International Journal of Novel Research in Marketing Management and Economics Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: <u>www.noveltyjournals.com</u>

DESIGN DIFFERENTIATION STRATEGIES: REVAMPING THE PERFORMANCE OF EDIBLE OILS MANUFACTURING FIRMS IN AN EMERGING ECONOMY

¹Alice Ngele Mwazuna, ²Dr. Arvinlucy Onditi, ³Dr. Elijah Museve

¹PhD student, Jaramogi Oginga Odinga University of Science and Technology, Kenya
 ²Senior Lecturer, Jaramogi Oginga Odinga University of Science and Technology, Kenya
 ³Senior Lecturer, Jaramogi Oginga Odinga University of Science and Technology, Kenya
 DOI: <u>https://doi.org/10.5281/zenodo.7144620</u>

Published Date: 04-October-2022

Abstract: The manufacturing sector in Kenya is faced with constant challenges making it very dynamic in nature. This has forced most firms especially in the edible oils sector to differentiate the design of their products in order to them more attractive, outshine their competitors and improve their performance. The study therefore sort to establish the effect of design differentiation strategies on performance of selected edible oils manufacturing firms in Kenya. The study adopted explanatory research design and was guide by the discrete choice theory of competitive advantage. The sample size was 87 respondents drawn from a target population of 104 respondents which consisted of the top and middle level employees from the sales and marketing departments of the selected edible oils manufacturing firms. Purposive sampling was used to target the marketing managers and product line managers while simple random sampling was used for the sales representatives. A structured questionnaire was used to collect data for the study which was then analysed using descriptive statistics, linear regression and correlation analysis and results presented using tables. The results indicated that the manufacturing firms in Kenya differentiate the design of their products in terms of aesthetics, functionality and ergonomics and that design differentiation strategies had a positive and significant effect on the performance of the selected edible oils manufacturing firms in Kenya. The study recommended that manufacturing firms should put more emphasis on differentiating the design of their products to make them more appealing to consumers in order to improve on performance.

Keywords: Design Differentiation, aesthetics, functionality, ergonomics, performance of manufacturing firms.

I. INTRODUCTION

Design of a product refers to the total features that affects how a product appears, feels, and functions. In this respect a welldesigned product offers both functional and aesthetic value to the consumers which could become a critical approach to product differentiation (Kotler & Keller, 2011). Design differentiation of a product is not simply about the outlooks or

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

making the product easier to use (ergonomics) but rather it is about the core of the business process, adding value to products and expanding to new markets. Therefore, product design is mainly associated with the final result of any product (Eisenman, 2013). According to Verganti (2008), successful product design differentiation is not only achieved by adding pleasant features to a product but also through performing different activities that lead to the creation of an appealing, usable and functional product. Product design therefore plays an essential role in the creation and development of meaningful products and contributes immensely to the delivery of products that are aesthetically attractive, functional and usable by consumers. (Chiva and Alegre, 2009). Design differentiation of products is one of the most important marketing strategies for the development of innovative and competitive products that can enable an organisation to improve its performance in a competitive market environment. According to Verganti (2008), successful design differentiation can be achieved by adding pleasant features to a product to make it more appealing to consumers and also by making the product more user friendly and functional. Product design differentiation therefore plays an essential role in the creation and development of meaningful products and contributes immensely to the delivery of products that are aesthetically attractive, functional and usable by consumers (Chiva and Alegre, 2009), this by extension results in to improved firm performance. Lazar (2016) affirms that firms that perform well form a good ingredient for economic, political, and social development of their countries. A Firms' success in the competitive business environment is majorly dependent on the performance conditions. Majority of scholars agree that performance is achieved when a firm is efficient and effective in terms of functioning and output in its operations while eventually leads to the success of their products and services in the marketplace in terms of sales volumes with translates to profitability and larger market share (Taouab & Issor, 2019). According to Cheah, Kang and Chew (2007), a firm's competitive performance is usually measured by the business volume of its output which includes sales volume made and the profit arising from the sales. The author's further urge that most firms exist to make profits and therefore regardless of how efficient and effective a firm is in its internal operations or in the utilization of available resources, if its products don't sell in the market then the efforts were in vain. According to Parida and Pradhan (2016) the growth and success of an economically strong nation depends on the success of the manufacturing sector. The manufacturing sector of the United States accounted for 18.2% of the total goods sold in the world in the year 2018. This percentage was higher than the economic output of South Korea, Canada or Mexico. China on the other hand has the world's largest manufacturing output at 20% per annum (Amadeo, 2019). This data shows just how important the manufacturing sector is to the economic growth of the world. In the year 2016 the share of manufacturing in nations such as China, Germany, India, United States and Brazil were 27%, 21%, 15%, 12% and 11% respectively (Levinson, 2018). This formed a considerably large percentage of the countries' economies compared to other sectors. The manufacturing sector in Africa also plays a significant role in the national economies of these countries though not to every great extent (Banerjee & Majundar, 2014). Ajibike and Arema, (2015) argued that the average manufacturing firm in Sub-Saharan Africa is usually less productive than the average firm in any of the best performing countries in East Asia. According to Fafchamps and Quinn (2017) Vietnamese firms are more productive than firms in the three African countries that they studied. The manufacturing sector in Kenya has remained largely underdeveloped as compared to the agriculture and services sectors respectively despite it being considered as the back born of the economy. Historically in Kenya, the sector's contribution to the GDP has stagnated at 10% with the country further experiencing premature deindustrialization as revealed by a further decline in GDP contribution by the manufacturing sector which was a mere 7% in 2018, 8.4% in 2017 and 9.2% in 2016 (Kenya Association of Manufacturers, 2018). In general, the rate of growth of the manufacturing sector in Kenya has been slower than the national economic growth since the year 2010 (Were, 2016) hence, the contribution of the manufacturing sector in the Kenyan economy has been diminishing over time. The sector remains underdeveloped in comparison with the international standards in addition to suffering from competition from counterfeit and cheap products from countries such as China (Were, 2016). This created the need for conducting this study to find out why the Kenyan manufacturing firms are not performing.

