Strategic Responses and Organizational Performance of Public Universities in Nairobi County, Kenya

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Abstract— Strategic responses enable organizations to maximize on their core competencies to be able to provide value adding goods and services. Organizations that embrace strategic responses have a better performance compared to those that fail to implement strategic responses. Public universities in Kenya have been experiencing rapidly changing environmental circumstances and these institutions need to change their tactics to increase their performance in the competitive environment. The main objective of this study was to establish the relationship between strategic responses and organizational performance of public universities in Kenya. The specific objectives of this study was; to establish the influence of technology adoption on organizational performance of public universities in Kenya; to determine the influence of market expansion on organizational performance of public universities in Kenya; to assess the influence of cost cutting strategies on organizational performance of public universities in Kenya; and to establish the moderating effect of organizational culture on the relationship between strategic responses and organizational performance of public universities in Kenya. The study employed a descriptive design. The study target population was 150 staff members from selected public universities in Nairobi County that were; KU, UoN and TUK. The sampling frame was university administrators, lecturers, non-teaching staff, and students in these chartered public universities in Kenya. The sample size for the study was 30 respondents picked randomly. Validity of the questionnaire was achieved through expert opinion while reliability was measured using the Cronbach's alpha coefficient value of above 0.7. The research data was analysed using both descriptive and inferential statistics with the help of the statistical package for social sciences. Data was presented in form of tables, charts and graphs. The findings from the study was of value to the management and staff of public universities in Kenya to enable them adopt the best strategies, the government in policy formulation, and academicians and researchers may find the research useful as it will be a point of reference and add to the existing body of knowledge. The study recommended that further studies should be undertaken to incorporate other strategic responses such as product innovation, downsizing and divesting in order to find out their impact on performance of public universities. The study also provided an area for further study in that, a comparative study could be done on other strategic response measures that may affect public universities' performance and Private universities in Kenya.

Keywords— Strategic Responses; Organizational Performance

I. Introduction

The present operational set-up of the education sector in Kenya is dynamic and highly competitive with the rise of several private universities. The environment in which public universities operate in Kenya changed following the privatization of university education as well as the liberalization of the selection of students after the formation of the Commission of University Education in 2012and thus the need to change their tactics to increase their performance as well as remain relevant in the competitive environment.(Gakure, Muriu, &Orwa, 2011).Business performance in such environments depends on the organization's adaptability to respond to environmental change. The quality of university education has become a high profile issue in the 21st century because of the changes and challenges facing the entire system globally (Mbirithi, 2013). According to the report by Auditor General (2015), eleven public universities in Kenya were found to be facing serious liquidity challenges, a position that was worsened by the fact that their current liabilities exceeded their current assets. The dwindling number of students enrolling for higher education in the public universities, owing to the reforms in the education sector, has not made the situation any better. Strategic responses have been used by organizations to improve quality, increase productivity, reduce costs, and restructure and build culture. Strategic responses are actions designed to cope with the challenges in the environment of the firm (Collins, 2014). They involve changes in the organization's methods, procedures, and processes to achieve certain organizational objectives (Akhter&Barcellos, 2011). Various organizations develop and utilize different strategic responses that are contingent with the environment, capability, competencies, and resources. Strategic responses enable organizations to achieve a competitive advantage other others in the industry. Organizations in the same industry compete on the basis of general orientation and therefore firms that face similar solutions act differently in a given industry (Stenard, 2012). A number of empirical evidence exist to explain the relationship between strategic responses and organizational performance; Kipchumba (2018) noted that strategic responses, especially lower cost strategy as well as extending to new market affect organizational performance of commercial state corporations in Kenya. Mwangi and Ombui (2017) reported that strategic responses of cost leadership and diversification increase the competitive edge and market share of Murata SACCO. Wangui and Eliud (2018) reviewed the role of strategic responses on performance of fertilizer manufacturing firms in Nairobi and reported that differentiation strategy, low cost leadership strategy, and focus strategy significantly influence the organizational performance. Mwangi and Waithaka (2018)

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observed that organizational culture impacts performance of public universities in Kenya. Sifuna (2014) established that competitive strategies affect performance of public universities in Kenya. While majority of the aforementioned studies did not focus on public universities, the few which studied public universities failed to establish the influence of strategic responses on performance of the universities. Further, some of the studies only focused on one university from which they drew the study respondents. Therefore, this study sought to establish the influence of strategic responses on organizational performance of public universities in Kenya, drawing its respondents from the main public universities in Kenya.

II. EMPIRICAL REVIEW

Chairoel, Widyarto, and Pujani (2015)in a study on effects of information communications and Technology (ICT) adoption on organizational performance among SMEs in Indonesia through a conceptual model of the combination between diffusion of innovation theory, technology-organization-environment theory, and Iocovou's framework exposed that the characteristic of technology, managerial, as well as organization are involved as internal factors in ICT adoption. The use of ICT contributed to efficiency as well as effectiveness of SMEs as reflected through organizational performance which was measured through operational performance (reduced costs, productivity) and financial performance (profit margin and market share). However, the empirical study was a conceptual framework of adoption of ICT in Indonesian SMEs and thus a gap that this study was filled by targeting public universities in Kenya. Revenio and Nasra (2017) carried an evaluation of the impacts of ICT on organizational performance of the International College of Engineering and Management using simple random sampling to choose 60 participants. Findings supported a positive relationship between the use of ICT and organizational performance and support findings from Girma (2016) that ICT impacts on performance of commercial banks in Ethiopia and Mukangu and Ndungu (2016) who assert that ICT implementation increases organizations' productivity, efficiency, improvement in design process as well as inventory management, and reduced cost. However, the study concentrated only on the effect of ICT on performance and left out other strategic responses.

