SUSTAINABLE FIRM PERFORMANCE THROUGH PRODUCT DIFFERENTIATION STRATEGIES; THE HIDDEN TREASURE OF CUSTOMER LOYALTY

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Abstract:
The study sort to establish the mediating effect of customer loyalty on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya. Using the Baron & Kenny (1986) four-step approach for conducting mediation analysis, the study hypothesized the relationship between product differentiation strategies and firm performance, product differentiation strategies and customer loyalty, customer loyalty and firm performance and finally the mediation relationship between product differentiation strategies, customer loyalty and firm performance. The study employed an explanatory research design and was guided by the discrete choice theory of competitive advantage and the customer loyalty business model. The target population was 535,840 of which 104 were top and middle-level employees from the sales and marketing departments of the three selected edible oils manufacturing firms and 535,736 were consumers of the products within the middle-class estates in Nairobi. A sample size of 504 respondents was used for the study. Structured questionnaires were used to collect primary data and a document analysis guide was used to collect secondary data which was then analysed using descriptive statistics, linear regression and correlation analysis. The results revealed that customer loyalty (R-square change = .028 had a p-value = .005) has a positive mediating effect on the relationship between product differentiation strategies and the performance of the selected edible oils manufacturing firms in Kenya.

Keywords: product differentiation strategies, customer loyalty, firm performance

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1. Introduction

Product differentiation involves a firm developing a brand that is perceived as unique and distinctive compared to those of the competitors (Kotler & Keller, 2011). Murphy (2011) explicates that product differentiation occurs when a business attempts to make its products or services more attractive and appealing to the customer than what the rivals have to offer while at the same time commanding a profiting price. Shafiwu & Mohammed (2013) argue that there are several ways in which a firm can differentiate their products: first, by introducing features that the competitor does not have; second, differentiate on performance by having a product that is of better quality and more powerful or having more professional credibility inter alia; third, a firm may decide to differentiate their products based on certain physical attributes which may include reliability, conformance, reparable, innovation and consistency. Forth, moreover, a firm may also decide to differentiate the image of the product and not just the physical attributes.

A stable customer base is a key element of any business; relationship marketing recognizes that without a good customer base, most businesses will struggle to survive (Rowley, 2015). Customer loyalty can be defined as the continuous willingness of a customer to prefer purchasing a firm’s goods or services over those of its competitors (Singh & Khan, 2012). Thomas & Tobe (2013) argue that customer loyalty creates a suitable foundation for profit maximization. Loyal customers would always exhibit certain common behaviours by often repurchasing the same brand/ product, recommending the product to other consumers and talking positively about the product (Jiang & Zhang, 2016). Maintaining loyal customers has been considered as one of the most important measurements of success for any organisation (Nyadzayo & Khajehzadeh, 2016), and marketing practitioners should ultimately work towards embracing appropriate marketing strategies and approaches to acquire and maintain loyal customers towards their businesses (Zhang, Li, Wang, & Wang, 2016). Firms that perform well ultimately contribute to the economic growth of their countries.

A firm’s success in the competitive business environment is majorly dependent on the performance conditions (Lazar, 2016). Firm performance is achieved when a firm is efficient and effective in terms of functioning and output in its operations. This performance is equated to how well different units operate in the firm, the output of employees but majorly the success of their products and services in the marketplace in terms of sales volumes with translates to profitability and market share (Taouab & Issor, 2019). O’Shannassy (2018) categorized organizational performance into two measures; strategic performance (sales volume growth, market share, customer satisfaction & quality) and financial performance (profitability, return on asset, return on equity, and return on sales). Kalayci, Karatas, Coskun, and Kirtas (2015) aver that sales of the firm, growth of sales, the net profit and gross profit made were among the crucial financial measures preferred by the researchers in measuring the performance of a firm.
2. Statement of the Problem

