THE EFFECT OF TOP MANAGEMENT TEAM CHARACTERISTICS AND ORGANIZATIONAL LEARNING ON THE STRATEGIC CHOICES OF ACCREDITED UNIVERSITIES IN KENYA

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DECLARATION

I, declare that this thesis is my original work which has been developed according to the regulations which guide the research process at the School of Business, University of Nairobi. This work has not been submitted to any other university and the works of other scholars cited in this study have been referenced.

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DEDICATION

To my daughters,

Evelyne Lukalia

Mercy Owendi Mwenda

my son,

Joel Andeso Ayuya

who encouraged and motivated me to pursue the Doctoral programme,

and to my little angel,

Ivanka Mwenda,

who will always give me joy like no other.

May this piece of work inspire you to greater heights in your academic endeavours.

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ABBREVIATIONS AND ACRONYMS

AAU	Association of American Universities
ADEA	Association for the Development of Education in Africa
AUK	Accredited Universities in Kenya
BSC	Balanced Score Card
CEO	Chief Executive Officer
CUE	Commission for University Education
EPS	Earnings per Share
EPZ	Export Processing Zone
IOE	Industrial Organization Economics
IPMO	Intellectual Property Management Office
MDG	Millennium Development Goals
MOEST	Ministry of Education, Science and Technology
NFP	Non-Financial Performance
NSE	Nairobi Securities Exchange
NSI	National System of Innovation
RDT	Resource Dependency Theory
OL	Organizational Learning
PAUK	Performance of Accredited Universities in Kenya
ROI	Return on Investment
SBSC	Sustainable Balanced Score Card
SC	Strategic Choice
S-C-P	Structure-Conduct-Performance
SMEs	Small and Medium Enterprises
TMT	Top Management Team
UET	Upper Echelons Theory
UNESCO	United Nations Educational Scientific and Cultural Organization

ABSTRACT

Organizational performance is critical for both empirical and conceptual research in strategy. Strategic choice serves as a major connection between the organization and the environment in which it operates and involves decisions on the mix of business portfolio. Organizational learning on the other hand, is central to organization's ability to adapt to changes, which take place in both the internal and external environment and at the same time attain competitiveness in times of uncertainty. Scholars attribute the strategic choices, which determine organizational performance to the top management team members with different characteristics, yet there is no agreement on the extent to which the variations in top management team characteristics affect performance. This study sought to assess the extent to which organizational learning and top management team characteristics influence the relationship between strategic choice and performance of accredited universities in Kenya. The study premised on the view that establishing the role of organizational learning and top management team characteristics would maximize the capabilities and competitive advantage in the performance of accredited universities in Kenya. The main objective of this study was to establish the influence of strategic choice, organizational learning, top management team characteristics on performance of accredited universities in Kenya. The study had four specific objectives and the first objective was to establish the influence of strategic choices on performance, while the second objective was to determine the influence of top management team characteristics on the relationship between strategic choice and performance. The third objective was to establish the influence of organizational learning on the relationship between strategic choice and performance and the fourth objective was to establish the joint effect of organizational learning on the relationship between strategic choice and performance. The study was anchored in the industrial organizations economics theory as the main theory including resource dependency theory and the upper echelons theory and adopted a positivistic orientation. The study used a cross sectional survey of 52 private and public accredited universities in Kenya where primary data was collected using semi-structured questionnaires. Secondary data was also collected for the study. An analysis was done using correlation and linear regression analysis and from the results strategic choice influenced performance; top management team characteristics negatively moderated the relationship between strategic choice and performance; organizational learning mediated the relationship between strategic choice and performance; and strategic choice, organizational learning and top management teams jointly influenced performance. These findings are consistent with most of the previous studies and this study therefore extends the knowledge frontiers in strategic management In addition, the findings provide a diversity of implications on theory, policy and practice. Policy makers will, for example utilize the findings as a guide in the policy formulation and implementation of strategic choices aimed at the success of the accredited universities in Kenya with focus on the requisite top management characteristics. Future studies may need to focus on external environment and other top management characteristics, psychological and behavioral characteristics as moderators. A replication study after five years and a longitudinal case study of a few accredited universities for at least ten years is also recommended for in-depth results, which can be generalized to the other accredited universities in Kenya. A major limitation of this study was that primary data was collected from only one respondent from each accredited university. However, common methods bias was mitigated by use of additional secondary data to validate the primary data. Therefore, this limitation did not affect the credibility of the results which were presented and discussed in this study. Future studies may involve more stakeholders, both internal and external, in their research.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organizations are in a constant search for ways of distinguishing themselves from competitors in order to secure sustained competitive advantage through improved performance. These organizations have to make Strategic Choices (SCs) by developing the capacity of individuals to learn at all levels and ultimately transform into learning organizations. Strategists who belong to a strategic group are determinants of the success of their organizations by ensuring that available resources are utilized towards the achievement of the specific strategies (Senge, 1990, Hambrick & Mason, 1990; Hambrick, 2007). Duton and Duncan (1987) posit that in order for organizations to achieve superior performance and have a competitive advantage over their competitors, SCs on the mix of business portfolio have to be made by the Top Management Teams (TMTs) who interpret the environmental strategic issues through organizational learning.

It has been separately argued and determined that SCs are to a great extent influenced by leadership, goal agreement, the level of cohesion and the collective vision of TMTs. However, Hambrick (2007) posits that the TMTs with different backgrounds and characteristics determine the SCs, which in turn could affect the performance of organizations. Conversely, there is inconsistency on whether demographic and different functional backgrounds of TMTs have a positive or negative influence on performance (Priem, Lyon & Dess, 1999; Awino, 2013).

Strategic management scholars and practitioners over the years argue that organizations in the same industry differ in performance since they use different performance measures (Krager, 1996; Barney, 1991). These measures keep changing as they are aligned to the SCs, which are developed by organizations. Measuring organizational performance is difficult especially when what has to be measured keeps changing (Hubbard, 2009). Therefore, the debate on why some organizations in the same industry perform better than others and use different performance measures continue to attract empirical studies.

The main theory on which this study is anchored is the Industrial Organization Economics (IOE) theory which states that organizations attain optimal performance when there is a synchronization of the organizational strategy and the environment and ultimately the way the industry is structured affects the SCs of an organization (Bain, 1951 & Mason, 1939). This theory is based on the Structure Conduct Performance (S-C-P), a strategic management equivalent of Environmental Strategy Performance (E-S-P). Resource Dependency Theory (RDT) (Pfeffer & Salancik, 1987) states that organizations are dependent on resources from the environment. This theory posits that variations in availability of resources prompts organizations to adapt for continued survival and sustainability.

The Upper Echelons Theory (UET) postulates that top managers are the strategic managers who determine the course of the organization's direction and how fast it can compete in the industry (Hambrick & Mason, 1984; Finkelstein & Hambrick, 1996; Hambrick, 2007). The upper echelon theorists (Finkelstein & Hambrick, 1996; Hambrick, 2007) argue that the TMT characteristics influence strategy-making activities within organizations which have a bearing on Organizational Learning (OL) and consequently performance.

The study focused on accredited universities in Kenya and one of the major objectives of these institutions is to contribute to the success of Kenya Vision 2030 and be able to survive and compete in the regional and global markets. The demand for higher education in Kenya has increased tremendously despite the challenges of underfunding, lack of adequate teaching facilities and the fluctuating economic environment. These institutions promote national economic growth by providing employment opportunities, which improve the living standards. They provide a leading edge in research activities that lead to innovation (Kenya Vision 2030, Martin, 2000).

Accredited universities have increased since Kenya attained independence to more than 70 including constituent colleges (CUE, 2015). These accredited universities continue to struggle for survival in order to maintain sustainable growth and competitiveness, which has led to rivalry in the higher education sector. Munene (2016) noted that the lack of adequate teaching facilities has led to leasing of facilities to accommodate the increased number of campuses and large numbers of students. Every accredited university is therefore focusing on having a competitive edge and be a market leader.

Some scholars argue that if accredited universities have to sustain relevance and competitiveness in the economy, they need to embrace SCs, which focus to the changing technological advancements (Eshiwani, 1999; Munyoki, Kibera & Ogutu, 2011; Orucho, 2014). It was therefore important that a review of SCs be made through continuous OL spearheaded by the TMTs with diversified demographic and functional characteristics to set the direction of the institutions towards improved performance, thus, the impetus for undertaking this study.

1.1.1 Strategic Choice

The SC is central to strategy making. Johnson, Scholes and Whittington (2009) define SC as a process that takes into consideration what the stakeholders expect, identifying options available, then evaluating and selecting the best strategic options for implementation. The SC indicates the various ways and directions in which a strategy may be implemented (Johnson et al., 2009). The managers who make strategic decisions are expected to be involved in various organizational activities that require strategic thinking.

The managers are expected to be knowledgeable about their organization and the operational environment. They are also required to have information about the competitors' operation, and the prevailing regulatory systems (Bukszar & Connolly, 1988). According to Johnson et al. (2009), strategic management involves assessing the current strategic position of an organization in order to choose and manage the best strategies for the organization. The SC provides a connection between an organization and the environment in which it operates.

The focus is on how the top managers are able to gain knowledge and understanding of how to manage the organization's environment and find ways of how these organizations can respond to the prevailing environmental conditions (Machuki, 2011; Namada, 2013). According to Pfeffer and Salancik (1978) and Dutton and Duncan (1987), SC involves decisions on the mix and emphases of business portfolio, which includes strategic alliances, diversification and internal restructuring.

The type of SC and how effective it is depends on how the top managers interpret the environmental issues and adopt the right choices Dutton and Duncan, (1987). Tushman and Romanelli (1985) argue that it is how the top managers perceive the changes in the environment that determines the choice of viable strategies. The TMTs therefore allow for creativity and innovativeness in the choice of the strategies.

Due to globalization and advancements in technology, organizational environments go through catastrophic changes and organizations have to go through these upheavals which usually surpass their capacities to adapt (Meyer et al., 2002). According to Bantel and Jackson (1992), the turbulence in the environment is so fast that in the face of lack of or obsolete market information, viable strategic windows open and shut very fast and the cost of mistakes may lead to an organization's exit from the market.

If organizations have to remain viable and competitive, the top managers must make SCs which match with the turbulent environment. Ansoff and Sullivan (1993) argue that these SCs should be complimented by the aggressiveness of these choices. This argument is supported by Huber (1984), Machuki and Aosa, (2011) in the thinking that organizational performance depends on how an organization aligns with the changes in the environment. This study sought to find out how an integration of the SC of internal restructuring, diversification and strategic alliances conceptualized in this study in accredited universities in Kenya can improve their performance.

1.1.2 Organizational Learning

According to Leroy and Ramanantsoa (1997) OL is the acquiring, developing and disseminating knowledge and skills within the organization so as to influence organizational performance. The definition underscores the role of OL on shaping organizational performance. Such conceptualization sees OL as a significant antecedent of organizational performance, how efficient it is and how it gains a competitive edge over its competitors (Templeton, Lewis & Snyder, 2002). Organizational learning has also been defined by some scholars as a process which influences organizational behavior by developing new potential insights.

According to Cummings and Whorley (2009), OL involves a process of change, which evolves around improving the organizational capability through new knowledge. They also posit that OL begins at the individual level in the organization and culminates into group and institutional levels. Senge (1990) therefore contends that continuous tests and transforming experiences into relevant knowledge translates to the core objectives of the organization. As a process, an outcome and a link between cognition and action, OL therefore enables organizations to make SCs, which aim at improved performance (Levitt & March, 1988; Crossan & Lane 1999; Crossan & Bedrow, 2003; Namada, 2013).

It is through OL that organizations understand and interpret the environment when making and implementing the organization's SCs (Daft & Weick, 1984). The OL is therefore a strategy that has been adopted by most organizations in problem resolutions and enhancement of the organization's position during variations in performance (Kim, 2003; Namada, 2013). When this knowledge is embodied in the strategies and the way things are done in an organizational setup, it forms the basis of cultural norms and practices of groups and individuals in the learning process. Huber (1984) posits that OL is a four faceted process that combines the way information is acquired, distributed and interpreted as a pointer to the memory of an organization.

Argyris and Schön (1996) contend that OL takes place in organizations during the acquisition of information in the form of knowledge in various ways using different types of technology. Some researchers however argue that in order to develop a dynamic approach in the creation and distribution of information and knowledge in the organization, it must have a link with the environment in which it operates (Nonaka & Takeuchi, 1994; Bustinza, Molina & Aranda, 2010).

Learning is an important factor for competition since it has a connection with how an organization acquires knowledge and attains better performance. Accordingly, an organization contains a lot of knowledge acquired over time and continues to look for ways of searching for more knowledge with improved technology in order to attain and sustain better performance over its competitors. This study conceptualized OL at three levels of individual learning, group learning and institutionalization according to Senge (1990).

1.1.3 Top Management Team Characteristics

Top Management Team members have been described by researchers as top managers who make decisions and SCs, which determine the direction of their organizations. They form the primary unit that links the organization to the environment through SC evaluation and feedback (Child, 1972; Weiner & Mahoney, 1981). Finkelstein et al. (1996) define TMT as the Chief Executive Officers (CEOs) of an organization and those who report to them directly. Miller, Linda and William (1998), however attribute TMT members to all top managers who report to the CEO or the chief operating officers and this has relevance to the TMTs of this study.

According to UET, Hambrick and Mason (1984) posit that the SCs and organizational performance involves the decisions made by top managers who determine the overall performance of organizations. Hambrick (2007), states that it is the characteristics of the TMT members, which determine the type of SCs that are made in order to achieve the performance of an organization. Priem et al. (1999) argue that the operationalization of empirical studies on upper echelons perspective has been measured using demographic and functional backgrounds of TMTs which explain the variations in organizational performance.

Hambrick and Cho (1996) found that the TMT differences in functional background, education, and tenure had a positive effect on the actions taken by the TMTs. Scholars have however, criticized research done on the demographics-focused TMTs (Priem, Lyon & Dess, 1999; Muchemi, 2013). Kinuu (2014) however, argued that psychological (unobservable) TMT characteristics have a positive influence on performance.

Various scholars (Harrison, Price, Gavin & Clorey, 2002; Narajo-Gil, 2007; Awino, 2013) posit that demographic differences in the TMTs include age, gender, ethnicity, race, religion while others include educational background, team tenure, organizational tenure, functional background and financial background. These are backed by the unobservable/ psychological values and the differences in ways of thinking (Kinuu, 2014) Pfeffer (1983) posit that it is through these different attributes or characteristics that group behavior is measured.

Other scholars contend that the advantages of using the observable demographic variables is because they are objective, comprehensive, coherent and testable. (Hambrick & Mason, 1984; Muchemi, 2013; Awino, Muchemi, Ogutu, 2011; Hambrick, Humphrey & Gupta, 2015). They argue that the observable demographic TMT characteristics are easier to measure than the unobservable/psychological TMT characteristics.

The UET and their proponents posit that TMT characteristics influence organizational outcomes and performance. This is because it is the top managers who have the empowerment to make organizational strategic decisions. According to Kinuu, Murgor, Ongeti, Letting, and Aosa (2012); Larkin, Pierce and Ginol (2013) TMTs with different characteristics determine the quality of creativity and innovativeness due to diversity of information sources they come across when making strategic choices. They perceive the strategic stimuli in different ways as they strive to synchronize their different views (Hamrick & Mason, 1984). TMT characteristics is a source of dynamic capabilities and provides a link between the organization's competencies and the changing environment (Peteraf & Bergen, 2003; Sirmon & Hitt, 2003).

Different TMT characteristics bring about an integration of new ideas, trends and opportunities with existing capabilities, which bring about improved organizational performance (Penrose, 1959). As Tripsas and Govetti (2000) point out, these TMTs with varying characteristics identify new technologies and combined competencies. However, some scholars have pointed out that TMTs with different demographics lead to varying viewpoints with diversity in objectives which creates organizational liability. This may cause complications in the strategic decision-making, consequently causing a negative contribution to organizational performance.

Researchers have devoted great effort to examining TMT characteristics and their effect on organizational strategy and performance (Hambrick et al., 2015). Despite the many studies on TMT heterogeneity, research has shown results that are inconsistent and therefore the debate on whether demographic and functional diversity have a positive or negative effect on performance of organizations continues. The inconsistencies in the outcomes of empirical studies may be attributed to the fact that the researchers' assumptions were based on a direct link between TMT characteristics and organizational performance.

This study therefore, sought to address the disparity of demographics-focused and functional diversity TMT research by reviewing the moderating role of the TMT characteristics in the determination of organizational outcomes in accredited universities in Kenya. Diversity in leadership, governance and management of higher education in accredited universities in Kenya call for competitive appointments of CEOs and top managers (Kinyanjui, 2007). This study therefore focused on TMT demographics of age, gender, ethnicity, educational level, organizational tenure and functional background.

1.1.4 Organizational Performance

Organizational performance relates to the efficiency and effectiveness of the firm in converting inputs into outputs (McCann, 2004). According to Richard and Tomassi (2001), efficiency can be described as the cost per unit in relation to the goods and services produced and the resources that have been utilized in the production process. An organization's performance is measured by the level of expected customer-related results which can be measured by customer satisfaction level, their loyalty, frequency of purchase and repurchase of an organization's products (Kaplan & Norton, 1996).

In the context of accredited universities in Kenya, organizational performance is a measure of capabilities in research and innovation, number of quality degree programmes offered, growth in number of students who have graduated, growth and expansion of schools and faculties. Different methods are used to measure organizational performance as it remains a complex multidimensional phenomenon in strategic management (Balta, 2008).

Sabina (2009) argues that it is imperative to measure organizational performance so that managers and researchers can evaluate the position of the organization against its rivals. It has however, been realized that measurement of organizational performance has posed a major challenge to both researchers and practitioners. According to Sink and Turtle (1989) model, organization performance system is categorized in terms of effectiveness, efficiency, quality of products, productivity, quality of work life, innovation and profitability.

Many studies of organizational performance have used performance as the dependent variable but with different variables, which indicate the level of variations in performance. (Muchemi, 2013; Namada, 2013). Schendel and Hatten (1972) posit that for an organization to succeed the top managers must be able to combine many factors. According to Lenz, (1980) empirical studies address particular aspects of this broad problem of managing multiple dependencies. Financial measures of performance include financial ratios, cash flow or liquidity measures, activity ratios among others. Financial ratios may be calculated in different ways, using different figures (Gibson & Cassar, 2005) and measures include profitability ratios (gross profit, net profit, Return on Investment (ROI), Earnings Per Share (EPS), growth in sales, market valuation, total assets and liquidity ratios among others.

Due to the inefficiencies of the financial measures, Kaplan and Norton (1992) introduced the Balanced Score Card (BSC) as a tool to measure organizational performance. It measures performance using four perspectives: financial perspective, customer perspective, learning and growth and internal business processes. Over the years, organizations are using Sustainable Balanced Score Card (SBSC), which includes corporate social responsibility and environmental perspectives (Hubbard, 2009). Organizations should endeavour to make use of both financial and non-financial indicators to measure their organizational performance (Velcu, 2009).

The debate on measurement of organizational performance still continues. Different organizations use different ways of measuring organizational performance, which are either qualitative or quantitative (Krager & Parnell, 1996). Irungu (2007) in his study used financial measures only, while Orucho (2014) used both financial and non-financial measures. It has been argued (Kaplan & Norton, 2001) that financial indicators do not take into consideration non-financial measures such as efficiency, customer perspective, new business processes and do not focus on the future.

As Kennerly and Neely (2003) pointed out, many organizations cannot cope with the fast changing performance measurement system. Thus, poor performance is attributed to inadequate performance measurements and inappropriate SC (Oyewobi, Windapo & Rotimi, 2002). Some researchers further argue that both financial and non-financial measures should be used due to failure of financial measures in explaining what really contributes to the achievement of performance in organizations (Cooper & Aouad, 2000; Bourne, Mills, Wilcox, Neely & Platts, 2000).

This study conceptualized organizational performance as a dependent variable and adopted the SBSC framework as a performance measurement which incorporates financial measurements in terms of surplus/deficit, research grants and endowment funds. The non-financial organizational performance was operationalized using customer perspective, new business processes, learning and growth both of which are relevant to accredited universities in Kenya.

1.1.5 Accredited Universities Globally

Accredited world universities and colleges are a key area of interest in strategic management as they play a key role in the economy (UNESCO, 2014). Studies in higher education in Asia (Malaysia and Thailand) Chapman (2015) and Ozsoy (2011) study of 179 universities across Europe, Latin America and Sub-Saharan Africa, posit that higher education through universities and colleges are centres of economic development in the area of research, innovation and production of highly skilled manpower. These studies established that technology and globalization affect the accredited world universities and colleges in the various regions.

The world accredited universities are resource dependent on fees, income generating units and other stakeholders. They operate in uncertain fluctuating environments and are affiliated to institutions that ensure quality assurance as they develop expansion strategies within and across continents. American universities are guided on various policies on research and quality education under the Association of American Universities (AAU). Other universities are affiliated to the Association of Commonwealth Universities.

Research has shown that universities in the developing countries depend on donor funding for research activities and scholars are sponsored by various organizations such as Ford and Rockefeller Foundations. These funds are usually transmitted directly to the approved institutions for recipients in the form of research grants.

1.1.6 Higher Education in Kenya

There has been a growing emphasis on higher education in Kenya over the decades. This is in line with the demands of both economic and social developmental goals (Sifuna, 1998). The increase of the number of students leaving high school and seeking higher education has led to the congestion in the institutions of higher learning in Kenya, with poor working conditions and inadequate and poor facilities. The ever-increasing demand for higher education in Kenya has therefore led to the increase in the number of both private and public universities over the decades.

The change from the 7-4-2-3 cycle to the present 8-4-4 system of education in Kenya has led to the double intake by universities and has resulted in more public and private universities. The public universities rely on tuition fees and diminishing funding from the government while the private universities depend on tuition fees and private investors. The expansion of private universities is attributed to the failure of the public universities to meet the high demand for higher education (Ginies & Marzuelle, 2010, Munene, 2016).

Eshiwani (1999) in his study on higher education institutions of learning pointed out that apart from provision of education and training in a framework of teaching and research in professional disciplines (law, medicine, engineering and accounting among others) they provide human resource development.

In addition, these institutions of higher learning are expected to function as centres of research operating in a wide range of disciplines. They are also expected to play their role in regional development and also maintain international collaborations. Their role in fostering social, intellectual and development is paramount Commission for University Education (CUE, 2013).

The emerging global knowledge society, which is information driven economies and the expansion in the global higher education markets has increased the search for a myriad of factors to be addressed. There are complexities brought about by the increase in number of institutions of higher learning and increased student enrolments together with the resultant competition CUE, 2013). The expectations of the society and the role in economic development given the inadequate resources both human and capital calls for this study which has integrated the choice of strategies, linked with OL and top managers with different characteristics that influence performance.

1.1.7 Accredited Universities in Kenya

The accredited universities in Kenya and constituent colleges are regulated by the directorate of higher education with the support of CUE, which falls under, the Ministry of Higher Education, Science and Technology (MoES&T). The CUE plays the role of coordinating higher education through registration, categorizing, standardization, validation, harmonization and supervision of post-secondary school institutions, which includes accredited universities in Kenya. The CUE ensures that quality is established and sustained in the universities and that there is a level playing ground for both public and private universities (Universities Act No.12, 2012). At the time of this study, CUE had listed 52 autonomous and chartered private and public universities (see Appendix VII).