STATEMENT OF THE PROBLEM

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 sectors contribution to the country's GDP has also been declining over the years with its contributing to the GDP standing at 9.2% in the year 2016, 8.4% in the year 2017 and 7% in 2018 (KAM 2018). According to the World Bank report (2014) the performance of Kenya's manufacturing firms have steadily declined since 1970s with

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

emerging firms in the sector having only a 35% chance rate of competing effectively and surviving in the market. In general, the sector has been struggling with stagnation in terms of size and structural inefficiencies which has led to low overall productivity and loss of its market share locally and abroad. 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 for raw inputs, which is estimated to be \$35 million annually. Of the sector's predominant imports, crude palm oil (CPO) is imported from Malaysia and Indonesia, while crude sunflower oil is imported from Argentina and Ukraine (AsokoInsight 2019). At the same time, the government has also taken a number of steps to reduce the import bill, including placing taxes on imports of raw materials from outside the EAC region and providing preferential tariff treatment on refined edible oils manufactured from locally sourced raw materials. This is a clear indication that the manufacturing industry in Kenya is struggling with operational inefficiencies, performance challenges and steep competition from other countries leading to profit warnings and poor performance of most of the firms in the sector. Over the last ten years some manufacturing firms in Kenya have closed due to poor performance. Some of these firms have also transferred their production to other countries while other firms were also forced to scale down their manufacturing capacity which impacted negatively on their performance (Muigai & Muriithi, 2017). Additionally, the Kenyan market is overwhelmed by the presence of counterfeit and substitute products from foreign investors which pose a challenge to the locally manufactured products. This is a clear indication that the something needs to be done so that the products from the sector are strong enough to overcome the competition in the market and improve the sectors performance.

OBJECTIVE OF THE STUDY

To determine the effect of design differentiation strategies on performance of selected edible oils manufacturing firms in Kenya

RESEARCH HYPOTHESIS

 H_{01} : Design differentiation strategies has no significant effect on the performance of selected edible oils manufacturing firms in Kenya

II. LITERATURE REVIEW

EMPIRICAL LITERATURE REVIEW

Daaboul, Da Cunha, Le Duigou, Novak and Bernard (2015) conducted a case study on differentiation and customer decoupling points which was on integrated design approach for mass customization in a shoe company in Slovenia. The results of the study indicated that product design was an essential element in creating customer satisfaction and maximizing profit. Similarly, Chou and Wang (2012) conducted a qualitative study in Taiwan to ascertain how consumers would differentiate bottle products packaged differently in a hypermarket which was grounded on the concept of package design differentiation and statistical tests for packaging factors. Data was collected using focus group interviews after which design differentiation was assessed and determined using a statistically deduced formula. The findings of the study indicated that the design differentiation of the bottles played a role in convincing consumers to buy a product and building brand identity. A separate survey study conducted by Thompson (2015) on how design and art as marketing differentiation strategies impacts the luxury hotels in New York City found out that design differentiation is paramount for competitive advantage in the hospitality industry. Shao (2015) in a study conducted on product variety design differentiation with respect to both vertical and horizontal differentiation dimensions on the process of customer choice found out that the product design influences the price of a product which will then lead to profit maximization.