The manufacturing sector in Kenya is largely recognised by the role that it plays in wealth creation and employment for thousands of youths and in the Medium-Term Plan. The sectors’ overall goal is to increase its contribution to the country’s GDP by at least 10% per annum as envisaged in the Vision 2030 (Republic of Kenya, 2013). The county has focused its renewed efforts towards the manufacturing sector which has resulted in the development of plans and policies such as the Big Four Agenda in a bid to increase the sectors contribution to the GDP to 15% and above by the year 2030. However, on average, the growth of the manufacturing sector in Kenya has been slower than the overall economic growth which expanded by 5.6% in the year 2015. The edible oils sub-sector which is considered as the most crucial sub-sector of the manufacturing industry contributed 2.9% in 2016, 2.6% in 2017 and 2.1% in 2018 to Kenya’s overall GDP (Asoko Insight, 2019). Edible oil manufacturers in Kenya have invested approximately $12.7 billion into the industry since 2014 as part of efforts to increase local manufacturing and decrease the import bill which is estimated to be $35 million annually but these efforts seem to be bearing no fruits. According to the World Bank report (2014): new products in the edible oils sub-sector have only a 25% chance rate of competing effectively and surviving in the market. Most of the products are characterized by a shorter life cycle and are thrown out of the market arena prematurely while competing products from foreign manufacturers tend to experience a full life cycle. Could this trend be as a result of product differentiation and customer loyalty? It is in this light that the study sort to analyse Product Differentiation Strategies and Performance of Selected Edible Oils Manufacturing Firms while considering the Mediating Effect of Customer Loyalty.

2.1 Objective of the Study

To examine the mediating effect of customer loyalty on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya.

2.2 Research Hypothesis

The following hypotheses were developed using the Baron & Kenny (1986) four-step approach for conducting mediation analysis.

$H_{01(a)}$: Product differentiation strategies have no significant effect on the performance of selected edible oils manufacturing firms in Kenya.

$H_{01(b)}$: Product differentiation strategies have no significant effect on customer loyalty of selected edible oils manufacturing firms in Kenya.

$H_{01(c)}$: Customer loyalty has no significant effect on the performance of selected edible oils manufacturing firms in Kenya.

$H_0$: Customer loyalty has no significant mediating effect on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya.
3. Theoretical Underpinnings, Literature Review and Development of Hypothesis

3.1 Discrete Choice Theory of Product Differentiation
The Discrete Choice theory of product differentiation as proposed by Anderson, De Palma & Thisse (1992) averts that, a firm can differentiate its products using various attributes such as design, quality, size, shape, colour, and packaging which will in turn influence on customers’ choices of buying particular products. The theory of differentiation is vital in understanding modern market economics and the behaviour of consumers in the varied differentiated markets to establish and devise a model that can be used in the case of a competitive industry (Porter, 1990).

The customer loyalty model (CLBM) which was developed by (Storbacka, 1994) averts that a customer’s experience with a product or service will highly determine the level of customer satisfaction. This implies that if their experience with the product or service exceeded their expectations the customer will purchase the product again and again and the probability of retaining that customer becomes higher. Customer loyalty and the loyalty of other stakeholders is achieved by employing the resources of a firm with the expectation that the firm’s corporate objectives will also be met or exceeded.

3.2 Concept of Product Differentiation
The concept of product differentiation is concerned with the creation of an offering that can be considered unique or different by the consumers in terms its design, perceived quality, aesthetics features or price of the product. Product differentiation involves a firm or company developing a brand that is perceived as unique and distinctive when compared to those of competitors (Kotler & Keller, 2011). The differentiated value offered by the firm such as quality of products, reliability, aesthetic value and service helps in the creation of a brand image that often might earn the business a 10%-20% price premium. If the differentiation process is successfully executed, the brand can attract relatively higher prices or differentiated prices which guarantees higher profit margins (Davčik & Rundquist, 2012). Besides, product differentiation strategies are also based on attempts to convince customers that a product is superior in terms of quality, innovative design and aesthetics than what is offered by the competitors (Bacanu, 2010). Hesterly and Barney (2011) affirm that the uniqueness of a differentiation strategy depends on the abilities of the firms to be innovative and creative in coming up with newer ways of differentiating their merchandise. As the competition attempt to imitate the firm’s previous differentiation move, creative firms would have already developed a new strategy to be able to stay ahead of the competition.

3.3 Concept of Customer Loyalty
The concept of customer loyalty delves primarily into the attitude of customers and their behaviours of preferring a product or service brand over brands from other competitors due to the level of satisfaction they receive from the product or service and hence become committed to the brand by purchasing it frequently and consistently (Magatef &
Tomalieh, 2015). Customer loyalty arises from the customers having developed past positive experiences which make them to always consider goods and services from these firms regardless of whether the firm may be able to provide the best service, price or product (Ghavami & Olyaei, 2006). Anderson and Swaminathan (2011) further state that customer loyalty also entails the willingness of the customers to voice their dissatisfaction or discontent with the products or services and accord the firm ample time to make improvements. According to Jiang & Zhang (2016), customer loyalty is a paramount source of achieving competitive advantage by firms. However, it is also noted that it is a challenging issue for firms to maintain customer loyalty due to the high levels of competition in the marketplace.

