INFLUENCE OF COMPETITIVE STRATEGY ON SERVICE DELIVERY OF PETROLEUM FIRMS IN NAIROBI COUNTY, KENYA

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ABSTRACT

Petroleum firms in Kenya operate within a competitive, volatile environment shaped by price fluctuations, infrastructural gaps, and regulatory changes. This study investigated the effect of competitive strategy on service delivery among petroleum firms in Nairobi County. Using a descriptive cross-sectional survey design, the study integrated both qualitative and quantitative methods. From a target population of 324 service stations, 125 managers were selected through stratified random sampling. Data were collected using semi-structured questionnaires and analyzed with SPSS version 28, employing descriptive statistics and regression analysis. Results revealed a positive and statistically significant relationship between competitive strategy and service delivery ($\beta = 0.717$, $p = 0.000$). Key strategic drivers included service innovation, technology adoption, and employee satisfaction. The study concluded that firms prioritizing competitive strategies experience improved service quality and responsiveness. It recommends continuous investment in technological advancement, customer-focused initiatives, and strategic partnerships to enhance service performance in the petroleum sector.

KEYWORDS: *Strategy, Competitive Strategy, Service Delivery, Petroleum Firms, Strategic Innovation.*

1.0 INTRODUCTION

Petroleum remains a globally vital commodity, with consumption reaching about 100 million barrels per day (Ahmad et al., 2020). In 2020, usage increased to 4.39 billion metric tons from 4.26 billion the previous year (Kober et al., 2020). The industry is highly volatile, influenced by factors such as OPEC decisions, supply dynamics, and geopolitical tensions. Additionally, global shifts toward renewable energy and electric vehicles are redefining the long-term relevance of fossil fuels (Ulusoy & Ozdurak, 2018). In Africa, petroleum firms face infrastructure and regulatory challenges. Sub-Saharan firms must navigate strict environmental and occupational health standards, which increase costs (Obomhense & Ejikeme, 2022), while price volatility particularly affects smaller firms that struggle to adapt (Ulusoy & Ozdurak, 2018).

In Kenya, petroleum is central to economic development, yet local production—discovered in Turkana in 2012—falls short of the national daily demand of 114,000 barrels (Wang'ombe, 2018). Over 60 firms, including major players like Vivo Energy, TotalEnergies, and Rubis, compete in a fast-evolving market regulated by the Energy and Petroleum Regulatory Authority (Wang'ombe, 2018). Nairobi, as the commercial capital, houses most firm headquarters and serves as a focal point for examining service delivery (Wamwara et al., 2023). However, the industry contends with issues such as outdated infrastructure, high competition, and disruptions from global crises like the Russia–Ukraine war (Sablah, 2023). As a result, competitiveness hinges on the adoption of dynamic strategies to enhance service delivery and sustain market presence.

2.0 PAST STUDIES

Competitive strategy involves coordinated actions aimed at gaining a sustainable edge and improving market position (Farida & Setiawan, 2022). In the petroleum sector, such strategies prioritize innovation, differentiation, and customer responsiveness. Global firms like TotalEnergies have adopted competitive approaches such as introducing Sustainable

Aviation Fuel (SAF), which supports environmental goals and appeals to eco-conscious consumers (Ayuk, 2023; Burgess et al., 2023). Despite these benefits, firms often face regulatory and financial barriers to implementation. In East Africa, complex regulations delay projects and increase costs (Patey, 2020), while local firms often lack the skilled labor and technology required to drive innovation (Ofoso & Sarpong, 2022). Infrastructure issues, such as poor road networks and limited storage, further disrupt fuel distribution and reduce customer satisfaction (Sheel et al., 2020).