The role of the accredited universities is to produce highly qualified human resource with the right skills (Republic of Kenya, 2005a). However, Martin (2000) in his study on the management of university and industry strategic alliances found out that among the challenges facing universities in Kenya include insufficient, inadequate and outdated learning and teaching facilities, lack of funds for operations and inadequate human/intellectual capital. Goransson and Brundenius (2011) argue that the objective of promoting relevance of accredited universities to socio-economic development should be through the National System of Innovation (NSI) framework.

This system is a collective process which ensures that organizations including accredited universities in Kenya and other research centres do not innovate in isolation. Munene (2016) points out that the number of accredited universities has been growing over the decades, from one public university to the present number of accredited universities in Kenya. The student numbers who complete high school and the people who are working and are seeking university education places has been on the increase.

This has resulted in inadequate teaching facilities and thus the authorities in the accredited universities in Kenya have been forced to resort to leased facilities to accommodate the increase in number of campuses and the large student numbers. Munene (2016) further points out that this has been regarded as a practical way of expanding the campuses in the face of the government and the private investors inability/reduction in construction of capital projects at the main campuses. Most of the accredited universities in Kenya are to be found in the main metropolitan areas.

Others are located in the rich agricultural areas in Central, Rift Valley and Western Kenya regions leaving other areas disadvantaged. The regulator authorities have failed to maintain a check on the low quality-campuses in favour of streamlining the social economic goals. As much as these campuses provide access and equity, they also compromise the quality of education (CUE, 2015). The accredited universities in Kenya have been growing in numbers over time and are becoming complex entities, which have to contend with the ever-changing environment and scarce resources. The World Bank (2006) attributed the increase in higher education admissions to the advances made in primary and secondary school enrolments leading to the growth in the number of accredited universities and constituent colleges around the country.

These universities have to position themselves in the market as institutions of higher learning. They operate in a turbulent environment and therefore they have to formulate strategies at corporate, business and functional levels in their quest to improve performance and compete in national, regional and the global market. The international exchange of knowledge continues to increase opportunities in a wide range of disciplines, which has led to new partnerships and collaborations with great improvements in higher education globally (Varghese, 2009; Orucho, 2014). The higher education sector is therefore seen as a strategic area of focus within the accredited universities in Kenya.

The main challenges facing the accredited universities in Kenya and the constituent colleges are to increase access to higher education and at the same time cater for the ever increasing number of those who require university education, while maintaining quality, ensuring equity and affordability. Expansion and modernization of universities in Kenya is paramount to increasing access and making training relevant and adequate to the demands of the economy.

There is also the challenge of enhancing equity in accredited universities in Kenya – gender, regional, ethnic social disparities and inequalities. Quality assurance is compromised due to inadequate and outdated facilities, frequent student disturbances and low staff morale. There is also increased competition to meet the demand for higher education while at the same time maintaining continual improvement in research, innovation, technology and capacity building.

In their quest for survival, sustainability and growth and improved performance, accredited universities are competitively being ranked through performance contracting and webometric rankings, among others. This study therefore investigates the effect of OL and TMT characteristics on the relationship between SC and Performance of Accredited Universities in Kenya (PAUK) as they strive for sustainability and growth in future.

1.2 Research Problem

Strategic choice serves as a major connection between the organization and the environment in which it operates and involves decisions on the mix and emphases of business portfolio (Dutton & Duncan, 1987). According to Hambrick and Mason (1984); Hambrick (2007) and Hambrick et al, (2015) TMTs with diversified characteristics decide on SCs which determine organizational performance yet there is no agreement on the extent to which this diversity in TMT characteristics affects performance. Organizational performance is at the heart of both empirical and conceptual research in strategy. Performance differences in organizations are often the subject of academic research and government analysis and are as a result of wide-ranging factors (Verreynne & Meyer, 2008).

Performance facilitates feedback about learning processes and the SC of the organization. The OL helps organizations to build an understanding and interpretation of their environment which enables them to effectively assess viable strategic options such as creation of new products and new business processes and adapt to variations in the environment (Daft & Weick, 1984, Bustinza et al., 2010). Although there is a strong positive relationship between OL and performance (Bustinza et al., 2010; Namada, 2013) studies have variations in their findings.

Accredited world universities are a key area of interest in strategic management as they play a key role in the economy. They are essential institutions in the economy as they train researchers and innovators who are indispensable to the future success of business. They also attract some of the brightest intellectuals from around the world along with inward investment. Universities are a crucial factor for knowledge production and dissemination in high-income economies. They play a central role as producers of basic research and also create human capital (UNESCO Institute for Statistics, 2014). The CEOs have to manage the institutions with a sense of strategy, in order to position the institutions to face the increasingly uncertain future (Olum, 2004). Studies by Ozsoy (2011) and Chapman (2015) across Europe, Latin America, Asia and Sub-Saharan Africa established that technology and globalization affect the accredited world universities and colleges.

Accredited universities in Kenya are also essential institutions in the economy in the area of research and innovation. Public universities in Kenya had a near monopoly in providing higher education until regulations were put in place to establish private institutions of higher learning, which paved way for entry of cross-border education offered mainly through private investors (Varghese, 2009, Orucho, 2014).

Accredited universities in Kenya have seen intensive privatization of higher education in universities through parallel degree programmes. These changes have brought about stiff competition among the universities, which are rapidly growing. In order to remain competitive, accredited universities in Kenya have to adapt to environmental and technological changes to sustain improved performance and these changes provide an impetus for this study.

Several studies have been carried out and they provide empirical evidence on the factors, which determine organizational performance. However, there are conceptual, contextual and methodological gaps. Conceptual gaps are evident in Chapman (2015) whose study on universities in Malaysia and Thailand established that development of graduate education contributes to national economic development. Varghese (2006) established that cross border higher education is linked to expansion and performance of higher education in Africa. Abagi (2005) established that there are challenges due to new trends in higher education and this has a negative effect on performance of universities in Kenya. These studies conceptualized their studies differently and this study therefore sought to fill this gap by interrogating the moderating role of TMT characteristics and the mediating role of OL on SC and PAUK.

Irungu (2007) and Muchemi (2013) proposed further investigation on the TMT characteristics. Bustinza et al. (2010) in their study conceptualized OL in terms of dynamic capabilities but did not consider how learning takes place at all levels. Kinuu (2014) study used TMT psychological constructs while this study used TMT demographic constructs. The studies are inconclusive as they do not provide links of SC, OL and TMT characteristics and how they affect PAUK. Mkalama (2014) suggested that an integration of TMT demographics with other variables is necessary to strengthen the UET; the theory also required empirical data in different contexts.

Studies with contextual gaps include, Hishamudin, Mohamad, Shukri, Mohamad, Mohamad and Roland (2011) who found that individual learning; OL and team problem-solving have strong positive relationships with non-profit organizations performance in Singapore. Ozsoy (2011) focused on 179 universities in Europe, Latin America and only one from Sub-Saharan Africa. The study found out that the performance of a university was positively associated with its intellectual capital and its capabilities, curriculum orientation, enhanced industrial attachment, teaching and learning facilities and collaborative research.

The study focused on contribution of higher education to economic development in Europe whose environment is different from the Kenyan context. According to Bustinza et al. (2010) study in Spain, there is a positive relationship between OL and organizational performance. These studies, however were carried out in contexts outside Kenya in different environmental settings and this study filled the gap by carrying out an empirical study in accredited universities in Kenya.

Methodological gaps are evident in Namada (2013) whose study established that OL has a significant influence on performance of Export Processing Zones (EPZs) in Kenya and used non-financial measures only using triangulation. Orucho (2014) study on public and private universities in Kenya used different operationalization of the study variables using different linkages a gap which this study filled by using different operationalization of SC, OL and TMT characteristics. Irungu (2007) established that there is a positive relationship between TMTs and performance. The use of one performance measure has been criticized since it lacks objectivity since it fails to provide an alignment of business activities and the strategy of an organization. The study focused on financial performance measures only while this study focused on financial and non-financial performance in order to fill this gap.

Muchemi (2013) and Awino (2013) concluded that different demographic factors of TMTs have different magnitudes and direction of influence on performance of commercial banks in Kenya in the service industry. The debate on the influence of TMT characteristics on organizational performance still continues. Therefore, this study delved into an interrogation of the moderating role of TMT characteristics on SC and organizational performance. Abagi (2005) focused on only two private universities in Kenya while this study focused on 52 accredited universities in Kenya which includes both private and public universities, the results of which can be generalized for all the accredited universities in the African region.. This is due to the fact that private universities are owned by private investors while public universities are state owned all over the world.

Researchers concur that there is a positive relationship between various variables on organizational performance. However, there are methodological, contextual, measurements, conceptual and empirical inconsistencies in the literature regarding the linkages between the variables. Most of the previous studies have used performance as the dependent variable, however, some of the studies have focused on different organizations and institutions based on different moderating and intervening variables.

This study therefore sought to address the identified gaps and answer the following research question: What is the influence of OL and the TMT characteristics on the relationship between SC and PAUK?

1.3 Research Objectives

The broad objective of this study was to establish the influence of SCs, OL, and TMT characteristics on PAUK, whereas the specific objectives were to:

1. Determine the influence of SCs on PAUK.
2. Determine the moderating influence of TMT characteristics on the relationship between SCs and PAUK.
3. Determine the intervening influence of OL on the relationship between SCs and PAUK.
4. Determine the joint effect of SC, OL and TMT Characteristics on PAUK.

1.4 Value of the Study

The study findings sought to integrate the proposition that SC influences organizational performance. This study provides more insight on the relationship of the joint influence of OL and TMT characteristics on SCs and PAUK. In order to establish this, the study recognized that performance as a function is the responsibility of top managers who have to manage the resources of the organization.

This study established that SCs are a set of options that are formulated by the top managers through continuous learning and adaptation to the environment aimed at improved performance. This study therefore confirms the findings of previous studies that organizations depend on the environment for resources and when changes occur in the environment, organizations have to adapt and align to the environment through strategic choices.

The findings of this study have emphasized the importance of organizational processes which have value creating capabilities, which allow for adaptability and integrations that facilitate improved performance. The results indicated the different ways in which organizations learn, accumulate new skills through individuals in the organizations to achieve performance. This study therefore made a positive contribution to the industrial organizations economics theory by confirming through empirical evidence that capabilities such as learning by top managers are useful in continuous performance improvement.

The study provides a guide to the policy makers in ways of resource funding and review resource allocation, which ensure that accredited universities in Kenya attain growth and sustainability and ultimately improved performance in order to contribute to national growth of the economy and the Kenya Vision 2030. The Kenya Vision 2030 focuses on high and sustainable economic growth and development of a knowledge-based economy while fostering strong linkages in the trip helix relationships (universities/ government/industry).

The study also provides a guide to policy makers on the mix of SCs that affect PAUK as they strive to continue creating a sustainable highly trained human resource capital and intellectual capital that underpins the national ambition of being a knowledge-based economy. The findings of this study also shed light on how accredited universities could sustain improved performance through SCs that foster learning at individual, group and institutional level.

The study provides guidance to the top managers and CEOs, which will lead to transformation of their institutions into learning organizations and therefore make better SCs that lead to enhanced institutional performance. It will also be useful to stakeholders and practitioners (Non-Governmental Organizations (NGOs), donor organizations, government ministries and private practitioners) who have strategic links with the accredited universities in Kenya to foster meaningful and profitable strategic alliances which create sustainability of good corporate governance and contribution to the economy. The results of this study have provided insights on management of accredited universities through important dimension of strategic choice, organizational learning, TMT characteristics, which are relevant to organizational performance. Future managerial decisions in accredited universities in Kenya will benefit from the findings of this study. Lastly, the findings of this study serve as an extension of the body of knowledge in the field of strategic management. The mediating and moderating relationships between SC and performance of accredited universities have resulted in an alternative approach in strategic choice. The recommendations for future studies provide avenues for research in strategic management for researchers.

1.5 Outline of the Thesis

The thesis comprises of six chapters; chapter one presents the background of the study and provides a brief description of the concepts of strategic choice, organizational learning, TMT characteristics and performance. The accredited universities of Kenya, the research problem, research objectives and the value of the study are also discussed. The chapter highlights the conceptual, theoretical and contextual analyses which provide the direction of the study.

Chapter two highlights the theoretical foundation and empirical literature review of strategic choice, organizational learning, TMT characteristics and their relationship with organizational performance and its relevance to accredited universities in Kenya. The chapter highlights the theories in which the study is anchored. The chapter also summarizes related studies that provided the foundation on which the findings on accredited universities in Kenya were discussed from which conclusions were made. It gives a pairwise review of the key variables of the study and a summary of the knowledge gaps. A conceptual model has been developed which leads to the four hypotheses of this study.

Chapter three discusses the research methodology which was used to carry out this study. The chapter explains in detail the research design, the population of the study, data collection techniques, operationalization of the study variables, the data collection instrument, data analysis procedure and techniques used for this study. The preliminary findings of the study are presented in chapter four which discusses the general information about the accredited universities in Kenya and the respondents together with reliability, validity tests and descriptive statistics of the study variables.

The chapter also presents the statistical assumptions and an analysis of findings using various statistical techniques. The results are interpreted on the basis of the conceptual framework. The chapter presents hypotheses tests, which were carried out using regression techniques. Chapter five presents a discussion of the results together with the empirical conceptual model. The summary, conclusions and recommendations are presented in chapter six. It also discusses the limitations of the study and provides the suggestions for further research. Implications of the study on theory, policy and practice are also discussed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This study discusses the theoretical foundation of the study and highlights the three theories in which the study is anchored. The IOE theory is the main theory of the study and is complimented by the RDT and UET. These theories provide a theoretical foundation for the study variables namely SC, OL, TMT characteristics and how they affect organizational performance.

The chapter provide a literature review of the conceptual and empirical literature on SC, OL, TMT characteristics and organizational performance. It discusses the key variables of the study individually followed by a pairwise review on their hypothesized relationships. This is in accordance with the objectives of the study. It also provides a discussion of previous studies with emphasis on the arguments of various scholars based on the theories.

This is followed by a review of conceptual and empirical literature which brings out knowledge gaps on SC, OL, TMT characteristics and their influence on organizational performance. These knowledge gaps formed the basis of developing a conceptual framework and the formulation of the research hypotheses for the study. These hypotheses were therefore tested in order to address the knowledge gaps.

2.2 Theoretical Foundation

The main theory in which this study is anchored is the IOE theory (Bain, 1951 & Mason, 1939) which links organizational performance and the fit between organizational strategy and the environment. Other theories which have been discussed include RDT (Pfeffer & Salancik, 1987) which postulates that organizations are environmental serving and they depend on resources from the environment; UET (Hambrick & Mason, 1984) is a strategic management theory which explains the variations in the organizational behavior and performance in the light of top managers who set the pace of competition in an organization. This study is therefore grounded in the following theories.

2.2.1 Industrial Organization Economics Theory

The Industrial Organization Economics theory anchors SC construct, which is the independent variable of this study. The theory is based on the S-C-P paradigm, a strategic management equivalent of E-S-P (Bain, 1951 & Mason, 1939). The S-C-P explains organizational performance as a function of the industry's structure and the players' conduct that constitute the buyers and the sellers. The economic performance on the other hand, is measured according to the method employed which results in the best possible output. Conduct is the buyers and sellers capacity in promotions, policies of pricing, research and development and also the way organizations compete and cooperate (Scherer, 1984; McGee, 1989).

Porter (1981) pointed out that development of IOE theory continues to attract industrial organization research with some studies explaining that the SC the organization adopts determines the ease or difficulty of a firm's entry in an industry (Caves & Porter, 1977, Porter, 1981). This shows why firms in the same industry perform differently given the same operational environment.

The theory states that organizations attain high performance when there is a fit between organizational strategy and the environment and that the structure of an industry affects the SCs of an organization. The theory implies that, there is a causal link between the structure of the market where an organization operates, the way in which the organization makes its decisions in relation to the SCs adopted by organizations and how these choices affect the organization's performance.

The SCs adopted by organizations are affected by the environment in which the organization operates (Porter, 1993). Pearce, Robinson and Mital (2012) posit that the external environment determines how an organization responds to strategy and informs organizational performance. According to the IOE theory, the market structure determines the organization's behavior in the choice of strategies which in turn determines organizational performance. In order for organizations to operate optimally they require TMTs who can influence the strategic choices. Therefore the role of TMT demographics influence their interpretation of the environment and how they allocate resources to match the prevailing circumstances. TMTs must however, align their organizations to the environment in which they operate (Thomas & Ramaswamy, 1996). This enables them to determine the strategies that organizations must adopt to remain competitive.

2.2.2 Resource Dependency Theory

The RDT responds to environmental uncertainty, which is faced by organizations. Organizations depend on the environments as a source of the resources, which they need in order to survive and be sustainable. This theory posits that variations in availability of resources prompts organizations to adapt for continued survival (Pfeffer & Salancik, 1978). The key to organizational survival is how to attain and be able to utilize and sustain these resources (Pfeffer & Salancik, 1978). This therefore means that the success of the organizations depend on this resource dependence from the environment.

Proponents of the RDT tried to explain that organizations depend on the environment for resources (Pugh & Hickson, 1997). According to some studies (Daily, Dalton & Canella, 2003) the survival and ultimately the performance of an organization depends on the available resources and how the top managers avail and control these resources (Abdullah & Valentine, 2009). This is supported by Hullman et al. (2000) who posit that the top managers play an essential role in the provision of resources from the environment. The RDT states that organizations cannot survive without the environment (Pugh & Hickson, 1997). It is the TMTs who manage the external dependencies of an organization and try to reduce the uncertainties in the environment. The TMTs therefore provide a link between the organization and the uncertain external environment by managing the diverse variations and uncertainties for organizations to survive and be sustainable (Pfeffer & Salancik, 1978).

The RDT suggests that when there are variations in the availability of resources, organizations are forced to adapt for continued survival. These adaptations include SC of diversification, collaborations and partnerships and restructuring which create sources of funding for survival and improved performance. According to this theory, organizations should aim at adapting or changing their strategies to mergers, internal restructuring, diversification or growth and strategic alliances. Creation of partnerships enables the institutions of higher learning to generate funds which supplement the research grants and tuition fees (Ancell, 1987; Powers, 1988). The organization can also rely on the legal and political system in order to balance their dependence on their funding agency (Pfeffer & Salancik, 1978).

The RDT also states that organizations are willing to cooperate with organizations with critical resources under their control. Universities as institutions of higher learning rely on public investors, government funding and tuition fees. When there is a reduction of funding from these sources, the universities have to look for other ways of generating income (Orucho, 2014). Davis and Cobb (2009) point out that when organizations fail to control the available resources this results in uncertainty in the environment. This is an indicator of a change in the environment which requires appropriate SCs for survival and sustainability. This change in environment may be seen as avenues for strategic alliances, diversification and internal restructuring which enable the universities to gain and sustain a competitive edge.

The RDT is relevant to this study because it is the TMTs with diverse demographic characteristics who determine how the organizations respond to the variations of the uncertainty in the environment in which they operate. These TMTs have to interpret these variations in environmental uncertainties through OL thus enabling the organizations to adapt to these environmental changes through appropriate strategic choice. Both private and public accredited universities are funded by private investors and Government appropriation in aid respectively and when these resources diminish, these institutions have to look for alternative ways of generating funds for survival and sustainability. This is supported by the tenets of RDT.

2.2.3 Upper Echelons Theory

The TMT characteristics, which is the moderating variable of this study is anchored on the UET which was developed by Hambrick and Mason (1984). The UET (Hambrick & Mason, 1984) links the independent variable, SC and business organizational performance, dependent variable which are determined and shaped by the characteristics of dominant actors within an organization. Studies in TMT research (Narajo-Gil et al, 2008 & Nielsen, 2010) pose a theoretical argument that high levels of diversity in top management teams are assumed to lead to superior organizational performance.

According to this theory, top managers are usually faced with large amount of information which calls for their attention (Mintzberg, 1983). They make decisions regarding information that is useful and leave out what is less important when making choices while interpreting situations as they arise based on their experience, their beliefs, knowledge, assumptions and values (Finkelstein & Hambrick, 1990, Hambrick et al., 2015). The UET links observable demographic characteristics of top executives to a variety of organizational processes and outcomes (Hambrick et al., 2015).

Upper-echelon theorists (Hambrick & Mason, 1984; Hambrick, 2007) argue that top managers are the strategists in the industry who determine the direction organizations will move and how fast the organization can move in the face of competition. However, other studies contend that both observable and unobservable variables of TMTs affect performance (Awino, 2013). Kinuu (2014) found that performance is influenced by the cognitive and psychological factors of TMTs. According to Hambrick and Mason (1984), the human limitations affect the solving of organizational problems through the way they perceive and evaluate, thus influencing the choices of an organization and its behavior. March and Simon (1958) posit that managers use their cognitive bases in making decisions. Sutton (1987) further contends that SCs are made based on the manager's perception.

Cyert and March (1983) concur that variables, which affect choice are those which influence how a problem is defined in an organization. When scanning the environment, top managers perceive only partial complexity based on the information, which they can interpret. The stimuli can only be interpreted based on the two types of attributes namely the unobservable psychological attributes such as individual's values, cognitive values and personality traits. The other observable attributes are age, gender, educational level, functional background and tenure, among others (Finkelstein & Hambrick, 1996, Hambrick, et al, 2015).

Many studies have been carried out which support the proposition of the UET that there is a relationship between the age of the top managers and organizational performance. These studies point out that young manager's influence the growth of their organizations. These studies are supported by Muchemi (2013) whose study found out that age has a positive influence on organizational performance. Young top managers have influence on organizational performance through OL and ultimately the SC decisions. This study examined the moderating effect of the demographic variables due to their objectivity, predictive power, parsimony, comprehensiveness of the TMTs intervened by OL and how they affect the relationship between SC and organizational performance.

2.3 Strategic Choice and Organizational Performance

Strategic management scholars and practitioners agree that the ability of organizations to learn faster than its competitors is the ultimate source of competitive advantage. Hutzschenreuter and Israel (2009) contend that strategic actions determine competitive strategy by making variations in the way organizational routines are carried out, and as a result, influences the SCs that will be made in future.

Strategy making process is a conscious and analytical process that involves scanning the environment which includes competitive strengths and weaknesses. It also entails assessing customer needs and drivers of market growth. The second strategy making process is emergent strategy which evolves adaptively through the process of logical incrementalism. It involves an adaptive response to the environment with strategy emerging through a process of evolutionary change (Mintzberg, 1990).

Strategic choices based on innovation, product positioning, and chain relationship development have positive effects on performance, but this depends on the type of distinctive resources and capabilities that are used. Innovation is considered a very important capability within an organization as it improves performance (Teece, 2007; Ombaka, 2014). This underscores the importance of SC in developing organizational culture through path dependence.

According to Davies and Walters (2004), SC is used to secure revenues from customers and this is a key requirement in resource dependence. The SC can also be used by organizations to seek a dynamic strategic link in the strategies they use to generate cashflows that are the key to the mitigation of resource dependence (Child, 1972). The challenge of financing and mobilizing resources has a negative effect on organizational performance. Carraresi et al. (2011) did a study on relationship between SC and performance of Italian food Small and Medium Enterprises (SMEs) and posits that SC has a positive influence on organizational performance.