Tony-Okeke and Onyemachi (2018) conducted an empirical study on the impact of differentiation on performance of businesses in Nigeria. Findings of the study indicated a strong significant relationship between design differentiation, quality differentiation and business performance. Nattrass and Seekings (2012) in their empirical study on differentiation in the clothing industry in South Africa found out that the textile industry is very dynamic in nature and people always want something different when it comes to clothes. The study concluded that design differentiation is paramount in improving sales of the clothes thereby improving firm's performance. Mtaturu and Mbailuka (2020) carried out a study in Tanzania on product differentiation and SMEs market participation in the agro processing industry and found out that most agro

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

processing SMEs have a challenge in practicing product differentiation due to their relatively low financial capacity nevertheless, SMEs the improve their products through product differentiation are less likely to participate in low traditional markets but rather in the middle and high level markets. The results also confirmed that design differentiation boosts the value of the products helping the SMEs to capture next market levels and improve their profit margins.

Nyaga, (2015) conducted a case study on the effects of competitive strategy on performance of Express Connections Limited in Kenya, the study showed that firms in the motor vehicle industry applied design differentiation to achieve competitive advantage. Additionally, Kago, Gichunge and Baimwera (2018) studied how competitive strategies relate to the performance of organizations in the petroleum industry in Kenya. The study adopted a descriptive research design where 52 petroleum companies were samples and data collected using questionnaires. The results of the study showed that petroleum companies invested highly in differentiating the design of their products to ensure increased revenues from the sales made. In another study Kobia and Kinyua (2018) undertook an empirical analysis of the relationship between product development and the performance of Bata Shoe Company outlets in Nairobi, Kenya. In their study, the authors used a descriptive research design and measured product development by product design, improvement, functionality and performance. The study concluded that product design differentiation was a key aspect in ensuring competitive edge and performance of the outlets.

STUDY THEORY

This study was guided by discrete choice theory of product differentiation (DCTPD). The theory was proposed by Anderson, De Palma and Thisse (1992) who posit that product differentiation in terms of quality, design, colour, size, shape, and packaging has an important influence on customers' choices of a particular product. The theory is vital in the understanding of the modern market economics and can be used in the understanding of the behaviour of consumers in the varied differentiated markets to establish and further devise on strategies that can be used in the case of a competitive industry (Porter, 1990). According to the theory, when a new product is introduced into the market, the competitors reposition themselves to be able to compete favorably. In this respect, the differentiation of the product can be conducted in different ways. For a product, spatial differentiation can be rather useful and strategic since it helps the firm in overcoming costs associated with transportation. In this regard, the price of certain products changes, a phenomenon that is referred to as approximation differentiation (Anderson & De Palma, 1988). Similarly, other characteristics can determine product differentiation and provide a suitable competitive advantage to the products over the rivals. While transportation is still considered an important concern for the firms, several businesses have crafted other appropriate ways to lessen the costs of transportation and business models are emerging to help in curbing the classical pricing technique. The discrete choice theory of product differentiation primarily focuses over spatial differentiation; however, the theory fails to consider the other aspects and parameters that are necessary when one is learning about product differentiation from the holistic perspective (Anderson et al., 1992). By the adoption and the application of the theory, the contemporary companies have been able to gain a competitive advantage through technology, innovation, and creativity. An advanced technology has often been adopted with the intention of gaining the number of buyers and have proven to be an effective strategic tool in the simplest ways of gaining the customers and beating the competition experienced by a venture. The discrete choice theory of differentiation was significant to the study due to its relevance in the modern economies where there are different brands that are in a consistent state of competition. While it is imperative that situational changes are considered and the industry is analysed thoroughly to be able to see the impact of the theory. The main focus of the theory is differentiation strategies which makes it very relevant to the study. According to Anderson et al., (1992) the discrete choice theory of product differentiation is very crucial as it helps in understanding the existing and often highly technical analysis of both differentiated markets and discrete choice models which can also extend the analysis to develop a meaningful theoretical basis for research in imperfect competition markets.

