An Empirical Analysis Of The Relationship Between Product Development And Performance Of Outlets Of Bata Shoe Company In Nairobi City County, Kenya

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Abstract: Performance of firms in the leather industry has experienced fluctuation in the last couple of years, a situation that has been compounded by availability of imported low cost second hand leather products in the market. Notably, manufacturers of leather products in Kenya have been overly exposed to intense price based competition, which has resulted in jostling and shift of market share amongst the players. It's therefore imperative for management of firms in the leather industry to embrace new ideas which can stimulate enhanced acceptability of locally manufactured leather products. This study therefore focused on investigating the relationship between product development and performance of outlets of Bata Shoe Company in Nairobi City County. Product development was measured by product design, product improvement, product functionality and product performance whereas performance indicators were profitability, market share, customer satisfaction and corporate image. Descriptive research design was involved to provide presentation of results concerning the nature of the occurrence of the investigation. The target population of the study was drawn from management of Bata Shoe Company outlets in Nairobi City County. Proportionate stratified sampling technique was used to select the respondents from the management level employees that constituted the sample size. Primary data was collected using structured questionnaire, while secondary data was gathered through a review of published materials. The response rate for the study was seventy-five percent, which was suitable for making decisions. Descriptive statistics involved the use of sample mean and sample standard deviation. Nevertheless, inferential statistics involved the use of correlation and simple linear regression analysis. The results of analysis were presented in figures and tables. The findings of the study revealed that product design, product improvement, product functionality and product performance collectively contributed to the performance of the outlets. Management of outlets of Bata Shoe Company should make use of these findings to come up with the necessary resources to support activities and practices that promote the establishment and inception of strategies that enhance the performance of the existing company policies.

Keywords: Product development, product design, product functionality, product performance and performance.

I. INTRODUCTION

In today's dynamic firms operate in a very volatile environment. This makes it imperative for them to react by examining the business performance and embrace the strategies that position them as viable in the market. For firms to effectively expand, they must respond with strategies to the challenges, opportunities, risks and limitations that come as a result of the forces from the external environment (Costa, 2007). Organizations are required to continuously examine the business environment through which they operate and its performance; this will enable them to understand the changes in the business environment hence developing proper strategies (Auster & Choo, 2004). While businesses continue to contemplate on the strategies to adapt to venture into the burgeoning retail industry, it is even more complex for the existing firms to sustain its market share, realize expansion and maintain its performance.

Kimotho (2012) describes performance as a result of all the firm's operations and strategies. Noum (2007) is of the

opinion that performance entails what people do in regard to organizational responsibilities. Companies have used various standards when measuring and reporting their performance. The main tools often used to determine performance are the market share of the firm within the industry of operation and its profitability. Profitability is used to determine the company return on capital employed which gives the shareholders value. Pearce and Robinson (2003) sighted three objectives, which define the performance of a company and these are; market survival, profit it generates and growth. There is an inexplicit correlation between the growth of a firm and the firm's market survival and the profits generated. The balance scorecard method was brought about by Kaplan and Norton (2011) as a better method of measuring the performance of an organization.

The ability of a firm to attract new customers while maintaining the existing ones in a relatively better way than the competition is an imperative for success in the industry. According to Maluku (2013), a firm's approach to business, and the steps it uses to grapple with competition and strengthen its share in the market, constitutes a firm's competitive strategies. For this reason, a company must be very prompt in coming up with superior strategies so as to fully exploit the new opportunities better than its competitors. Thus, the firm has to focus in creating tomorrow's competitive advantages faster than competitors mimic the ones it poses today. The approach used by an organization to gain a competitive hedge entails both defensive and offensive measures. Competitive strategies mainly deal with plans and policies that managers use to make an organization to provide greater customer value hence giving it an ability to compete successfully. For this reason competitive strategies are often viewed as limited in scope relative to business strategies.

