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INFLUENCE OF PRODUCT DEVELOPMENT ON ORGANISATIONAL PERFORMANCE OF PUBLIC UNIVERSITIES IN KENYA

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ABSTRACT
In competitive markets, a firm has to constantly adapt, update its offering and improve its market share to maintain or improve its position. The study's main objective was to investigate the influence of product development strategy on the organizational performance of public universities in Kenya. The study was grounded on the resource based view theory and the structure-conduct-performance framework. The study employed a cross sectional survey design involving the total population (census) of the 33 public universities in Kenya. The cross sectional survey design was used because of the comparative analysis across the public universities in Kenya. The cross sectional survey also helped to prove and/or disprove assumptions. The respondents were staff from marketing, planning and strategy, finance and administration departments of the universities. Data was collected through semi-structured research questionnaires, which were self-administered to the respondents with the assistance of the researcher. They were dropped and picked from the respective respondents. Data was analyzed through descriptive statistics and inferential statistics including regression analysis and correlation to establish the potential relationship between the dependent and independent variables. The study findings were presented through frequency distribution tables. The study found that product development has a positive influence on the performance of public universities. Public universities have process innovation through parallel-programs that promotes customer acquisition as well as product replacement programs such as distance learning and virtual leaning to reach out to distance students. Public universities should established academic exchange programs with international universities for boosting positive word of mouth as only a few universities have established the exchange programs.
Key Words; *Product Development, Performance*

INTRODUCTION
As a result of the growing number of institutions of higher learning in Kenya, even the well-established public universities are concerned about their organizational performance (Mukhwana, Oure, Kiptoo, Kande, Njue, Too and Some 2016). Additionally Odhiambo

(2013) notes that the reduced capitation to public entities necessitated universities to fend for themselves in order to stay abreast and grow. They also have to align themselves given the external environment complexities. As indicated by Pearce and Robinson (2007), the market condition has progressively turned out to be competitive hence compelling organizations to formulate strategies to grow, improve their performance and remain relevant in the market. One such strategy is the growth strategies, which include market penetration, product development, market development and diversification. Pearson and Saunders (2016) defined growth strategy as a well-articulated vision of where a business seeks to go and how it expects to get there. It is the form by which a business communicates its goals. Westerlund and Leminen (2012) defined a growth strategy as a means in which organizations plan in order to achieve its objectives which is to increase in size, volume and turnover. According to Deeds and Coombs (2000) growth strategy is a framework linking resources to capabilities and is used as the basis for identifying the relative contribution which the different resources make to competitive advantage. The diversification, innovation and creativity into new services and/or markets will help the company in maintaining a sustainable competitive advantage, whilst keeping within the area of its expertise.

Baker (2007) further posits that to succeed, a growth strategy requires a firm foundation from which to develop. Daft (2000) defined organizational performance as the firm's capability to achieve its objectives through utilizing resources in an efficient way. Simons (2000) opined that organizational performance is an approach of market mechanism by which the company actively interacts with the financial factor and customer product markets. That in the financial market, corporate performance strives to satisfy shareholders and creditors in the form of financial indicators. Kaplan and Norton (1992) argued that the extended measurement of corporate performance is by balanced scorecard, where the core idea is to balance the domination of financial and non-financial aspects in organizational performance.

According to Thompson and Strickland (2013), a firm's strategy is managements' action plan for running the business and conducting operations. It is the balance of actions and choices between the internal capabilities and external environment of an organization. Westerlund and Leminen (2012) defined a growth strategy as a means in which organizations plan in order to achieve its objectives which is to increase in size, volume and turnover. Additionally, Kotler (2013) stressed that management constructs this plan in response to market forces, customer demands, and organizational capabilities.

Brooks (2013) posits that the primary goal of organizational growth is to improve efficiency and effectiveness in order to improve the ability of the organization to deliver its services and prosper in the market place in which it competes. Several techniques have been developed to help detect and enhance organizational performance. The balanced scorecard is one of the methods whereby the activities of an organization are measured against its visions and mission. Another method is time management. By managing time and regulating targets and deadlines an organization will grow and make profits.