Strategic management theorists acknowledge the influence of the external environment yet they focus on adaptive responses to that environment. This perspective represents an evolving and relatively non-deterministic paradigm which explains how organizations adapt to environment (Ansoff, 1987, Machuki & Aosa, 2011). However, variations in the external environment in which an organization operates and the industry structure determine the strategic response or conduct of the organization and therefore informs organizational performance (Pearce et al, 2012). The market structure of an industry is thus explained by the strategic behavior of the organizations and their interaction.

2.4 Strategic Choice, Top Management Team Characteristics and Organizational Performance

Strategic choice perspective (Child, 1972) focuses on the decisions the organizational top managers make in adapting to an environment, which explains the organizational outcomes. Its proponents argue that many purposeful actions take place within organizations and that organizational top managers have substantial leeway in shaping their own fates. This implies that the focus is on individuals and groups within organizations which explains organizational processes. This focus on behavior therefore assumes that organizational top managers have the discretion of acting according to their own free will (Hambrick & Finkelstein, 1987; Hambrick, 2007; Namada, 2013).

The upper echelon theorists argue that the TMT characteristics influence strategy making activities within organizations which have a bearing on performance. They contend that TMTs with diversified characteristics possess a variety of information sources, perspectives, creativity and innovativeness, which enhances their propensity to take risks (Hambrick & Mason, 1984; Hambrick, 2007; Hambrick et al., 2015). Empirical studies on SC have focused on factors endogenous to the top managers reflecting more on their characteristics, diverse and social processes (Irungu, 2007, Bantel & Jackson, 1989). Conversely, earlier research on top managers (Mintzberg, 1973) posits that these top executives operate in a social context and spent time and effort on boundary spanning. Little research has focused on these links and how they impact on SCs adopted by organizations.

Therefore, studies on diversified TMT characteristics have yielded inconsistent results as to whether this diversity in managerial backgrounds has positive or negative influence on organizational performance (Awino, 2013; Muchemi, 2013). They posit that different demographic factors have different magnitudes and direction of influence on performance. Universities are constantly looking for ways of improving performance and therefore, this study tested the moderating effect of TMT characteristics and OL on the relationship between SC and organizational performance based on observable demographics of TMTs (age, gender, functional background, educational level, team tenure and financial background).

2.5 Strategic Choice, Organizational Learning and Organizational Performance

Strategic choice as a contemporary contribution to organizational performance derives from its potential to integrate some of the different perspectives in organizational studies (Child, 1997). Organizational outcomes such as learning, strategies (diversification, strategic alliances and internal restructuring) and their effectiveness in organizations are considered as reflections of the values and cognitive bases of the powerful actors in the organizations (Hambrick & Mason, 1984; Namada, 2013).

The most dynamic higher education institutions in the market place are those that are techno-intensive and they depend on the capacity to generate, adapt and utilize knowledge as the foundation. However, organizations have a challenge of production, dissemination and utilization of knowledge and technological innovations, which affect performance (Kinyanjui, 2007).

The OL capability is considered as one of the mechanisms that produces new knowledge, and this enables organizations to understand better the new situations which make it possible for changes in the processes and routines in the organizations operations (Namada, 2013). Senge (1990) posits that the organization, which will succeed in having and sustaining a competitive advantage is one that is able to learn at a faster pace than its competition. Namada (2013) posits that although OL leads to capability development, very few studies have been carried out to address this linkage.

Different scholars have conceptualized OL differently depending on their interests of at both single and double loop learning levels in organizations. The OL was conceptualized in terms of single loop learning and double loop learning (Argyris & Schon, 1978) whereas Fiol and Lyles (1985) conceptualized OL as lower and higher level learning. The lower level learning or single loop learning results in behavioral outcomes. The organization aligns to changes in the environment at this level of learning.

Higher level learning however, aims at changing/adjusting the rules and regulations, which have long term implications for the organization. Huber (1984) however, conceptualized OL as acquisition of knowledge, distribution of information, interpretation of information and organization memory, which relates to storage and retrieval using information technology. Deutro learning is about learning how to learn which involves the discovery of gaps between the desired situation and actual and finding solutions.

The OL has also been defined in terms of process and organizational outcomes. The dynamic capabilities theory views OL as a process through which an organization achieves competitive advantage in the global arena (Bustinza, Molina & Aranda, 2010). It is defined by the 4i framework of intuition, integration, interpretation and institutionalization. Learning takes place at three levels in an organization. It begins at the individual level (Levitt & March, 1988). These individuals possess expert perspectives, which are considered as tacit knowledge (Nonaka, 1991).

Individual intuitive expert knowledge cannot be transferred between individuals. Individual learning is eventually transformed into group learning where the interpretation and integration take place (Daft & Weick, 1984, Morgan & Berthon, 2008). As Daft and Weick (1984) point out, interpretation process gives meaning to insights while integration is the development of shared understanding and coordinated actions.

Crossan, Lane and White (1999) pointed out that the process of institutionalization takes place when the learning is embedded from individuals and groups into the organization. When there are uncertainties in the environment, the organization has to manage the embedded learning gained through intuition, interpretation and integration. Fiol and Lyles (1985) found out that OL is influenced by structure, SC and culture and that there is a performance improvement through the ability to learn. Studies by various scholars (Namada 2013; Bustinza, Mollina & Aranda, 2010; Tippins & Sohi, 2003) argue that organizations, which possess the ability to learn about their competitors, customers and regulatory authorities align to the environmental uncertainties.

Organizations, which embrace OL can therefore be seen with structures which function along networks and teams where knowledge is acquired and shared, a high capacity of human resource that account for improved long term performance. Such organizations have a strong culture that culminate into openness, creativity and social support (Senge, 1990; Cummings & Whorley, 2009). This study, therefore examined the interrelationships between SC, OL, and performance.

2.6 Strategic Choice, Organizational Learning, Top Management Team Characteristics and Organizational Performance

Strategic choice when considered as a process, points to the possibility of a continuing adaptive learning cycle, but within a theoretical framework that locates OL within the context of organizations as socio-political systems (Child, 1997). The SC included the underlying bases of strategy at both the corporate and business levels and the directions and methods of development (Johnson et al., 2008).

Strategic choice proponents contend that structural determinism is inadequate because it ignores the influence that leaders of organizations may have on the design and structure of organizations (Jewer & Mckay, 2012). The empirical literature on TMT demography, SC and organizational performance has been based to a great extent on the upper echelons theorists (Hambrick & Mason 1984; Hambrick, 2007; Hambrick et al., 2015). The authors posit that the top managers' eventual perception of the situation combines with his/her values to provide the basis for SC and this in turn reflects the idiosyncrasies of the decision-makers.

Sustainable collaborations between strategic groups, and industry can be mainstreamed in the science and technology innovations system. The role of knowledge and innovation was a core resource base for attainment of Millennium Development Goals (MDGs) (Association for the Development of Education in Africa (ADEA), 2006). Several studies have linked SC, OL and TMT characteristics separately on performance of organizations including the higher education sector (Bustinza et al., 2010; Orucho, 2014). This study integrated SC, OL and TMT characteristics on organizational performance.

2.7 Organizational Performance Measurement

Organizational performance is crucial to the survival of any organization and over time, provides the test of leadership and strategy (Irungu, 2007). Performance has been measured from different perspectives such as marketing, operations, finance, human resource management for different purposes (Kinuu, 2014). Strategic management researchers in their quest for establishing strategic conduct of businesses continue to measure business performance using a wide range of operationalizing schemes. One of the greatest debates in strategic management research has been what brings variations in performance of organizations (Mkalama, 2014).

Different performance indicators are used to measure organizational performance and as Hubbard (2009) argues, the measures keep changing and they are aligned to the SCs developed by organizations. Measuring organizational performance is difficult especially when what has to be measured keeps changing. Different academic rankings use different performance measurements (UNESCO, 2014). It is in the light of these multidimensional measures that the balanced score card was adapted.

Some studies (Neely & Bourne, 2000) defined performance measurement in terms of quantifying efficiency and effectiveness in the utilization of resources in order to achieve organizational goals. Organizational performance has diversified meanings depending on the discipline and the context being discussed.

Large organizations tend to focus their organizational performance measurement on objective quantitative measures and subjective qualitative measures. Qualitative measures are deemed to be subjective and focus on the process or means of achieving the end results while objective measures focus on the end results (Cohen, 1990). All organizations own resources and the SCs and performance levels depend on the rareness and inimitability of these resources (Wernerfelt, 1984; Peteraf, 1993). Wernerfelt (1984) argues that organizations which possess resources and capabilities, which are rare and inimitable have a competitive advantage which has a positive influence on organizational performance.

Chakravarthy (1986) in his study used financial measures only and found that profitability did not distinguish the differences in strategic performance of organizations, thus the need for both financial and non-financial measures as pointed out by Kaplan and Norton (2008). Irungu (2007) in his study on companies listed on the Nairobi Securities Exchange (NSE) used financial organizational performance indicators only. The use of one performance measure has been under criticism since it lacks objectivity. Kaplan and Norton (2008) point out that the BSC is a strategic management planning tool for measuring organizational performance as it provides an alignment of business activities and the vision and strategy of the organization. To achieve this other non-financial performance measures are used in pursuit of creating future value of the organization by focusing and investing in customers, suppliers, employees, business processes, learning and growth.

It is explicit that both quantitative and qualitative measures can be used by universities (Orucho, 2014). Orucho (2014) in his study on the higher education economic sector linkage strategies, competitive forces and performance of 44 private and public universities used both financial and non-financial indicators of the BSC. The perspective of internal business process according to Kaplan and Norton (2008) reflects the managers' capability of running the business so that the products and services are aligned to customer expectations while achieving the mission of the organization.

The learning and growth perspective reflects the individuals who are employees and the organization. Continuous learning through training at both individual and corporate level is the foundation of growth in a knowledge-based economy. The quality of education and supervision depends on the ratio of lecturer to student and the availability of quality facilities for learning and research. Other indicators include curriculum development, increased links and collaborations which creates a platform for exchange of ideas, expertise and innovations (Karanja, 2011).

The customer perspective cannot be over-emphasized as they are the key consumers of the organization's products and services. Among the indicators are: to continuously assess customer satisfaction, establish collaborations, the students have access to e-journals, and have qualified and experienced academic and support staff. And students should have access to field and laboratory equipment. Collaborative activities include conferences, industry linkages, public lectures, which reflect the institutions role in the economy. Institutions are able to gain insights by learning about the other organizations' operations which are related and relevant (Karanja, 2011; Munyoki, Kibera & Ogutu, 2011; Orucho, 2014). This study adopted the SBSC with a focus on performance indicators which were relevant to the study and which were linked to the study variables.

2.8 Knowledge Gaps

A review of extant literature on SC, OL, TMT characteristics and organizational performance was done. It is evident that the variables in this study have a positive influence on organizational performance. There is however a disparity on the degree to which each variable affects organizational performance since the studies entail the use of different combinations of variables as they affect performance. The literature review shows that research has been done by various scholars on variables but these variables were researched individually presenting mixed findings. Major knowledge gaps are summarized in Table 2.1, which provides a basis for conceptualization of the study and formulation of the hypotheses.

Table 2.1: Summary of Knowledge Gaps

Researcher	Focus	Objective	Methodology	Findings	Gaps	Focus of Proposed Study
Chapman (2015)	Higher education in Asia: Expanding out; Expanding up	Establish how expansion affects the performance.	Case study of four public research universities in Malaysia and three in Thailand. Administered structured and un-structured questionnaires to management and government officials.	Development of graduate education contributes to national economic development.	Study did not focus on Kenyan context. Did not focus on the concepts of SC, OL, and TMT characteristics that affect performance.	This study focused on SC, OL and TMT characteristics to establish how these variables affect performance of accredited universities in the Kenyan context.
Kinuu, D. (2014)	TMT psychological characteristics, institutional environment, team processes and performance of companies listed in NSE	Establish the effect of institutional environment, team processes on the relationship between unobserved TMT variables and performance.	Cross sectional survey of companies listed on NSE.	TMT unobservable variables influence performance.	Study did not focus on observable TMT demographics, which are objective and comprehensive.	This study focused on the observable TMT demographic variables, which moderated the relationship between SC and PAUK.
Orucho (2014)	Higher education-economic sector linkage strategic, competitive forces and performance of and private universities incorporated in Kenya	Establish the linkage of competitive forces and performance of KUs.	Descriptive cross sectional survey of 47 universities with one respondent from each university	Linkage strategies and university performance does not significantly depend upon industry forces.	Study used one respondent from each university but with different variable linkages.	This study used one respondent from each university but with variables of SC, OL and TMT characteristics.
Awino, Z.B. (2015)	TMT diversity, quality decisions and organizational performance in the service industry.	Establish the effect of TMT diversity and quality decisions on performance of commercial banks in Kenya.	Cross sectional survey of commercial banks in Kenya.	Intervening variable of quality decisions and the moderating variable of TMT diversity had an effect on performance of commercial banks in Kenya.	Study focused on commercial banks of Kenya in the service industry.	This study focused on accredited universities in Kenya in the higher education sector with OL as the intervening variable.

Table 2.1 contd…

Muchemi, (2013)	TMT diversity and performance of commercial banks in Kenya	Determine the influence of TMT diversity on performance of commercial banks in Kenya	Descriptive survey of 43 commercial banks in Kenya. Target respondents were senior managers in areas of strategy and business operations	Different demographic factors have different magnitudes and direction of influence on performance.	TMT diversity has both positive and negative effect on firm performance. The context was commercial banks in Kenya.	This study focused on establishing the conceptual linkage between strategic choices, OL, TMT characteristics and PAUK.
Namada, (2013)	Strategic planning systems, OL, strategy implementation and performance of firms in EPZs in Kenya	Establish the influence of SP, OL and strategy implementation on performance of EPZs in Kenya	Used descriptive cross sectional survey of EPZs distributed in different zones across Kenya	OL significantly influence non-financial performance.	Context was EPZs in Kenya. Focused on non-financial performance measures only.	Focus was on accredited universities in Kenya as the context and the effect of SC, OL and TMT characteristics on non-financial PAUK.
Ozsoy (2011)	The contribution of higher education to economic development	Establish the effect of intellectual capital on sustainability of universities	Cross sectional survey of 179 universities across Europe, Latin America and Sub-saharan Africa	Intellectual capital helps universities in sustainability and competitive advantage	Generalizations cannot be applied to accredited universities in Kenya	This study focused on narrow context of accredited universities in the Kenyan context.
Carraresi et al. (2011)	The relationship between strategic choices and performance in Italian food SMEs	Determine the relationship between SCs and performance in Italian food SMEs.	A triangulation survey of food SMEs utilizing both primary and secondary data. Descriptive statistics and structural equation model (SEM) were used for analysis	Strategic choices based on innovation, product positioning, and chain relationship development have positive effects on performance.	Did not consider the influence of TMT characteristics and OL. Methodology used was triangulation and the context is Italian SMEs	The study relied on primary data in the Kenyan context while considering the joint influence of TMT characteristics and OL.
Bustinza, Molina and Aranda(2010)	OL and firm performance	Establish the relationship between OL and firm performance.	Study based on 12,587 service sector companies. Used census survey.	OL has a positive impact on performance	Did not consider the effect of OL and TMT characteristics on the relationship between SC and PAUK.	This study focused on the joint effect of OL and TMT characteristics on PAUK.
Hishamudin, et al. (2010)	Organizational learning and performance of non-profit organizations in Singapore	Establish he relationship between OL and performance of NPOs in Singapore	The study employed mail survey using structured questionnaires	Individual learning, organizational learning and team problem-solving have strong positive relationships with NPO's performance	Study focused on NPOs and did not consider TMTs characteristics and strategic choice	This study addressed the joint influence of SC OL the TMT characteristics on PAUK.

Table 2.1 contd…

Irungu, (2007)	Effect of TMT on performance of publicly quoted companies in Kenya.	Establish the relationship between TMTs and performance	Study based on 2001-2005. Survey of publicly quoted companies in Kenya (different sectors). Used financial measures.	Effect of TMT characteristics had diverse effects on performance in different sectors.	Study was limited to the effects of financial effects on firm performance in companies listed on the NSE.	This study focused on both financial and non-financial effects of PAUK as institutions of higher learning.
Varghese (2006)	Private higher education: An analysis of its growth and expansion in African countries	Establish the factors which contribute to growth and expansion of private higher learning in African countries	Interviewed private universities and policy makers. Cross sectional survey	Cross boarder higher education is an important mode of globalizing higher education.	Study was limited to private universities	This study focused on both private and public universities to establish the influence of OL, TMT characteristics on PAUK.
Abagi (2005)	Private higher education in Kenya	Determine the growth of Higher education in Kenyan universities.	Study of 2 private universities, Daystar and United States International university. Comparative analysis of private and public universities. Case study	There is growth and expansion in both private and public universities.	Study focused on only two private universities in Kenya.	This study focused on all the accredited private and public universities in Kenya to establish to what extent the SC, OL and TMT characteristics influence performance.
Pegels et al. (2000)	TMT heterogeneity, competitive interaction groups, and firm performance	Establish the relationship between TMT heterogeneity, interaction groups and firm performance	Study based on heterogeneous set of firms in the industry with homogeneous interaction groups.	TMTs in firms have substantial discretion in determining the future strategic contour of firms	TMT heterogeneity is the independent variable while TMT process is an intervening variable.	In this study, SC was the independent variable while the TMT characteristics is the moderating variable.

Source: Author, 2017

2.9 Conceptual Framework

The conceptual framework represented in Figure 2.1 below is based on the review and synthesis of extant conceptual and empirical literature. This study conceptualizes a link between SC (independent variable), TMT characteristics (moderating variable), OL (intervening variable) and PAUK (dependent variable). The conceptual framework suggests the existence of a direct relationship between SC and PAUK based on the literature review. The framework also suggests that the relationship between SC and PAUK is jointly influenced by OL and the TMT characteristics.

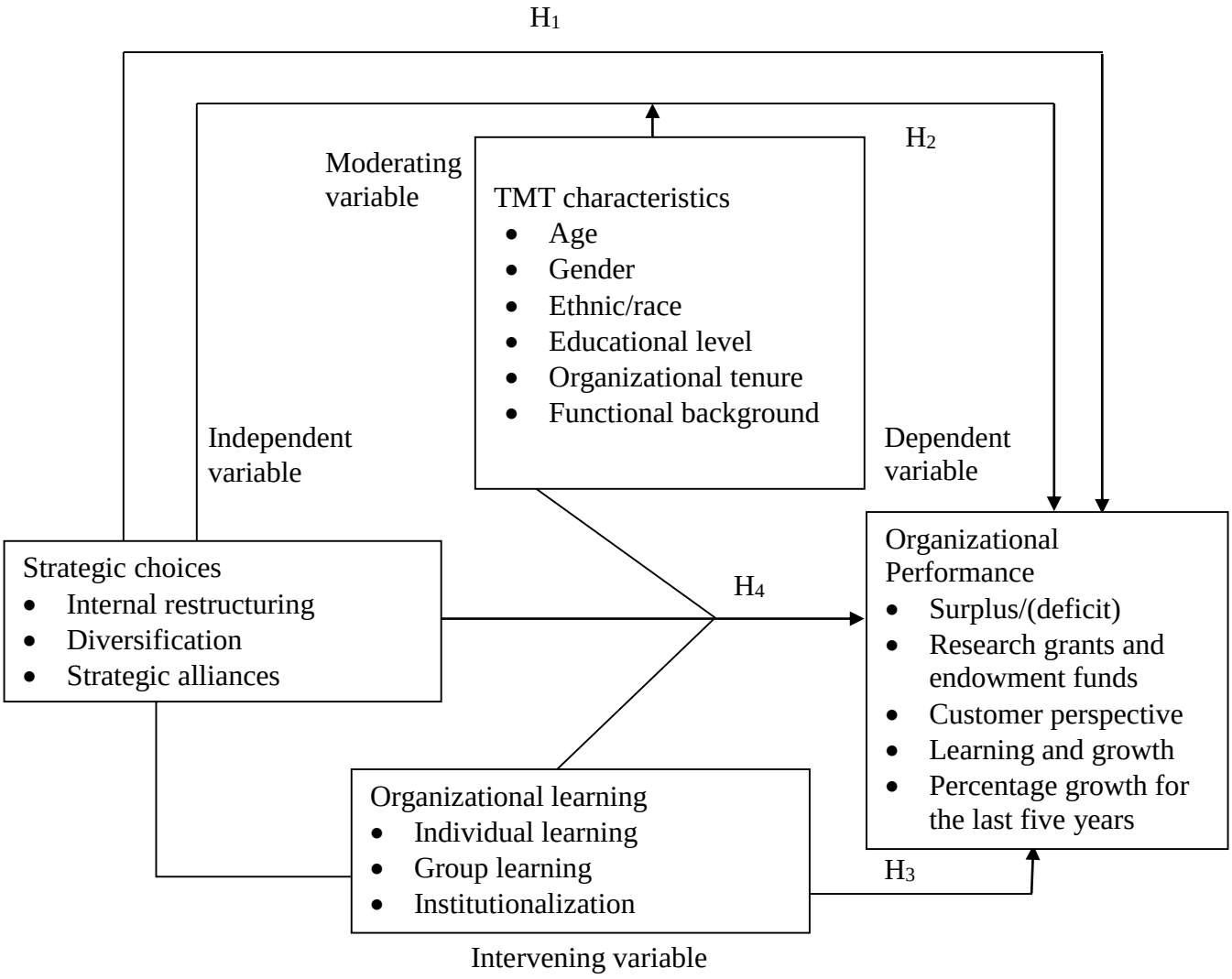

Figure 2.1: Conceptual Framework

Source: Author (2016)

The conceptual framework depicts the integration of SC, and TMT characteristics and how they inform SC through OL and the resources that are available in the environment. The interpretation of issues from the environment and the strategic positions they adopt provides the bases for SC. The conceptual framework of this study was grounded on various organizational theories, which inform strategic decision makers of SC that ultimately affect performance.

2.10 Research Hypotheses

This section highlights the hypotheses, which were tested to establish the extent of the relationships between SC, OL, TMT characteristics and PAUK. The study tested the following hypotheses:

H_{o1}: Strategic choice has no significant influence on PAUK.

Hypothesis 1 was formulated to test if there is a significant relationship between SC and PAUK. The relationship was represented by H_1 in the conceptual framework in Figure 2.1. It was based on the assumption that accredited universities with the right mix of business SCs would attain improved performance. It was, therefore used to test first objective of this study, which was to establish the relationship between SC and PAUK.

H_{o2}: There is no significant moderating effect of TMT characteristics on the relationship between SC and PAUK.

Hypothesis 2 was formulated to test if there is a moderating effect of TMT characteristics on the relationship between SC and PAUK. It is represented by H_2 in the conceptual framework in Figure 2.1 and it was used to test the assumption that accredited universities in Kenya with TMTs with the right mix of demographic characteristics age, level of education and organizational tenure would strengthen the relationship between SC and PAUK while a poor mix of TMT characteristics would have a negative effect on the relationship.

H_{o3}: There is no significant intervening effect of OL on the relationship between SC and PAUK.

Hypothesis 3 was formulated to test if there is an intervening effect of OL on the relationship between SC and PAUK. It is represented by H_3 in the conceptual framework in Figure 2.1. It was used to test the assumption that individual learning, group learning and institutionalization would strengthen the relationship between SC and PAUK. It was, therefore used to test the third objective which was to establish the intervening effect of OL on the relationship between SC and PAUK.

H_{o4}: The joint effect of SC, TMT characteristics and OL is not significantly greater than the individual effect of the same variables on PAUK.