CONCEPTUAL LITERATURE REVIEW

A design differentiated product carries the message that the outlook of the product is one of the ways of satisfying the needs of the customers (Dell'Era & Verganti, 2007). In differentiating the design of products, firms often manipulate the material of the products believing that the customers will decode and understand the meaning that is carried by those products. These actions have been referred to as the meaning-making actions (Hancock, 2005). The main source of competitive advantage for most firms is the product design. Recognizing that product design can improve customer retention, customer loyalty,

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

attract new customers for the firm and eventually increase firm performance practitioners have acknowledge the significance of product design for a firms success (Candi, 2010). The aesthetic appearance of product through design is valued as one of the primary ways to differentiate the product portfolio. Currently, design differentiation is recognized as a strategic resource for a company performance, since the customers are keen on the design language which includes the integration of product aesthetics, symbols and emotional value of the product (Candi, 2010). Moreover, numerous scholars have emphasized on the relationship between product design, innovation and firm performance which shows up the rising attention of the industrial worlds towards design differentiation (Dell'Era & Verganti, 2007). Shao (2015) posits that the design of a product can be differentiated in terms of features or attributes such as style, colour or taste (aesthetics) to make the product more appealing to the consumers or through perceived difference in attributes such as quality or functionality of the product. For example, a larger hard drive is considered more appealing to consumers than a smaller one (aesthetics) and a fast processor will attract consumers more than a slower one (functionality). Therefore making optimal decisions on a firm's product variety or product line design requires a comprehensive understanding of customer choice behavior in aesthetics, functionality and quality of a product. Several studies therefore indicate that firms can improve their products and compete effectively to improve on their performance by differentiating their products on a number of design dimensions (Candi, 2010: Shao 2015: Dell'Era & Verganti, 2007: Eisenman, 2013: Verganti 2008: Chiva and Alegre, 2009) Such as; aesthetics, functionality and ease of use of the products. The current study therefore sort to investigate design differentiation on the basis of a combination of all the three aspect: Aesthetics, functionality and ergonomics (ease of use).

CONCEPTUAL FRAMEWORK

Independent Variable

Dependent Variable



Fig 1: conceptual Framework

Source: Researcher (2022)

III. RESEARCH METHODOLOGY

The study employed an explanatory research design which was appropriate in determining the cause and effect relationship between the dependent and the independent variables. The study was conducted in 3 selected manufacturing firms of edible oils which consisted of; Unilever Kenya Limited, Bidco Africa and Kapa Oil Refineries. These 3 firms were selected because they have been leading in the market share in the sector. The edible oils sub- sector was selected because it is the only sector in Kenya that is regionally competitive in the manufacturing industry (KAM 2018). The study targeted 104 top and middle level employees working in the sales and marketing department of the 3 selected edible oil manufacturing firms and using the Yamane formula, a sample size of 87 respondents was used for the study. Purposive sampling was used to target the marketing managers and product line managers while simple random sampling was used to collect secondary data for the study. Data was analysed using descriptive statistics, linear regression and correlation analysis and results presented using tables.

IV. RESULTS AND DISCUSSIONS

i. Descriptive Statistics

Duration of service in the company

Most of the respondents 67 (78.8%) had served in the respective companies for more than five years. This means that they have served in the respective companies long enough to understand the operations within their firms. Consistent with the findings of Martínez-Camblor and Pardo-Fernández (2019), an employee who has spent more than four years in each position or company is deemed to have understood various aspects of operations and performance.

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

Variables	Yes	No
Firms having developed any design differentiation strategies	59(69.4%)	26(30.6%)
Changing product appearance to look more appealing and attractive (aesthetics) being adopted by the firm as a design differentiation strategy	52(61.2%)	33(38.8%)
Improving product functionality being adopted by the firm as a design differentiation strategy	48(56.5%)	37(43.5%)
Making the product more comfortable and easier to use (ergonomics) being adopted by the firm as a design differentiation strategy	50(58.8%)	35(41.2%)
Have the design differentiation strategies adopted by the firm caused increase in sales volume	50(58.8%)	35(41.2%)
Have the design differentiation strategies adopted by the firm caused increase in profits	48(56.5%)	37(43.5%)
Have the design differentiation strategies adopted by the firm caused increase in market share	45(52.9%)	40(47.1%)

