343
Sustained Competitive Advantage	Pearson Correlation	0.272**	0.230**	0.268**	0.194**	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	343	343	343	343	343

Product orientation exhibited a positive correlation with sustained competitive advantage ($r = 0.272$, $p < 0.001$), indicating that firms emphasizing product quality, innovation, and differentiation were more likely to report stronger competitive positions. Market orientation also demonstrated a significant positive relationship with sustained competitive advantage ($r = 0.230$, $p < 0.001$), suggesting that firms that actively monitor customer needs and market changes tend to achieve superior long-term performance. Alliance orientation showed a positive and statistically significant correlation with sustained competitive advantage ($r = 0.268$, $p < 0.001$), while entrepreneurial orientation recorded a positive but comparatively weaker correlation ($r = 0.194$, $p < 0.001$). The intercorrelations among the independent variables were generally low to moderate, with the strongest association observed between alliance orientation and entrepreneurial

orientation ($r = 0.363$, $p < 0.001$), indicating that multicollinearity was unlikely to present a significant concern in the regression analysis.

Table 3 presents the model summary for the multiple regression analysis examining the combined influence of strategic orientations on sustained competitive advantage.

Table 3:

Model Summary for the Regression of Strategic Orientation and Sustained Competitive Advantage

Model	R	R Square	Adjusted R Square	Standard Error
1	0.439	0.193	0.184	0.757

The results indicate a moderate positive relationship between the predictor variables and sustained competitive advantage ($R = 0.439$). The coefficient of determination ($R^2 = 0.193$) shows that product orientation, market orientation, alliance orientation, and entrepreneurial orientation collectively explained 19.3% of the variance in sustained competitive advantage among pharmaceutical firms in Kenya. The adjusted R^2 value of 0.184 suggests that the explanatory power of the model remains stable after accounting for the number of predictors included in the analysis. The standard error of estimate was 0.757, indicating an acceptable level of prediction accuracy.

The overall significance of the regression model was assessed using analysis of variance (ANOVA). As presented in Table 4, the regression model was statistically significant, $F(4,338) = 20.219$, $p < 0.001$.

Table 4:

Analysis of Variance for Strategic Direction and Sustained Competitive Advantage

Source	SS	DF	MS	F	Significance F
Regression	46.314	4	11.579	20.219	6.04e-15
Residual	193.559	338	0.573		
Total	239.873	342			

The findings demonstrate that the combined effect of the strategic orientation dimensions significantly predicts sustained competitive advantage among pharmaceutical firms in Kenya. This result supports the proposition that strategic orientation constitutes an important organizational capability for achieving and maintaining superior competitive performance.

Table 5 presents the regression coefficients for the individual strategic orientation dimensions. Product orientation emerged as the strongest predictor of sustained competitive advantage ($\beta = 0.392$, $t = 5.109$, $p < 0.001$).

The estimated regression model examining the influence of strategic orientation on sustained competitive advantage among pharmaceutical firms in Kenya was specified as:

$$SCA = -0.757 + 0.392(PO) + 0.341(MO) + 0.344(AO) + 0.170(EO) + \varepsilon$$

The model indicates that, holding all other variables constant, a one-unit increase in Product Orientation is associated with a 0.392-unit increase in Sustained Competitive Advantage. Similarly, a one-unit increase in Market Orientation and Alliance Orientation is associated with increases of 0.341 and 0.344 units respectively. Entrepreneurial Orientation was associated with a 0.170-unit increase in Sustained Competitive Advantage, although its effect was only marginally significant ($p = 0.053$). The positive coefficients across all strategic orientation dimensions suggest that improvements in these strategic capabilities contribute positively to the competitive positioning of pharmaceutical firms.

Table 5:

Regression Coefficients for Strategic Direction and Sustained Competitive Advantage

Model	Term	Estimate	Std Error	t value	P value
Sustained Competitive Advantage ~ (Product Orientation, Market Orientation, Alliance Orientation, Entrepreneurial Orientation)	Intercept	-0.757	0.425	-1.781	0.0758
	Product Orientation	0.392	0.077	5.109	5.43e-07
	Market Orientation	0.341	0.079	4.335	1.92e-05
	Alliance Orientation	0.344	0.086	4.001	7.75e-05
	Entrepreneurial Orientation	0.17	0.087	1.942	0.0530

This finding further suggests that pharmaceutical firms that prioritize product quality, innovation, regulatory compliance, and product reliability are more likely to achieve superior competitive outcomes. The positive coefficient indicates that improvements in product orientation are associated with corresponding increases in sustained competitive advantage. Market orientation also exhibited a positive and statistically significant influence on sustained competitive advantage ($\beta = 0.341$, $t = 4.335$, $p < 0.001$). The result implies that firms that systematically gather market intelligence, understand customer needs, monitor competitors, and respond effectively to environmental changes are better positioned to sustain competitive advantage. The significance of market orientation highlights the importance of customer responsiveness and market awareness within the highly competitive pharmaceutical sector.