Hypothesis 4 was formulated to test if the joint effect of SC, TMT characteristics and OL has a greater effect on PAUK compared to the individual effects. It was represented by H_4 in the conceptual framework (see Figure 2.1). The hypothesis was used to test the assumption that continuous learning at different levels in the organization supported by TMT characteristics would improve the relationship between SC and PAUK.

The literature review gives the linkages of the key variables of the study; strategic choice, organizational learning, TMT characteristics and performance. Although various studies have been carried out on the variables of this study, most of the studies used different variables linked to performance in different settings.

This study sought to explore the linkage of the study variables in accredited universities in Kenya. The study's main theoretical anchorage is the industrial organization economics theory which provides a framework of performance variation based on strategic fit between the organization and the environment. The pairwise literature shows the relationships which are depicted in the conceptual framework that lead to the research hypotheses. This leads to chapter three on research methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology, which was used in this study. It highlights the research philosophy that guides the study and discusses the research design, the target population from which data was collected together with the techniques, which were used for data collection. It also discusses the framework, which was used to collect data, how the data is organized and analyzed in order to test the hypotheses. Reliability and validity of the research variables are also discussed.

It gives a description of how the study variables were operationalized by constructs which could be measured. The operationalization of the key study variables is summarized in a table which indicates the variable, the operational indicators, the rating measure, the questionnaire items and the supporting literature. The indicators are operationalized according to the study objectives.

The chapter also provides the procedure for the data analysis and outlines the analytical model that was used to test the hypotheses of that were formulated. This was presented by showing how the objectives, were hypothesized, analysed and interpretation of the results. A brief description of the diagnostic tests which were carried out before the hypotheses tests has been highlighted.

3.2 Research Philosophy

There are two main research philosophies, which are used in social science research, namely positivism and phenomenology. This study adopts the positivism approach, which is relevant to this type of research in order to establish the relationships between the variables and lead to hypotheses testing and generalization of the findings (Saunders, Lewis & Thornbill, 2007). This leads to a competent inquiry that results in objective testing of the theories. Research philosophy guides the way research is carried out and is based on both ontology and epistemology.

The concept of ontology refers to the nature of reality while epistemology refers to knowledge. According to Patton (1990), research philosophy has two paradigms namely, positivistic and interpretive. These paradigms illustrate the link between the ontological, epistemological and methodological assumptions. Research philosophy can be categorized into positivism, interpretivism and realism depending on the researcher's philosophical thinking (Saunders et al., 2003).

Positivism takes a quantitative approach while phenomenology is mainly qualitative (Cooper & Schindler, 2009). Positivistic approach presupposes that knowledge naturally exists and this is based on real facts, objectivity, neutrality, measurement and validity of results. Phenomenology presupposes that knowledge is based on personal experience and is subjective focusing on immediate experience, personal knowledge and individual interpretations (Saunders et al., 2007). Positivism is a paradigm which relies on quantitative measurement of facts which are based on empirical data, objectivity, neutrality, measurement and validity of results (Saunders, et al., 2007).

This study set out to establish the possible interrelationships between strategic choice, organizational learning, TMT characteristics and PAUK and the strength of these relationships. This is supported by Furrer (2006) and Neuman (2008) who posit that what researchers observe as objectively reality can be expressed in numeric terms with explanatory and predictive power forming the foundation for positivism philosophy.

This study therefore adopted the positivistic philosophy since it aimed at finding out what caused particular relationships and the effects of the relationships. The hypotheses testing were based on the data collected from both primary and secondary data in the cross-sectional survey of the accredited universities in Kenya.

3.3 Research Design

This study used a descriptive cross-sectional survey since the purpose of the study was to establish the relationship between and amongst the study variables and performance of the accredited universities in Kenya. The cross-sectional approach provides credence of results with conclusions on data at a given point in time. Research design is a blue-print for fulfilling the objectives and answering questions of the study (Cooper & Schindler, 2009).

The plan is the overall programme of the researcher that entails the outline of what the investigator will do from formulation of hypotheses, operationalization of study variables to the final analysis of data (Cooper & Schindler, 2009). A research design seeks to provide confidence that the findings derived from the design capture reality and possess high levels of reliability and validity (Cooper & Schindler, 2009).

Nachmias and Nachmias (2004) and Zikmund (2003) posit that cross sectional studies enable the researcher to establish if significant relationships among variables exist, and the strength of these relationships. The research design is guided by the purpose of the study, the type of investigation, the extent of researcher involvement, the stage of knowledge in the field, and the type of analysis. The design has been used successfully by Machuki (2011) and Munyoki (2007). The research design therefore enabled the researcher to establish the relationships between SC, OL, TMT characteristics and PAUK.

3.4 Population of the Study

The unit of analysis for this study was accredited universities in Kenya. The CUE (2016) had listed 30 accredited public universities and 22 private accredited universities The population of the study was, therefore, 52 accredited universities in Kenya listed by CUE, which were autonomous and had been in operation for the last five years – an adequate period for strategic plans (Appendix VII).

The population of the study was, therefore all the 52 accredited universities in Kenya which comprised of 30 accredited public universities and 22 accredited private universities. All the public universities are state-owned and are funded by the Government of Kenya while the private universities are owned and funded by private investors. These universities are located in different parts of the country to cater for the needs of the customers countrywide.

The accredited universities in Kenya were chosen for this study because they are essential institutions in the Kenyan economy, they train researchers and innovators who are indispensable to the future success of business. This population was to enable the researcher to make a comparison in performance between public and private universities and come up with relevant recommendations, which will help in sustainable improvement in PAUK.

3.5 Data Collection

The study collected primary data using structured and unstructured questions. Stiles and Taylor (2001) argue that both primary and secondary data complement each other. Zikmund (2003) suggests that a researcher has the liberty to select the respondents who are well versed with the area of study to ensure that the findings, which emanate from the data collected are objective and reliable. This is supported (Nachmias & Nachmias, 2004) who posit that the Board of Directors though involved in the formulation of the strategies, may not be competent to provide the researcher with the operational details required. The study targeted only one respondent from each accredited university in Kenya for purposes of objectivity and consistency. This method has been used successfully in other studies (Machuki & Aosa, 2011; Orucho, 2014; Wasike, 2016).

Secondary data was obtained from existing sources at the accredited universities websites, financial statements, annual reports, world universities webometrics rankings, university calendars, strategic plans (2008-2013) and other existing records from CUE that were relevant to PAUK. Performance contracting records between 2009 and 2014 from Ministry of Devolution and Planning were also used as reference records for this study since they are relevant and important as they provided an understanding of the operations and performance of the accredited universities in Kenya. According to Zikmund (2003), secondary data from various sources including annual reports, books and periodicals, and government sources can be useful.

3.5.1 Data Collection Procedure and Respondents

Primary data was therefore collected by administering questionnaires to the Deputy Vice-Chancellor (Administration and Finance) or their equivalent (Deputy Vice-Chancellor, Research, Registrar, Administration assisted by the Finance officer/Director) in each accredited university. This is because these are the top management staff in the institutions that are endowed with the responsibility of running the institutions by setting and implementing strategies and are also in a position to provide useful information for this study. The UET posits that organizations are a reflection of the top managers and therefore enhance the credibility of top managers to give credible information about their organizations (Hambrick & Mason, 1984; Hambrick, 2007).

Primary data was collected with the help of three research assistants by drop and pick method. First the researcher had to formally write to the accredited universities seeking for authority to collect data from CEO of each university (Appendix II) attaching an authority letter from the School of Business, University of Nairobi (Appendix I), National Commission for Science, Technology and Innovation (NACOSTI) authorization letter (Appendix III), a permit to collect data from various regions of the country where the accredited universities are located (Appendix IV) and a pdf copy of the research proposal.

The researcher got approvals from 51 accredited universities apart from one, which declined to give authority to collect data from their institution. The researcher had to follow up with phone calls and emails and where necessary had to personally visit some of the accredited universities when required to sign the commitment of depositing one hard copy and one soft copy of the research findings to the office of the Deputy Vice-Chancellor (Research).

3.5.2 Data Collection Instrument

The questionnaire (Appendix VI) was divided into five parts as follows: part one was used to collect data on the background information about the institutions and the respondents, while part two was used to collect data relating to SC. Part three on the other hand, was used to collect data on OL while part four provided data on TMT characteristics. Part five was used to collect data on customer perspective and learning and growth and percentage growth over the last five years. Finally, part six was used to collect data on Surplus/deficit and Research and Endowment funds.

The data collection instruments were subjected to a pilot study in two public accredited universities in Kenya and two private accredited universities in Kenya in order to ensure the relevance of content of the instruments. This enabled the researcher to construct the final questionnaire. The pilot testing of the questionnaires reduced the number of accredited universities eligible for the study to 47. Out of the 47 only 43 accredited universities completed the questionnaire while four declined to fill the questionnaire.

The researcher considered the questionnaire method useful for this study because questionnaires are used to get relevant information. The semi-structured questionnaire for this study was developed using a five-point Likert type scale, which is relevant to non-profit making organizations according to Renz (1998). The five point Likert type scale ranged from 1 – not at all and 5 – to a very large extent and was used in constructing the questionnaire. This instrument has been used in a similar study (Orucho, 2014; Ombaka, 2014; Wasike, 2016).

3.6 Reliability Tests

A measure is reliable to the degree that it supplies consistent results. Reliable instruments can be used with confidence that transient and situational factors are not interfering (Cooper & Schindler, 2009). According to Mugenda and Mugenda (2003) and Crano and Brewer (2003) reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. The test-retest method was used in this study in order to assess the reliability of data collected using the same instrument.

A pilot study was carried out to find out if the respondents were able to answer the questions without any difficulty. The respondents for the pilot study were drawn from two public accredited universities and two private accredited universities in Kenya. They evaluated the questionnaire for clarity, relevance, comprehension and precision. The research instrument was, therefore adjusted before it was administered to the respondents of the study.

The scales adopted for this study were relevant to those of similar studies in the field of strategic management. The study used Cronbach's alpha coefficient to compute reliability tests. Cronbach's alpha coefficient usually ranges from 0 to 1 and the higher the coefficient the more reliable the scale is. Alpha coefficient of 0.7 and above is interpreted to mean satisfactory internal consistency reliability (Cooper &Schindler, 2009). However, this study used the recommended value of 0.5 and more as the cutoff point. Pearsons, product moment correlation, F and t-tests were used to test for moderation and significance.

3.7 Validity Tests

Validity is defined as the accuracy, truthfulness and meaningfulness of inferences that are based on the data obtained from the use of a tool or a scale for each variable on the study (Doodley, 2003). Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under the study. It therefore has to do with how accurately the data obtained in the study represents the variables of the study. If such data is a true reflection of the variables, then inference based on such data will be accurate and meaningful (Mugenda & Mugenda, 2008, Bryman & Cramer, 2005).

Both construct validity and content validity were used in adapting the measures for the variables in this study. The questionnaires were pre-tested to ascertain their relevance to the study in production of accurate results. Content validity was therefore done by testing and retesting the questionnaire, which covers all the four main areas of the study, which include SC, OL, TMT characteristics and performance.

Expert judgment was employed in order to confirm whether the theoretic perspectives emerge as operationalized in this study. Construct validity on the other hand was ensured through the operationalization of the study variables, which reflect the theoretical assumptions that underpin the conceptual framework of this study. Convergent and discriminant validity were tested through exploratory factor analysis by loadings and Eigenvalues.

3.8 Operationalization of the Key Study Variables

This section discusses the operationalization of the variables of this study as shown in Table 3.1 below. According to Sekaran (2000), operationalization of the study variables reduces the abstract notions of constructs into observable characteristics, which can then be measured. This also makes it possible to test the relationships between variables in the theoretical model thus defining the variables in factors, which can be measured. The variables include SC, OL, TMT characteristics and PAUK.

Table 3.1: Operationalization of Key Study Variables

Variable	Operational Indicators	Rating measure	Questionnaire Items	Supporting Literature
Strategic choice	Diversification: Entry in new markets, new degree programs, acquisition of new constituent colleges	5 point Likert type scale	5	(Ginies & Marzuelle, 2010)
	Strategic alliances: Collaborations with research institutes, exchange programmes, Public private partnerships.	5 point Likert type scale	4	Carraresi et al. 2011)
	Internal restructuring: Automation of processes, Decentralization of colleges, creation of income generating units, establishment of schools	5 point Likert type scale (Interval scale)	6	
Organizational learning	Individual Learning: Self-motivation, competence, capability and experience.	5 point Likert type scale	16	(Hishamudin, 2010)
	Group Learning: Group dynamics, conflict resolution.	(Interval)		(Argyris & Schon, 1978)
	Institutionalization: Core values, organizational structure, service delivery, alignment of business systems and operational procedures.			
Top management team characteristics	Age Gender Ethnicity/Race Educational level Functional background Organization tenure	Direct measure 5 Point Likert type scale (Interval scale)	15	(Hambrick et al., 2015) (Kinuu, 2014) (Hambrick & Mason, 1984)
Performance of accredited universities in Kenya	Financial: Trend on Surplus/Deficit for last 5 years, Research grants and endowment funds over the last 5 years.	Direct measure from Secondary data	2	Hubbard (2009) Kaplan & Norton (1996)
	Non-Financial: Customer perspective, learning and growth, percentage growth over the last5 years, new business processes.	5 point Likert type scale (Interval scale	26	

Source: Field data, 2017

Strategic choice, which was the independent variable was operationalized according to Dutton and Duncan (1987) in three sets of business portfolios which includes diversification, strategic alliances and internal restructuring. Where diversification was operationalized as the entry in new markets by opening new campuses in various parts of the country (Munene, 2016), starting new degree programmes in various disciplines and acquisition of new constituent colleges.

Strategic alliances was operationalized by formation or development of collaborations with other research institutes/centres of research in order to benefit from innovations and technological advancements, creation of public private partnerships in order to share ideas and impact on economic development. Exchange programmes was exchange of students and visiting scholars to gain experience among the accredited universities, both regional and international (Karanja, 2011; Orucho, 2014). Internal restructuring was operationalized by considering automation of processes, decentralization of colleges, creation of income generating units and establishment of schools.

Organizational learning, the intervening variable, was operationalized by three levels of learning namely, individual learning or first level learning (self-motivation, competence, capability and experience), group learning which was explained as group dynamics and conflict resolution and institutionalization which was a result of both individual and group learning embedded in the organization resulting in core values, organizational structure, service delivery and alignment of business systems and operational procedures (Senge, 1990).

The top managers were operationalized as CEOs or their equivalent from the level of heads of departments, Directors, Deans, Principals of Colleges, Deputy Vice-Chancellors and Vice-Chancellors. The TMT characteristics, the moderating variable, has been operationalized in line with Hambrick and Mason (1984) demographics of age, gender, ethnicity, educational level, organizational tenure and functional background. Age was operationalized as the actual years of the top managers while gender was operationalized as the sex of the top managers, which was categorized as male or female. Educational back ground was described in terms of the level of academic qualifications attained by a top manager for example, diploma, undergraduate degree, masters/postgraduate degree, or doctorate while functional background was described as the specialization or expertise of a top manager in the functional area like marketing, finance or engineering.

Performance of accredited universities in Kenya (dependent variable) was operationalized according to Hubbard (2009) using financial measures for Surplus/Deficit and research grants and endowment funds recorded during the financial years 2009/2010, 2010/2011, 2011/2012, 2012/2013 and 2013/2014 for each accredited university in Kenya. Records of the number of both undergraduate and postgraduate students who have graduated during the period under review were also available in these financial statements. The non-financial measures were operationalized using the SBSC which includes customer perspective in terms of service delivery which is key to success, learning and growth which involves programmes which support innovation and economic development through the use of new business processes.

Likert type scale that was adopted in this study was useful in assigning quantitative values to qualitative attributes to allow for mathematical analysis (Chartterton & Goddard, 2001). The shortcoming of Likert type scale is the limited options, which the respondents are given and also the temptation of the respondents to answer questions based on the previous pattern. This shortcoming may be avoided by asking the respondent reversal questions which test for consistency.

3.9 Data Analysis

At the end of the data collection exercise, data was cleaned, edited, coded, and sorted to ensure that there were no errors. All the 43 completed questionnaires, which were returned were checked for completeness and accuracy including any missing information and any possible omissions in the questionnaires.

Data was analyzed based on the 43 questionnaires, which were fairly completed and returned to the researcher. The first part was to be analyzed was relating to the universities which were surveyed in order to show the emerging pattern in terms of the year of establishment, ownership structure, target market, undergraduate and postgraduate degree programmes offered, designation of respondents, number of years in the university and number of years in current position.

Part two (SC) of the questionnaire was analyzed after conversion of the five point Likert scale. The same was done for section three (organizational learning) and part of section four (TMT characteristics) which was analyzed in terms of number of managers in each accredited university in Kenya, number of managers in the specified age brackets and the number of top managers in the specified level of educational background such as ‘O’ level, ‘A’ level, diploma, undergraduate degree, masters degree and doctorate.

Part five on non-financial performance was analyzed based on percentages while financial measures were analyzed based on the actual figures recorded over the specified years for surplus/deficit, research grants and endowment funds received over the five years under review.

For this study, both descriptive and inferential statistics (mean scores, standard deviations, percentages and frequency distribution) were used. These were useful in describing the characteristics of the variables of this study and the underlying features of the relationships between SC, OL, TMT characteristics and PAUK. Mugenda and Mugenda (2008) contend that descriptive statistics provide the basic features of the data collected.

Inferential statistical technique used includes Pearson's product moment coefficient correlation (r), simple linear regression analysis and multiple linear regression analysis. Simple linear regression analysis was used to determine the effect of the independent variable, SC on PAUK. All the statistical tests were conducted at 95 percent confidence level.

For hypothesis 1, simple linear regression to establish the nature of the relationship between SC and PAUK was used:

$PAUK_1 \neq \beta_{10} + \beta_{11}SC + \varepsilon_1$

where

$PAUK_1$ = Non-financial of PAUK

β_{10}, β_{11} are parameter coefficients

SC = Strategic choice

ε_1 = error term/random variation due to other unmeasured variables

For hypothesis 2, Baron and Kenny (1986) multiple regression analysis was used to establish the moderating effect of TMT characteristics on the relationship between SC and PAUK and this was expressed as:

$PAUK_2 \neq \beta_{20} + \beta_{21}SC + \beta_{22}TMT + \beta_{23}SC*TMT + \varepsilon_2$

where

TMT = Top management teams

Stepwise multiple regression analysis was used for hypothesis 3 to test the intervening effect of OL on the relationship between SC and PAUK and this was expressed as:

Step one: $PAUK_3 \neq \beta_{30} + \beta_{31}SC + \varepsilon_3$

Step two: $OL = \beta_{40} + \beta_{41}SC + \varepsilon_4$

where:

OL = Organizational learning

Step three: $PAUK_4 \neq \beta_{50} + \beta_{51}OL + \varepsilon_5$

Step four: $PAUK_5 \neq \beta_{60} + \beta_{61}SC + \beta_{62}OL + \varepsilon_6$

Hierarchical regression analysis was used for hypothesis 4 to establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK and this was expressed as: $PAUK_4 \neq \beta_{70} + \beta_{71}SC + \beta_{72}TMT + \beta_{73}OL + \varepsilon_7$

Hypotheses corresponding to the resultant empirical models are presented in Table 3.2

Table 3.2: Summary of Objectives, Hypotheses and Analytical Model

Objectives	Hypotheses	Analysis	Interpretation of Results
Establish the influence of SC on PAUK	H_{o1}: SC has no significant influence on PAUK.	$PAUK_1 \neq \beta_{10} + \beta_{11}SC + \varepsilon_1$	• R^2 – test for goodness-of-fit • F-test for overall significance • t-test for individual significance robustness and significance of regression model. • If p-value ≤ alpha, we reject H_0 • Marginal analysis
Determine the influence of TMT characteristics on the relationship between SC PAUK	H_{o2}: TMT characteristics have no significant moderating influence on the relationship between SC and PAUK	$PAUK_2 \neq \beta_{20} + \beta_{21}SC + \beta_{22}TMT + \beta_{23}SC*TMT + \varepsilon_2$	• R^2 – test for goodness-of-fit • F-test for overall significance • t-test for individual significance robustness and significance of regression model. • If p-value ≤ alpha, we reject H_0 • Marginal analysis
Establish the influence of OL on the relationship between SC and PAUK	H_{o3}: OL has no significant influence on the relationship between SC and PAUK	Step One: $PAUK_3 \neq \beta_{30} + \beta_{31}SC + \varepsilon_3$ Step Two: $OL \neq \beta_{40} + \beta_{41}SC + \varepsilon_4$ Step Three: $PAUK_4 \neq\neq \beta_{50} + \beta_{51}OL + \varepsilon_5$ Step Four: $PAUK_5 = \beta_{60} + \beta_{61}SC + \beta_{62}OL + \varepsilon_6$	• R^2 – test for goodness-of-fit • F-test for overall significance • t-test for individual significance robustness and significance of regression model. • If p-value ≤ alpha, we reject H_0 • Marginal analysis
Establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK.	H_{o4}: Joint effect of OL and TMT characteristics is not significantly greater than the individual effect of the same variables on the relationship between SC and PAUK	$PAUK_6 \neq \beta_{70} + \beta_{71}SC + \beta_{72}TMT + \beta_{73}OL + \varepsilon_4$	• R^2 – test for goodness-of-fit • F-test for overall significance • t-test for individual significance robustness and significance of regression model. • If p-value ≤ alpha, we reject H_0 • Marginal analysis

Source: Researcher 2016

Table 3.2 above shows a summary of the study objectives and the formulated hypotheses, the type of analysis used and the interpretation of the results. Simple linear regression, multiple regression and hierarchical regression analysis were used in this study to establish the relationships of the models which link the predictor and dependent variables. The coefficient of multiple regression (R^2), which represents the variance in the dependent variable that is explained by the independent variables was used and the R^2 was expressed as a percentage of variation in the dependent variable which is explained by the regression models.

The Pearson's product moment correlation coefficient (r) was computed to provide numerical summary of the direction and strength of the relationship. This is supported by (Delaney & Huselid, 1996; Gould, 2003) who used this statistical tools to establish the strength of the relationship and validity.

The Analysis of Variance (ANOVA) was used to test if the overall results of the models show significant good degree of prediction of the dependent variable. The t-test compares the magnitude of the standardized regression coefficient (Beta) with zero. The standardized regression coefficient (Beta) represents the strength of relationship between predictor and the criterion variable. If t-test is significant, it means that the value of Beta is significantly different from zero thus, the predictor variable is significantly associated with the criterion variable.

Aiken and West (1991) pointed out that the two ways to find out whether a moderating effect is present in a regression model when an interaction term is introduced involves testing whether the standardized regression coefficient (Beta) differs significantly from zero and whether the increment in the squared multiple correlation (R^2), which is the explanatory power, is significantly greater than zero.

The change statistics show whether adding the interaction term in regression model significantly enhances the model fit. A significant change in F value is an indicator that there is a significant improvement in model fit, which implies more variance in the dependent variable has been explained by introducing the interaction term in the model.

Measurement error affects measurement and analytical model and may result in underestimation/overestimation of the model. This study used several tests for normality, multicolinearity and homogeneity in order to control measurement error. Statistical analysis which use regression, correlation, t-tests and ANOVA are based on the assumption that data set is normally distributed, there is no multicollinearity and the data is homoscedastic. Normality tests allow for inferences about the population, lack of multicollinearity ensures stability of results, whereas homogeneity ensures that standard errors are not over or under-estimated (Levene, Stephen, Krebul, & Berenson, 2008).