Wahu and Assumptah (2017) sought to investigate the influence of ICT strategies on performance in the airline industry targeting 3,986 employees. To pick the sample size the study used stratified random sampling to choose 98 employees. Results held that computerized reservations, internet applications, communication networks, and integration of systems positively affect performance of Kenya Airways. The study results were however limited to the Kenya Airways and cannot be applicable to public universities in Kenya. Although the results confirm findings of Revenio (2017) and Chairoel et al. (2015) that ICT contributes to high performance, the study focused only on ICT adoption and ignored the influence of market expansion and cost cutting strategies on performance. Masai (2017) performed a descriptive survey to explore the role of ICT in service delivery among public universities in Kenya specifically in Kenyatta University where 61946 students and 10 departmental heads were targeted and purposive and simple random sampling were adopted. The research instruments included a research questionnaire and interview guide. Findings showed that investment in ICT significantly and positively influences service delivery. Nevertheless, the results were limited to Kenyatta University and this study conducted a broad Market Expansion of the influence of technology adoption on performance of public universities in Kenya.

Kimalel, Kihara, and Muriithi (2017) sought to establish whether strategic responses affect performance of SACCOs in Nairobi County where a descriptive design was employed on all the licensed 38 SACCOs in Nairobi County where there were 228 top managers to whom questionnaires were administered. Study results noted a strong positive association between cost cutting and market expansion strategies and performance of SACCO. The contribution of technology adoption was ignored and this study filled the gap by studying strategic responses and organizational performance of public universities in Kenya since the previous study targeted SACCOs in Nairobi County.Tangus and Omar(2017) in a study on the effects of market expansion strategies on performance of commercial banks in Mombasa County observed that market expansion strategies have a strong correlation coefficient with performance of firms and all the market expansion strategies (market challenger, market leader, and market niche) had a significance of over 95%. The descriptive design employed targeted 43 commercial banks and the sampling frame was branch managers, sales managers, and relationship managers and used a sample of 14 banks from which 42 respondents were obtained and data gathered through a questionnaire. Although the findings correspond with Kimalel, Kihara, and Muriithi (2017), the results cannot be generalized to public universities in Kenya since it was a case study of commercial banks in Mombasa County.

Mutuma (2013) investigated the effect of expansion strategies on performance of commercial banks in Kenya by conducting a descriptive study targeting the employees of commercial banks in Kenya. The employees comprised of 232 management staff from which stratified proportionate sampling helped in selecting a representative sample of 70 respondents. Questionnaires collected primary data while banks' annual reports provided secondary data and descriptive analysis was adopted. Results from the analysis showed that product development, diversification, and market development influence performance of commercial banks in Kenya. The study cannot be conclusively be generalized to public universities in Kenya because only expansion strategies were studied ignoring the contribution of cost-cutting strategies and technology adoption. Bususu (2014) observed that curbing costs related to employees influences workers' performance. The study employed a case study that used questionnaires as well as interviews to collect data from 25 respondents. Data was both primary and secondary and results indicated that reducing costs related to employees demotivates employees and hence affects overall organizational performance. The findings correspond with Kimalel, Kihara, and Muriithi (2017) who examined the link between strategic responses and performance of saving and

credit co-operative societies (SACCOs) in Nairobi County in Kenya and exposed a strong significant positive correlation between cost reduction strategy and SACCO performance. However, results of a case study cannot be generalized to other Market Expansions and thus the study established the influence strategic responses and performance of public universities in Kenya.

Atikiya, Mukulu, Kihoro, and Waiganjo (2015) assessed the effect of cost leadership strategy on the performance of manufacturing organizations in Kenya using a descriptive and explanatory design. Data for the study was collected using a questionnaire and interview guide and the sample size was 131 companies drawn 12 key industrial sub-sectors within Nairobi and its environs. Data analysis employed the Pearson's correlation and regression analysis. The study results revealed that the cost leadership strategy significantly influences the performance of manufacturing companies in Nairobi and concluded that the cost leadership strategy increases the competitiveness of firms as well as their performance. The study findings were limited to manufacturing firms in Nairobi and thus limiting the generalizability of the results to public universities in Kenya. Omwoyo (2016) conducted a survey on the effects of generic strategies on firms' competitive advantage in selected firms in the Airline industry in Kenya and affirms that organizations in the airline industry strive to provide a standard of high volume of services at the most competitive prices to their clients and that the cost leadership strategy makes firms to benchmark themselves against competing companies to access their relative costs. The study collected data using questionnaires that were distributed to 1000 management employees from Kenya Airways, Fly 540 and Fly-SAX. Data collected was analyzed using descriptive and inferential analysis with the help of SPSS. The study however did not target public universities in Kenya and this was the focus of this study where the influence of strategic responses on organizational performance of public universities in Kenya was established.

Muasa (2014) carried a case study on the influence of cost leadership strategy on sustainable competitive advantage of Naivas supermarket limited in Kenya and observed that Naivaslargely employs the cost leadership strategy in its operations through defining the low as well as the middle market niches. Both primary and secondary data types were used in the study and were collected through interview guide and company websites, periodicals, and publications and analyzed through content analysis. The study however used sustainable competitive advantage as the dependent variable and thus the results not conclusive on the influence of strategic responses on organizational performance of public universities in Kenya. Chukwu, Aguwamba, and Kanu (2017) sought to establish the impact of organizational culture on the performance of the Nigerian banking industry through a survey. The study collected data using 200 questionnaires distributed to banks that were selected through purposive sampling. Percentages and multiple regressions were used in data analysis and the findings showed a significant and positive relation between organizational culture (enhancement of organizational effectiveness, cultural fit, and reinforcement of pillar of existence) and organizational performance. However, organizational culture was examined as an independent variable while in this study it was studied as a moderating variable on the influence of strategic responses on organizational performance of public universities in Kenya.

Agboola (2011) studied the impact of organizational culture on the performance of universities in Nigeria through a survey design. The sampling frame for the study comprised of both the academic and non-academic staff of various levels. The sample size was 300 respondents from three universities in Ogun State (100 respondents) from each university and they were selected through non-probability sampling. Data was collected using a questionnaire and analyzed through the SPSS and the Pearson product moment correlation coefficient as well as multiple regressions were used to establish the relationship between the study variable. The study findings revealed that there is no significant effect of organizational culture on the performance of Nigerian universities. Therefore, since the results oppose the findings from the study by Chukwu, Aguwamba, and Kanu (2017) there is a need to examine the influence of organizational culture on the influence of strategic responses on organizational performance and in this case in public universities in Kenya.Mwangi and Waithaka (2018) assessed whether organizational culture affects the performance of public universities in Kenya and observed that organizational culture affects performance of public universities in Kenya. The study adopted a descriptive research design and the population of study comprised of eight students' associations of public universities in Mount Kenya Region. The target population involved 66 deans of schools, 172 departmental heads, and 28 leaders. Questionnaires were the research instrument and data was analyzed both quantitatively and qualitatively. Nevertheless, the study failed to establish the influence of strategic responses on performance and this was the focus of the study.