Similarly, alliance orientation demonstrated a positive and significant effect on sustained competitive advantage ($\beta = 0.344$, $t = 4.001$, $p < 0.001$). The findings suggest that strategic partnerships, collaborative arrangements, and interorganizational networks contribute meaningfully to long-term competitiveness by facilitating access to resources, knowledge, technologies, and market opportunities that may not be readily available internally. Entrepreneurial orientation recorded a positive coefficient ($\beta = 0.170$), indicating that proactive behavior, innovativeness, and risk-taking tendencies may contribute positively to competitive performance. However, the relationship did not attain conventional levels of statistical significance ($t = 1.942$, $p = 0.053$). This finding suggests that while entrepreneurial orientation may play a supportive role

in enhancing competitiveness, its independent contribution becomes less pronounced when product, market, and alliance orientations are considered simultaneously.

The results indicate that strategic orientation significantly influences sustained competitive advantage among pharmaceutical firms in Kenya. Product orientation, market orientation, and alliance orientation emerged as significant predictors of competitive success, while entrepreneurial orientation exhibited a weaker and marginally non-significant influence within the integrated model. These findings underscore the importance of adopting a multidimensional strategic orientation framework to strengthen long-term competitiveness in the pharmaceutical industry.

Discussion

The findings of this study demonstrate that strategic orientation exerts a positive and statistically significant influence on sustained competitive advantage among pharmaceutical firms in Kenya. The regression model explained 19.3% of the variation in sustained competitive advantage and confirmed that product orientation, market orientation, and alliance orientation are significant predictors of competitive performance. These findings suggest that pharmaceutical firms achieve superior long-term competitiveness when they simultaneously invest in product excellence, market responsiveness, and collaborative partnerships. The results support the Resource Based View, which posits that firms achieve sustained competitive advantage through the development and deployment of valuable organizational capabilities that are difficult for competitors to imitate (Barney, 1991). The findings further indicate that strategic orientation should be viewed as a multidimensional capability rather than as isolated strategic practices.

Product orientation emerged as the strongest predictor of sustained competitive advantage. This finding suggests that investments in product quality, innovation, reliability, and regulatory compliance constitute important sources of competitive differentiation within the pharmaceutical industry. The result is consistent with the findings of Hakala et al. (2019), who reported that product focused organizations achieve superior performance through continuous innovation and quality improvement. Similarly, Nguyen and Timilsina (2023) found that product innovation enhances long term competitiveness by strengthening market positioning and customer trust. The findings also support those of Bhatnagar et al. (2023), who observed that firms possessing strong innovation capabilities are more likely to sustain competitive advantages in highly regulated industries. Given the critical importance of safety, efficacy, and quality in pharmaceutical markets, the strong influence of product orientation observed in this study is both theoretically and practically expected.

Market orientation also demonstrated a positive and statistically significant influence on sustained competitive advantage. This finding indicates that firms that actively monitor customer needs, competitor activities, and changing market conditions are better positioned to achieve long term success. The result corroborates the findings of Haneda and Ono (2024), who found that market intelligence and customer responsiveness significantly improve organizational performance. Similarly, Shanka et al. (2025) reported that market oriented firms consistently outperform competitors because they align their strategic decisions with evolving stakeholder expectations. The findings are further supported by Nasiri et al. (2022), who concluded that market sensing capabilities enhance organizational agility and strategic decision making. Collectively, these

studies suggest that pharmaceutical firms that maintain strong market awareness are more capable of adapting to changing healthcare demands and competitive pressures.

Alliance orientation was also found to significantly influence sustained competitive advantage, highlighting the importance of collaborative relationships within the pharmaceutical sector. Strategic alliances provide firms with access to complementary resources, technical expertise, distribution networks, and market opportunities that may not be readily available internally. This finding is consistent with Kale and Singh (2019), who found that alliance capabilities enhance firm performance by facilitating resource sharing and knowledge transfer. Similarly, Morales-Alonso et al. (2025) reported that strategic partnerships strengthen innovation capacity and organizational competitiveness. Mackintosh et al. (2018) further demonstrated that collaborative arrangements within pharmaceutical value chains improve operational resilience and supply chain efficiency. The present findings therefore reinforce the growing body of evidence suggesting that alliance orientation is an important strategic mechanism for sustaining competitiveness in increasingly complex and resource constrained business environments.