Performance of the leather industry has been relatively eroded by competition and availability of imported second hand leather products at relatively low cost (Dinh, 2012). Indeed, unprecedented fluctuation in performance of firms in the industry has been witnessed in the last couple of years, a situation that has been compounded by availability of imported low cost second hand leather products in the market. Notably, manufacturers of leather products in Kenya have been overly exposed to intense price based competition, which has resulted in jostling and shift of market share. It's therefore imperative for management of firms in the leather industry to embrace new ideas which can stimulate enhanced acceptability of inherent products. This study therefore focused on investigating the relationship between product development and performance of outlets of Bata Shoe Company in Nairobi City County.

II. THEORETICAL LITERATURE REVIEW

Resource based view RBV is a method used to achieve competitive advantage that was developed by Penrose (1959).It analyzed the competitiveness of an organization using four dimensions namely; creating competitive advantage, sustaining the competitive advantage, isolation mechanisms and competitive advantage and economic rents. The resource-based view is a decision-making outline used to establish the strategic resources that have the potential to deliver relative advantage to the firm; the resources can be utilized by an organization in order to achieve sustainable competitive advantage (Barney & Hesterly, 2010).

Conner, (1991) emphasized that firm resources that are both heterogeneous and immobile, as well as possessing attributes of value, rareness, imitability and organization as a potentials source competitive advantage. This firm specific perspective can be used to build and support a case for explaining performance heterogeneity of firms in the same industry. Resources based view supposes that firms are diverse for the reason that they possess diverse resources. This means that firms employ diverse strategies due to the diverse resource mixes. According to Acedo, Barroso, and Galan (2006), the important resource for an organization is the knowledge. The RBV aims to direct decision-making efforts to the resources within an organization for instance; the knowledge of employee, their abilities and competence with the possibility of achieving better performance than its competitors.

According to Peteraf and Bergen (2003), resources include both the tangible and intangible assets that an organization controls and use them to visualize and execute its strategies. Further, they argue that by controlling its resources organizations can be ahead of its competitors. More importantly, competitors may be in no position to challenge the focal organization due to the lack of similar resources. The RBV is premised on the idea that if all firms had the same quantity of resources, then the same strategy will be used by all firms therefore none will have a hedge over the other (Rumelt, 1987). Barney (2001) noted that competitive gain is felt where an organization is executing a strategy that is not being executed by the competitors at the same time. According to the resource based theory, a firm can only sustain its competitive gains if other firms within the same market are unable to copy the strategies that are used within the firm. For this reason, a competitive advantage is not considered to exist as long as the competitors can duplicate the competitive gains.

The proposition by Barney (1991) that firms are heterogeneous because they possess heterogeneous resources and by extension different strategies for exploitation of the various resource mixes can be used provide insights to performance pattern in the leather industry. RBV stresses the need to focus managerial attention on firm's internal and specific resources in an effort to identify the stock of assets, capabilities and competencies with the potential to deliver superior competitive advantage. The theory was found to be crucial for this study since it linked the external factor of the company through the porter generic competitive model and the external factors of the company's environment factor by the balanced score card. Nevertheless, when a resource is rare, scares imitable they enable a company to gain a competitive advantage. Thus RBV was used by the researcher to underpin the independent and dependent variables.

III. EMPIRICAL LITERATURE REVIEW

Liu, Lin and Huang (2014) investigated the effect of product development on operating performance of textile industry in Taiwan. Product development was measured using technical innovation, market innovation and functional innovation whereas operating performance was operationalized on the basis of operational performance financial performance and organizational effectiveness. Regression analysis was used to determine the effects of product development on performance. The results of inferential statistics showed that product development enhances operating performance textile industry. However, this study was conducted in the Taiwanese textile industry and thus the contextual bias does not support making generalization to the leather industry and in particular the outlets of Bata Shoe company in Nairobi City County. Similarly, the indicators of product development and operating performance are not consistently and sufficiently supported by the existing body of theoretical literature. In the current study, product development was measured using product design, product improvement, product functionality and product performance.