Service delivery in petroleum involves providing reliable, efficient, and timely access to products. Its quality depends on the competitive strategies adopted by firms (Jackson, 2020). Companies leveraging technologies like digital payments and automated pumps offer improved customer experiences, whereas those using outdated systems face inefficiencies (Muthimi & Kilika, 2018). In Kenya, major firms have introduced loyalty programs and expanded station networks to enhance convenience (Wamwara et al., 2023). However, price volatility and financial constraints remain barriers to consistent service. Regulatory investments in safety and environmental protection, though costly, improve service reliability and public trust (Obomhense & Ejikeme, 2022).

3.0 MATERIALS AND METHODS

Description of the Study Area

The study was conducted in Nairobi County, Kenya's capital and a major economic hub. The county's high population and commercial activity have attracted numerous petroleum firms, both large and small, to meet growing fuel demand. Nairobi also hosts the headquarters of major petroleum companies operating nationwide. The area's diversity made it suitable for generating findings that could be generalized across the country.

Research Design and Sampling

The study adopted a cross-sectional research design employing mixed-methods including quantitative and qualitative methods to effectively help study the influence of competitive strategy on service delivery. According to Harefa (2023), a population is the total number of firms or organizations in a specific area may it be country or region. This study targeted population comprised of petroleum firms distributed within Nairobi County which included 324 petroleum service stations (Energy and Petroleum Regulatory Authority semi-annual report, 2024) operating in the county and served as the unit of analysis in the study. A sampling frame is a list of distinctly representing units from which a sample is obtained from the population (Casteel & Bridier, 2021). In this study, the sampling frame included petroleum-branched service stations and service stations without other outlets in Nairobi County. The mangers operating the 324 firms were the respondents. Kothari's (2004) sampling formula was employed to compute the desired size as follows:

$$\mathrm{n} = \frac{\mathrm{N}}{1+\mathrm{N}(\mathrm{e}^2)} = \frac{324}{1+324(0.07^2)} = 125 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where,
n= desired sample size
N=population size
e = acceptable error.

The study sampled 125 petroleum service stations in Nairobi County, selected through stratified random sampling to ensure fair representation. The 324 stations were first grouped into strata based on the petroleum company (e.g., Shell, Rubis, TotalEnergies), and sample sizes per company were proportionately allocated based on their presence in the county, following Parker (2021). Within each stratum, simple random sampling was used to select individual stations. One manager or supervisor from each selected station was interviewed to represent the station's perspective. The chosen sample size allowed for a 7% margin of error, ensuring reliable and representative findings.

Data Collection and Analysis

Primary data was collected from service station managers of petroleum firms using semi-structured questionnaires over four weeks through the drop-and-pick method. The study examined competitive strategies such as service innovation, strategic alliances, firm reputation, and technology adoption, alongside service delivery metrics like customer retention, profit levels, and return on investment. Completed questionnaires were coded and analyzed using

SPSS version 28. Descriptive statistics (percentages and frequencies) and inferential analysis through regression were used to assess the relationship between competitive strategy (independent variable) and service delivery (dependent variable) (Kabacoff, 2022). The study used the following bivariate regression model:

$Y = \beta o + \beta_i X_j + \varepsilon$ ……………
Where (i=j)………………………………………………………………………….....(2)

Where: Y = Service delivery of petroleum firms
βo = Constant
Xj = Competitive strategy
ε = Error Term
βi = Regression Coefficient

The variables were measured using multiple items rated on a 5-point Likert scale (1 = Strongly Disagree, 2= Disagree, 3 = Neutral, 4 = Agree to 5 = Strongly Agree).

4.0 RESULTS AND DISCUSSION

Descriptive findings on Competitive Strategy and Service Delivery

All 125 distributed questionnaires were returned and a 100% response rate was recorded implying the data was adequate to give way for analysis. The study examined factors such as service innovation, strategic alliances, firm reputation, profitability, technology adoption, and employee satisfaction that aligns with competitive strategy. The results are presented in Table 1.