### 3.4 Concept of Firm Performance

Firm performance can be termed as the end result of a process or the ability of an entity to produce desired results with respect to a target (Laitinen, 2002). Rauch, Wiklund, Lumpkin & Frese (2009) categorised firm performance into two types: archival performance, which involves aspects of firm performance from secondary sources kept in a firm that is majorly related to financial performance measures eg. sales volume, profits and market share percentage and perceived firm performance, which involves the perceptions of owners/managers about the firm’s performance. Newbert (2008) pointed out the existence of three types of performance measures that are frequently employed in the strategy literature: objective financial performance, objective non-financial performance and subjective financial performance. While on the other hand, O’Shannassy (2018) categorized organizational performance in the strategy literature into two measures; strategic performance (sales volume growth, market share, customer satisfaction & quality) and financial performance (profitability, return on asset, return on equity, and return on sales). The success of a firm depends on achieving high levels of efficiency, process flexibility and improvement of all the operations of a firm as evidenced by the resource-based view model. These can only be achieved by improving profitability, productivity, growth rate and image of the firm thus ensuring the firm lives and thrives (Parnell, 2011).

### 3.5 Product Differentiation Strategies and Firm Performance

Valipour, Birjandi and Honarbakhsh (2012) conducted an empirical study on the effects of cost leadership strategy and product differentiation strategy on the performance of firms in the Tehran Stock Exchange between 2003–2010 and concluded that indeed there is a relationship between product differentiation and firm performance. Similarly, Kim & Wang (2014) conducted an investigation on the dynamic product differentiation strategies; an examination of the interplay of the firm characteristics. The research sampled 623 domestic computer manufacturers and subsidiaries of foreign firms that produce personal computers in the USA between 1974–1994. The findings indicated that there was a strong nexus between product differentiation and firm performance. Shafiuw & Mohammed (2013) conducted an in-depth review of the effects of product
differentiation in the petroleum industry in Ghana. The study showed a positive relationship between profitability and product differentiation in the Total Ghana Ltd. Anderson, Chintagunta, Germann & Vilcassim (2020) in their study on how product differentiation and firm growth are impacted by volunteers’ marketers in a field experiment with Ugandan marketers stated that product differentiation is an important aspect in achieving firm growth. The findings of the study indicated that monthly sales, monthly profits and total assets of the firms increased as a result of product differentiation. At the same time, average prices, profits, margins and value-added per unit increased for the entrepreneurs who differentiated their products compared to volunteer marketers. Nolega, Oloko, William & Oteki (2015) conducted a case study on the effects of product differentiation strategies on Firm Product Performance at the Kenya Seed Company (KSC), Kitale. The results indicated that there was a positive statistically significant correlation between product differentiation and the performance of the firm. The study conducted by Maina & Kagiri (2016) focused on the effects of product differentiation strategies on organization competitiveness at East African Breweries Limited, Kenya. The findings indicated that there was a statistically significant correlation between product differentiation and organizational performance.

**Hypothesis (a):** Product differentiation strategies have no significant effect on the performance of selected edible oils manufacturing firms in Kenya.

### 3.6 Product Differentiation Strategies and Customer Loyalty

Tjahjaningsih, Ningsih & Utomo (2020) studied the effects of service quality and product diversity on customer loyalty among the consumers of Batik Semarangan Craftwork in Indonesia. The results of the study showed that service quality and product diversity positively affected satisfaction and positive word of mouth and had a positive effect on customer loyalty. Ardika, Sadiathra & Sanjaya (2021) conducted a study to determine the effects of product differentiation and customer satisfaction on customer loyalty at Puri Gangga Resort Ubun. The results of the study revealed that product differentiation has a positive and significant effect on customer loyalty. Morgan & Govender 2017 conducted an online survey among 110 customers of the South African mobile telecommunication industry to explore the effects of product differentiation on customer loyalty using structural equation and multiple regression modelling. The findings of the study revealed that product differentiation had a significant positive effect on customer satisfaction but not customer loyalty, by implication product differentiation indirectly influences customer loyalty by influencing customer satisfaction. Chidi, Tochukwu & Ekweli (2020) investigated the relationship between product differentiation and customer loyalty of selected soap/detergent firms in Anambra state, Nigeria which was anchored on resource-based theory and differentiation theory and adopted a correlation survey design. The findings of the study depicted a very high statistical relationship between product differentiation and customer loyalty and that increased deployment of product differentiation strategy increases customer loyalty towards the product. Mwabu &
Munyoki (2021) conducted an empirical study on product differentiation strategy and brand loyalty. The study indicated that the differentiation of products is crucial to an organization’s competitive advantage, performance and to customers’ satisfaction which eventually leads to customer loyalty. The study concluded that a strong relationship exists between product differentiation and brand loyalty. Gakuya & Njue (2018) conducted a study on the effects of differentiation strategy on customer loyalty among pharmaceutical companies in Nairobi County using a descriptive survey design which targeted 119 manufacturing and distribution pharmaceutical firms in Nairobi. The findings of the study indicated that differentiation strategy had a positive effect on customer loyalty and it was a good indicator that increases in differentiation strategy improved the customer loyalty among pharmaceutical firms in Nairobi.