Mbithi, Muturi and Rambo (2015) investigated the effect of product development strategy on performance of the Sugar Industry in Kenya. In this study, product development strategy was unbundled into development of new product and improvement of existing products while performance measures were output turnover, profitability, sales quantities and capacity utilization. Linear regression analysis was used as a basis for understanding the effect of the product development on performance. The results of coefficient of determination showed that product development strategy can predict company performance. Nevertheless the study was conducted in sugar industry whose environment conditions varies from the leather industry in terms of complexity and dynamism and thus the findings and conclusion may not be generalized to the Outlets of Bata Shoe Company.

Muchai (2006) investigated the influence of product development on competitive advantage of Coca-cola Limited in Kenya. Product development was measured using the product innovation whereas competitive advantage was informed by the Porter's generic strategies of cost leadership, differentiation and focus. The study made use of case study research design and collected both quantitative and qualitative data using questionnaire and interview methods. The quantitative and qualitative data that was gathered by the researcher was analysis entirely using commonality of ideas and themes and presented in narrative form. The study found that new products development is important since it inhibits competition with other players in the market, thus giving the company a competitive edge. It can be noted that even though thematic analysis as a technique for data analysis may be useful, reliable and sufficient for qualitative empirical data, the approach suffers significant shortcomings when applied in the analysis of responses from structured questions. In this case, the researcher did not adequately analyze quantitative data in order to understand and describe the relevant sample measures as well as make corresponding inferences and conclusions about the population. The current study made use

of appropriate quantitative techniques which facilitated the computation of mean and standard deviation, and making of inferences in respect of the population that was of interest to the researcher.

Extensive review of the existing body of literature was used as a basis for formulating the null hypothesis presented below

H_0: There is no relationship between product development and performance of Bata Shoe Company outlets in Nairobi City County

This null hypothesis was tested at 95 percent level of confidence using both Pearson bivariate correlation coefficient and simple linear regression analysis. The choice of the two tests of statistical analysis was necessary for confirming the direction and strength of the relationship as well as the contribution of the predictor variable to the explained variable.

IV. RESEARCH METHODOLOGY

The study adopted a descriptive research design. According to Collins (2002), descriptive research design involves facts finding that seeks to provide an explanation on the state of affairs as it exists in the current. Descriptive research is concerned with recounting the uniqueness of a particular entity or group (Mugenda & Mugenda, 2003; Kothari, 2004). It involves gathering data with the aim of answering questions regarding the status of the area under discussion and other phenomena using multiple sources of evidence to draw general conclusions from the facts observed. The method is suitable for obtaining information for decision making, identify the current practices, conditions on the relationship between product development and performance of Bata Shoe Company outlets in Nairobi City County, Kenya.

Performance $= \beta_1 + \beta_1 \text{product development} + \varepsilon$ ....Model 1

The target population of the study was drawn from management of Bata Shoe Company outlets in Nairobi City County. Proportionate stratified sampling technique was used to select sixty respondents from Finance, Operations and Marketing departments of Bata Shoe Company Outlets. The use of proportionate stratified random sampling was necessary to provide for selection of a representative sample given that population of the study was heterogeneous on the basis of size. The distribution of the sixty respondents across the departments that formed the criterion for stratification was based on size as other characteristics that were of interest in this study were fairly homogeneous.

Primary data was collected using a structured questionnaire which yielded quantitative data. The questionnaire was broadly divided into general information section which provided the respondents' biographical data, and specific information section which focused on data regarding product development and performance in line with the specific objective of the study. Similarly, secondary data was collected using document review so as validate the observations made from the field. Published sources used for the purpose of document review included publications from the industry as well as the company.

Pilot data was collected from ten employees of the head office of Bata Shoe Company in Limuru. These pilot data was used to support pre-testing of the questionnaire for validity and reliability. Validity of the research instrument was ensured through extensive review of theoretical and empirical literature as well as consultation with experts in field of management. The test of reliability entailed the use of Cronbach's Alpha index that relates to the correlation of the set of items used in respect of each of the study variable. A threshold of at least 0.7 was chosen for making decision as recommended by Treiman (2009). The results of reliability analysis revealed Cronbach's Alpha index of 0.756 and 0.807 for product development and performance rrespectively confirming that the questionnaire was reliable.