Although entrepreneurial orientation exhibited a positive regression coefficient ($\beta = 0.170$), its independent contribution to sustained competitive advantage did not attain conventional statistical significance when product orientation, market orientation, and alliance orientation were entered simultaneously into the regression model ($p = 0.053$). This finding suggests that, within the Kenyan pharmaceutical sector, entrepreneurial orientation is associated with competitive advantage but does not constitute a primary independent predictor once the effects of the other strategic orientations are taken into account. Instead, its influence appears to be comparatively secondary to product, alliance, and market orientations in the multivariable model.

This finding partially supports previous studies by Dahir, Kimwolo and Muthoni (2026) and Seo and Park (2022), which reported positive associations between entrepreneurial orientation and organizational performance. However, the present findings indicate that entrepreneurial orientation may function primarily as an enabling strategic capability that complements product innovation, market responsiveness, and collaborative partnerships rather than independently driving sustained competitive advantage. Accordingly, while entrepreneurial orientation remains strategically important for fostering innovation, adaptability, and long-term organizational renewal, pharmaceutical firms seeking immediate improvements in competitive performance should place greater emphasis on strengthening product orientation, alliance orientation, and market orientation, which demonstrated statistically significant and stronger independent predictive effects in the integrated regression model.

Conclusion and Recommendation

This study provides empirical evidence that sustained competitive advantage among pharmaceutical firms in Kenya is fundamentally shaped by strategic orientation. The findings demonstrate that firms are more likely to achieve enduring competitive positions when they develop capabilities that simultaneously strengthen product quality and innovation, enhance responsiveness to market conditions, and leverage collaborative partnerships. Among the strategic dimensions examined, product orientation emerged as the most influential driver of competitive advantage, underscoring the importance of product reliability, quality assurance, and continuous innovation in a highly regulated industry where trust and compliance are critical determinants of market success. The significance of market orientation and alliance orientation further suggests

that competitive advantage is not achieved solely through internal capabilities but also through an organization's ability to understand its environment and mobilize resources beyond its organizational boundaries. Collectively, the findings indicate that competitive success within Kenya's pharmaceutical sector is increasingly dependent on the integration of complementary strategic capabilities rather than reliance on isolated strategic initiatives.

The study recommends that pharmaceutical firms adopt a more balanced and integrated strategic orientation framework that simultaneously prioritizes product excellence, market intelligence, and collaborative capability development. Managers should move beyond short term operational objectives and invest in long term strategic capabilities that enhance innovation, strengthen customer and stakeholder relationships, and improve organizational adaptability. Particular emphasis should be placed on strengthening research and development activities, improving quality management systems, and developing robust market sensing mechanisms that enable firms to anticipate changes in customer needs, regulatory requirements, and competitive conditions. In addition, firms should cultivate strategic partnerships with suppliers, research institutions, healthcare providers, and distribution partners as a means of accessing complementary expertise, reducing operational vulnerabilities, and accelerating innovation.

From a policy perspective, the findings suggest that efforts aimed at strengthening the competitiveness of Kenya's pharmaceutical industry should extend beyond financial incentives and focus on building an ecosystem that supports innovation, collaboration, and capability development. Policymakers should promote industry-academia linkages, strengthen support for pharmaceutical research and development, enhance regulatory efficiency, and facilitate collaborative platforms that encourage knowledge exchange across the pharmaceutical value chain. Such interventions would not only improve the competitiveness of individual firms but also contribute to broader national objectives related to pharmaceutical self-sufficiency, healthcare resilience, industrial development, and sustainable economic growth. Ultimately, the future competitiveness of Kenya's pharmaceutical sector will depend on the ability of firms and policymakers to jointly cultivate the strategic capabilities necessary to compete in an increasingly complex and globally interconnected healthcare marketplace.

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Conflict of Interest Statement

The authors declare no conflict of interest.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions:

We the authors, declare that each author contributed significantly to the conception, research, writing and preparation of the final work.

Ethical Approval and Research License

Ethical approval for this study was obtained from United States International University-Africa Research Ethics Committee and NACOSTI (License No: *NACOSTI/P/25/416838*).