Table I: Effect of design differentiation strategies on firm performance

Source: Research Data (2022)

The results of the analysis from table I above established that, most (69.4%) of the edible oils manufacturing firms in Kenya have developed design differentiation strategies while the remaining 26 (30.6%) have not. The results also established that changing product appearance to look more appealing and attractive (aesthetics) 59(69.4%), Improving product functionality 48(56.5%) and Making the product more comfortable and easier to use (ergonomics) 50(58.8%) are the main strategies that the firms have adopted to differentiate the design of their products. Further to this, the study also established that the design differentiation strategies adopted by the firms have caused an increase in sales volume 50(58.8%), profits 48(56.5%) and market share 45(52.9%). These findings are consistant with those of those of Kyengo, Ombui & Iravo (2016), Tony-Okeke and Onyemachi (2018) and Nattrass and Seekings (2012) indicating that design differentiation strategy is paramount in improving the sales volume of a firm. Mtaturu and Mbailuka (2020) also found out that design differentiation boosts the value of the products helping the SMEs to capture next market levels and improve their profit margins. Nevertheless, the fact that more than a third of the respondents indicated otherwise in terms of design differentiation strategies adopted by the firms having caused an increase in sales volume 35(41.2%), profits 37(43.5%) and market share 40(47.1%) should not be ignored but rather should raise eye brows and call for further investigation as to why.

Variables	Very high	High extent	Moderate	Low extent	No extent
	extent		extent		
Extent to which design differentiation strategies adopted by the firm have been applied to personal care products	20(23.5%)	30(35.5%)	26(30.6%)	6(7.1%)	3(3.5%)
Extent to which design differentiation strategies adopted by the firm have been applied to home care products	11(12.9%)	28(32.9%)	27(31.8%)	14(16.5%)	5(5.9%)
Extent to which design differentiation strategies adopted by the firm have been applied to edible oils	2(2.4%)	21(24.7%)	31(36.5%)	19(22.4%)	12(14.1%)
Extent to which design differentiation strategies adopted by the firm have affected the performance of personal care products	2(2.4%)	32(37.6%)	36(42.4%)	10(11.8%)	5(5.9%)
Extent to which design differentiation strategies adopted by the firm have	13(15.3%)	27(31.8%)	29(34.1%)	12(14.1%)	4(4.7%)

Table II: Effect of design differentiation strategies on product categories

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

affected the performance of home care products					
Extent to which design differentiation strategies adopted by the firm have affected the performance of edible oils	4(4.7%)	30(35.3%)	30(35.3%)	10(11.8%)	11(12.9%)
Extent of effect of design differentiation strategies on the general firm performance	13(15.5%)	26(30.6%)	33(38.8%)	13(15.3%)	0(0.0%)

Source: Research Data (2022)

From the results in table II above, most of the respondents 76(89.6) indicated very high to moderate extent to which design differentiation strategies adopted by the firm have been applied to personal care products, 66(77.6) of the respondents indicated very high to moderate extent to which design differentiation strategies adopted by the firm have been applied to home care products and 54(63.6) indicated very high to moderate extent to which design differentiation strategies have been highly applied on personal care products followed by home care products and least on edible oils. The results further established a very high to moderate extent to which design differentiation strategies adopted by the firm have affected the performance of personal care products 70(82.4), home care products 69(81.2) and edible oils 64(75.3). Finally the results also revealed that design differentiation strategies adopted by the firm performance to a high extent 72(84.9). These findings are consistent with those of Shao (2015), Nyaga, (2015) and Kobia and Kinyua (2018) have also emphasized on the relationship between design differentiation, innovation and firm performance

Table III: Performance of the edible oils manufacturing firms

Variables	Increasing	Static	Decreasing
The status of annual sales volume due to adoption of design differentiation strategies	39(45.9%)	33(38.8%)	13(15.3%)
The status of annual profits due to adoption of design differentiation strategies	41(48.2%)	28(32.9%)	16(18.8%)
The status of the market share due to adoption of design differentiation strategies	50(58.8%)	30(35.3%)	5(5.9%)

Source: Research Data (2022)

From the results in table III above most of the responds 39(45.9) indicated that the status of annual sales volume, 41(48.2%) annual profits and 50(58.8%) market share had increased due to adoption of design differentiation strategies. This indicates that the performance of the firms had increased due to adoption of the design differentiation strategies. These findings are consistent with those of Daaboul et al (2015) which revealed that product design differentiation was very significant in creating customer satisfaction and maximizing profit. In addition Nattrass and Seekings (2012) indicated that design differentiation strategy is paramount in improving the sales volume of a firm. Kobia and Kinyua (2018) also found out that product design differentiation was a key aspect in attracting customers to a product thus improving the market share of the Bata shoe outlets.

ii. Inferential Statistics

Design Differentiation Strategies and Performance of selected Edible Oils in Kenya .