The Customer perspective addresses how a company creates value for its customers Atkinson, Kaplan, Matsumura and Young, (2013). Kaplan and Norton (2014) suggest that a firm selects two sets of measures: generic measures (market share, customer retention, positive word of mouth, customer acquisition, customer satisfaction, and customer profitability) and performance drivers (product/service attributes customer relationship, and image and reputation). Organizations then must determine what customers consider as valuable and define how they differentiate (performance drivers) themselves from other companies to retain, attract, and satisfy (generic measures) their target customers (Kaplan and Norton 2014).

PROBLEM STATEMENT

The public universities in Kenya have been confronted by many struggles that prevent them from growing as well as improve their performance for example reduced government capitation. This has posed a challenge to the higher education sector due to the increased number of public and private universities competing for the same students for tuition income, lack of improving product and service quality and failure to make use of their innovation capability to achieve a sizeable market share (Kavulunze, 2015). Additionally, with the reverse trend on students' enrolment to universities between 2016 and 2018 showing a decline in the number of students who qualified for university entry, universities have had to rethink strategies that can ensure their survival. One such strategy is the need to adopt growth strategies in order to enhance their performance.

Previous studies have been done both locally and internationally on growth strategies and how they influence organizational performance. The findings obtained from these studies are inconsistent. A study by Chen and Yu (2011) found that organizations that utilize growth strategies increased their financial returns, Denis et al. (2002) established a positive direct connection amongst growth strategies and performance of chines firms. In a related survey done by Gonenc and Aybar (2006), they found a weak evidence for a positive connection amongst diversification and execution in Turkish modern firms.

However, while the same studies focused on application of growth strategies in a bid to enhance organizational performance, their context was in developed economies like Chen and Yu (2011) did their study in Malaysia, Denis et al. (2002) did their study in China, Gonenc and Aybar (2006), in Turky. Furthermore their studies focused on the private sector. Perks and Bouncken (2004) did an exploratory study entitled variety in strategic management, perceptions of growth strategy and its effects on firm performance on small and medium sized firms across Europe. Their study adopted purposeful logic sampling and found that customers indeed played a key role in helping organization perform better.

Studies on growth strategies and performance have also been carried out locally in Kenya by a number of scholars. For example (Mutuma, 2013; Kagwiria, 2013; Kinyeki, 2016) assessed the effects of various growth strategies on performance of commercial banks in Kenya. Their studies adopted different methodology, Mutuma (2013) targeted tier one category of commercial banks in Kenya while Kagwiria, (2013) employed descriptive census survey of all commercial banks in Kenya. Kinyeki (2016) did a case study of Equity Bank in Kenya. Mutuma (2013) found that product development had the highest effect on performance of commercial banks, followed by market penetration, then diversification while market development having the lowest effect on the performance of commercial banks. Kagwiria (2013) looked into product development, market development and diversification strategies, leaving out market penetration strategies. Njuguna (2013) studied study the impact of growth strategies on the budgetary execution of oil firms in Kenya and revealed that growth strategies had inconsequential impact on the general financial performance of oil firms in Kenya. This made their findings inconsistent due to the different contexts of study.

Cummings and Angwn (2015) hold that these growth options have held true over 60 years. Though studies on the higher education sector have been carried out, there was limited literature on studies carried on or related to the influence of Ansoff's growth strategies on the organizational performance of public universities within the higher education sector in Kenya. This study therefore aimed to bridge the existing gap in the literature.

Research Objective

The main objective of the study was to determine the influence of product development strategy on performance of public universities in Kenya.

LITERATURE REVIEW

Theoretical Review

Resource Based View Theory

The theory has its origin from the work of Penrose 1959 though inadvertently the view was formerly presented by Wernerfelt (1984). It is based on the idea that the effective and efficient application of all useful resources that a company possesses helps determine its performance (Barney, 1991). Penrose assessed the firm using resource-market matrices instead of the market share-growth combination of the competitive position view presented by the Boston Consulting Group in 1972. A resource-based view (RBV) emphasizes the firm's resources as the fundamental determinants of competitive advantage and organizational performance. Consequently, firms which build on the unique resources, skills and capabilities are able to control or develop which can become the basis of unique, sustainable competitive advantage and hence boost their performance.