Oduol (2015) assessed the effects of organizational culture on performance of subsidiaries of selected regional commercial banks headquartered in Kenya using a descriptive cross-sectional survey and observed that the firms engaged in various organizational cultures to enhance their performance and also reported that relationships at work, provision rules with clear instructions, processes, and procedure was the most predominant culture. The population of the study consisted of 10 of subsidiaries of carefully chosen regional commercial banks headquartered in Kenya and targeted 5 branches of each bank, giving a sample size of 50 branches. The study used primary data that was gathered through a semi- structured questionnaire and analyzed using SPSS. The study however failed to establish the moderating role of organizational culture on the influence of strategic responses on the performance of public universities in Kenya. Additionally, the study targeted the subsidiaries of selected regional commercial banks with headquarters in Kenya and therefore the findings cannot be generalized to public universities in Kenya.

2.1 Study Conceptualization

The purpose of this study was to establish the relationship between strategic responses and organizational performance of public universities in Kenya. Performance was the dependent variable and was measured by market share, web ranking, service quality index, and number of students enrolled. The independent variable was strategic responses (technology adoption, market expansion, and cost cutting strategies) while organizational culture was the moderating variable (See figure below)

Independent Variable   **Dependent Variable**

Strategic Responses

Organizational Performance of Public Universities in Kenya

Technology Adoption
- ✓ E-learning
- ✓ Online student application
- ✓ Online student registration
- ✓ Corporate short message services

Market expansion
- ✓ Getting into new markets
- ✓ Attracting more customers with existing services
- ✓ Introducing completely new products and services
- ✓ Updating existing products and services

- ✓ Market share
- ✓ Web ranking
- ✓ Service quality index
- ✓ Number of students enrolled

Cost-cutting strategies

- ✓ Charging low and average prices
- ✓ Favorable access to low cost material and labour
- ✓ Re-investment in new equipment and modern facilities

Organizational culture

- ✓ Effective communication
- ✓ Innovative orientation
- ✓ Values of consistency adaptability

Moderating variable

III. STUDY METHODOLOGY

The study adopted a descriptive research design and the population consisted of key staff in charge of strategic management and planning of three selected public universities in Kenya namely; UoN, KU and Technical University of Kenya (TUK). Simple random sampling was used in selecting the study samples. Primary data was gathered by use of semi-structured questionnaires while secondary data was collected from published journals, books, newspapers, magazines and other sources such as annual reports. Data was analyzed using both descriptive and inferential statistics with the help of SPSS.

IV. FINDINGS AND DISCUSSIONS

4.1 Response Rate

Data was coded and then cleaned to ensure consistency. Data was collected from 30 respondents in the study, and the response rate was 100 percent.

Table 4.1: Response rate

	Questionnaires Administered	Questionnaire filled	Percentage
Respondents	30	30	100%

Source: research data (2019)

As indicated in Table 4.1, out of 30 questionnaires distributed, 30 were correctly filled and returned. This constitutes a response rate of 100%, which was satisfactory to make conclusions for the study. According to Mugenda and Mugenda (2003), Rogelberg and Stanton (2007) and Saunders et al. (2007), a response rate of 50% is adequate; a rate of 60% is reasonable, and a response rate of 70% and over is excellent. Based on this awareness, the response rate in this study was considered to be very good for the study.

4.2 Demographic Profile of the Respondents

The respondents were requested to provide information on their gender, age bracket, Level of education and work duration in the Public Universities in Nairobi County.

4.2.1 Gender of respondents

Respondents were requested to indicate their gender and findings are as shown in Table 4.2 and figure 4.2

Table 4.2 Gender of the respondents

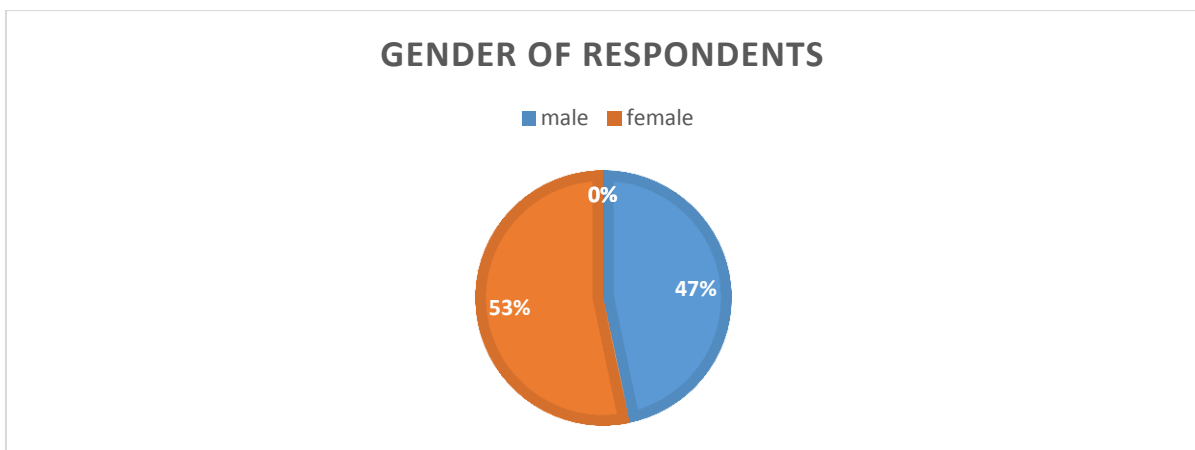| Category	Frequency	Percentage
Male	14	46.7%
Female	16	53.3%
Total	30	100%

Source: Research data (2019)

Figure 4.2 Gender of the respondents

Source: Research data (2019)

As shown in table 4.2 and figure 4.2, the study clearly showed that female respondents formed part of the large number in the universities under study. The male counter parts were fewer in the three universities under study. This was represented by 53.3% and 46.7%, respectively.