In order to test for normality, histograms and Quartile-Quartile (Q-Q) plots; skewness and Kurtosis; Shapiro-Wilk test were used. To test for multicollinearity, tolerance (tolerance of less than 1 indicates lack of multicollinearity), Variance Inflation Factor (VIF) greater or equal to 5 shows multicollinearity is a problem) and conditional number over 15 indicates possible multicollinearity problems and over 30 indicates serious multicollinearity problems.

Both graphical and Levene's test for homogeneity of variance were used to test for homogeneity. When homoscedasticity assumption is met, residuals form a patternless cloud and if the Levene's statistic is significant at the 0.05 level or better, the null hypothesis is rejected that the groups have equal variances. Cronbach's alpha tests the internal consistency of the question items (Bryman & Bell, 2011). Homoscedasticity was tested through visual inspection of standardized residual values and constant standardized residual values were considered condition for homoscedasticity.

This chapter discusses the research methodology which was used in this study. It highlights the research philosophies of positivism and phenomenology and justifies why the study used positivism approach. The chapter discusses the research design and the population of the study. It moves on to the data collection techniques and data collection instruments which were tested for reliability and validity. The chapter highlights the operationalization of the study variables which is summarized in Table 3.1 and indicates the indicators and rating measures. Data analysis, a summary of the objectives, hypotheses and analytical model and diagnostic tests which were used by this study are also discussed. Chapter four presents data analysis and results.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 Introduction

The main objective of this study was to establish the influence of SC OL, TMT characteristics on PAUK. There were four specific objectives and the first objective was to establish the influence of SC on PAUK; the second objective was to determine the influence of the TMT characteristics on the relationship between SC and PAUK; the third objective was to establish the influence of OL on the relationship between SC and PAUK and the fourth objective was to establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK. Four hypotheses were derived from these four objectives.

This chapter, therefore presents the findings of the study along the specific objectives. The study focused on the accredited universities in Kenya as the context of this study. The details included the name of the accredited university, the year of establishment, ownership structure, principal target market and the degree programmes offered. It also included the designation of the respondents, the number of years in the accredited university and number of years in the current position.

The descriptive statistics, which were used to analyze the data on demographics, using frequency tables, mean, standard deviation, coefficient of variation, one sample t-test and significance tests are also presented. The findings and discussion on descriptive statistics formed the basis of testing the four hypotheses of the study. The statistical assumptions together with the pre-tests and the results of the hypotheses tests are also presented.

4.2 Reliability and Validity Tests

Reliability and validity tests are important pointers to the quality of the data collection instrument. As Zikmund, Babin, Carr and Griffin (2010) point out, a measure is reliable when different attempts to measure something arrive at the same result. Reliability is an indicator of an instrument's consistency. The most commonly used estimate of a multiple-item scale's reliability is the Cronbach's Alpha coefficient which ranges from zero to one. Where zero means no consistency while one means complete consistency.

Reliability and validity tests were done to certify the quality of the data collected. The scales used in this study were modified to fit the study context and the instrument was reviewed by experts in strategic management, human resource management and management scientists science and restructured during proposal presentations. Internal consistency method was used by computing Cronbach's alpha coefficient to assess the internal consistency of the items of the scale which was used. A pilot study was carried out to find out if the respondents were able to answer the questions without any difficulty. The respondents for the pilot study evaluated the instrument for clarity, relevance, comprehension and precision.

4.2.1 Reliability

Generally, researchers agree that for a scale to be valid and possess practical utility, it must be reliable (Peterson, 1994). However, there is very little guidance as to what is acceptable reliability for research. This has led to different researchers using different cut-off points of the Cronbach's alpha coefficient. While Davis (1964) recommended a minimum Cronbach's alpha coefficient of 0.5 for predictive research where the population lies between 25 and 50; Kaplan and Saccuzzo (1982) posit that basic applied research should have a minimum Cronbach's alpha coefficient of 0.7 and 0.8 respectively.

Murphy and Davidshofer (1988) argue that a Cronbach's alpha coefficient which is below 0.6 is not acceptable. Nunnally (1967, 1978) recommended the most popularly used Cronbach's alpha coefficient of 0.5 to 0.6 and later on 0.6 and 0.7. This study adopted a Cronbach's alpha coefficient cut-off of 0.5 and above. The results of the overall reliability test are shown in Table 4.1.

Table 4.1: Overall Reliability Tests

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items	Interpretation
SCs	0.954	0.960	15	Reliable
TMT characteristics	0.941	0.943	15	Reliable
OL	0.943	0.948	16	Reliable
Non-Financial Performance (NFP)	0.885	0.889	12	Reliable

Source: Field data 2017

Results of the reliability tests for the study variables in Table 4.1 above shows that SC with 15 items had a Cronbach's alpha coefficient of 0.954, which had the highest reliability score. The overall Cronbach's alpha coefficients provided a sound basis for this study. NFP had the lowest Cronbach's alpha coefficient score of 0.885.

4.2.2 Validity Test

Validity is the accuracy of a measure or the extent to which a score truthfully represents a concept (Zikmund et al., 2010). Validity can be established by face validity, content validity, criterion validity and construct validity. This study used research instrument adopted from similar research in the area of strategic management.

Factor analysis tests to ascertain validity were carried out on the study variables using exploratory factor analysis. According to Williams, Brown and Osman (2012) factor analysis attempts to identify underlying variables, or factors which explain the pattern of correlations with a set of observed variables. The existence of correlation coefficients between constructs, suggest that these constructs measure aspects of the same underlying factor. Kinuu (2014) and Wasike (2016) used factor analysis in similar studies to test the validity of their studies and adopted the exploratory factor analysis.

In this study, the validity of the instrument was tested through Exploratory Factor Analysis (EFA). This takes into cognizance of the three techniques of validity testing which include multi-trait-multi-method analysis, structure equation modeling and factor analysis. Principal component analysis was used to extract the factors. These factors were then rotated using Varimax with Kaiser Normalization technique to improve interpretation of the extracted factors. Kaiser (1960) recommends retention of all factors with eigenvalues greater than one. This criterion is based on the fact that eigenvalues represent the amount of variation explained by a factor and an eigenvalue of one represents a reasonable amount of variables.

4.2.3 Factor Analysis for the Key Study Variables

Table 4.6 shows the results of factor analysis for strategic choice. Principal component analysis was used to extract the factors. Factor analysis extracted 15 components which explained 72.8 percent variance in strategic choice.

Table 4.2: Total Variance Explained for Strategic Choice

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.739	64.925	64.925	9.739	64.925	64.925	7.540	50.270	50.270
2	1.181	7.873	72.798	1.181	7.873	72.798	3.379	22.528	72.798
3	.792	5.281	78.079						
4	.633	4.219	82.298						
5	.571	3.806	86.104						
6	.415	2.764	88.868						
7	.364	2.425	91.293						
8	.282	1.878	93.171						
9	.253	1.688	94.859						
10	.201	1.339	96.198						
11	.199	1.329	97.527						
12	.131	.871	98.399						
13	.097	.650	99.048						
14	.085	.566	99.614						
15	.058	.386	100.000						

Extraction Method: Principal Component Analysis.

Source: Field data 2017

The results in Table 4.2 showed that the measurement scale explains 72.8 percent of the variation in SC. Two factors with eigenvalues greater one were the most relevant in explaining the variance in SC. The first factor eigenvalue of 9.74, which explained 50.3 percent of total variance after rotation. The second factor had an eigenvalue of 1.18, which and explained 22.5 percent variance after rotation.

The scree plot for eigenvalues against the component factors for SC is shown in Figure 4.1 below. The scree plot for SC had an inflexion point at the second component, which implied that the two factors to the left of the inflexion point were to be extracted and were the underlying factors of SC study variable.

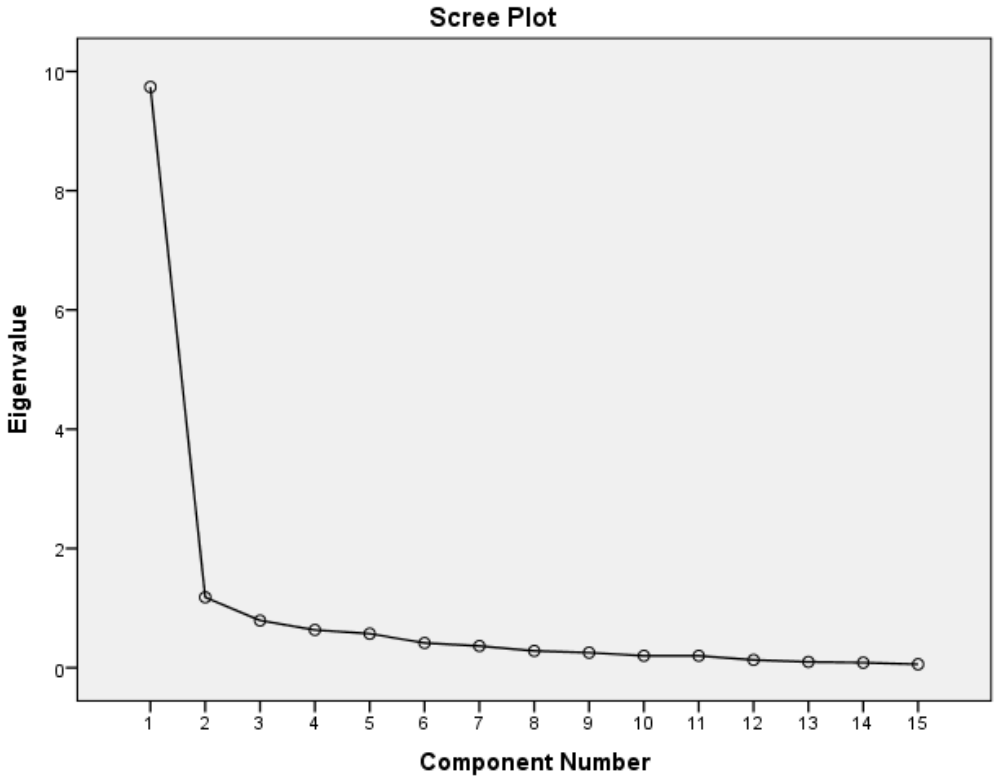

Figure 4.1: Scree Plot for Strategic Choice

Source: Field data 2017

Table 4.3 shows the results of the rotated component matrix (using varimax with Kaiser normalization rotation) for SC. Principal component analysis extraction method was used.to extract the components. Table 4.3 contains the loadings of each variable on each factor but all loadings less than 0.5 were suppressed using Field (2009) recommendation.

Table 4.3: Rotated Component Matrix for Strategic Choice

Statement	Component	
	1	2
Extent to which organizational structure supported speedy development of products and services	.810	
Extent to which organization's value chain was continuously transformed from being protective to being productive	.822	
Extent to which institution aligned its structure into end to end process rather than departments	.793	
Extent to which internal reorganization was pursued to optimize on business opportunities	.753	
Extent to which institution made business processes simplified at minimal cost	.772	
Extent to which top managers were persistent in implementing new policies to achieve desired results	.875	
Extent to which institution made new investments with lower returns but with higher probabilities of success	.682	
Extent to which the institution had a variety of degree courses	.834	
Extent to which the institution had been introducing new products/degree programmes to existing markets	.764	
Extent to which the institution invested in income generating units that have high chances of high returns	.768	
Extent to which the institution focused on acquisition of new constituent colleges		.841
Extent to which the institution entered into mutually beneficial arrangements with other organizations to share risks and costs	.640	
Extent to which the institution continued to participate in several public private partnerships		.694
Extent to which the institution considered its supply chain partners as key business partners	.717	
Extent to which the institution collaborated with international institutions through foreign students exchange programmes		.771

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Source: Field data 2017

Factor 1 which is an indicator of diversification and internal restructuring is explained by the following statements of strategic choice (extent to which organizational structure supports speedy development of products and services; extent to which organization's value chain was continuously transformed from being protective to being productive; extent to which institution aligned its structure into end to end process rather than departments; extent to which internal reorganization is pursued to optimize on business opportunities; extent to which institution focused to make business processes simplified at minimal cost; extent to which top managers were persistent in implementing new policies to achieve desired results; extent to which institution made new investments with lower returns but with higher probabilities of success; extent to which the institution had a variety of degree courses; extent to which the institution had introduced new products/degree programmes to existing markets; extent to which the institution invested in income generating units that had high chances of high returns; and extent to which the institution entered into mutually beneficial arrangements with other organizations to share risks and costs, and extent to which the institution considered its supply chain partners as key business partners)

Factor 2 which relates to strategic alliances was explained by the following statements of strategic choice (extent to which the institution focuses on acquisition of new constituent colleges; extent to which the institution continues to participate in several public private partnerships; and extent to which the institution collaborates with international institutions through foreign students exchange programmes).

The results of factor analysis for TMT characteristics are shown in Table 4.4 where principal component analysis was used to extract the factors. Factor analysis extracted three components, which explained 79.1 percent of the total variance in TMT characteristics.

Table 4.4: Total Variance Explained for Top Management Team Characteristics

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.708	58.055	58.055	8.708	58.055	58.055	5.460	36.401	36.401
2	1.676	11.173	69.228	1.676	11.173	69.228	3.909	26.061	62.462
3	1.482	9.882	79.111	1.482	9.882	79.111	2.497	16.649	79.111
4	.907	6.043	85.154						
5	.570	3.802	88.956						
6	.418	2.787	91.743						
7	.297	1.977	93.720						
8	.227	1.515	95.235						
9	.203	1.354	96.588						
10	.152	1.011	97.600						
11	.136	.905	98.504						
12	.090	.597	99.102						
13	.064	.428	99.529						
14	.041	.274	99.803						
15	.030	.197	100.000						

Extraction Method: Principal Component Analysis.

Source: Field data 2017

The results in Table 4.4 show that the measurement scale explained 79.1 percent of the variation in TMT characteristics and the first factor had an eigenvalue of 8.7, which explained 36.4 percent of the variance, the second factor had an eigenvalue of 1.7, which explained 26 percent of the variance, whereas the third factor had an eigenvalue of 1.5 and explained 16.6 percent to the total variance.

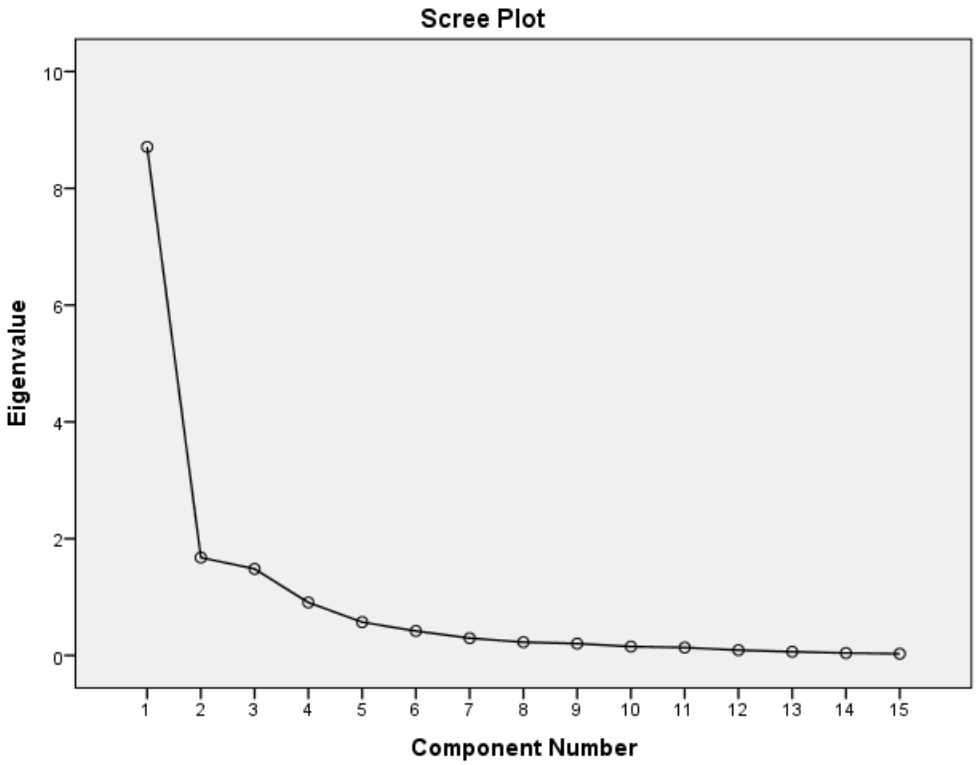

Figure 4.2: Scree Plot for Top Management Team Characteristics

Source: Field data 2017

The results of Figure 4.2 showed that the relevance of each component in explaining the variance in TMT characteristics. The Figure 4.2 showed that there was a break off at the third component demonstrating that three factors were extracted. The results of rotated component matrix for TMT characteristics are shown in Table 4.5. The rotation of the 15 extracted components were rotated using varimax with Kaiser normalization.

Table 4.5: Rotated Component Matrix for Top Management Team Characteristics

Statement	Component		
	1	2	3
Extent to which age was considered a critical factor for top management teams		.788	
Extent to which young managers were rated highly due to their ability to be creative and innovative		.700	
Extent to which older managers were rated higher than younger managers due to their long and unique experience		.740	
Extent to which there was an existing policy on age limit for the top management team members		.837	
Extent to which the institution had an existing policy on the gender rule for top management team members	.866		
Extent to which the institution was dominated by male top management team members		.457	
Extent to which there was ethnic balance within the institution			.862
Extent to which the institution had a criteria of minimum level of academic qualification for the top management teams			.662
Extent to which top management team members with postgraduate training were rated higher	.836		
Extent to which appropriate functional background was an important requirement for top management team members	.725		
Extent to which top managers had appropriate functional trajectory in the institution	.663		
Extent to which top managers were specialized in operations management, general management or human resource management are rated higher	.777		
Extent to which there was an existing policy on minimum number of years one must serve in the institution before he qualifies to join top management team	.780		
Extent to which length of service of TMTs in the institution was regulated to a maximum number of years	.815		
Extent to which organizational tenure was important for top management team members in the institution	.669		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Source: Field data 2017

Factor 1 related to the policies put in place to regulate the requirements of TMT members in terms of educational level, functional background, tenure, and gender balance. This indicated that policy to regulate the requirements for TMT members in PAUK was important.

As shown in Table 4.5, eight variables were loaded onto factor one with constructs which included extent to which the institution had an existing policy on gender rule for TMT members; extent to which TMT members with postgraduate training were rated higher; extent to which appropriate functional background was an important requirement for TMT members; extent to which top managers had appropriate functional trajectory in the institution; extent to which top managers were specialized in operations management, or human resource management were rated higher; extent to which there was an existing policy on minimum number of years one must serve in the institution before he qualified to join TMT; extent to which length of service of TMT members in the institution was regulated to a maximum number of years and extent to which organizational tenure is important for TMT members in the institution.

Factor 2 which relates to age of TMTs is explained by the following statements. Five variables were loaded onto factor two as shown in Table 4.5 and the constructs included extent to which age was considered a critical factor for TMT members; extent to which young top managers were rated highly due to their ability to be creative and innovative; extent to which older top managers are rated higher than younger top managers due to their long and unique experience; extent to which there was an existing policy on age limit for the TMT members; extent to which the institution was dominated by male TMT members. The indication is that all these factors related to the age of TMT members. This explained the importance that the institutions attach to the age of TMT members while at the same time addressing the issue of the gender rule.

Factor 3 related to ethnicity balance while taking into consideration the minimum level of academic qualification for the top managers. Two variables were loaded in factor three and the constructs included; extent to which there is ethnic balance within the institution and extent to which the institution has a criteria of minimum level of academic qualification for TMT members.

The results of factor analysis for OL are shown in Table 4.6. Principal component analysis was used to extract the factors. Factor analysis extracted 16 components which explained 73.2 percent variance in organizational learning.

Table 4.6: Total Variance Explained for Organizational Learning

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.402	58.763	58.763	9.402	58.763	58.763	6.066	37.915	37.915
2	1.228	7.675	66.438	1.228	7.675	66.438	4.350	27.188	65.103
3	1.077	6.733	73.171	1.077	6.733	73.171	1.291	8.069	73.171
4	.982	6.137	79.308						
5	.613	3.834	83.142						
6	.515	3.218	86.360						
7	.386	2.412	88.772						
8	.353	2.205	90.977						
9	.322	2.012	92.989						
10	.250	1.565	94.554						
11	.232	1.448	96.003						
12	.194	1.216	97.218						
13	.155	.968	98.186						
14	.109	.682	98.868						
15	.094	.589	99.458						
16	.087	.542	100.000						

Extraction Method: Principal Component Analysis.
Source: Field data 2017

The results in Table 4.6 show that the component explained 73.1 percent variance of organizational learning. The first component factor had an eigenvalue of 9.4 which explains 37.9 percent of variance in OL while the second component had an eigenvalue of 1.22 which explains 27.18 percent variance in organizational learning.

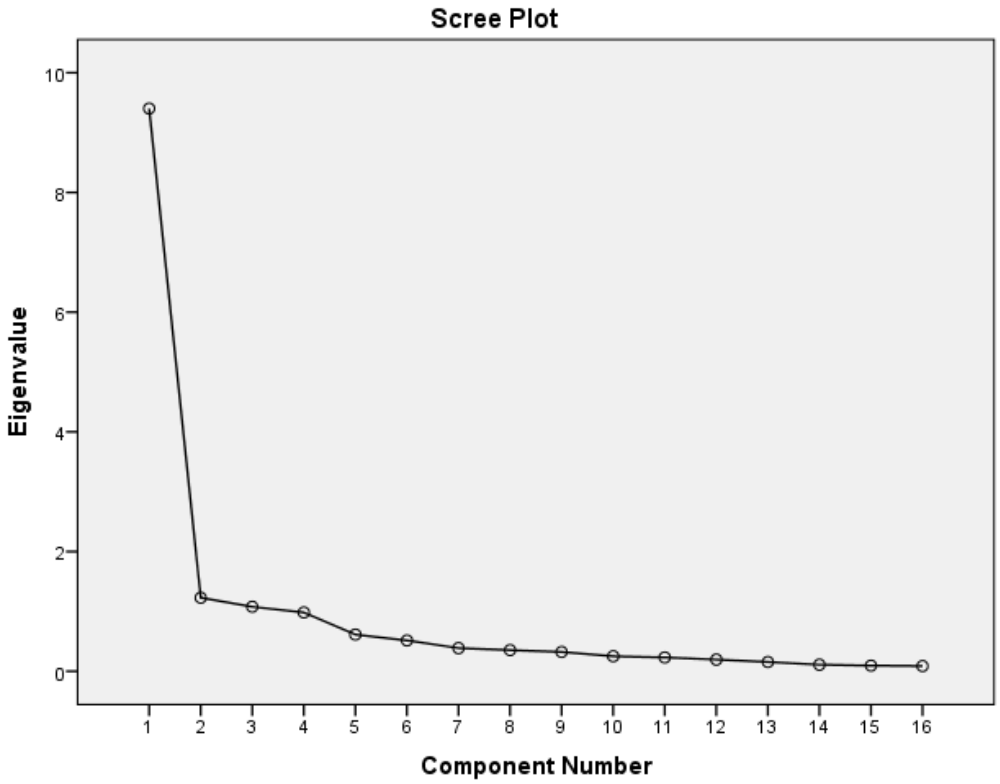

Figure 4.3: Scree Plot for Organizational Learning

Source: Field data 2017

Figure 4.3 indicates that the first component accounts for the highest variance in OL with an eigenvalue of 9.40. The scree plot breaks at the third component. The results of the rotated component matrix for OL is shown in Table 4.7 below.