The researcher obtained a letter of authority to undertake the research from the National Commission for Science, Technology and Innovation (NACOSTI). Permission and appointments with respondents was sought through the human resource office at the head office of Bata Shoe Company. Debriefing was done and informed consent obtained in line with ethical practices governing management of scholarly research. Questionnaires were administered and later picked up from the respondents at the agreed time.

V. RESULTS AND DISCUSSION

The results indicate the response rate was seventy-five percent, where the researcher distributed 60 questionnaires, however only forty-five were duly filled and collected. The response rate was considered to have a good representative. This is consistent with Mugenda and Mugenda (2012) that a response rate of 50% and above is adequate for analysis and drawing conclusion.

A. SAMPLE MEASURES

Sample mean and sample standard deviation were computed to provide the summary measures for describing the sample with reference to the observations made from the field.

Product Development	n	Min	Max	Mean	SD
Product design enables the company to attract new customers	45	1	5	4.26	0.59
Product improvement results in customer retention	45	1	5	3.77	0.70
Product functionality results in satisfying customer needs	45	1	5	3.46	0.88
Product performance enhances standards accuracy	45	1	5	3.51	0.73
Quality and unique products led to improved performance	45	1	5	4.02	0.63
Product improvement enables the company to gain competitive advantage	45	1	5	4.53	0.52
Aggregate scores				**3.93**	**0.68**

Table 1: Descriptive Statistics on the Study Variables

Performance	n	Min	Max	Mean	SD
There is increase in profitability of the Company	45	1	5	4.26	0.80
The market share of the company has increased	45	1	5	4.57	0.70
The company has maintained good customer satisfaction	45	1	5	3.87	0.92
There is improved corporate image of the company	45	1	5	4.41	0.77
Average scores				**4.28**	**0.79**

Source: Survey Data (2018)

The findings of the descriptive analysis on product development indicates that the average mean were 3.93 and a standard deviation of 0.68.The aggregate mean of 3.93 approximates to 4 on likert scale that confirms that the respondents were in agreement that activities relating to product development are practiced. It is evident that product functionality had the least mean of 3.46 whereas product improvement had the highest mean of 4.53. The variability of the indicators is narrow which demonstrates that the sample mean is stable and reliable for estimating the mean of the population from the sample. Notably, the low variation deriving from the sample mean and standard deviations is an indication that the activities for product development are important and applied in Bata Shoe Company outlets.

The results on performance indicated that market share had the highest sample mean of 4.57, followed by corporate image, profitability and customer satisfaction at 4.41, 4.26 and 3.87 respectively. The average sample mean score of 4.28 and sample standard deviation of 0.79 shows that the respondents were typically in agreement that activities indicating performance are considered critical in the company's outlets. The narrow variability of performance suggests that the responses of employees are concentrated around the aggregate sample mean score and thus can be reliably used to estimate the mean of population. It is therefore apparent that the activities of operationalizing performance in this study are practiced and crucial in Bata Shoe Company outlets.

B. INFERENTIAL STATISTICS

Bivariate correlation analysis was conducted to establish the relationship between product development and performance of Bata Shoe Company Outlets. The results of this analysis are presented in Table 1.

		Performance	Product Development
Performance	Pearson Correlation	1	.450[**]
	Sig. (2-tailed)		.000
Product Development	Pearson Correlation	.450[*]	1
	Sig. (2-tailed)	.000	

[**] *Correlation is significant at 0.01 levels (2-tailed)*
Source: Survey Data (2018)

Table 2: Bivariate Correlation

The results of correlation analysis demonstrate that Pearson correlation coefficient for product development and performance is 0.450 with a p value of 0.001. Thus with a p value of 0.001, we reject the null hypothesis H_0, that there is no correlation in the population against the alternative hypothesis, H_1, that there is correlation. This implies that there is a very strong evidence to support the presence of a moderate positive linear relationship between the independent and dependent variables. However, the existence of a moderate linear correlation does not imply a causal link between product development and performance. Thus, it was necessary to perform simple linear regression analysis to determine if there is a statistically significant causal link and estimate a quantitative model that can be used to predict the effect of product development of performance.