4.2.2 Age of respondents

Table 4.3 Age Bracket

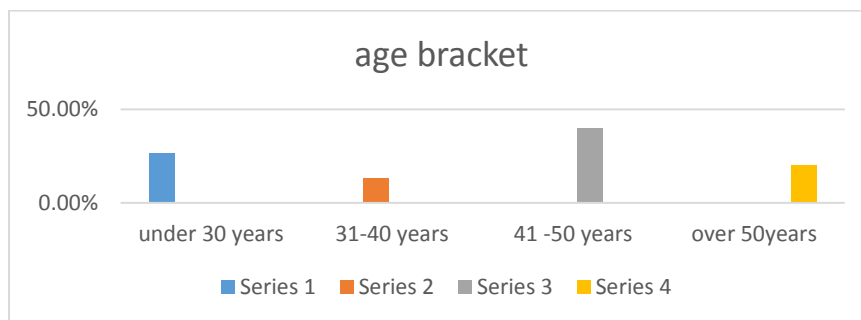| Category	Frequency	Percentage
Under 30 years	8	26.7%
31 -40 years	4	13.3%
41 -50 years	12	40%
Over 50 years	6	20%
Total	30	100%

Source: Research data (2019)

Fig 4.3 Age Bracket

Source: Research data (2019)

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From Figure 4.3 and Table 4.3, the study findings clearly show that most of the respondents were of the Age between 41 -50 years. This was represented by a percentage of 40%. A rate of 26.7% represented respondents who were under the age of 30 years. From the study, respondents who were of the Age between 31 -40 years and over 50 years were represented by a percentage of 13.3% and 20 %, respectively.

4.2.3 Level of education

Table 4.4 Level of education

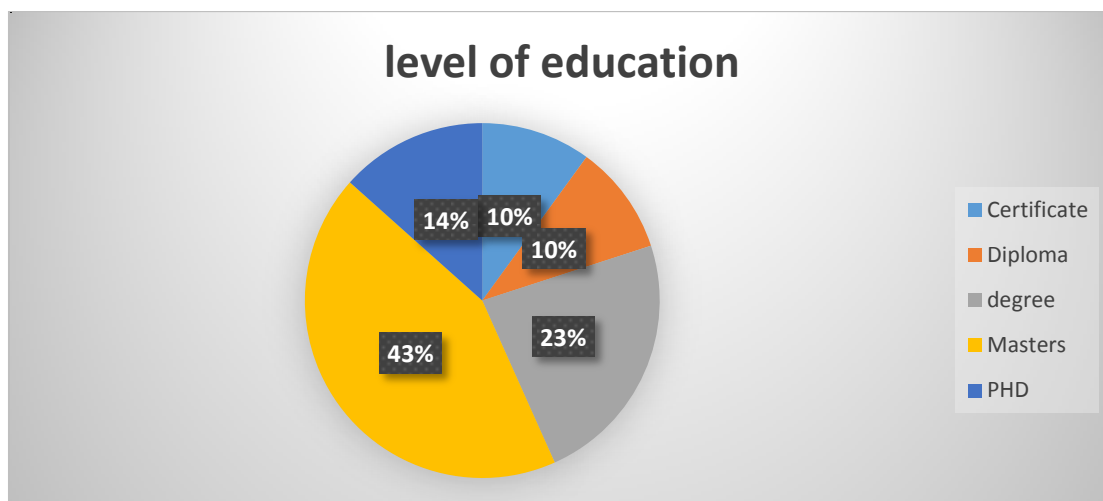| Category	frequency	Percentage
certificate	3	10%
Diploma/Higher Diploma	3	10%
Degree	7	23.3%
Masters	13	43.3%
PhD	4	13.4%
total	**30**	**100%**

Source: Research data (2019)

Fig 4.4 Level of education

Source: Research data (2019)

Respondents were asked to indicate their position at the Universities. The data presented in figure 4.4, and table 4.4 indicate that majority of the respondents had a masters' Level of education; this was represented by a percentage of 43%. In comparison, 23% of the respondents had a degree level of education.14% of the respondents had a Ph.D. level in their education. From the findings in the study, 10% of the respondents, had a certificate level in their education. This was in line with respondents who had a diploma level of education.

4.2.4 Number of year you have worked in the Organization

Table 4.5 Number of years you have worked in the Organization

Category	Frequency	Percentage
Less than 1 year	2	6.7%
1 – 5 years	8	26.7%
6 -10 years	13	43.3%
More than 12 years	7	23.3%
Total	**30**	**100%**

Source: Research data (2019)

The findings from table 4.5 and figure 4.5, most of the respondents had worked in the university for a period of 6 – 10 years. This clearly showed that they had vast experience by working within the universities under study. A percentage of 43.3% represented this. In the universities under investigation, respondents who had worked for more than 12 years were represented by a rate of 23.3%. Respondents who had worked for a period of less than one year and a duration of 1 -5 years were represented by 6.7% and 26.7 %, respectively.

Fig 4.5 Years worked in the Organization

Source: Research data (2019)

4.4 Descriptive statistics

4.4.1 Technology adoption

Technology adoption was measured using indicators comprising E-learning, online student application, online student registration and a short corporate message. The descriptive statistics for each of these indicators are presented and discussed in Table 4.6.