Table 1. A Summary of Descriptive Findings on Competitive Strategy Constructs

Statement	Disagree	Neutral	Agree	Mode	Mean	SD
The petroleum firm frequently launches new services in response to market demands	4 (3.2%)	26 (20.8%)	95 (76.0%)	Agree	3.20	1.178
Strategic alliances contribute to the speedy launch of new service by the firm	4 (3.2%)	43 (34.4%)	78 (62.4%)	Agree	3.30	0.977
The firm's reputation has significantly improved due to strategic alliances	6 (4.8%)	35 (28.0%)	84 (67.2%)	Agree	3.24	1.117
Strategic alliances have allowed the firm to increase its profit margins	67 (53.6%)	34 (27.2%)	64 (51.2%)	Disagree	3.01	1.146
The firm continuously finances the adoption of new technologies to achieve and maintain a competitive advantage	8 (6.4%)	47 (37.6%)	70 (56.0%)	Agree	3.21	1.01
Employee satisfaction is highly considered within the firm	5 (4.0%)	28 (22.4%)	92 (73.6%)	Agree	3.43	1.05

Source: Research Data (2025)

The study revealed key insights into the adoption and effectiveness of competitive strategies among petroleum firms. A significant majority of respondents (95 or 76.0%) agreed that their firms frequently launch new services in response to market demands, while 26 (20.8%) remained neutral and only 4 (3.2%) disagreed (mean = 3.20, SD = 1.178). These findings indicate that most firms are proactive in service innovation, aligning with Adefulu et al. (2021), who highlighted the importance of continuous innovation for sustaining competitiveness in petroleum marketing. However, the notable percentage of neutral responses suggests that not all firms have fully embraced this approach. Strategic alliances were also found to play an important role in service delivery. A total of 78 respondents (62.4%) agreed that such alliances contribute to the timely launch of new services, 43 (34.4%) were neutral, and only 4 (3.2%) disagreed (mean = 3.30, SD = 0.977). This suggests that partnerships facilitate faster service rollout, although some firms may not rely on them as a primary strategy. These findings support Cuthbertson and Furseth (2022), who asserted that alliances in digital service environments accelerate market entry and innovation.

In terms of reputation, 84 respondents (67.2%) agreed that their firm's reputation has improved due to strategic alliances, while 35 (28.0%) were neutral and 6 (4.8%) disagreed (mean = 3.24, SD = 1.117). This suggests that strategic partnerships positively influence brand perception and customer trust, aligning with Abdikeir (2023), who emphasized the role of alliances in building corporate reputation. However, the neutrality of some responses implies that not all firms fully leverage alliances for reputational gains. The impact of alliances on profitability showed mixed results. While 64 respondents (51.2%) agreed that alliances have helped increase profit margins and 34 (27.2%) were neutral, a higher number—67 respondents (53.6%)—disagreed (mean = 3.01, SD = 1.146). These conflicting views suggest that although alliances have potential financial benefits, many firms face challenges translating them into profitability. This finding contrasts with Adefulu et al. (2021), who reported a positive link between alliances and profit margin growth in firms that strategically manage partnerships.

Regarding technology adoption, 70 respondents (56.0%) agreed that their firms continuously finance the adoption of new technologies to sustain competitiveness, while 47 (37.6%) were neutral and 8 (6.4%) disagreed (mean = 3.21, SD = 1.01). The results show a broad recognition of the value of technological innovation. Nevertheless, the high level of neutrality indicates that some firms may not be consistently investing in technology. These findings align with Barforoush et al. (2021), who noted that innovation is a strategic resource for long-term competitiveness. Employee satisfaction also emerged as a significant factor. A large majority (92 respondents or 73.6%) agreed that employee satisfaction is a priority, 28 (22.4%) were neutral, and only 5 (4.0%) disagreed (mean = 3.43, SD = 1.05). This supports Cuthbertson and Furseth (2022), who emphasized the role of employee engagement in sustaining service excellence.