Table 4.7: Rotated Component Matrix for Organizational Learning

Statement	Component		
	1	2	3
Extent to which individuals were motivated to carry out the tasks which are assigned to them		.599	
Extent to which individuals were aware of the major challenges of the institution	.715		
Extent to which individuals were an important source of information	.696		
Extent to which individual goals of members of the team conflict with overall goals			.889
Extent to which people worked closely with colleagues within their team to do their work properly		.803	
Extent to which the institution valued group work		.895	
Extent to which one group shared lessons learned with other groups		.656	
Extent to which the individual goals of members of the team were well aligned		.685	
Extent to which organizational structure was as a result of what we learn as employees		.710	
Extent to which the organization had an effective conflict resolution system which guides work groups	.720		
Extent to which cultural values were shaped by different ideas	.714		
Extent to which different points of view were encouraged in group work	.830		
Extent to which group resolutions were used to improve service delivery	.825		
Extent to which the institution's systems were compatible with critical issues facing service delivery	.749		
Extent to which the institution had developed research policies that guide innovation and technological advancements	.754		
Extent to which the institution had an intellectual property management office to protect knowledge acquired through research project	.589		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Source: Field data 2017

Factor one explains the level of learning as stated in the following statements. The results in Table 4.7 show that nine factors were loaded onto factor one. The constructs included extent to which individuals were aware of the major challenges of the institution, extent to which individuals were an important source of information; extent to which the organization had an effective conflict resolution system which guided work groups; extent to which cultural values were shaped by different ideas; extent to which different points of view were encouraged in group work; extent to which group resolution was used to improve service delivery; extent to which the institution's systems were compatible with critical issues facing service delivery; extent to which the institution has developed research policies that guide innovation and technological advancements and extent to which the institution had an IPMO to protect knowledge acquired through research projects. It is evident from Table 4.7 that the nine factors related to level of learning which constitute how individuals learn through self-motivation, development of competence capability through experience.

Factor two relates to group learning which is explained in the following statements. Six factors were loaded onto factor 2 and the constructs include; extent to which individuals are motivated to carry out the tasks which are assigned to them; extent to which people work closely with colleagues within their team to do their work properly; extent to which the institution valued group work; extent to which one group shared lessons learned with other groups; extent to which the individual goals of members of my team were well aligned and extent to which organizational structure was as a result of what was learned by employees.

As indicated in Table 4.7 all the factors relate to group learning which takes place at group level through group dynamics and how to manage conflict resolutions. When the knowledge is in embedded in the organization, the result is manifested in the core values, organizational structure, service delivery and alignment of business systems which have a positive influence on performance (Cummings & Whorley, 2009).

Factor three relates to goal conflict as explained in the statement below. One factor was loaded onto factor 3 and the construct is extent to which individual goals conflict with the individual goals of members of "my" team. This relates to goal conflict resolution by top managers.

The results of factor analysis for TMT characteristics are shown in Table 4.8 and Principal component analysis was used to extract the factors. Factor analysis extracted 9 components which explained 73.5 percent of the variance in customer perspective.

Table 4.8: Total Variance Explained for Customer Perspective

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.834	53.711	53.711	4.834	53.711	53.711	3.971	44.127	44.127
2	1.785	19.830	73.541	1.785	19.830	73.541	2.647	29.414	73.541
3	.716	7.958	81.498						
4	.556	6.181	87.679						
5	.355	3.949	91.628						
6	.297	3.296	94.924						
7	.185	2.057	96.981						
8	.150	1.668	98.649						
9	.122	1.351	100.000						

Extraction Method: Principal Component Analysis.

Source: Field data 2017

The results in Table 4.8 show that the measurement scale explains 73.5 percent of the variance in customer perspective. The 1st component has an eigenvalue of 4.8 which explains 44.1 percent variance and the 2nd component has an eigenvalue of 1.8 which explains 29.4 percent variance. The 2 components had the highest eigenvalues > 1.000.

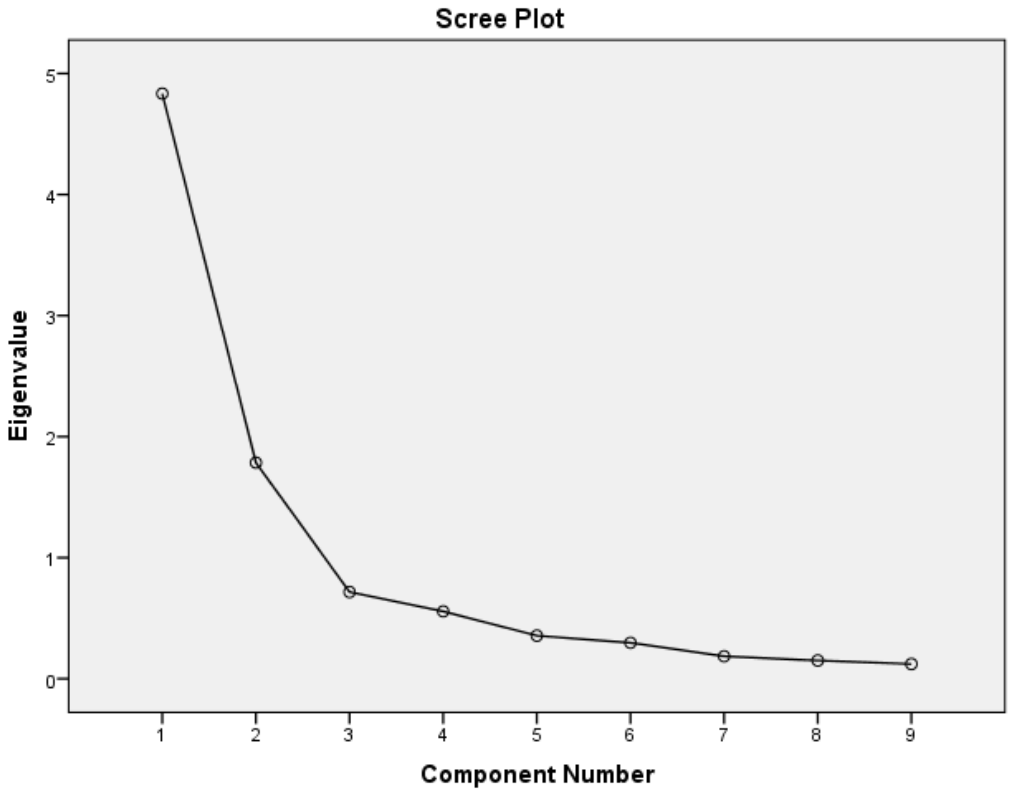

Figure 4.4: Scree Plot for Customer Perspective

Source: Field data 2017

Figure 4.4 shows the 1st component accounts for the highest variance in customer perspective with an Eigenvalue of 4.8. The scree plot breaks off after the 2nd component. The results of the rotated component matrix for customer perspective are shown in Table 4.9 below. The 9 components were rotated using varimax with Kaiser normalization to improve interpretation of the extracted factors.

Table 4.9: Rotated Component Matrix for Customer Perspective

Statement	Component	
	1	2
Extent to which customer complaints were responded to promptly	.665	
Extent to which customer surveys were conducted regularly	.808	
Extent to which customer satisfaction was assessed regularly	.830	
Extent to which the organization received compliments from customers	.904	
Extent to which established customers collaborated with the institution	.824	
Extent to which students and researchers were the institution's core customers	.778	
Extent to which students had access to e-journals and books for reference		.894
Extent to which students had adequate access to field and laboratory equipment		.804
Extent to which students were guided by highly qualified and experienced academic and support staff		.917

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Source: Field data 2017

Factor one explains customer relations as stated in the following statements. As illustrated in Table 4.9, six factors were loaded onto factor one with the following constructs; extent to which customer complaints were responded to promptly; extent to which customer surveys were conducted regularly; extent to which customer satisfaction was assessed regularly; extent to which the institution received compliments from customers; extent to which established customers collaborated with the institution and extent to which students and researchers were the institution's core customers. This relates to the customer relations the institutions have in place to ensure they keep their existing customers and get new customers. This resonates with Kaplan and Norton (1996) who opine that an organization's performance can be measured by the level of customer related results such as loyalty, satisfaction and repurchase of an organization's products.

Factor two explains facilities and staffs available to meet the needs of both internal and external customers. Three factors were loaded on factor two and the constructs include; extent to which students had access to e-journals and books for reference; extent to which students had adequate access to field and laboratory equipment and extent to which students were guided by highly qualified and experience academic and support staff. This related to advanced learning facilities in the accredited universities in Kenya.

The results of factor analysis for learning and growth are shown in Table 4.10. 12 factors were extracted by factor analysis which explains 74.7 percent of the variance in learning and growth.

Table 4.10: Total Variance Explained for Learning and Growth

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.474	45.613	45.613	5.474	45.613	45.613	3.818	31.815	31.815
2	2.161	18.005	63.618	2.161	18.005	63.618	2.631	21.923	53.738
3	1.326	11.048	74.666	1.326	11.048	74.666	2.511	20.928	74.666
4	.915	7.626	82.292						
5	.462	3.850	86.143						
6	.396	3.297	89.439						
7	.363	3.022	92.461						
8	.318	2.650	95.111						
9	.228	1.904	97.015						
10	.187	1.557	98.572						
11	.135	1.124	99.696						
12	.036	.304	100.000						

Extraction Method: Principal Component Analysis.

Source: Field data 2017

Table 4.10 shows that the measurement scale explains 74.7 percent of the variance in learning and growth. The 1st component has an eigenvalue of 5.47 which explains 23.9 percent variance. The 2nd component has an eigenvalue of 2.2 which explains 20.9 percent variance. The 3rd component has an eigenvalue of 1.3 which explains 20.9 percent variance. 3 components had the highest eigenvalues greater than 1.000.

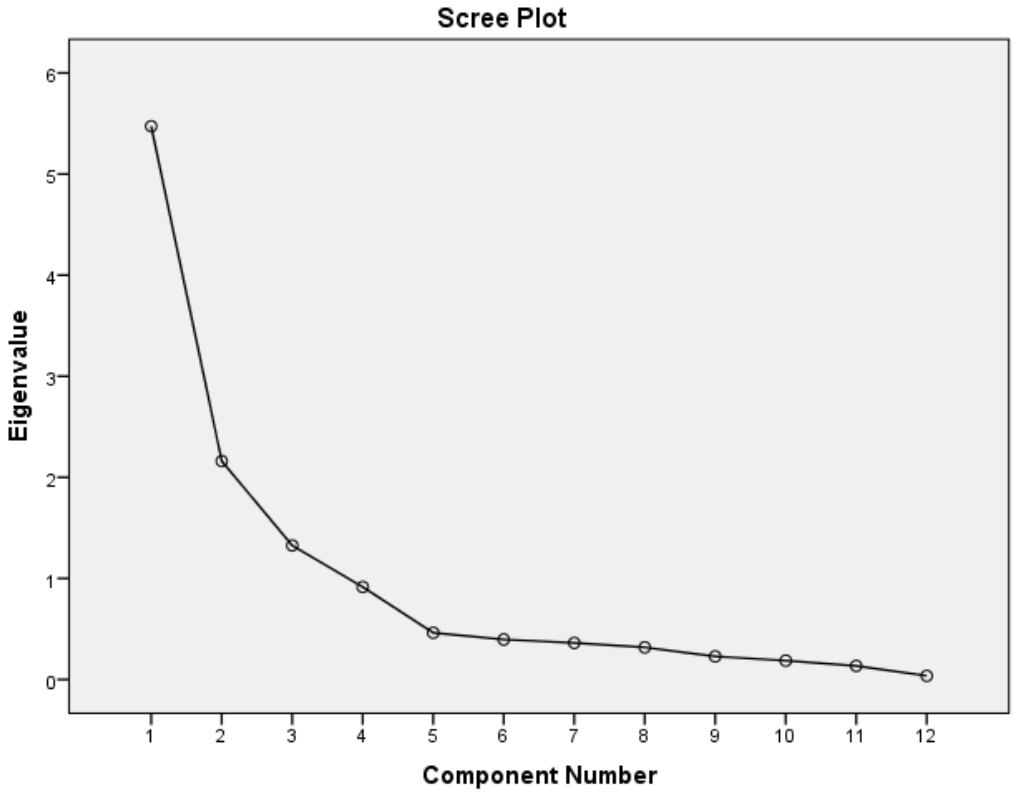

Figure 4.5: Scree Plot for Learning and Growth

Source: Field data 2017

Figure 4.5 shows that the 1st component accounts for the highest variance in learning and growth with an eigenvalue of 5.47. The scree plot breaks off at the 3rd component.

The results of the rotated component matrix for learning and growth are shown in Table 4.11. The 12 extracted factors were rotated using varimax with Kaiser normalization to improve interpretation of the extracted factors.

Table 4.11: Rotated Component Matrix for Learning and Growth

Statement	Component		
	1	2	3
Extent to which degree programmes were offered to specific target customers	.643		
Extent to which institution conducted staff training	.623		
Extent to which institution supported innovation	.794		
Extent to which there were increased linkages and collaborations	.854		
Extent to which the institution aggressively introduced new degree programmes	.785		
Extent to which there were increased research activities	.776		
Extent to which there were increased number of schools, colleges and campuses	.591		
Extent to which there was an effective curricula development policy which incorporates the views of the stakeholders			.912
Extent to which curriculum was reviewed regularly			.881
Extent to which the university had state of the art technological teaching and learning facilities		.814	
Extent to which there was equity in lecturer to student ratio		.913	
Extent to which there was equity in supervisor to student ratio		.846	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Source: Field data 2017

Factor one explains learning and growth that is indicated in the statements below. Table 4.11 indicates that seven factors were loaded onto factor one with the following constructs; extent to which degree programmes were offered to specific customers; extent to which institution conducted staff training; extent to which institution supported innovation; extent to which there are increased linkages and collaborations; extent to which the institution aggressively introduced new degree programmes; extent to which there were increased research activities and extent to which there were increased number of schools, colleges and campuses. All these constructs relate to the growth that takes place through continuous learning, new degree programmes, staff development and increased research activities.

Factor two explains equity in lecturer/student ratio. Three factors were loaded onto factor two with the following constructs; extent to which the university has state of the art technological teaching and learning facilities; extent to which there is equity in lecturer to student ratio and extent to which there is equity in supervisor to student ratio. These constructs relate to equity while emphasis for improved performance is on adequate and improved technological teaching and learning facilities, the institutions strive to maintain equity in lecturer to student ratio as well as supervisor to student ratio.

Factor three is explained by curricula development in the Accredited Universities in Kenya (AUK). Two factors were loaded onto factor three with the following constructs; extent to which there was an effective curricula development policy which incorporated the views of the stakeholders and extent to which curriculum was reviewed regularly. These constructs relate to curricula development. Teaching is a core function in accredited universities and in order to have a sustainable competitive edge in the higher education sector, these universities should be committed to produce state of the art degree programmes through continuous curricula development.

4.3 Test for Normality, Linearity, Multicollinearity and Homoscedasticity

Linear regression works with the assumption that data is normally spread, linearly distributed and that independent variables do not violate the assumption of multicollinearity and homoscedasticity. Besides, it is assumed that the assumption of homoscedasticity has been met. These statistical assumptions are crucial because when they are not met, it may lead to invalid results (Osborne & Waters, 2002) or result in type 1 or II error.

Osborne and Waters (2002) also argue that there may be an over/under-estimation of the significance or effect size. It is therefore, imperative to carry out pre-tests for the assumptions to ascertain validity of results. It was, however, noted (Osborne, Christensen & Gunter, 2001) that very few articles have tested assumptions of the statistical tests to arrive at conclusions.

Lack of pre-testing for the statistical assumptions may lead to addition of noise rather than contribution in knowledge to any discipline. In other words, results without meeting the assumptions may end up with misleading conclusions. This study therefore, tested for normality, multicollinearity and heteroscedasticity. Normality tests allow for inferences about the population and this study tested for normality using histogram, Q-Q plots, and Shapiro-Wilks test.

4.3.1 Normality Tests

Statistical analysis which uses regression, correlation, t-tests and analysis of variance are based on the assumption that data set is normally distributed (Osborne & Waters, 2002). Normality tests allow for inferences about the population. Data which is not normally distributed may lead to results that are not accurate. Normality tests use histograms, Q-Q plots, skewness and Kurtosis. Normally distributed data is distributed symmetrically (bell-shaped curve) around the centre of all scores (Field, 2009). This study tested for normality using histogram and Q-Q plot.

It is therefore necessary to test for normality when these assumptions are not met. This is done in order to draw accurate and reliable conclusions about the phenomena which is being investigated. Razali and Wah (2011) argue that when normality assumption is violated, then interpretations and inferences may lack reliability and validity. Krishnan (2006) adds that if the sample data are approximately normal then the sampling distributions will be normal. According to Razali and Wah (2011); Patel and Marcel (1996), Shapiro-Wilk test which this study adopted is the most commonly used test for assessing normality.

The test for normality for SC was done using a histogram. The test for the normality for SC was necessary as a pre-test of statistical assumption of normality which should be met if data is normally distributed. When the data set has a normal distribution, then the histogram depicts a bell-shaped curve. The results of the normality test for SC are shown in Figure 4.6.

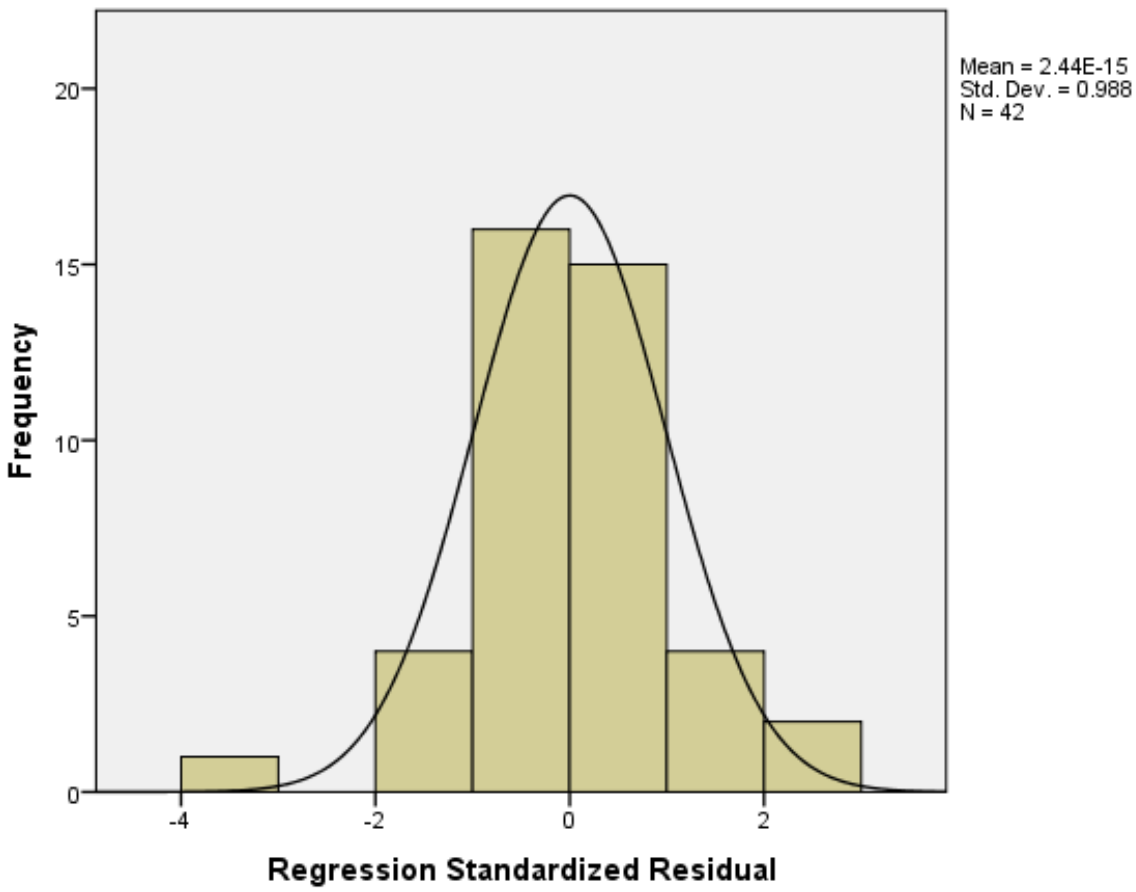

Figure 4.6: Histogram for Strategic Choice

Source: Field data, 2017

The results in Figure 4.6 show a mean of 2.44 with a standard deviation of 0.988. The histogram depicts a bell shaped curve implying a normal distribution curve for SC. This implies that there was a normal distribution of the sample size as an indication that the assumption of normality was met. This was an indicator of the accuracy in the prediction of the relationships of the study variables.

The results are consistent with previous studies (Orucho, 2014) who used histograms to test for normality with a population from public and private universities in Kenya. Ombaka (2014) study also used histograms to test for normality with a population from insurance companies in Kenya. Both studies in the Kenyan context showed data sets that met the normality condition with bell-shaped curves.

This clearly shows that the test for normality assumption is very crucial since it helps the researcher to find out whether there is a violation of normality which may lead to wrong conclusions from the findings of a study. Razali and Wah (2011) argue that if normality assumption is violated, the implication is that interpretation and inferences may lack reliability or validity.

The test for normality for OL was done using a histogram. The test for the normality for OL was necessary as a pre-test of statistical assumption of normality which should be met if data is normally distributed. When the data set has a normal distribution, then the histogram depicts a bell-shaped curve. The results of the normality test for OL are shown in Figure 4.7.