H01(b): Product differentiation strategies have no significant effect on customer loyalty of selected edible oils manufacturing firms in Kenya.

3.7 Customer Loyalty and Firm Performance
Boonmalert, Phoothong, Nualkaw & Klakhaeng (2020) conducted an empirical evidenced-based study on the effects of market orientation and customer loyalty on the performance of businesses from the rice industry in Thailand. The study employed a survey research design where primary data was collected from 255 employees working in various companies in Thailand’s rice industry and the data was analyzed using Partial Least Squares method. The results of the study indicated that customer loyalty has a direct relationship with business performance and that customer loyalty mediates the relationship between market orientation and business performance. Singh, Nayyar & Das (2019) conducted a study on the antecedents of customer loyalty in the banking and insurance sector and their impact on the performance of businesses in India. A survey method was used to collect data using structured questionnaires and the study adopted an exploratory and descriptive research design. The results of the study revealed a significant and positive relationship between customer loyalty and business performance. Ofori, Boakye & Narteh (2018) conducted a study to identify the factors that influence consumer loyalty towards the 3G mobile data service providers in Ghana and to further determine how customer loyalty affects the performance of these firms using partial least square structural equation modelling. The results of the study indicated that service quality, trust and satisfaction were significant factors that impacted positively on customer loyalty and that customer loyalty had a significant and positive effect on the market share and profitability of the mobile data service firms. Bwire (2016) evaluated the effect of customer loyalty programs on the financial performance of mobile telecommunication firms in Kenya. The study used a descriptive research design and targeted three mobile companies in Kenya; Safaricom, Airtel and Telkom Kenya. The results of the study revealed that customer loyalty programmes positively affected the performance of telecommunication firms in Kenya. Amboko & Namusonge (2015) studied the effects of strategic brand awareness and customer loyalty on the performance
of Kenya Power and Lighting Company Limited in Kenya using a descriptive statistical approach. The study employed an exploratory survey research design to target 379 respondents in Kenya power, North Rift region and Trans Nzioa County. The results of the study indicated that strategic brand awareness and customer loyalty positively affect the performance of KPLC.

H_01(c): Customer loyalty has no significant effect on the performance of selected edible oils manufacturing firms in Kenya.

3.8 Product Differentiation Strategies, Customer Loyalty and Firm Performance

Hajar, Alkahtani, Ibrahim, Al-Sharafi, Alkawsi, Iahad, & Tiong (2022) investigated the effect of value innovation in the superior performance and sustainable growth of the telecommunications sector while considering the mediation effect of customer loyalty and satisfaction in the telecommunication industry. The authors conducted an empirical analysis that was based on 304 respondents using a paper-based survey provided to employees of Yemeni mobile service providers using a convenience sampling technique. The hypothesized relationships were then tested using partial least squares structural equation modeling. The results revealed that customer loyalty and satisfaction mediated the relationship between value innovation and sustainable growth. Tripathi (2017) tested the mediating effect of customer loyalty on the relationship between customer satisfaction and word-of-mouth intentions in the hotel industry in Delhi where data was collected using structured questionnaires and developed through extant literature to measure the variables. The results revealed a significant impact of customer loyalty on the aforementioned relationship. Hichri, & Ltifi (2021) analysed the mediating effect of customer loyalty in the relationship between corporate social responsibility and financial performance from 110 Swedish companies during the period 2009 to 2019 and used multiple regression analysis to test the hypotheses. The findings revealed that customer loyalty has a positive and significant mediating effect on the company’s CSR performance and financial performance relationship. Comparatively, Utomo, Respati & Latif (2020) conducted a study to investigate the mediating role of customer loyalty on customer co-operation capability and corporate image on the firm financial performance of pharmaceutical firms in Indonesia. The findings of the study confirmed that customer loyalty had a significant mediation role on customer co-operation capabilities and corporate image and financial performance of the pharmaceutical firms. Alavijeh, Esmaeili, Sepahvand & Davidaviciene (2018) analyzed the effect of customer equity drivers on word-of-mouth behavior with mediating role of customer loyalty and purchase intention. The findings revealed that the customer loyalty mediating role had a positive and significant influence on the relationship between customer equity drivers and word-of-mouth behavior. Additionally, Ramaseshan, Balasubramanian, Evanschitzky & Megan (2018) investigated the mediating effect of customer loyalty on the relationships between value perception and relationship investment in Spanjaard and
found out that customer loyalty mediates the relationship between value perception and relationship investment.