The hypothesis tested was:

*H*₀₁: Design differentiation strategies has no significant effect on the performance of selected edible oils manufacturing firms in Kenya

 H_{11} : Design differentiation strategies has a significant effect on the performance of selected edible oils manufacturing firms in Kenya

The results of the regression analysis were as follows:

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.086 ^a	.057	.117	1.34270

a. Predictors: (Constant), Design Differentiation Strategy

Source: Research Data (2022)

From the study findings in Table IV above, the value of r-square is 0.057. This implies that, 5.7% of variation of performance of selected edible oils manufacturing firms in Kenya was explained by design differentiation strategies. Given that the r-square was not equal to zero, the study assumed that the model was a good fit for the data.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.019	1	3.255	.059	.014 ^b
	Residual	34.727	8	.118		
	Total	67.747	9			

Table V: ANOVA for Design Differentiation Strategies and Firm Performance

a. Dependent Variable: performance

b. Predictors: (Constant), Design Differentiation Strategy

Source: Research Data (2022)

The ANOVA uses the F-statistic to test the null hypothesis that all the coefficients are equal to zero against the alternative hypothesis that at least one of the coefficients is not equal to zero. From the findings in **Table V** above, the F-statistic = 0.059 has a *p* value of 0.014, which is < .05. The decision is to reject the null hypothesis that all the coefficients are equal to zero and instead accept 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 ANOVA test indicated that in this model the independent variable namely, design differentiation strategy is important in predicting of performance of selected edible oils manufacturing firms in Kenya as indicated by significance value = 0.014 which is less than 0.05 level of significance (p = 0.014 < 0.05). The conclusion based on such findings is that the model is a good fit; hence, the need to establish the coefficients alongside their significance as illustrated in the following table VI

		Unstandardized Coefficients		Standardized Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	2.708	.229		.386	.710	
	Design Differentiation Strategy	.213	.063	.086	.244	.014	
a. Dependent Variable: performance							

Source: Research Data (2022)

From Table VI above, the *p* value of the coefficient to design differentiation strategy is 0.014 < 0.05. In this case, the decision is to reject the null hypothesis that design differentiation strategy has no significant effect on performance of selected edible oils manufacturing firms in Kenya. This leads to accepting the alternative hypothesis that design differentiation strategy has a significant effect on performance of selected edible oils manufacturing firms in Kenya. Based on such findings, the study concludes that design differentiation strategy has a significant influence on performance of selected edible oils manufacturing firms in Kenya (t-statistic=.244, p-value = 0.014 < 0.05).

By letting Y be performance and X_2 be design differentiation strategy, using the regression coefficients in Table VI, we have:

 $Y = \beta_0 + \beta_2 X_2$

$$Y = 2.708 + 0.213 * X_2$$

Looking at the coefficient of design differentiation strategy, which is positive 0.213, the study further concludes that design differentiation positively affects the performance of selected edible oils manufacturing firms in Kenya. Thus, for every unit

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

increase in design differentiation strategy there was a corresponding increase in performance of selected edible oils manufacturing firms in Kenya by 0.213.