Table 4.6 Technology Adoption

Statements	N	Mean	Sd
The university licenses new technologies to increase performance	30	4.13	.112
The university's significant expenditure is on technology to enhance service quality	30	3.9	.121
The institution opted for e-learning based on the relative advantages it has over the face to face teaching and learning	30	3.33	.844
E-learning enables lecturers to provide faster feedback to distance learners than face to face teaching and learning	30	4.8	.551
Students can apply for enrolment in the university online	30	4.5	.973
Continuing students have access to online registration	30	4.9	.305
The university has introduced a corporate SMS service to communicate with the students	30	3.9	.548
Total	30	4.21	.493

Source: Research data (2019)

The overall mean of the study showed that respondents agreed to the statements under review. This was represented by a mean of 4.21. The respondents strongly agreed with the statement that, E-learning enables lecturers to provide faster feedback to distance learners than face to face teaching and learning. The respondents also strongly agreed with the statement that continuing students have access to online registration. This was represented by a mean of 4.8 and 4.9, respectively. From the study findings, the respondents agreed to the statement that the university's significant expenditure is on technology to enhance service quality. The respondents also agreed with the statement that the university has introduced corporate SMS to online registration. These statements were represented by a mean of 3.9, respectively. From the study findings, it was clear that the respondents agreed with the statement that, E-learning enables lecturers to provide faster feedback to distance learners than face to face teaching and learning. This was represented by a mean of 4.8.

4.4.2 Market Expansion

Market expansion was measured using indicators comprising getting into new markets, attracting more customers with existing services, introducing ultimately new products and services and updating current products and services. The descriptive statistics for each of these indicators are presented and discussed in Table 4.7.

Table 4.7 Market Expansion

Statements	N	Mean	Sd
This university offers products or services to a broader section of the existing market	30	3.7	.132
The university establishes its campuses to target new geographic markets	30	4.17	.461
The university develops new programmes that were not previously provided	30	4.8	.551
The university continually updates its services and products	30	4.1	.305
This university aims to attract new customers with the existing services	30	4.87	.346
Total	30	4.33	.359

Source: Research data (2019)

The statements in table 4.7 clearly showed that the respondents agreed to the accounts. This was represented by a mean of 4.33 (.358). From the study, the respondents strongly agreed with the statement that universities aim to attract new customers with

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existing services, they also strongly agreed with the statement that the university develops unique programs that were not previously provided. These statements were represented by a mean of 4.87 (.346) and 4.8 (.551), respectively. From the study respondents agreed to the statements that the university establishes its campuses to target new geographic markets, they also agreed with the statement that, the university continually updates its services and products. These statements were represented by a mean of 4.17(.461) and 4.1 (.305). Respondents agreed that the university offers products or services to a broader section of the existing market. This was represented by a mean of 3.7(.132).

4.*4.3 Cost-cutting strategies*

Cost-cutting strategies were investigated using indicators comprising charging low and average prices, favourable access to little cost material and labour and reinvest in new equipment and modern facilities. The descriptive statistics for cost-cutting strategies are presented below in Table 4.8.

Table 4.8 Cost-Cutting strategies

Statements	N	Mean	Sd
The Organization has reduced operations costs and hence improved performance	30	4	.743
Lower costs attract low-income consumers leading to increased student enrollments	30	4.1	.45
The university charges low costs but provides quality services	30	4.13	.51
Affordable prices charged by the Organization have increased the market share	30	3.53	.629
The university has favourable access to low-cost labour and materials	30	4.77	.4301
This university re-invests in new equipment and modern facilities	30	4.22	.468
Total	**30**	**4.125**	**.538**

Source: Research data (2019)

From the respondents' remarks from the statements, it was clear that most of the respondents agreed with the statements. This was represented by an overall mean of 4.125(.538). Respondents agreed with the statement that, affordable prices charged by the Organization had increased the market share. This was represented by a mean of 3.53(.629), which was the least mean. The respondents agreed to the statements that lower costs attract low-income consumers leading to increased student enrollments. They also agreed with the statement that the Organization had reduced operations costs and hence improved performance. This was represented by a mean of 4.1 and 4.0, respectively. The respondents' remarks clearly showed that respondents strongly agreed with the statement that the university has favourable access to low-cost labour and materials. This was represented by a mean of 4.77(.43).

4.4.4 Organizational culture

Organizations operate and maintain a culture that is passed on from time to time. The organizational culture is different for all organizations, yet the way managers perceive and interpret the corporate culture may vary, and this, in turn, affects the overall individual Organization's performance. The respondents were asked to indicate the Level of disagreement and agreement to which they responded. The results are summarized in Table 4.9.

Table 4.9 Organizational Culture

Statements	N	Mean	Sd
The university has a culture that dictates how things are done	30	4.13	.507
Values of consistency and adaptability guide the university	30	4.17	.384
The employees in the Organization are encouraged to be innovative in their roles	30	4.8	.407
The Organization stands for clearly specified work ethics	30	4	.455
The Organization embraces effective communication at all levels	30	4.03	.32
Total	**30**	**4.226**	**.415**

Sources: Research data (2019)

The overall mean of 4.226(.415) of the respondents' remarks clearly showed that they agreed with the statements. Respondents also strongly agreed with the statement that the employees in the Organization are encouraged to be innovative in their roles. This was represented by a mean of 4.8. Respondents also agreed with the statement that the Organization embraces effective communication at all levels. they also agreed with the statement that the Organization stands for clearly specified work ethics. This was represented by a mean of 4.03 and 4.0, respectively.

4.4.5 Organizational performance

The organizational performance was investigated using indicators comprising; market share, web ranking, service quality index and Number of students enrolled. The respondents agreed or disagreed with statements on their statements on organizational performance. The results are presented in Table 4.10.

Table 4.10 Organizational Performance

Measure of Performance	N	Mean	Sd
Market share	30	4.9	.305
Web ranking	30	4.33	.606
Service quality index	30	4.47	.507
Number of students enrolled	30	4.8	.407
Total	**30**	**4.625**	**.456**

Source: Research data (2019)

From table 4.10, clearly gives the responses to the statements in regards to the measurement of performance of the Public universities in Nairobi County. The overall mean shows that the respondents strongly agreed to the statements. This was represented by an average meanof 4.625(.456). The respondent's response strongly agreed that market share and the Number of students enrolled proves a vital cog in the measurement of performance. This was represented by a mean of 4.9 and 4.8, respectively. From the respondent's response to the statements, they agreed with the statements that web ranking and service quality index were measures of performance in the university. This was represented by a mean of 4.33 and 4.47, respectively.