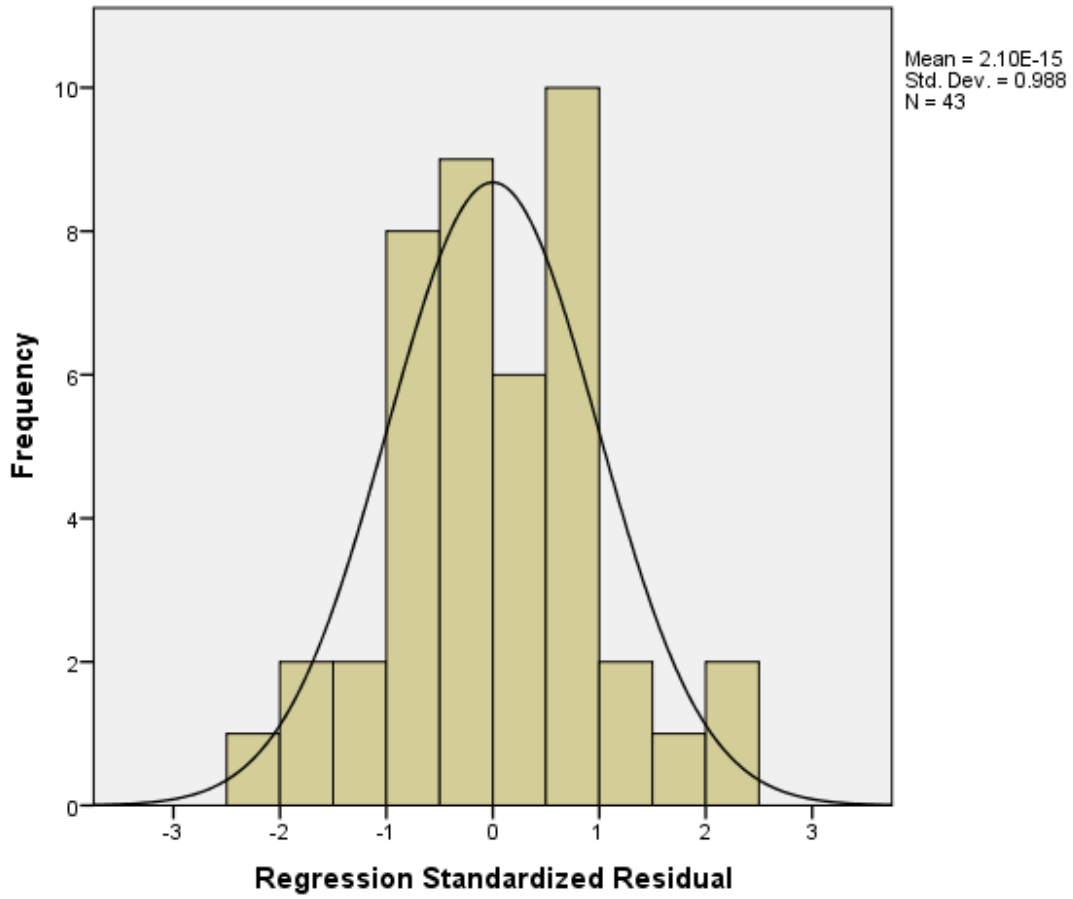

Figure 4.7: Histogram for Organizational Learning

Source: Field data, 2017

The results in Figure 4.7 show a mean of 2.10 with a standard deviation of 0.988 with a sample population of 43. The histogram depicts a bell shaped curve implying a normal distribution curve for OL. This implies that there was a normal distribution of the sample size as an indication that the assumption of normality was met. This was an indicator of the accuracy in the prediction of the relationships of the study variables.

Previous studies (Kinuu, 2014) used histograms to test for normality with a population from companies from a different context in Kenya. Namada (2013) study also used histograms to test for normality with a population from EPZs in Kenya. Both studies in the Kenyan context showed data sets that met the normality condition with bell-shaped curves.

This is an indicator that the test for normality assumption is very crucial since it helps the researcher to find out whether there is a violation of normality which may lead to wrong conclusions from the findings of a study. Razali and Wah (2011) argue that if normality assumption is violated, the implication is that interpretation and inferences may not be reliable or valid.

The test for normality for TMT characteristics was done using a histogram. The test for the normality for TMT characteristics was necessary as a pre-test of statistical assumption of normality which should be met if data is normally distributed. When the data set has a normal distribution, then the histogram depicts a bell-shaped curve. The results of the normality test for TMT characteristics are shown in Figure 4.8.

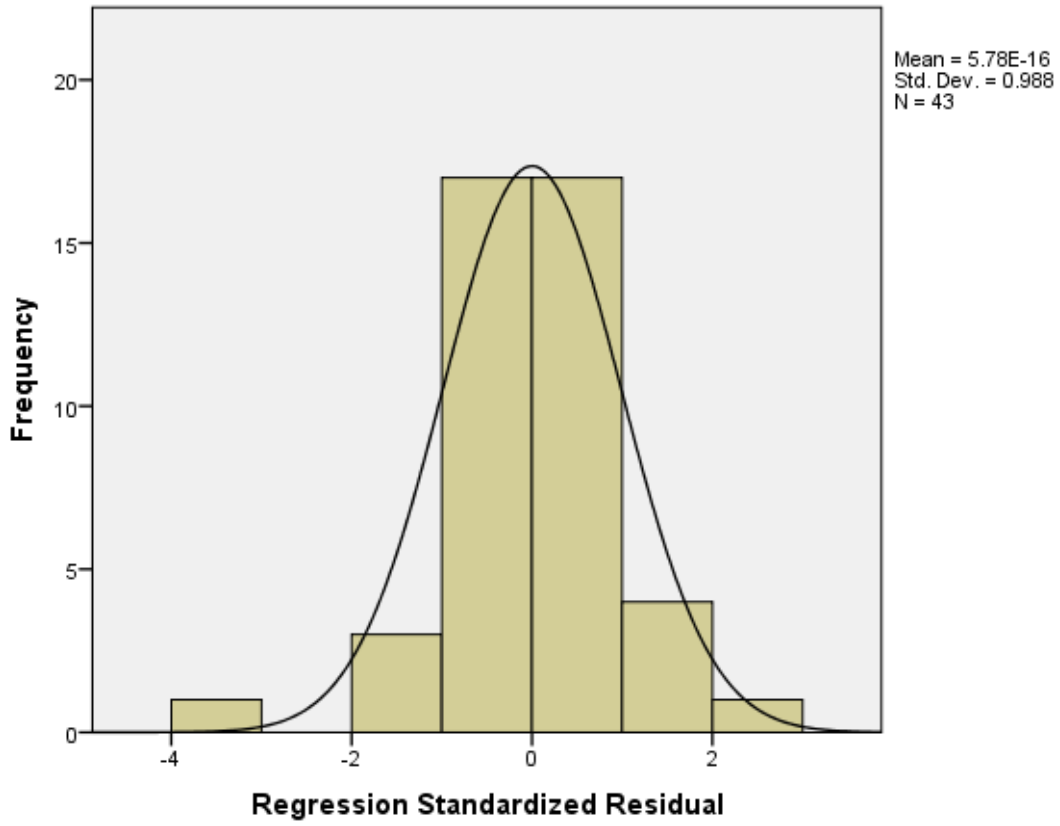

Figure 4.8: Histogram for Top Management Team Characteristics

Source: Field data, 2017

The results in Figure 4.8 show a mean of 5.78 with a standard deviation of 0.988 with a sample population of 43. The histogram depicts a bell shaped curve implying a normal distribution curve for TMT characteristics. This implies that there was a normal distribution of the sample size as an indication that the assumption of normality was met. This was an indicator of the accuracy in the prediction of the relationships of the study variables.

The results are consistent with previous studies (Wasike, 2016) who used histograms to test for normality with a population from tea factories in Kenya. Mkalama (2014) study also used histograms to test for normality with a population from state corporations in Kenya. Both studies in the Kenyan context showed data sets that met the normality condition with bell-shaped curves.

This clearly shows that the test for normality assumption is very crucial since it helps the researcher to find out whether there is a violation of normality which may lead to wrong conclusions from the findings of a study. It has been argued that if normality assumption is violated, the implication is that interpretation and inferences may not be reliable or valid (Razali &Wah 2011).

The test for normality for NFP was done using a histogram. The test for the normality for NFP was necessary as a pre-test of statistical assumption of normality which should be met if data is normally distributed. When the data set has a normal distribution, then the histogram depicts a bell-shaped curve. The results of the normality test for NFP are shown in Figure 4.9.

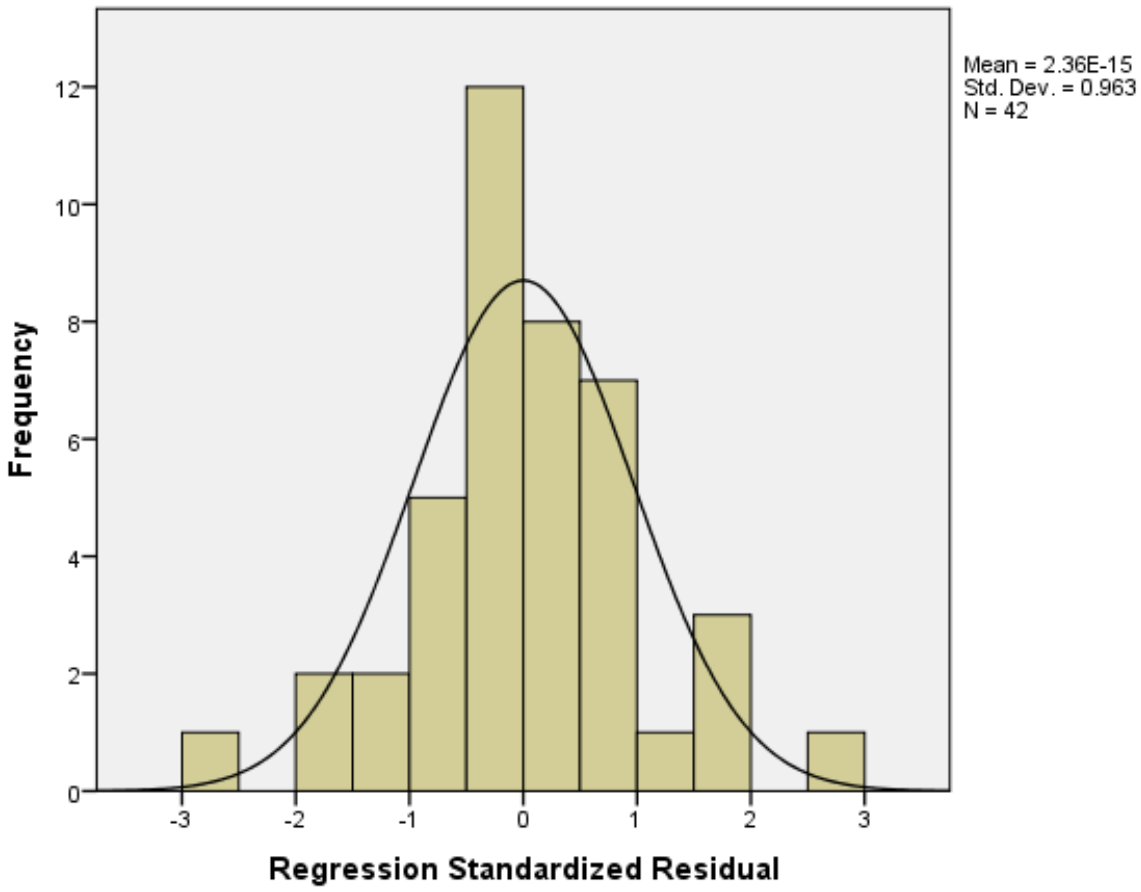

Figure 4.9: Histogram for Non-Financial Performance

Source: Field data, 2017

The results in Figure 4.9 show a mean of 2.36 with a standard deviation of 0.963 with a sample population of 42. The histogram depicts a bell shaped curve implying a normal distribution curve for NFP. This implies that there was a normal distribution of the sample size as an indication that the assumption of normality was met. This was an indicator of the accuracy in the prediction of the relationships of the study variables.

The results are consistent with previous studies (Wasike, 2016) who used histograms to test for normality with a population from tea factories in Kenya. Mkalama (2014) study also used histograms to test for normality with a population from state corporations in Kenya. Both studies in the Kenyan context showed data sets that met the normality condition with bell-shaped curves.

This is an indicator that the test for normality assumption is very crucial since it helps the researcher to find out whether there is a violation of normality which may lead to wrong conclusions from the findings of a study. It has been argued that if normality assumption is violated, the implication is that interpretation and inferences may not be reliable or valid (Razali & Wah 2011; Patel & Pavitt, 1994).

The assumption of normality was tested using the Shapiro-Wilk test as demonstrated in Table 4.12. According to Patel and Pavitt (1994) Shapiro-Wilk test which this study adopted is the most commonly used test for assessing normality. The Shapiro-Wilk test was used successfully in previous studies on TMT characteristics (Kinuu, 2014 and Wasike 2016). Ths study, therefore adopted the Shapiro-Wilk test to test normality of the key study variables as shown in Table 4.12.

Table 4.12: Tests of Normality of the Study Variables using Shapiro-Wilk

Study Variables	Shapiro-Wilk		
	Statistic	df	Sig.
SC	0.942	3	0.537
OL	0.855	3	0.253
TMT Characteristics	1.000	3	0.408

a. Dependent variable NFP

Source: Field data, 2017

The results in Table 4.12 show that all significant values were greater than 0.05 (criterion decision), an indication that data for the study variables were normally distributed. SC recorded 0.537, OL 0.253 and TMT characteristic scored a significance of 0.408. This implied that the assumption of normality for SC, OL and TMT characteristics was met for hypothesis testing.

4.3.2 Linearity Tests

According to Osborne and Waters (2002), accurate estimation of the relationship between dependent and independent variables can only be made possible by multi-linear regression if the relationships are linear. They contend that in the absence of a linear relationship between the independent variable and dependent variable results in an under-estimation of the true relationship of the linear regression analysis.

In this study, test for linear regression used Q-Q plot as shown in Figures 4.10 to 4.13 which shows overall linearity with a few cases slightly away from the regression line (line of best fit). When data conforms to linearity, it means that the values of the outcome variable for the predictor variable lie along a straight line. Linearity explains the relationship between the dependent and the independent variable.

Assumption for linearity test for SC was done using Q-Q plot as shown in Figure 4.10 below. The results were plotted graphically as shown in the Q-Q plot. The data sets were subjected to linearity tests and the results are shown in Figure 4.10 below. Linearity may be exhibited with a few cases slightly away from 45 degree line. If data conforms to linearity, the values of the predictor variables lie along a 45 degree line. The results are shown in Figure 4.10 below.

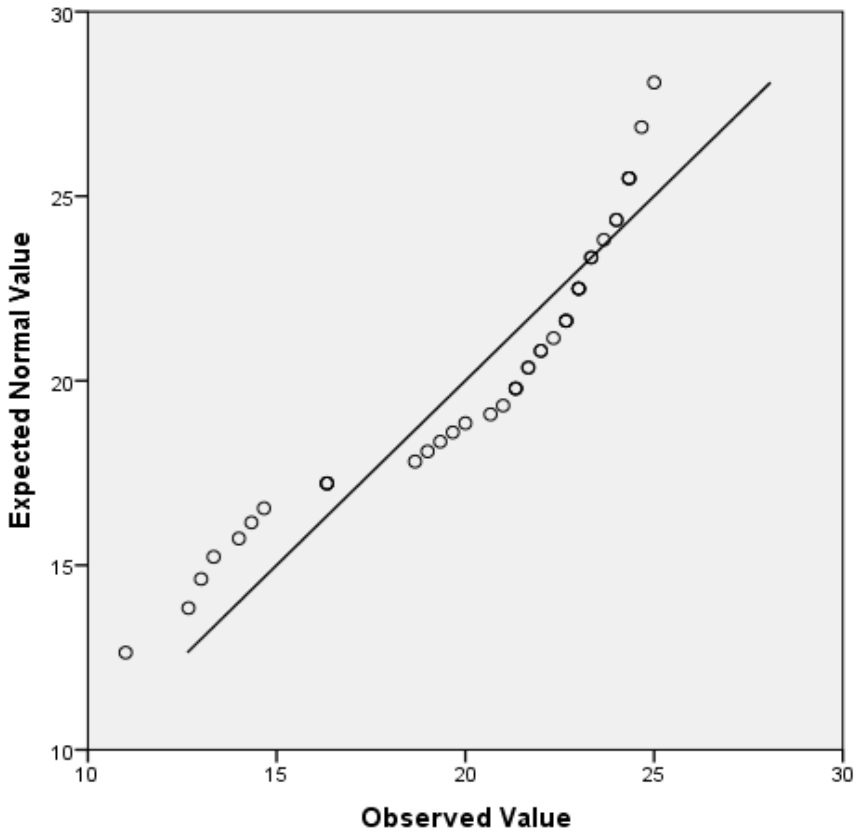

Figure 4.10: Linearity Quartile-Quartile Plot for Strategic Choice

Source: Field data 2017

Figure 4.10 shows that data plots for SC followed a linear path although there were slight deviations from the 45 degree line and three outliers were noted. These outliers were insignificant and therefore SC met the normality condition. Therefore, the data conformed to linearity since the values of the predictor variable lay along a 45 degree line.

Osborne and Waters (2002) argue that the absence of a linear relationship between independent variables and dependent variable leads to an under-estimation of the true relationship in the results of a linear regression analysis. Therefore multiple linear regressions are used for accurate estimation of the relationship between independent variables and dependent variable.

Assumption for linearity test for OL was done using Q-Q plot as shown in Figure 4.11 below. The results were plotted graphically as shown in the Q-Q plot. The data sets were subjected to linearity tests and the results are shown in Figure 4.11 below. Linearity may be exhibited with a few cases slightly away from 45 degree line. If data conforms to linearity, the values of the predictor variables lie along a 45 degree line. Figure 4.11 below shows the results of the assumption of linearity test for OL.

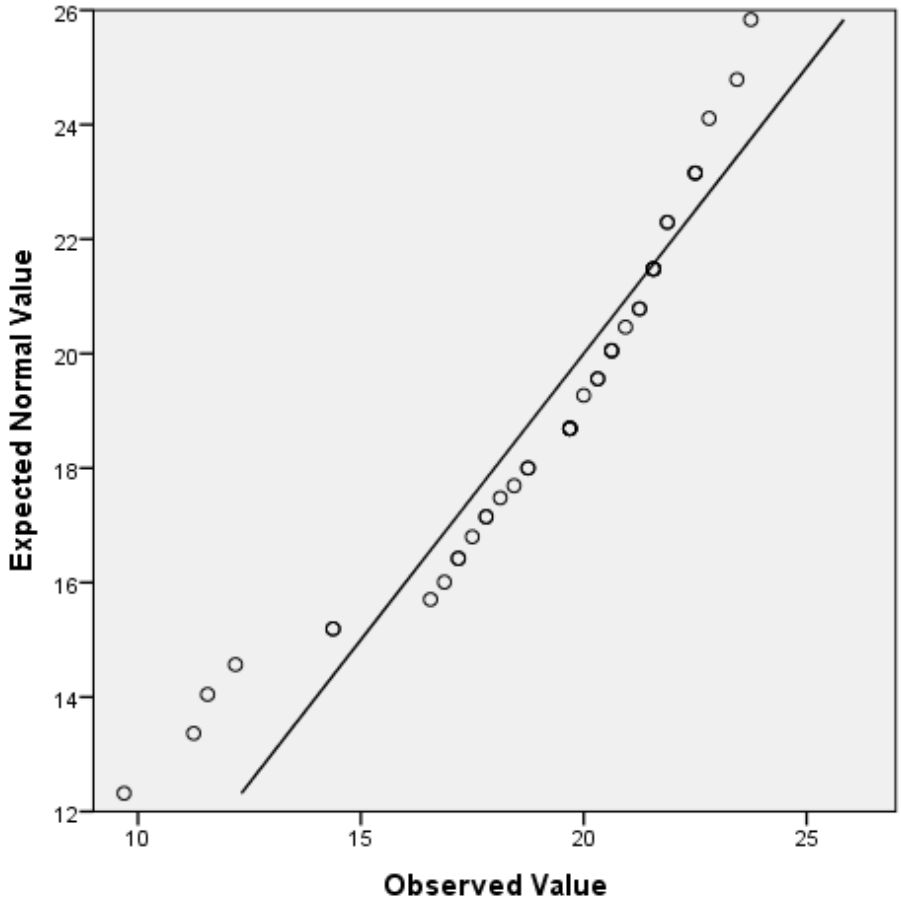

Figure 4.11: Linearity Quartile-Quartile Plot for Organizational Learning

Source: Field data 2017

Figure 4.11 shows that data plots for OL followed a linear path although there were slight deviations from the 45 degree line and a few outliers were noted. These outliers were insignificant and therefore SC met the normality condition. Therefore, the data conformed to linearity since the values of the predictor variable lay along a 45 degree line.

It has been argued by Osborne and Waters (2002) that the absence of a linear relationship between independent variables and dependent variable leads to an under-estimation of the true relationship in the results of a linear regression analysis. Therefore multiple linear regressions are used for accurate estimation of the relationship between independent variables and dependent variable.

Assumption for linearity test for TMT characteristics was done using Q-Q plot as shown in Figure 4.12. The results were plotted graphically as shown in the Q-Q plot. The data sets were subjected to linearity tests and the results are shown in Figure 4.12 below. Linearity may be exhibited with a few cases slightly away from 45 degree line. If data conforms to linearity, the values of the predictor variables lie along a 45 degree line. Figure 4.12 below shows the results of the assumption of linearity test TMT characteristics.

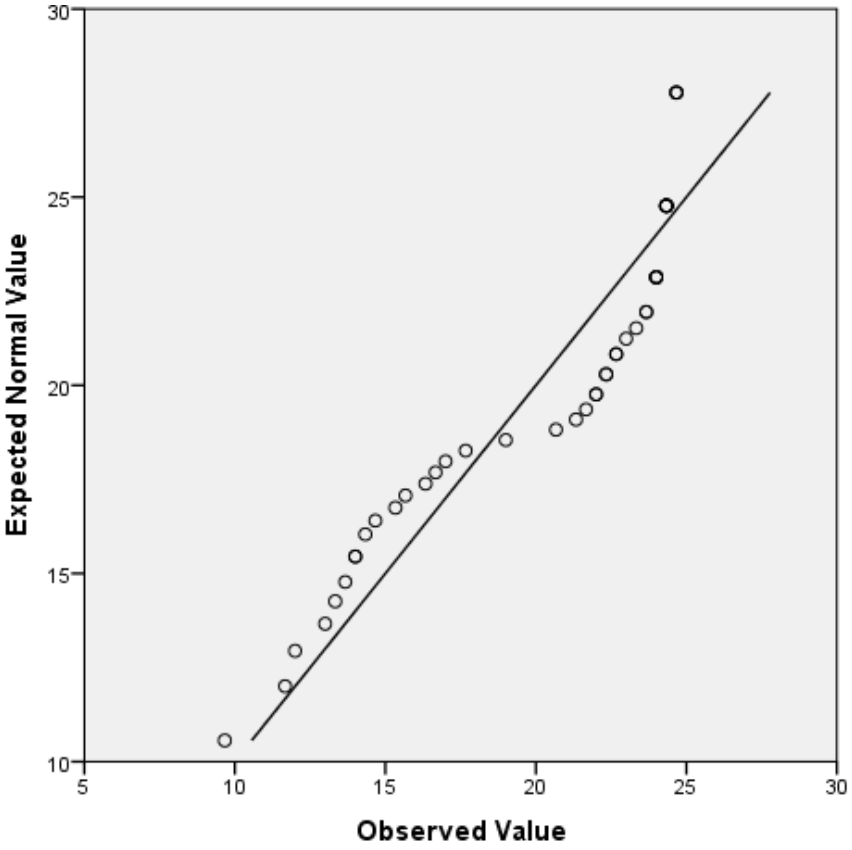

Figure 4.12: Normal Quartile-Quartile Plot for Top Management Team Characteristics

Source: Field data 2017

Figure 4.12 shows that data plots for OL followed a linear path although there were slight deviations from the 45 degree line and a few outliers were noted. These outliers were insignificant and therefore SC met the normality condition. Therefore, the data conformed to linearity since the values of the predictor variable lay along a 45 degree line.

It has been argued by Osborne and Waters (2002) that the absence of a linear relationship between independent variables and dependent variable leads to an under-estimation of the true relationship in the results of a linear regression analysis. Therefore multiple linear regressions are used for accurate estimation of the relationship between independent variables and dependent variable.

Assumption for linearity test for NFP was done using Q-Q plot as shown in Figure 4.13 below. The results were plotted graphically as shown in the Q-Q plot. The data sets were subjected to linearity tests and the results are shown in Figure 4.11 below. Linearity may be exhibited with a few cases slightly away from 45 degree line. If data conforms to linearity, the values of the predictor variables lie along a 45 degree line. Figure 4.13 below shows the results of the assumption of linearity test for NFP.