V. FINDINGS, CONCLUSSIONS AND RECOMMENDATIONS

FINDINGS

The study was interested in determining the effects of design differentiation strategy on performance of selected edible oils manufacturing firms in Kenya. Responses obtained from the participants had indicated that indeed there seemed to be some positive performances among the firms that are involved in design differentiation as a strategy for attaining a relatively higher performance. Findings from the study indicated a statistically significant relationship between design differentiation and performance of the selected edible oils manufacturing firms in Kenya. Just like in the case of price differentiation strategy, the study also noted that design differentiation strategy is adopted based on the type of product. The study also noted that design differentiation strategy is adopted based on the type of product. The study also noted that the selected edible oils manufacturing firms in Kenya are involved in design differentiation strategy as a way of improving the firm's performance. In testing the hypothesis that design differentiation strategy influences the performance of the selected edible oils manufacturing firms, regression analysis was preferred to other statistical methods. According to the regression results, design differentiation strategy had a beta =0.213 with p value = 0.014, which means that it was statistically significant at 5% significance level. The study rejected the null hypothesis and accepted the alternative hypothesis implying that design differentiation strategy influences the performance of the selected edible oils manufacturing in Kenya. The study found out that there is an unproportionate effect where a one unit increase in design differentiation strategy affects performance. Alongside the findings from previous studies, the study confirmed that indeed design differentiation strategy affects performances of the firms.

CONCLUSIONS

The study rejected the null hypothesis and concluded that design differentiation strategy had a significant effect on performance of selected edible oils manufacturing firms in Kenya. From the regression results, design differentiation strategy was found to have a significant positive effect on the performance of the edible oils manufacturing firms with t-statistic of .244 and p-value of 0.014 which was less than 0.05. Design differentiation strategy was ranked first among all the product differentiation strategies in affecting the performance of the firms. Since the design of a product is mostly about its appearance and aesthetics, a products design is the first thing that will make a consumer attracted to the product before he/she considers the price and quality. In essence, a good design adds value to the product leading to customer attraction and retention which eventually improves a firm's performance.

RECOMMENDATIONS

This study therefore recommends that firms should put more emphasis on differentiating the design of the personal care products to make them more appealing to consumers in order to improve on performance. This should be followed by some effort on home care products and finally the edible oils since design differentiation also affected their performance to some extent. The study further recommends that all the three strategies should be adopted as design differentiation strategies by the firms for improved performance but just like in the case of price differentiation, the recommendation to enhance design differentiation strategy is linked to product type. Design differentiation strategy has been found to have varying effects on different product types therefore, as a firm engages in design differentiation, there is need to check on the product type for better results.

REFERENCES

- [1] Ajibike, J., & Arema, O. (2015). The Impact of Liquidity on Nigerian Bank Performance: A Dynamic Panel Approach. Journal of African Macroeconomic Review, 5(2), 6-9.
- [2] Amadeo, K. (2019, August 26). US Manufacturing, Statistics, and Outlook. Retrieved from The Balance:https:// www.thebalance.com/u-s-manufacturing-what-it-is-statistics-and-outlook-3305575
- [3] Anderson, S. P., & De Palma, A. (1988). Spatial price discrimination with heterogeneous products. The Review of Economic Studies, 573--592.
- [4] Anderson, S. P., De Palma, A., & Thisse, J. F. (1992). Discrete choice theory of product differentiation. MIT press.