4.5 Regression Analysis

In this study multiple regressions was used to test the questions under study. This was achieved through the data collected, and the findings interpreted according to the R^2 values and P Values P<0.001 and P<0.005 significance level. The variables under study were regressed on strategic responses and organizational performance. Linear regression test was used to determine the strategic responses and organizational performance of public universities in Nairobi County in Kenya. If the value of R Square is equal or more than 0.5, then there is a strong correlation between the respective variables and performance of public universities in Kenya.

4.5.1 Regression of Strategic responses and organizational performance of Public Universities in Nairobi County.

Table 4.11 Regression of strategic responses and organizational performance of public universities in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
	.832[a]	.692	.672	.1231
a) Dependent Variable: organizational performance of public universities				

Source: Research data (2019)

Table 4.11 indicates that the adjusted R^2, also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. The model had an R square coefficient of determination of .692 and which implied that 69.2% of the variations on strategic responses and organizational performance of public universities. At the same time, the rest is explained by variables not fitted in the model.

Table 4.12 ANOVA of Strategic Responses

Model		Sum of Squares	Df	mean	F	Sig
1	Regression	3.146	4	.996	35.36	.000[b]
	Residual	.885	26	.123		
	Total	4.031	30			
a). Dependent Variable: organizational performance of public universities						

Source: Research data (2019)

The ANOVA results, in table 4.12, show a statistically significant relationship between strategic responses and organizational performance. The F-test results 35.36, was positive and significant at p= 0.000 < 0.05.

Table 4.13 Coefficient of strategic responses and organizational performance of public universities.

		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
	(constant)	.122	.053			.000
	Technology adoption	.191	.045	.172	2.442	0.000
	Market expansion	.212	.072	.378	3.825	
	Cost-cutting Strategies	.137	.058	.158	2.234	0.000

a). Dependent Variable: organizational performance of public universities(Source: research data, 2019)

Results in Table 4.13 indicate a multiple linear regression of strategic responses and organizational performance of public universities.

$$Y=0.122+0.191X_1+0.212X_2+0.137X_3+ \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

From the above regression equation (1), it shows that Technology Adoption, Market Expansion, Cost-Cutting Strategies are at a constant zero, organizational performance would be at .122 (12.2%), a unit change in technology adoption would lead to .191(19.1%) change in organizational performance. Market Expansion and Cost Cutting Strategies would change in organizational performance by .212(21.2%), and .137(13.7%). The finding of the study indicates that the composite index of strategic responses was significant. Thus all variables affected the organizational performance of public universities in Nairobi County.

4.5.2 Regression analysis between Technology adoption on the performance of public universities in Nairobi County.

The study used linear regression analysis to examine the relationship between Technology adoption and public universities' performance in Nairobi County.

Table 4.14 (a) Model of fit

(i) The goodness of fit on Technology adoption

Model	R	R square	Adjusted R Square	Standard Error
1	.788[a]	.621	.589	.1446

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a). Dependent Variable: organizational performance of public universities
Source: Research data (2019)

The results in Table 4.14 (a) show that adjusted R^2 was. 589. This meant that technology adoption explained 58.9% of the variations on performance of Public universities in Nairobi County, leaving 41.1% of the variations to be explained by other variables not fitted in the model.

Table 4.14 (b) Coefficient of Technology adoption

Model	Unstandardized coefficient		Standardized Coefficient	T value	Sig.
	Beta	Std. error	beta		
Constant	2.045	.353		5.318	.000
Technology Adoption	0.466	.548	0.506	5.329	0.001

Dependent Variable: organizational performance
Predictors; (constant), Technology adoption

Source: research data (2019)

Results in Table 4.14 (b) indicate the model relating to Technology adoption and performance of public universities in Nairobi County. The model had an Adjusted R^2= 0.589, which meant the model provided a moderate fit. Following the linear regression analysis of technology adoption on performance of public universities in Nairobi County, the fitted model was determined as follows: Table 4.14 (b) results indicate that on evaluating the model technology adoption on performance of public universities in Nairobi County, the following relationship was derived:

$Y = 2.045 + 0.466X_1$………………………………(2)

Where;

Y = Performance of Public Universities

X_1 = Technology Adoption

The standardized beta coefficient in the equation above shows that technology adoption had a beta value (β_0) of 0.466. This meant that a unit increase in technology adoption would result in a 46.6 percent increase in performance of public universities. The Regression Model revealed that Technology adoption was statistically significant at (β=0.466; t= 5.329; p= 0.001); thus, at 5 percent level of significance, Technology adoption had a positive and significant effect on performance of public universities in Nairobi County.

4.5.3 Regression analysis between Market Expansion on performance of public universities in Nairobi County.

The study used linear regression analysis to examine the relationship between Market expansion and Performance of Public universities in Nairobi County.

Table 4.15 (a): Model of fit on Market Expansion on Performance of Public Universities in Nairobi County.

Model	R	R Square	Adjusted R square	Standard error
1	0.718[a]	0.515	0.479	0.5532

a). Dependent Variable: organizational performance of public universities
(Source; research data, 2019)

The results in Table 4.15 (a) indicate that the adjusted R^2 = 0.479. This implies that Market expansion contributes 47.9% percent of the variation on performance of Public Universities in Nairobi County. The rest 52.1 percent is explained by variables not fitted in the model.

Table 4.15 (b); Analysis of variance statistics on Market Expansion

Model	Sums of square	df	Mean Square	F	Significance p value
Regression	.956	1	.956	33.46	0.003
Residue	28.203	29	.279		
Total	29.159	30			

Dependent Variable: Performance of Public universities in Nairobi County
Predictors: (constant) Market Expansion

(Source: Research data, 2019)

The findings in Table 4.15 (b) reveal a statistically significant relationship between Market expansion and public universities' performance in Nairobi County. The statistically proposed model fitted the data well, as F test results was = 33.46, p-value=.000 at 5% level of significant).

Table 4.15 (c) Coefficient of Market expansion on performance of public universities in Nairobi County.