The resources of the firm may determine its capability and enhance the performance of the organization. The resource based view theory argues that a firm can sustain its competitive advantage if it is able to generate sustainable economic rent through its ability to identify, develop display and preserve particular resources and distinguish these from its rivals. The model assumes first that firm's within an industry (or within a strategic group) may be heterogeneous with respect to the bundle of resources that they control (Bridoux, 2013). Second assumption is that resource heterogeneity may persist over time because the resources used to implement firm's strategies are not perfectly mobile across firms. The RBV theory could be considered as an "inside-out" process of strategy formulation: starting from the internal resources of the firm, their potential for value generation has to be assessed in order to define a growth strategy allowing the firm to achieve the maximum value in a sustainable way (Grant, 2013). In this way, the firm's choice of growth strategy is determined by the resources available and the capability to deploy them in the best way to obtain a good performance in an organization.

Although the RBV theory has emerged as one of the important theory of strategic management, it has overlooked the role of entrepreneurial strategies and entrepreneurial abilities as one of the crucial sources of firm performance (Burgelman, 2003). In addition, it has been criticized that competences take so long to develop and environments change so rapidly therefore any beneficial match between an organization's competences and it's environment is likely to be accidental or unexpected rather than the result of pre-meditated actions by managers (Hannan & Freeman, 1988).RBV has failed to support the link between customer acquisition and retention, product/service attraction and image and reputation with the performance of public universities. Priem and Butler

(2001) suggested that the internal resources of a firm rather than the external environment around the firm are possibly the primary source of performance differences among firms.

Thus the resource-based theory is crucial to understand that growth may be realized from strategic alignment of resources owned by a university. In developing their growth strategies, the public universities in Kenya may pay attention to the resources existing within the institution so as to be able to create value for its customers. As such, this study was grounded on the resource-based view theory as it provides a superior understanding of the sophisticated inside of organizations and their intricate interaction with their environment as they pursue peak performance.

Empirical Review

Kotler (2013) defined product development strategy as the processes of bringing new innovations to consumers from concept to testing through distribution. Additionally, Ansoff (1957) stated that when the aim of a firm is to carry out product development the strategy is to reach the current market with new products. Product development strategy is recognized and realized through a process whereby those with the power to make decisions for the organizations interact among themselves with other organizational members and with external parties.

Kotler (2013) posits that a firm remains in its present markets but develops new products for these markets. The view that new products are helpful to the financial health of sponsoring firms is well argued by scholars. In a study of 721 U.K. manufacturing firms during the period 1972–1983, for instance, Geroski, Machin and Reenen, (2013) showed that the number of innovations produced by firms had a positive effect on their operating profit margin.

According to Clark and Fujimoto (2014) performance in a development project is determined by a firm’s product strategy and by its capabilities in overall process and organization. They further claim that a firm’s products help to shape the market environment; the nature of the market environment changes as consumers and competitors learn from new products and services.

Machuki (2012) focused on the relationship between organic growth strategies employed by firms and the performance of firms in the banking industry in Kenya. He considered strategies such as market development, product development and innovation. He found out that there was a significant relationship between growth strategies and bank performance. Further, the study found that strategy implementation conditions needed for the execution of each strategy partly mediated the relationship between growth strategies and bank performance. The current study sought to explore market penetration, product development, market development and diversification strategies and base its study on the organizational performance of public universities in Kenya.

METHODOLOGY

This study adopted a cross sectional survey research design that involved the total population (census). The cross sectional survey design was used because of the comparative analysis across the public universities in Kenya. The target population was drawn from all the 33 public universities in Kenya. This study adopted judgmental sampling technique as it the most effective when only a limited number of individuals possess the trait that a researcher is interested in. Primary data was collected by the respondents self-administration with the aid of the researcher who collected the questionnaires thereafter. The researcher used descriptive statistics, regression analysis and correlation analysis.

RESULTS

Product Development Strategy and Organizational Performance

The study sought to find out the influence of product development strategy on performance of public universities in Kenya. The respondents were requested to indicate their levels of agreement on some statements about product development strategy in their institutions.