H₀₁: Customer loyalty has no significant mediating effect on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya.

3.9 Conceptual Framework

![Conceptual Framework](image)


4. Methodology

An explanatory research design was adopted for the study which was suitable for the researcher to determine the cause-and-effect relationship between the dependent, mediator and the independent variables. The study was conducted in the 3 selected edible oils manufacturing firms which included; Unilever Kenya Limited, Bidco Africa and Kapa Oil Refineries. The 3 firms were selected due to the fact that they are the largest market share holders in the sector and the edible oils sub-sector is the only sub-sector of the manufacturing industry in Kenya that is regionally competitive (KAM 2018). The study targeted 535,840 of which 104 were top and middle-level employees from the sales and marketing departments of the three firms and 535,736 were consumers of the products within the middle-class estates in Nairobi which included; South C, South B, Langata, Hurlingham, Parklands, Kitengela, Nyayo Esstate, Utawala Buruburu, Ong’ata Rongai, Madaraka, Pangani, Kahawa West, Greenfield, Umoja, Embakasi, Ngong, Kasarani, Ruiru and Donholm (KNSB 2019). The sample size for the study was determined in two categories. First, the researcher determined the sample size for the top and middle-level employees in the sales and marketing departments of the 3 selected firms and since the population was small, a census of all the 104 respondents was conducted. Secondly, the researcher used Yamane’s (1967) formulae to determine the
sample size for the consumer respondents within the middle-class estates in Nairobi which gave 400 respondents. Therefore, the total sample size for the study was 504 respondents. Purposive sampling was used to target the marketing managers and product line managers while simple random sampling was used for the sales representatives and consumers of the products. Structured questionnaires were used to collect primary data and a document analysis guide was used to collect secondary data for the study. Data was analysed using descriptive statistics, linear regression and correlation analysis and results were presented using tables.

5. Results and Discussions

Step 1: Product Differentiation Strategies and Firm Performance
The first step sort to establish the effect of product differentiation strategies (price differentiation, design differentiation and quality differentiation strategies) on firm performance. The null and alternative hypotheses stated:

$H_{01(a)}$: Product differentiation strategies have no significant effect on the performance of selected edible oils manufacturing firms in Kenya.

$H_{1(a)}$: Product differentiation strategies have a significant effect on the performance of selected edible oils manufacturing firms in Kenya.

<table>
<thead>
<tr>
<th>Table 1: Model Summary for Product Differentiation Strategies and Firm Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant): Product Differentiation Strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).

From Table 1 above, the value of $R$-square is 0.623 implying that, 62.3% of variation of performance of selected edible oils manufacturing firms in Kenya was explained by product differentiation strategies indicating that the model was a good fit for the data.

<table>
<thead>
<tr>
<th>Table 2: ANOVA for Product Differentiation Strategies and Firm Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm performance
b. Predictors: (Constant): Product Differentiation Strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).

From Table 2 above, the $F$-statistic = 1.662 has a $p$-value of 0.000, which is < .05. The decision was to reject the null hypothesis that all the coefficients are equal to zero and fail to reject the alternative hypothesis that at least one of the coefficients is not equal to zero.
The conclusion is that at 0.05 level of significance, the independent variable (product differentiation strategies) is important in predicting the performance of selected edible oils manufacturing firms in Kenya as indicated by significance value = 0.000 which is less than 0.05 level of significance (p = 0.000 < 0.05).