Model	Unstandardized Coefficients		Standardized Coefficient	T	Significant P value
	B	Std. Error	Beta		
(Constant)	0.119	0.134		1.124	0.051
Market Expansion	0.520	0.163	0.440	4.654	0.000

Predictors: (Constant), Market Expansion
Dependent Variable: organizational performance

(Source: research data, 2019)

Table 4.15 (c) indicates that the model had a beta coefficient = 0.440, meaning the model provided a strong fit. The following model presented this relationship:

$$y = 0.219 + 0.440X_2 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..\ldots (3)$$

Where

y = performance of public universities in Nairobi County

X_2 = Market Expansion

The results illustrate that a unit increase in Market Expansion is responsible for an increase in organizational performance by 0.440. The regression model revealed that Market Expansion was statistically significant at $\beta=0.440$, t=4.654, p= 0.00. Therefore, at 5% level of significance, Market Expansion had a significant positive effect on performance of public universities in Nairobi County.

4.5.4 Regression analysis between Cost Cutting Strategies on performance of public universities in Nairobi County

The study used linear regression analysis to examine the relationship between Cost Cutting Strategies and performance of public universities in Nairobi County in Kenya.

Table 4.16 (a): Model of fit of Cost Cutting Strategies on performance of public universities in Nairobi County.

Model	R	R Square	Adjusted R square	Standard error
1	0.587[a]	0.3446	0.3123	0.1767

a). Dependent Variable: organizational performance of public universities
Source: Research data, (2019)

Table 4.16 (a) results shows that under Model 1, the value of adjusted R^2 was 0.3123. This meant that Cost Cutting Strategies explained 31.23 % of the variations in public universities' performance in Nairobi County, while 68.77% is explained by other variables not fitting in the model. The model had an adjusted $R^2= 0.3123$, which meant the model provided a weak fit.

Table 4.16(b) Analysis of variance statistics on Cost Cutting Strategies

Model	Sums of square	Df	Mean Square	F	Sig
Regression	.642	1	.642	18.19	0.000
Residue	4.835	29	.379		
Total	5.477	30			

    a. **Dependent Variable: performance of public universities in Nairobi County**
    b. **Predictors: (Constant), Cost Cutting Strategies**

(Source; research data, 2019)

Table 4.16 (b) indicates that the model had F-value (1, 30) =18.19 and the p-value = 0.00. This meant that the model was positive and statistically significant at 5 percent level of significance in explaining the relationship between Cost Cutting Strategies and performance of public universities in Nairobi County.

Table 4.16 (c) Coefficient of Cost Cutting Strategies on performance of public universities in Nairobi County.

Model	Unstandardized coefficients		Standardized coefficients	t-value	Sig.
	B	Std. Error	Beta		
(Constant)	3.687	0.628		.4399	0.000
Cost Cutting Strategies	.463	0.125	0.458	2.938	0.000

    a) **Predictors: (Constant), Cost-Cutting Strategies**
    b) **Dependent Variable: performance of public universities in Nairobi County**

(Source; Research data, 2019)

Results in Table 4.16 (c) indicate the model relating to Cost-Cutting Strategies and performance of public universities in Nairobi County. The model had an adjusted $R^2= .3123$, which meant the model provided a moderate fit. Following the linear regression analysis of Cost-Cutting Strategies and performance of public universities in Nairobi County in Kenya, the fitted model was determined as:

$$y = 3.687 + 0.458 X_3 + e \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots\ldots(4)$$

Where

Y = performance of public universities in Nairobi County

X_3 = Cost Cutting Strategies

The standardized beta coefficient in the equation above shows that Cost Cutting Strategies had a beta value ($\beta0$) of 0.458. This meant that a unit increase in Cost Cutting Strategies would result in a 45.8 percent increase in public universities' performance in Nairobi County.

The Regression Model revealed that Cost-Cutting Strategies was statistically significant at ($\beta=0.458$; t= 2.938; p= 0.00); thus, at 5 percent level of significance, Cost-Cutting Strategies had a positive and significant effect on the performance of public universities in Nairobi county.

4.5.5 The moderating role of organization culture

The fourth objective sought to assess the moderating role of organizational culture on the relationship between Strategic responses on the performance of public universities in Nairobi County. The first model was on moderating role of organizational culture on the relationship between strategic responses and the performance of public universities in Nairobi County. However, in the second model, the Level of organizational culture and the influence of strategic responses were regressed on public universities' performance in Nairobi County. The regression analysis results are presented in Table 4.17.

Table 4.17 (a) Model of fit on organizational culture

Model	R	R Square	Adjusted R Square	Std Error of estimate	Change R square Change	statistics F Change	dfdf 1	2	sig f change
1	.586	.343	.341	.0412	.378	9.818	2	29	.00
2	.597	.356	.352	.0419	.132	1.372	1	30	.000

Dependent Variable: performance of public universities in Nairobi County
Predictors: (Constant), strategic responses
Predictors: (Constant), strategic responses, organizational culture
Source: research data (2019)

The results in Table 4.17 (a) show that adjusted R^2 = 0.341. This implies that Organizational Culture explains the 34.1% of the variation on performance of public universities in Nairobi County 65.9 % is explained by variables not fitted in the model.

Table 4.17 (b) Analysis of variance statistics

Model		Sum of squares	Df	Mean square	F	Sig (p-value)
1	**Regression**	0.030	1	0.015	8.042	0.000
	Residual	0.048	29	0.005		
	Total	0.078	30			
2	**Regression**	0.034	2	0.017	6.758	0.001
	Residue	0.051	30	0.002		
	Total	0.085	32	30		

Source: research data (2019)

In addition, the results in Table 4.17 (b) indicate that the regression model with interaction term is statistically significant at $F_{(2, 30)}$ = 6.758 and P = 0.001.

Table 4.17 (c) Coefficient of Organizational Culture on performance of public universities in Nairobi County.