Table 1: Statements on Product Development Strategy

Statements	N	Minimum	Maximum	Mean	Std. Deviation
There is streamlined development of new technology on products/services in all functions of the university in order to retain the university's customers.	149	1.00	5.00	3.893	0.764
Our organizational structure is superior in terms of specialization and innovation capability as an effort to satisfy existing and new customers.	149	1.00	5.00	3.906	0.747
The university has established product line extension on programs to improve customer retention.	149	1.00	5.00	3.940	0.816
The university has product replacement programs such as distance learning and virtual leaning to reach out to distance students and as a result acquire and retain and satisfy both local and international customers.	149	1.00	5.00	3.987	0.716
The university has process innovation through parallel-programs that promotes customer acquisition.	149	1.00	5.00	4.013	0.657
Valid N (listwise)	149				

From the findings, majority of the respondents agreed that the university has process innovation through parallel-programs that promotes customer acquisition as illustrate by a mean of 4.013 and a standard deviation of 0.657, the university has product replacement programs such as distance learning and virtual leaning to reach out to distance students and as a result acquire and retain and satisfy both local and international customers as shown by a mean of 3.987 and a standard deviation of 0.716 and that the university has established product line extension on programs to improve customer retention as shown by a mean of 3.940 and a standard deviation of 0.816. The respondents also agreed that their organizational structure is superior in terms of specialization and innovation capability as an effort to satisfy existing and new customers as shown by a mean of 3.906 and standard deviation of 0.747 and finally that there is streamlined development of new technology on products/services in all functions of the university in order to retain the university's customers as illustrated by mean of 3.893 and a standard deviation of 0.764.

The study requested the respondents to indicate any other ways that the institutions use product development growth strategy. The respondents indicated that other aspects of product development in the universities include recruiting new students in new models and courses.

Regression Analysis

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.858[a]	0.736	0.729	1.46237

a. Predictors: (Constant), product development

Coefficient of determination technique was deployed to examine the suitability of the model. The model had adjusted R^2 of 0.729 meaning 72.9% of differences in performance of public universities are explained by the independent variable under study (product development).

The research examined the model's significance through application of Analysis of Variance (ANOVA) method. The outcomes are illustrated below.

Table 3: ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	215.141	1	215.141	100.602	0.000[b]
Residual	307.948	144	2.139		
Total	523.089510	148			

a. Dependent Variable: organizational performance

b. Predictors: (Constant) product development

According to ANOVA, the research found the regression model as having a 0.0% significance level that indicated the suitability of the data in coming up with conclusions regarding the parameters of the on the population as p< 5%.

Table 4: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.176	0.324		6.71	0.000
Product Development	0.101	0.025	0.083	4.04	0.002

As seen from the regression model a unit change in product development will promote organizational performance by 0.101. A significance level of 5% was used in the analysis. The technique used for comparison of significance of the predictor variables was by comparing the value of probability and α=0.05. If p< α, predictor variable was significant and vice versa. In the model, predictor variable had probability below 0.05 and was therefore significant since α=0.05.

The study established that public universities have process innovation through parallel-programs that promotes customer acquisition. The universities also have product replacement programs such as distance learning and virtual leaning to reach out to distance students and as a result acquire and retain and satisfy both local and international customers. Consistent to the findings, Clark and Fujimoto (2014) found that performance in a development project is determined by a firm's product strategy and by its capabilities in overall process and organization.

The study revealed that the universities have established product line extension on programs to improve customer retention and that there is streamlined development of new technology on products/services in all functions of the universities in order to retain the university's customers. The product development strategy is thus employed to improve the performance of the public universities. Correspondingly Geroski, Machin and Reenen, (2013) also established that product development through innovations produced by firms had a positive effect on their operating profit margin.

Conclusion

Product development has a positive influence on the performance of public universities. Public universities have process innovation through parallel-programs that promotes customer acquisition as well as product replacement programs such as distance learning and virtual leaning to reach out to distance students. This enables the universities to acquire, retain and satisfy both local and international customers. The universities have established product line extension on programs to improve customer retention. Moreover, students are recruited in new models and courses.

Recommendations

The study established a positive relationship between product development and organization performance. The study therefore recommend that public universities should established academic exchange programs with international universities for boosting positive word of mouth as only a few universities have established the exchange programs.

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