Licensing Statement

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References

- Atieno, L. (2019). Pharmaceutical Industry in Kenya 2019. Pharma Boardroom. <https://pharmaboardroom.com/articles/pharmaceutical-industry-kenya-2019-kenyan-pharma-sector-future-projections/>
- Babbie, E. (2020). *The practice of social research* (15th ed.). Cengage Learning. <http://red.wutf.space/books5/?k=113359414X&b=books&d=21-04-08&l=VisitedAll&fsig=f82b0d1&dm=b3JkZXItcGFwZXJzLmNvbQ==>
- Barney, J. (1991). *Firm resources and sustained competitive advantage*. Journal of Management, 17(1), 99–120.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139–1160. <https://doi.org/10.1177/0018726708094863>
- Bhatnagar, B., Dörfler, V., & MacBryde, J. (2023). Navigating the open innovation paradox: an integrative framework for adopting open innovation in pharmaceutical R&D in developing countries. *The Journal of Technology Transfer*, 48(6), 2204–2248. <https://doi.org/10.1007/s10961-022-09958-6>
- Bhatnagar, B., Dörfler, V., & MacBryde, J. (2023). Navigating the open innovation paradox: an integrative framework for adopting open innovation in pharmaceutical R&D in developing countries. *The Journal of Technology Transfer*, 48(6), 2204–2248. <https://doi.org/10.1007/s10961-022-09958-6>
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Dahir, M. I., Kimwolo, A., & Muthoni, G. (2026). Effect of Customer Orientation on Performance of Pharmaceutical Manufacturing Firms in Kenya. *Journal of Strategic Management*, 10(1), 131–148. <https://doi.org/10.53819/81018102t5419>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill Education.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (, Illus.; 8th ed.). Cengage. <https://drexel.primo.exlibrisgroup.com/nde/search?query=title,contains,Multivariate%20data%20>

[analysis,AND;creator,contains,hair&tab=Everything&search_scope=EverythingWResearch&mode=advanced&vid=01DRXU_INST:01DRXU_NDE](#)

- Hakala, H., Sirén, C., & Wincent, J. (2016). Entrepreneurial orientation and international new entry: The moderating role of autonomy and structures in subsidiaries. *Journal of Small Business Management*, 54, 90-112. <https://doi.org/10.1111/jsbm.12294>
- Haneda, S., & Ono, A. (2024). Corporate culture and product innovation: evidence from a firm survey. *Applied Economics Letters*, 31(21), 2312-2316. <https://doi.org/10.1080/13504851.2023.2227411>
- Haneda, S., & Ono, A. (2024). Corporate culture and product innovation: evidence from a firm survey. *Applied Economics Letters*, 31(21), 2312-2316. <https://doi.org/10.1080/13504851.2023.2227411>
- Kimotho, J. G., & Kariuki, P. (2024). Strategic Orientation and Performance of Multinational Pharmaceutical Firms in Nairobi City County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 8(3). <https://www.sagepublishers.com/index.php/ijssme/article/view/651/612>
- Mackintosh, M., Banda, G., & Tunguhole, J. (2017). Local production of pharmaceuticals and health system strengthening in Africa. *German Health Practice Collection*. https://oro.open.ac.uk/50074/1/EB_Pharma_draft3.pdf
- Mackintosh, M., Mugwagwa, J., Banda, G., Tibandebage, P., Tunguhole, J., Wangwe, S., & Karimi Njeru, M. (2018). Local production of pharmaceuticals and health system strengthening in Africa. *BMJ Global Health*, 3(5), e000560. <https://doi.org/10.1136/bmjgh-2017-000560>
- Ministry of Health. (2020). *Kenya pharmaceutical sector strategic plan 2020–2025*. Government of Kenya.
- Ministry of Health. (2020). *Kenya pharmaceutical sector strategic plan 2020–2025*. Government of Kenya.
- Morales-Alonso, G., La Bella, A., Levialdi, N. G., & Hidalgo, A. (2025). Decoding Amazon's innovation and partnerships in the Vendor Flex: meaningful alliances or imbalanced governance dynamics?. *European Journal of Innovation Management*, 28(8), 3440-3463. <https://doi.org/10.1108/EJIM-12-2023-1133>
- Nassiri, A. (2024). Exploring the Role of Social Media Use and Knowledge Management in Enhancing Competitive Performance: The Mediating Effect of Open Innovation Capability and Innovativeness. *Journal of Advanced Research in Social Sciences and Humanities*, 1-14. <https://doi.org/10.26500/JARSSH-09-2024-0101>
- Nguyen, P., & Timilsina, B. (2023). Sources of sustainable competitive advantage and direction of development: a study on pharmaceutical SMEs. *Acta logistica*. <https://doi.org/10.22306/al.v10i2.399>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

- Prashant, K., & Harbir, S. (2009). Managing strategic alliances: what do we know now, and where do we go from here?. *Academy of management perspectives*, 23(3), 45-62.
<https://doi.org/10.5465/amp.2009.43479263>
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education.
- Seo, R., & Park, J. H. (2022). When is interorganizational learning beneficial for inbound open innovation of ventures? A contingent role of entrepreneurial orientation. *Technovation*, 116, 102514.
<https://doi.org/10.1016/j.technovation.2022.102514>
- Shanka, M. S., Ness, H., & Sandvik, K. (2025). Examining the linkage between strategic orientations and firm performance: a meta-analysis on the role of marketing capabilities and cultural and environmental contingencies. *European Business Review*, 37(5), 810-834.
<https://doi.org/10.1108/EBR-06-2024-0194>
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>