HYPOTHESIS TESTING

Hypothesis testing in this study evaluated whether competitive strategies significantly influence service delivery among petroleum firms in Nairobi County. The null hypothesis (H_0) stated that competitive strategies have no significant influence on service delivery. Bivariate regression analysis, $Y=\beta_0+\beta_i X_j+\varepsilon$, was used to test this. P-values at 1%, 5%, and 10% significance levels guided the decision: if the p-value was less than alpha, H_0 was rejected; otherwise, it was retained. This two-tailed test approach aligns with Onyoni (2022), who emphasizes comparing sample results with broader population expectations to validate research hypotheses.

Bivariate Regression Results

The results of the bivariate regression model in Table 2 indicate that competitive strategies have a significant influence on service delivery among petroleum firms in Nairobi County, Kenya.

Table 2. Model Summary, ANOVA and Regression Results for Competitive Strategy

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.560[a]	0.314	0.308	4.881

Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	1339.332	1	1339.332	56.209	.000[b]
	Residual	2930.796	123	23.828		
	Total	4270.128	124			

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**p-value**
	B	**Std. Error**	**Beta**		
(Constant)	11.962	2.206		5.422	0.000
Competitive strategy	0.717	0.096	0.560	7.497	0.000

Source: Research Data (2025)

a. Predictors: (Constant), Competitive strategy
b. Dependent Variable: service delivery

The R Square value of 0.314 shows that 31.4% of the variance in service delivery is explained by competitive strategies. The ANOVA results, with an F-statistic of 56.209 and a significance level of 0.000, confirm that the overall model is statistically significant. The coefficient for competitive strategies is 0.717, with a t-value of 7.497 and a p-value of 0.000, indicating a strong, positive, and statistically significant relationship between competitive strategies and service delivery. Therefore, we reject the null hypothesis (Ho) at 95% confidence level and conclude that competitive strategies significantly influence service delivery in petroleum firms in Nairobi County.

Using the unstandardized beta coefficients in Table 2, the overall equation for the regression model can be given as follows:

$Y=11.962+0.717X$…………………………………..……………………...…………………………………...(3)

The regression model revealed that without competitive strategies, petroleum firms still recorded a positive service delivery level of 11.962 Likert units. Competitive strategies were found to significantly influence service delivery, accounting for 31.4% of the variation. The remaining influence may stem from factors such as regulatory conditions, employee skills, and environmental dynamics. Despite a modest R^2 value, this is acceptable in social science research, where outcomes are shaped by complex contextual factors (Chin, 1998; Falk & Miller, 1992). The results showed that a unit increase in competitive strategies led to a 0.717-unit rise in service delivery, affirming their impact. This aligns with Abdikeir (2023), who linked innovation and advanced service mechanisms with superior firm performance. The high coefficient confirms competitive strategy as the strongest predictor of service delivery, emphasizing the need for continuous innovation and adaptation to evolving customer and technological demands.

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusions

The study confirmed that competitive strategy significantly and positively influences service delivery in petroleum firms. Firms that adopt service innovation, customer differentiation, and technological advancement consistently achieve higher levels of service quality and responsiveness. Continuous investment in emerging technologies, streamlined service processes, and personalized customer experiences were identified as key to sustaining a competitive edge. Moreover, employee motivation—driven by performance-based incentives, regular training, and a strong customer-centric culture—was shown to meaningfully enhance service delivery outcomes.

Recommendations for Practice

Petroleum firms in Nairobi County are advised to strategically embed competitive strategies into their operational models to boost service delivery. Specifically, firms should prioritize ongoing service innovation, embrace digital transformation, and implement differentiated customer service approaches. Investment in technology, product refinement, and seamless customer interactions is essential. Additionally, enhancing employee engagement through targeted incentives, professional development, and cultivating a customer-focused culture will further strengthen service performance.

Recommendations for Further Research

While competitive strategy explained 31.4% of the variance in service delivery, 68.6% remains unaccounted for. Future research should explore additional factors such as environmental and sustainability concerns, technological disruption, regulatory dynamics, and economic variables like fuel price volatility, which may also significantly shape service delivery in the petroleum sector.

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