**Table 3: Coefficients of Regression between Product Differentiation Strategies and Firm Performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>13.296</td>
<td>2.218</td>
<td>5.994</td>
</tr>
<tr>
<td></td>
<td>Price differentiation</td>
<td>.211</td>
<td>.065</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>Design differentiation</td>
<td>.338</td>
<td>.083</td>
<td>.071</td>
</tr>
<tr>
<td></td>
<td>Quality differentiation</td>
<td>.012</td>
<td>.066</td>
<td>.377</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Product Differentiation Strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).

Letting Y be firm performance, X₁ be Price differentiation strategies, X₂ be designed differentiation strategy, and X₃ be quality differentiation strategy, using the regression coefficients in Table 3, we have;

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \]

\[ Y = 13.296 + 0.211^*X_1 + 0.338^*X_2 + 0.012X_3 \]

From Table 3 above; at 5% level of significance, Price differentiation strategy (p=0.017 < 0.05), Design differentiation strategy (p=0.001 < 0.05) and Quality differentiation strategy (p=0.008< 0.05) were significant predictors of firm performance. This, therefore, means that product differentiation strategies have a positive and significant effect on the performance of edible oils manufacturing firms.

**Step 2: Product Differentiation Strategies and Customer Loyalty**

The second step examined the relationship between product differentiation strategies and customer loyalty of selected edible oils manufacturing firms in Kenya. The null and alternative hypotheses stated:

- \( H_{0b} \): Product differentiation strategies have no significant effect on customer loyalty of selected edible oils manufacturing firms in Kenya.
- \( H_{1b} \): Product differentiation strategies have a significant effect on customer loyalty of selected edible oils manufacturing firms in Kenya.
Table 4: Model Summary for Product Differentiation Strategies and Customer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.548a</td>
<td>.300</td>
<td>.049</td>
<td>0.9698</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant): Product differentiation strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).

From Table 4 above, the value of the R-square is 0.300. This implies that 30.0% of the variation of customer loyalty of selected edible oils manufacturing firms in Kenya was explained by product differentiation strategies which implied that the model was a good fit for the data.

Table 5: ANOVA for Product Differentiation Strategies and Customer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>2837.125</td>
<td>3</td>
<td>2837.125</td>
<td>.859</td>
<td>.011</td>
</tr>
<tr>
<td>Residual</td>
<td>6711.349</td>
<td>6</td>
<td>53.052</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9548.473</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer Loyalty
b. Predictors: (Constant): Product differentiation strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).

From Table 5 above, the F-statistic = 0.859 which has a p-value of 0.011, which is < .05. The decision is to reject the null hypothesis and instead fail to reject the alternative hypothesis that at least one of the coefficients is not equal to zero. The conclusion is that at 0.05 level of significance the independent variable namely, product differentiation strategies is important in predicting customer loyalty of selected edible oils manufacturing firms in Kenya as indicated by significance value = 0.011 which is less than 0.05 level of significance (p = 0.011 < 0.05).

Table 6: Coefficients of Regression between Product Differentiation Strategies and Customer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>16.277</td>
<td>2.599</td>
<td>1.121</td>
<td>.055</td>
</tr>
<tr>
<td>Price differentiation</td>
<td>.228</td>
<td>.161</td>
<td>.578</td>
<td>1.416</td>
</tr>
<tr>
<td>Design differentiation</td>
<td>.286</td>
<td>.048</td>
<td>.753</td>
<td>5.958</td>
</tr>
<tr>
<td>Quality differentiation</td>
<td>.225</td>
<td>.047</td>
<td>.099</td>
<td>4.787</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer Loyalty
b. Predictors: (Constant): Product Differentiation Strategies (Price differentiation, Design differentiation, Quality differentiation)

Source: Research data (2023).
Letting $M$ be Customer loyalty, $X_1$ be Price differentiation strategy, $X_2$ be design differentiation strategy, and $X_3$ be quality differentiation strategy, using the regression coefficients in Table 6, we have;

$$M = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$$

$$M = 16.277 + 0.288 \times X_1 + 0.286 \times X_2 + 0.255 \times X_3$$

Looking at the $p$-value of the coefficient to price differentiation strategy ($p = 0.019$), design differentiation strategy ($p = 0.016$) and quality differentiation strategy ($p = 0.007$), the study rejected the null hypothesis and failed to reject the alternative hypothesis that product differentiation strategies have a significant effect on the customer loyalty of the selected edible oils manufacturers in Kenya. It can be established that design differentiation (beta = 0.286) has the highest effect on the customer loyalty of the selected edible oils manufacturers in Kenya followed by price differentiation (beta = 0.228) and least being quality differentiation (beta = 0.225).