Simple linear regression analysis was carried out to facilitate statistical test for the determination of existence of a statistically significant cause-effect relationship between the variables and establish the coefficients of the model. Linear regression model was chosen because the dependent variable was a continuous variable as recommended by Field (2009). Notably, regression analysis has been used by extant researchers in empirical studies where performance is the explained variable (Kinyua, Muathe & Kilika, 2015; Thangaru & Kinyua, 2017; Mbai, Kinyua & Muhoho, 2018). The researcher regressed product development on performance using the statistical package for social sciences (SPSS) and results presented in Table 2.

	Unstandardized Beta Coefficients	Std. Error	Standardized Beta Coefficients	t	Sig.
(Constant)	1.976	1.062		1.861	.046
Product development	.145	.065	.481	2.203	.024
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.824[a]	0.679	0.621	0.1316		
	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
1 Regression	15.64	4	3.91	11.78	.00[b]
Residual	38.83	46	0.33		
Total	54.47	50			

a. Dependent Variable: Performance
b. Predictors: (Constant), product development

Source: Survey Data (2018)

Table 2: Results of Regression Analysis

The output of model summary in Table 2 reveals the coefficient of determinations as 0.62 suggesting that the product development is responsible of 62 percent of variation in performance of Bata Shoe Company outlets. In addition, output of ANOVA demonstrates that the regression model sufficiently fitted the observed data as F = 3.91 and p = 0.001 which is below the 0.05 threshold adopted for testing the hypothesis at 95 percent level of confidence. Similarly, the output of regression coefficients is useful in estimating the quantitative model governing the relationship between the study variables as follows;

Performance=1.976+0.145 Product Development….. (ii)

The beta coefficients for the y-intercept and slope of the line had p-values of 0.046 and 0.024 respectively. In this case, the two regression coefficients were statistically significant and thus the null hypotheses (H_0) that $\beta_0 = 0$ were rejected at 5 percent level of significance for two coefficients. It's

worthwhile to note that if other factors were held at a constant zero, performance would be at 1.976. In addition, at 95 percent level of confidence, product development has a positive effect on performance. Specifically, a unit increase in product development is responsible for increasing performance by 0.145 units. Consequently, the study concludes that product development affects performance of Bata Shoe Company Outlets.

The findings and conclusions of this study are in agreement with the empirical inferences made in the study conducted by Liu, Lin and Huang (2014) that product development enhances the operating performance on an organization. This conclusion is also corroborated by the inferences made by Mbithi, Muturi and Rambo (2015) that product development strategy has a positive contribution to company's performance. Similary, the results of this study supports the conclusion made by Muchai (2006) that new products development is responsible for enhanced performance and provides a firm with a competitive edge by availing relatively superior products in the market place. The findings also resonates with the postulates of resource based view of the firm that intangible resources that are an imperative for product development are a source of competitive advantage that is responsible for enhanced corporate performance.

VI. CONCLUSION AND RECOMMENDATIONS

Product development is a critical focus of management of organizations especially in the face of environmental dynamisms that characterizes the context of business operations. The researcher examined the relationship between product development and performance of Outlets of Bata Shoe Company in Nairobi City County. The results of the study revealed that there is a moderate positive linear correlation between the research variables. In addition, product development was empirically confirmed to have a statistically significant effect on performance.

It is recommended that management of Bata Shoe Company Outlets should promote activities relating to product design, product improvement, product functionality and product performance through embracing innovative ideas, monitoring and responding to the changes in the needs of the customers and adequate committing resources for product development. Given that the activities for product development are important and applied in Bata Shoe Company outlets, it is necessary for management to initiate practices that would result in enhanced product functionality so as ultimately satisfy the needs of the customers. In addition, future researcher should focus on investigating other factors that may jointly with product development influence performance manufacturers in the leather industry.

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