Model		Unstandardized Coefficients B	std error	Standardized Coefficients Beta	t-value	Sig. (p-value)
1	**(Constant)**	.736	.0009		7.97	0
	Strategic responses	.254	.01	.323	1.576	.012
	Organizational Culture	.189	.009	.197	1.48	0
2	**(constant)**	.689	.002		4.887	0
	Strategic responses	.756	.005	.248	1.218	0
	Organizational Culture	.0015	.014	.259	1.125	0
	Product of Strategic responses and organizational culture	-.008	.0006	-0.154	1.164	.001

Source: research data (2019)

Results in Table 4.17 (c) in Model represent interaction between strategic responses and organizational culture. Moreover, the change in coefficient of determination (R change = 0.132, F change =1.372 and p value = 0.000) reveals that there is significant moderating effect of organizational culture on the relationship between strategic responses on performance of public universities in Nairobi County.

$$Y=0.736+ 0.323X_1 + 0.197 X_4+ \varepsilon ……………………………….………… (5)$$

Where:

Y= performance of public universities in Nairobi County

X_1= Strategic Responses

X_4= Organizational Culture

E = error term

In Model, strategic responses are statistically significant at β = 0.323, t= 1.576; p =0. 001, suggesting that there is a relationship between strategic responses on performance of public universities that could be moderated.

$$Y =0.689+ 0.248 X_1 + 0.259 X_4 - 0.154 X_1* X_4 + \varepsilon ………………………. (6)$$

Where:

Y= Performance of public universities in Nairobi County

X_1= Strategic Responses

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X_4= organizational culture

E = error term

The regression results in Table 4.17 (c) for model (6) reveal that at 5% level of significance, the coefficients are statistically significant, with strategic responses at β = 0.248; t = 1.218; p=0.000, organizational Culture at β =0.259; t = 1.125; p =0.000, and the interaction term at β = -0.154; t= 1.164; p = 0.001.

V. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary and conclusion

Strategic response and organizational performance in Kenya have been a topic of numerous discussions in Kenya for a long time despite the incorporation of strategic interventions. Previous studies have been conducted on corruption globally, and in Kenya, they did not focus on strategic responses. The current study sought to establish the relationship between strategic responses and organizational performance of public universities in Nairobi County.

A clearly defined, conceptual framework was developed and tested empirically, guided by the following objectives: To establish the influence of technology adoption on public universities' organizational performance in Nairobi County, Kenya, to discover the effect of market expansion on the organizational performance of public universities in Nairobi County, Kenya, to assess the influence of cost-cutting strategies on the organizational performance of public universities in Nairobi County, Kenya and to examine the moderating effect of corporate culture on the relationship between strategic responses and organizational performance of public universities in Nairobi County, Kenya.

The study employed a descriptive research design. Primary data was collected using a structured questionnaire and validated by secondary data. The data were analyzed using descriptive and inferential statistics. Descriptive statistics were used to describe and summarize data. Inferential statistics, particularly regression analysis, was used to establish the relationship among the study variables.

The findings indicated that most of the respondents were under the age of 41- 40, whereas respondents who were over 50 years represented the least number of respondents. Most of the respondents had master's degree level of education. This was an indication that the respondents showed clear evidence of expertise and qualification concerning their Level of education.

The first objectives sought toestablish the influence of technology adoption on organizational performance of public universities in Nairobi County, Kenya. In order to find out the relationship between technology adoption on organizational performance, the Regression Model revealed that Technology adoption was statistically significant at (β=0.466; t= 5.329; p= 0.001); thus, at 5 percent level of significance, Technology adoption had a positive and significant effect on performance of public universities in Nairobi County.

The second objective sought to establish the effect of market expansion on organizational performance of public universities in Nairobi County, Kenya. In order to find out the relationship between market expansion on organizational performance, the Regression Model revealed that market expansion was statistically significant at β=0.440, t=4.654, p= 0.00. Therefore, at 5% level of significance, market expansion had a significant positive effect on performance of public universities in Nairobi County.

The third objective sought to assess the influence of cost-cutting strategies on organizational performance of public universities in Nairobi County, Kenya. In order to find out the relationship between cost -cutting strategies on organizational performance, the Regression Model revealed that Cost-Cutting Strategies was statistically significant at (β=0.458; t= 2.938; p= 0.00); thus, at 5 percent level of significance, Cost-Cutting Strategies had a positive and significant effect on the performance of public universities in Nairobi county.

The fourth objective was to assess the moderating effect of organizational culture on the relationship between strategic response on organizational performance of public universities in Nairobi County. The findings showed that organizational culture moderated the relationship between strategic responses on organizational performance of public universities in Nairobi County. The regression results revealed that at 5% level of significance, the coefficients are statistically significant, with strategic responses at β = 0.248; t = 1.218; p=0.000, organizational Culture at β =0.259; t = 1.125; p =0.000, and the interaction term at β = -0.154; t= 1.164; p = 0.001.

5.2 Recommendations

The study further recommended that the management should come up with strategic response measures that are related to technology adoption and innovation, the success of such strategies in the target market determines the success of the Organization and its overall performance of the universities. Public Universities should provide a conducive environment to easily merge and widen the scope of their operations through Satellite campuses. In so doing, the Public Universities will invest in modern technology and research and development resulting into improved quality of products and services. This will also promote free and fair competition since Public Universities can merge with Private Universities and compete alongside their rivals competitively. This will help in cutting costs and improving on their performance.

The study further recommends that public universities should align their strategic responses in regards to innovation in order to come up with products that aim to satisfy specific needs. To accomplish this, the VC and the DVC should involve all their stakeholders in strategic plans and decisions to ensure that all unmet customer needs have been addressed. This will lead to increased sales and profitability and eventually improve performance in relation to market expansion.

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The study recommends that further studies should be undertaken to incorporate other strategic responses such as product innovation, downsizing and divesting in order to find out their impact on performance of public universities. This will provide a basis of comparison to find out the strategic responses that impact greatly on performance after which a conclusion can be drawn on the basis of the basis of solid facts

5.3 Area for Further Study

The study was only limited to Public universities in Nairobi County. Further researches should be conducted in public universities and private universities in other counties. The study was limited to only four strategic response variables that affect the organizational performance of public universities in Nairobi County. A comparative study can be done on other strategic response measures that may affect public universities' performance and Private universities in Kenya.

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