**Step 3: Customer Loyalty and Firm Performance**

The third step examined the relationship between customer loyalty and the performance of selected edible oils manufacturing firms in Kenya. The null and alternative hypotheses stated:

\[
H_0: \text{Customer loyalty has no significant effect on the performance of selected edible oils manufacturing firms in Kenya.} \\
H_1: \text{Customer loyalty has a significant effect on the performance of selected edible oils manufacturing firms in Kenya.}
\]

**Table 7: Model Summary for Customer Loyalty and Firm Performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.657*</td>
<td>.531</td>
<td>.537</td>
<td>5.03507</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant): Customer Loyalty

Source: Research data (2023).

From Table 7 above, the value of the R-square is 0.531. This implies that 53.1% of the variation in firm performance was explained by customer loyalty. The study assumed that the model was a good fit for the data.
Table 8: ANOVA for Customer loyalty and firm performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>432.774</td>
<td>1</td>
<td>432.74</td>
<td>17.431</td>
<td>.002b</td>
</tr>
<tr>
<td>Residual</td>
<td>570.176</td>
<td>8</td>
<td>25.352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1002.950</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm performance  
b. Predictors: (Constant), Customer loyalty

Source: Research data (2023).

From Table 8 above, at a 0.05 level of significance, the independent variable (customer loyalty) is important in predicting firm performance as indicated by a significance value=0.002 that is less than 0.05 level of significance (p=0.002 < 0.05). The decision, therefore, is to reject the null hypothesis and instead fail to reject the alternative hypothesis.

Table 9: Coefficients of Regression between Customer loyalty and firm performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.049</td>
<td>1.592</td>
<td>1.915</td>
<td>.057</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>.693</td>
<td>.053</td>
<td>.657</td>
<td>13.055</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm performance  
b. Predictors: (Constant), Customer loyalty

Source: Research data (2023).

The findings in Table 9 above reveal that customer loyalty has a significant influence on firm performance (t-statistic=13.055, p-value=0.002< 0.05).

Letting Y be firm performance, M be customer loyalty, using the regression coefficients in Table 9, and we have:

\[ Y = \beta_0 + \beta_1M \]

\[ Y = 3.040 + 0.693*M \]

The coefficient of customer loyalty is 0.693, which is positive. Hence, customer loyalty positively affects the performance of selected edible oils manufacturing firms in Kenya. Thus, for every unit increase in customer loyalty, there was a corresponding increase in performance of selected edible oils manufacturing firms in Kenya by 0.693.

Step 4: Mediating effect of Customer Loyalty on the relationship between Product Differentiation Strategies and Firm Performance

The fourth step sort to examine the mediating effect of customer loyalty on product differentiation strategies and firm performance.
**H0:** Customer loyalty has no significant mediating effect on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya.

**H1:** Customer loyalty has a significant mediating effect on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya.

**Table 10:** Coefficients: Mediating effect of customer loyalty on the relationship between product differentiation strategy and firm performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.922</td>
<td>.037</td>
<td>106.821</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>.207</td>
<td>.049</td>
<td>.352</td>
<td>4.255</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>.240</td>
<td>.047</td>
<td>.426</td>
<td>5.145</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>3.980</td>
<td>.041</td>
<td>96.807</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>.197</td>
<td>.048</td>
<td>.336</td>
<td>4.153</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>.150</td>
<td>.055</td>
<td>.266</td>
<td>2.717</td>
</tr>
<tr>
<td></td>
<td>XM</td>
<td>.086</td>
<td>.030</td>
<td>.240</td>
<td>2.849</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm Performance

**Source:** Research data (2023).

Table 10 above shows the standardized (B) and un-standardized (B) coefficients for product differentiation strategies and customer loyalty, with and without interaction terms. Therefore, the hypothesized mediation model was confirmed to be:

\[ Y = 3.980 + 0.197X + 0.150M + 0.086M \]

This model is further expressed as follows:

\[ Y = (3.980 + 0.150M) + (0.197 + 0.086M) \times X \]