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

- [5] Asch, R., & Salaman, E. (2002). The effect of proactive human resource management practices on job retention: International Business Review, 127(6), 676-687.
- [6] AsokoInsight (2019). Kenya's Leading Edible Oil Manufacturers, https://www.asokoinsight.com/content/marketinsights/kenya-edible-oil-manufacturers
- [7] Baines, A., & Langfield-Smith, K. (2003). Antecedents to management accounting change: A structural equitation approach. Accounting Organizations and Society, 28; 657-698.
- [8] Banerjee, R., & Majumdar, S. (2014). Profitability Determinants of Commercial Banks in UAE- A Sure Model Approach, Conference Paper: 3rd Asian Business Research Conference, At Instead, Volume: 3.
- [9] Candi, M. (2010). Benefits of aesthetic design as an element of new service development. Journal of Product Innovation Management, 27(7), 1047-1064.
- [10] Cheah, C. Y., Kang, J., & Chew, D. A. (2007). Strategic analysis of large local construction firms in China. Construction Management and Economics, 25(1), 25-38.
- [11] Chiva, R., & Alegre, J. (2009). Investment in design and firm performance: The mediating role of design management. Journal of Product Innovation Management, 26(4), 424-440.
- [12] Chou, M. C., & Wang, R. W. (2012). Displayability: An assessment of differentiation design for the findability of bottle packaging. Displays, 33(3), 146-156.
- [13] Daaboul, J., Da Cunha, C., Le Duigou, J., Novak, B., & Bernard, A. (2015). Differentiation and customer decoupling points: An integrated design approach for mass customization. Concurrent Engineering, 23(4), 284-295.
- [14] Dell'Era, C., & Verganti, R. (2007). Strategies of innovation and imitation of product languages. Journal of Product Innovation Management, 580-599.
- [15] Dirisu, J. I., Iyiola, O., & Ibidunni, O. S. (2013). Product Differentiation: A Tool of Competitive Advantage and Optimal Organizational Performance (A Study of Unilever Nigeria Plc). Department of Business Management, Covenant University, Ota, Nigeria, 9(34), 258-281.
- [16] Eisenman, M. (2013). Understanding aesthetic innovation in the context of technological evolution. Academy of Management Review, 38(3), 332-351.
- [17] Fafchamps, M., & Quinn, S. (2017). Aspire. The Journal of Development Studies, 53(10): 1615-1633.
- [18] Hancock, P. (2005). Uncovering the semiotic in organizational aesthetics. Organization, 12(1), 29-50.
- [19] Kago, Z. W., Gichunge, E. M., & Baimwera, B. (2018). Relationship between competitive strategies and organizational performance of petroleum companies in Kenya. International Academic Journal of Human Resource and Business Administration, 3(2), 407-429.
- [20] Kenya Association of Manufacturers. (2018). Manufacturing in Kenya Under the 'Big 4 Agenda' A Sector Deep-dive Report. Nairobi: Kenya Business Guide.
- [21] Kobia, F. K., & Kinyua, G. (2018). An Empirical Analysis of the Relationship between Product Development and Performance of Outlets of Bata Shoe Company in Nairobi City County, Kenya. International Journal of Innovative Research and Advanced Studies, 5(10), 55-60.
- [22] Kotler, P., & Keller, K. (2011). Marketing management 14th edition. Prentice Hall.
- [23] Lazar, S. (2016). Determinants of Firm Performance: Evidence from Romanian Listed Companies. Review of Business and Economic Studies, 9(1), 53-69.
- [24] Levinson, M. (2018). U.S. Manufacturing in International Perspective. Congressional Research Service. London: Financial Times Prentice Hall;

Vol. 9, Issue 3, pp: (20-30), Month: September - December 2022, Available at: www.noveltyjournals.com

- [25] Martínez-Camblor, P. & Pardo-Fernández, J. C. (2019). Parametric estimates for the receiver operating characteristic curve generalization for non-monotone relationships. Statistical methods in medical research, 28(7), 2032-2048.
- [26] Mtaturu, J. Z., & Mbailuka, J. J. (2020). Product Differentiation and SMEs Market Participation: Implications For Tanzanian Agro Processing Industry. African Journal of Applied Research, 6(2), 1-15.
- [27] Nattrass, N., & Seekings, J. (2012). Differentiation within the South African clothing industry: Implications for wage setting and employment. CSSR Working Paper No. 307. Centre for Social Science Research.
- [28] Nyaga, N. J. (2015). Effects of competitive strategies on performance of express connections limited in Kenya (Doctoral dissertation, University of Nairobi).
- [29] Porter, M. E. (1990). The competitive advantage of nations: with a new introduction. Free Press. New York.
- [30] Shao, X. F. (2015). Product differentiation design under sequential consumer choice process. International Journal of Production Research, 53(8), 2342-2364.
- [31] Taouab, O., & Issor, Z. (2019). Firm Performance: Definition and Measurement Models. European Scientific Journal, 15(1), 93-106.
- [32] Thompson, A. (2015). Boutique, Design and Luxury Hotels in New York City: A Survey of the Impact of Art and Design as a Marketing Differentiation Strategy (Doctoral dissertation, Sotheby's Institute of Art-New York).
- [33] Tony-Okeke, O., & Onyemachi, C. (2018). Differentiation Strategy and Impact on Business. Strategic Journal of Business and Social Science, 1(12), 1-20.
- [34] Verganti, R. (2008). Design, meanings, and radical innovation: A metamodel and a research agenda. Journal of product innovation management, 25(5), 436-456.
- [35] Were, A. (2016). Manufacturing in Kenya: Features, Challenges and Opportunities. Nairobi: Supporting Economic Transformation.
- [36] World Bank. (2014). Kenya economic update: Accelerating growth and poverty reduction in the Kenya. The World Bank.
- [37] Yoo, J.W., Lemak, D.J., & Choi, Y. (2006). Principles of management and competitive strategies: using Fayol to implement Porter. Journal of Management History, 12(4), 352-368.