The mediator regression un-standardized coefficient is 0.086. This implies that for each unit increase in M, the slope relating X to Y increases by 0.086. The implication is that a unit increase in customer loyalty increases the slope relating product differentiation strategies to firm performance.
The results shown in Table 11 above indicate that there was a significant change in R-square value when the interaction variable was entered in step 2 (R² change = 0.028; F1, 132 = 8.115, p < 0.05). The results show that the R² change was significantly positive at 0.028, when the interaction variable was added to the predictor and mediator variables. This change, though small was significant for the study indicating a partial mediation effect. Therefore, the results imply that customer loyalty partially mediated the relationship between product differentiation strategy and firm performance. The R² of model 1 is 0.508 for the main model with customer loyalty, whereas when the interaction of customer loyalty with the main predictor variable is introduced in the model, R² is 0.537, with adjusted R² falling to 0.526. The variations in the two cases of R² for each model are less than 0.5 (Field, 2005). This small change means that the models are valid and stable for the prediction of the dependent variable and performance at 50.8% and 53.7% variance respectively. Comparing model 1 and model 2, there is an r-square change of 0.028, which is statistically significant at 5% significance level because the p-value = 0.005 < .05. The decision is to reject the null hypothesis and fail to reject the alternative hypothesis. Therefore, the conclusion is that customer loyalty has a significant mediating effect on the relationship between product differentiation strategies and the performance of selected edible oils manufacturing firms in Kenya. The interpretation is that customer loyalty partially mediates the relationship between product differentiation strategies and the performance of the selected edible oils manufacturing firms in Kenya.

6. Conclusion

The study rejected the null hypothesis in the first step and concluded that product differentiation strategies have a positive impact on the firm performance. The results further indicated that design differentiation (beta = 0.338) had the highest effect on the performance of the selected edible oils manufacturers in Kenya followed by price differentiation (beta = 0.211) and least being quality differentiation (beta = 0.012).

By rejecting the null hypothesis in the second step, the study concluded that product differentiation strategies have a positive impact on the customer loyalty of entities. The results further indicated that design differentiation (beta = 0.286) had the
highest effect on the customer loyalty of the selected edible oils manufacturers in Kenya followed by price differentiation ($\beta = 0.228$) and the least being quality differentiation ($\beta = 0.225$).

The study further rejected the null hypothesis in the third step and concluded that customer loyalty has a significant and positive effect on the performance of entities. Customer loyalty was found to have a significant positive effect on the performance of the edible oils manufacturing firms with a t-statistic of 13.055 and a p-value of 0.002 which was less than 0.05.

Finally, the study concluded based on the rejection of the null hypothesis that the customer loyalty mediating effect has a significant positive variance, which means that it has a positive mediating effect on the relationship between product differentiation strategies and the performance of the selected edible oils manufacturing companies in Kenya with an R-square change of 0.028 and p-value of 0.005 which was less than 0.05. This also implies that product differentiation strategies can influence customer loyalty which in turn causes firm performance to improve.

7. Recommendations

The study recommends that firms should put emphasis on differentiating their products in terms of design, quality and price in order to gain and maintain loyal customers which will in turn lead to improved sales volume, profits and market share of the firms. While enhancing product differentiation strategies to enhance customer loyalty, the study recommends that a lot of resources should be channeled towards design differentiation strategies followed by price differentiation strategies and the least of the resources towards quality differentiation strategies. The reason for such a recommendation is that design differentiation strategies have the greatest impact on customer loyalty with quality differentiation having the least impact. In addition, the firms should endeavor to implement loyalty programmes in order to attract and maintain loyal customers and focus on relationship marketing rather than product-driven strategies for better performance.

7.1 Implications of the Study

The study validated the posits of the discrete choice theory of product differentiation and the customer loyalty business model which contributes to the body of knowledge in the area of marketing and specifically to the product differentiation strategies. The study expands the concept of firm performance by emphasising that product differentiation alone cannot improve performance. Therefore, firms must work on customer loyalty and develop relationship with their consumers for sustainable performance. The study also contributes to the manufacturing sector’s policy and practise by emphasising that for the firms in this sector to experience better performance in terms of sales volume, market share and profits, better strategies need to be developed and implemented. This study revealed that product differentiation strategies in terms of price differentiation, design
differentiation and quality differentiation are very essential in improving the performance of these firms by influencing customer loyalty. Guided by the findings of this study, manufacturing firms can be able to direct their resources towards formulating and implementing well-developed product differentiation strategies that will enable them to produce well-designed, high quality and valuable products that can compete effectively in the market. This will improve the performance of these firms which in turn contributes towards the attainment of the vision 2030 by improving the performance of the manufacturing sector in general.

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Conflict of Interest Statement
The authors of this article would like to declare that there are no conflicts of interest attached to this research and that the article has not been submitted to any journal for publication.

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