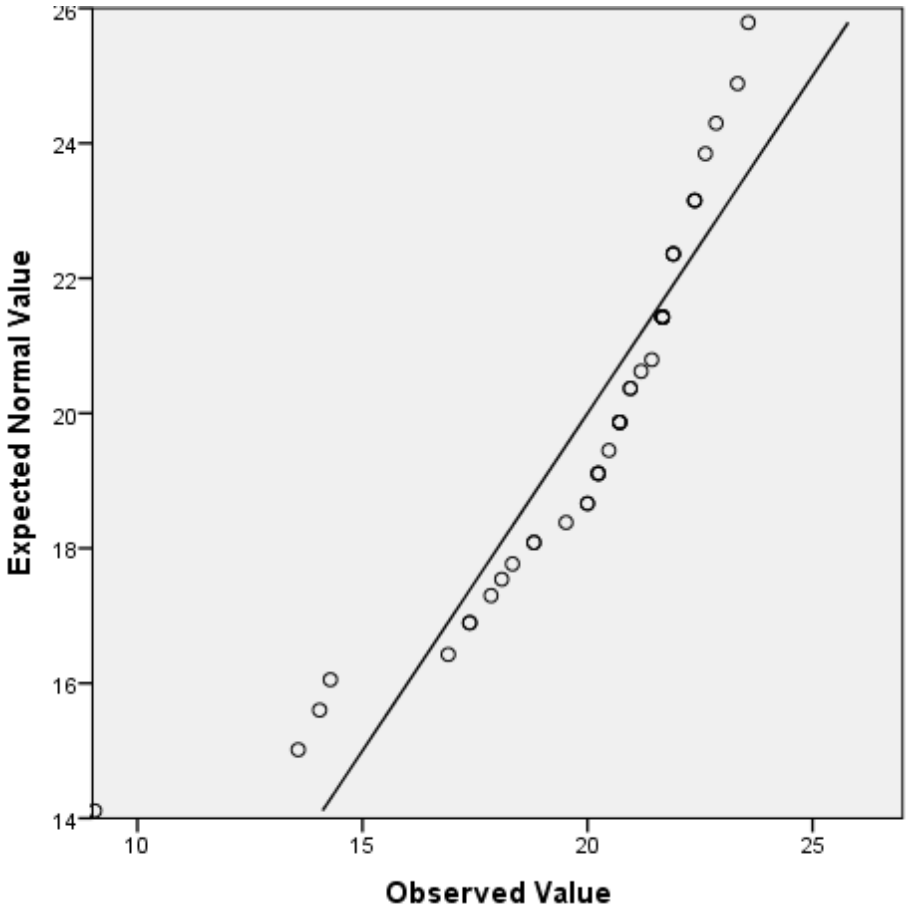

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Figure 4.13: Normal Quartile-Quartile Plot for Non-Financial Performance

Source : Field data 2017

The results of normality test in Figure 4.13 for NFP show that most the data points lay along the 45 degree line except for some deviations. The few outliers were insignificant and NFP was therefore considered to have met the linearity condition.

Osborne and Waters (2002) argue that the absence of a linear relationship between independent variables and dependent variable leads to an under-estimation of the true relationship in the results of a linear regression analysis. Therefore multiple linear regressions are used for accurate estimation of the relationship between independent variables and dependent variable.

4.3.3 Multicollinearity Tests

To address the issue of multicollinearity, the following analyses were done - correlation analysis between the independent variables, tolerance, VIF, and condition index. The results of multicollinearity test are shown in Table 4.13 and Table 4.14.

Table 4.13: Correlation Between Study Variables

		NFP	SCs	OL	TMT
Pearson Correlation	NFP	1.000			
	SC	0.774**	1.000		
	OL	0.809**	0.790**	1.000	
	TMT	0.588**	0.771**	0.554**	1.000

** Pearson Correlation is significant at the 0.0 level (2-tailed)

Source: Field data 2017

The results in Table 4.13 show that there was positive and significant correlations between study variables (SC, OL, TMT characteristics and NFP). However, there should be low correlation between SC, OL and TMT. Multicollinearity test for the study variables was done as shown in Table 4.14.

Table 4.14: Tests for Multicollinearity

Model	Collinearity Statistics		
	Tolerance	VIF	Condition Index
(Constant)			
SC	.225	4.442	12.06736535
OL	.373	2.684	16.39781328
TMT Characteristics	.402	2.486	17.9344013

a. Dependent variable: Non-financial performance

Source: Field data 2017

The results in Table 4.14 show that SC, OL and TMT characteristics had tolerance values less than one with VIF values less than ten which implies there was no multicolinearity among the study variables. The OL had a condition index of 16.4 while TMT characteristics had a value of 17.9 (condition index was less than 30) meaning there was no serious multicollinearity to affect the hypothesis tests.

4.3.4 Heteroscedasticity Tests

Another assumption of regression is that the variance of the residuals is homogeneous across levels of the predicted values, also known as homoscedasticity should be determined. To test for heteroscedasticity, both scatter plot and Levene's test was done. When homoscedasticity assumption is met, residuals form a patternless cloud. The scatter plot of the study variables against the PAUK is shown in Figure 4.14.

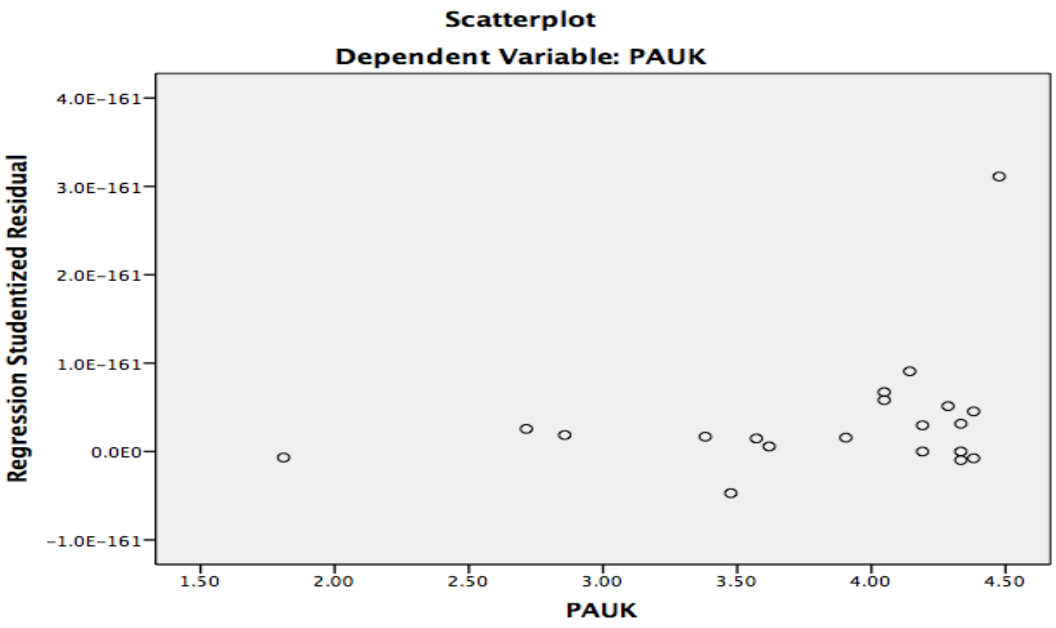

Figure 4.14: Scatter Plot for the Study Variables

Source : Field data 2017

Result in Figure 4.14 depict a patternless cloud of dots apart from one outlier which implied that the homoscedasticity was met. The dots lie both below and above the zero point of the regression standardized residual which explains the patternless cloud of dots.

Levene's test was carried out to assess some common statistical procedures which assume that variances of the populations from which different samples are drawn, are equal. If the resulting p-value of Levene's test is less than the significance level (typically 0.05), the obtained differences in sample variances are unlikely to have occurred based on random sampling from a population with equal variances. Thus, the proposition of equal variances is rejected and it is concluded that there is a difference between the variances in the population (heteroscedasticity). The results are as shown in Table 4.15 below. If the Levene statistic is significant at the 0.05 level or better, the null hypothesis will be rejected that the groups have equal variances

Table 4.15: Test of Homogeneity of Variances of the Study Variables

	Levene Statistic	df1	df2	Sig.
SC	6.238	8	18	.000
OL	3.167	8	18	.020
TMT Characteristics	5.228	8	18	.002

a. Dependent variable NFP

Source: Field data, 2017

The results in Table 4.15 show that Levene statistic was significant at less than 0.05 significance level implying that the groups did not have equal variances. SC scored a value of 0.000 < 0.05 while OL scored 0.020 < 0.05 and TMT characteristics had a value of 0.002 <0.05. All these values were significant.

4.4 Characteristics of the Respondents and Institutions

This study targeted all 52 accredited universities in Kenya (at the time of study), all of which were served with questionnaires. Forty-three accredited universities filled and returned the questionnaires. This therefore, represented a response rate of 82.6 percent. This implied that the data, which was analyzed was obtained 43 out of the targeted 52. Four of the questionnaires, which were used for the pilot testing in two public accredited universities and two private accredited universities were not included in the final study. One private accredited university declined to give authority to collect data from their institution while four did not return the questionnaires. Therefore, the response rate for this study was 82.6 percent and was a good comparison to previous studies response rates. Orucho (2014) recorded a response rate of 94 percent while Muchemi (2013) had a response rate of 72.5 percent.

Balta (2008) suggests that in order to record a high response rate, a detailed cover letter should provide instructions for the research, the supervisor's and researcher's details. The current study followed this procedure and even provided the CEO's approval letter to collect data from the institution (Appendix V), authority letter from institution of study (Appendix I), research authorization letter (Appendix III) and permit from NACOSTI (Appendix IV).

There has been a disagreement on the acceptable response rate to form the basis of data analysis. Nachmias and Nachmias (2004) found out that researchers of survey studies may face a challenge of low response rate which is rarely above 50 percent and therefore suggest that a response rate of 50 percent and above is acceptable since it provides a good basis for data analysis.

This study had 82.6 percent in line with Mangione (1995) classification of response rates of over 85 percent as excellent, 70 percent - 85 percent very good and between 60 percent – 70 percent acceptable and below 50 percent not acceptable. This has been found to be the trend in research focusing on top managers as respondents (Geletkanyez, 1997; Muchemi, 2013; Orucho, 2014). The response rate of 82.6 percent provides a sound basis for data analysis and the results are shown in Table 4.16.

Table 4.16: Response Rate

Accredited university status	Target Frequency	Not Returned	Returned	Percent
Public	30	5	25	83.3
Private	22	0	18	81.1
Total	52	5	43	82.6

Source: Field data, 2017

The researcher sought to find the characteristics of the respondents in terms of their designation, length of service and the number of years in their current position. The target respondents of this study were one Deputy Vice-Chancellor (Administration and Finance) or Deputy Vice-Chancellor (Academic Affairs) or Deputy Vice-Chancellor (Research), The Registrar, Administration, Finance Officer, Dean, Director or Principal were also eligible to provide data for this study. These were top managers that are competent to give credible and accurate information about their accredited universities. This meant that in the absence of the Deputy Vice-Chancellor (Administration and Finance) one of the top managers would provide information for this study. This is supported by UET which postulates that top managers are the strategic managers who determine the course of the organization's direction and how fast it can compete in the industry (Hambrick & Mason, 1984; Finkelstein and Hambrick, 1996; Hambrick, 2007).

The research findings on the designation of the respondents are shown in Table 4.17 and indicated that 4.7 percent of the respondents were at the level of Deputy Vice-Chancellor (Administration and Finance) from the accredited universities in Kenya while majority of the respondents (48.8 percent were at the level of Registrar, Administration. 2.3 percent represented Finance Officer and Principals with the lowest results and about 20.9 percent were Deans and Directors. This showed that majority of the Deputy Vice-Chancellors had busy schedules and were therefore represented by the other top managers mentioned above. However, in all the 43 accredited universities in Kenya, the Registrar Administration were the ones who provided the data that was required for this study.

Table 4.17: Comparison of Respondent's Designation and Ownership Structure

Ownership structure	Designation of Respondent						Total
	Deputy Vice-Chancellor	Registrar (Administration)	Finance Officer	Dean	Director	Principal	
Public	0	12	1	6	5	1	25
Private	2	9	0	3	4	0	18
Total	2	21	1	9	9	1	43

Source: Field data, 2017

The researcher sought to establish the length of service in the accredited universities in Kenya for each respondent, which accounts for the experience gained in the institution. This was necessary since the length of service captures the respondent's level of experience (familiarity), and competency in giving responses that are useful to the study and this is indicated in Table 4.18.

Table 4.18: Comparison between Years of Employment and University Ownership Structure

Ownership structure	Number of Years in University			Total
	Less than 10	11 to 20	Over 20	
Public	12	10	3	25
Private	4	11	3	18
Total	16	21	6	43

Source: Field data, 2017

The results in Table 4.18 showed that 37.2 percent of the respondents had been in the accredited universities for less than 10 years, 48.8 percent had been in the accredited universities between 11 and 20 years while 14.0 percent had worked for the accredited universities for over 20 years. This category of top managers were capable and competent to provide the data required for this study.

The researcher sought to establish the number of years the respondents had been in the current position in the accredited universities. This was necessary because it accounted for the respondents experience in their current positions and their capability of providing useful data for this study. The results are shown in Table 4.19.

Table 4.19: Cross-tabulation Between Length of Stay at University and Occupancy in Current Position

		Number of Years in Current Position			Total
		Less than 1	2 to 4	More than 4	
Number of years in university	Less than 10	4	9	4	16
	11 to 20	1	3	16	20
	Over 20	0	0	6	7
Total		5	12	26	43

Source: Field data, 2017

The results in Table 4.19 show that 11.6 percent of the respondents had been in their current positions in the accredited universities for less than one year, 27.9 percent of the respondents had been in their current positions for a period ranging from 2 to 4 years. The remaining 60.5 percent had been in their current positions for more than 4 years implying that they were competent to provide useful data for this study.

The researcher sought to establish the year of incorporation of the accredited universities in Kenya. Data was collected to ascertain the demographic profiles of the accredited universities in Kenya, which had been in operation for the last five years and above. The age of the institution was measured comparatively for private and public accredited universities by number of years. The number of years was necessary since the objective was to assess accredited universities in Kenya, which had been in operation for five years and above with sound strategies in place. An organization's level of maturity, stability and establishment has been viewed by many studies as the number of years the organization has been in existence. The study therefore sought to establish the year of establishment for each accredited university in this study and the results are shown in Table 4.20.

Table 4.20: Comparison of Age of University and Ownership Structure

Ownership structure	Age of the University in Years					Total
	Less than 5	5 to 9	10 to 14	15 to 19	25 and Above	
Public	2	13	3	2	5	25
Private	1	5	5	2	5	18
Total	3	18	8	4	10	43

Source: Field data 2017

From Table 4.20, the results showed that most of the accredited universities (18) had been in operation between 5 to 9 years followed by 10 accredited universities, which have been in existence for over 25 years. The majority (13) in this category were public accredited universities. The results indicated that there have been many accredited universities, which have been established over the last nine years. This was an indicator that accredited universities in Kenya have undergone several cycles of strategic plans and therefore have strong established backgrounds suitable for an empirical study.

The researcher sought to establish the status of each accredited university, whether public or private. Table 4.21 shows that 25 public and 18 private accredited universities were studied. This is explained by 58.1 percent responses from public and 41.9 percent from private accredited universities. The status of the accredited universities in Kenya was mandatory in order to facilitate comparison of performance. There are major differences in ownership where public accredited universities in Kenya are state-owned and are established through Acts of Parliament. Private accredited universities are, however owned by private investors. The type of ownership presents unique strengths, weaknesses, opportunities and threats in the environments in which they operate. The status therefore provided a basis of comparison in performance.

Table 4.21: Ownership Structure

Ownership structure	Frequency	Percent
Private	18	41.9
Public	25	58.1
Total	43	100.0

Source: Field Data, 2017

Table 4.21 showed that accredited public universities with a higher percentage (58.1 percent) compared to 41.9 percent. This implied that there were more accredited public universities than accredited private universities in Kenya. This was explained by the high population of students seeking public universities (through the Joint Admissions Board), which provides government subsidies to the students through low cost accommodation and fees. This implied expansion of accredited public universities to meet the high demand for university education.

A well-established accredited university in Kenya can be rated by the type of customers/students they have, whether local or foreigners. The researcher asked the respondents to indicate what type of customers their institutions handled (local or foreign or both). The results of the findings are shown in Table 4.22 which indicates that 23.3 percent of the accredited universities in Kenya had only local customers while 76.7 percent had both local and foreign customers. This meant that most of the accredited universities in Kenya were well established enough to attract both local and foreign customers (students, suppliers, donors). Public accredited universities were highly locally oriented in terms of student attraction who were mainly government sponsored students.

Table 4.22: Comparison of Principal Target Market and Ownership Structure

Ownership structure	Principal Target Market		Total
	Local	Both Local and Foreign	
Public	7	18	25
Private	3	15	18
Total	10	33	43

Source: Field data, 2017

The researcher sought to identify the academic programmes offered in both private and public accredited universities in Kenya. An accredited university with a sound foundation is capable of offering both undergraduate and postgraduate degree programmes. The results of the study showing the academic programmes are shown in Table 4.23 which indicated 14 percent of the accredited universities in Kenya offered undergraduate degree programmes only and 86 percent of both private and public accredited universities in Kenya offered both undergraduate and postgraduate degree programmes.

Table 4.23: Comparison of Academic Programmes and Ownership Structure

Ownership structure	Academic Programmes Offered		Total
	Undergraduate Only	Undergraduate and Postgraduate	
Public	3	22	25
Private	3	15	18
Total	6	37	43

Source: Field Data 2017

The results in Table 4.23 indicated that the highest academic programmes offered at both undergraduate and postgraduate were 86 percent compared to 14 percent of the accredited universities, which offered undergraduate course only. This was explained by the fact that the accredited universities, which offer both undergraduate and postgraduate degree courses have majority of masters degree programmes in addition to the undergraduate courses with a few offering doctorate programmes. The accredited public universities have a higher demand due to government-sponsored students.

4.5 Descriptive Statistics of the Key Study Variables

Descriptive statistics, such as mean, standard deviation, Coefficient of Variation (CV) and independent sample t-test, were used to analyze the study variables SC, OL, TMT characteristics and PAUK. The findings were presented according to the study and based on the objectives of the study. This made it possible to compare the results between public and private accredited universities in Kenya using independent sample t-test, standard deviation, mean and coefficient of variance. Orucho (2014) study on public and private universities used a comparative analysis to show the difference in performance with a different integration of variables. This study used an integration of SC, OL and TMT characteristics.

4.5.1 Strategic Choice Descriptives

The first objective of this study was to establish the relationship between SC and PAUK. The SC was conceptualized as diversification (entry in new markets, new degree programmes and acquisition of new constituent colleges), strategic alliances (collaborations with research institutes, exchange programmes and public private partnerships) and internal restructuring (automation of processes, decentralization of colleges, creation of income generating units, establishment of schools).

In this study, 15 descriptive statements on SC were investigated using a five point Likert type scale ranging from 1 = not at all to 5 = to a very large extent broken down as follows 1 – 1.49 not at all, 1.5 – 2.49 small extent, 2.5 – 3.49 moderate, 3.5 – 4.49 large extent and $\geq$ 4.5 very large extent. The respondents were asked to indicate the state of SCs in their institutions with an aim of establishing the extent to which they are practiced and the results are shown in Table 4.24.

Table 4.24: State of Strategic Choice

Statement	Number			Mean			Standard Deviation			t value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which organizational structure supported speedy development of products and services	43	18	25	4.14	4.28	4.04	1.037	1.018	1.060	26.177	25.0
Extent to which organization's value chain was continuously transformed from being protective to being productive	43	18	25	4.19	4.22	4.16	.958	.943	.987	28.666	22.8
Extent to which institution strives to aligned its structure into end to end process rather than departments	43	18	25	4.12	4.11	4.12	1.074	.900	1.201	25.140	26.0
Extent to which internal reorganization was pursued to optimize on business opportunities	43	18	25	4.23	4.28	4.20	.996	1.074	.957	27.863	23.5
Extent to which institution made business processes simplified at minimal cost	43	18	25	4.37	4.39	4.36	.788	.698	.860	36.406	18.0
Extent to which decision makers were persistent in implementing new policies to achieve desired result	43	18	25	4.37	4.39	4.36	.757	.698	.810	37.890	17.3
Extent to which institution made new investments with lower returns but with higher probabilities of success	43	18	25	4.00	4.00	4.00	1.134	1.234	1.080	23.132	33.5
Extent to which the institution had a variety of degree courses	43	18	25	3.95	3. 67	4.16	.925	.840	.943	28.038	23.4

Table 4.24 contd…

Statement	Number			Mean			Standard Deviation			t value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which the institution had been introducing new products/degree programmes to existing markets	43	18	25	3.93	3.78	4.0	.799	.647	.889	32.269	20.3
Extent to which the institution invested in income generating units that have high chances of high returns	43	18	25	4.00	3.89	4.08	.845	.758	.909	31.035	21.1
Extent to which the institution focused on acquisition of new constituent colleges	43	18	25	3.07	2.89	3.20	1.316	1.231	1.384	15.291	42.8
Extent to which the institution entered into mutually beneficial arrangements with other organizations to share risks and costs	43	18	25	4.12	4.33	3.96	.879	.907	.841	30.723	21.3
Extent to which the institution continued to participate in several public private partnerships	43	17	25	4.07	4.29	3.92	1.091	.920	1.187	24.189	26.8
Extent to which the institution considered its supply chain partners as key business partners	43	18	25	4.19	4.28	4.12	1.029	.958	1.092	26.664	24.5
Extent to which the institution collaborated with international institutions through foreign students exchange programmes	43	18	25	4.14	4.17	4.12	1.187	1.249	1.166	22.871	28.6
Grand mean and standard deviation				4.05			0.98				

Key: Co Combined (private and public universities)
Pr Private universities
Pu Public universities

The results in Table 4.24 above show a grand mean of 4.05, which illustrates that SC was practised to a large extent in all the accredited universities in Kenya. The mean scores for the items ranged between 3.07 to 4.37 for both public and private accredited universities in Kenya. However, the mean scores for private accredited universities ranged between 2.89 to 4.39 while public accredited universities had mean scores ranging from 3.20 to 4.36. Most of the items had mean scores above 4.5. Striving to make business processes simplified at minimal cost and decision makers' persistence in SCs which implemented new policies to achieve desired results had the highest mean score of 4.39 in the private accredited universities in Kenya. This indicated that the majority of the respondents were in agreement to a large extent that decision makers were result oriented through simplified business processes that are cost effective. This was closely followed by a mean score of 4.36 by the public accredited universities with the same statements, implying that the respondents agreed to a large extent that the decision makers were committed to achieving results through simplified and cost effective business processes. They were also receptive to implementation of new policies.

Extent to which institution invested in income generating units that had high chances of return had a mean score of 4.08 in public accredited universities and 3.89 in private accredited universities. This implied that management of both categories of accredited universities practised the strategy of creating income generating activities to supplement the ever increasing cost of running the institutions in addition to the inadequate investor/government funding. The simplified cost-effective business processes and implementation of new policies that were result oriented were indicators of internal restructuring. The results implied that majority of the top managers in accredited universities were committed to implementation of business processes that were simplified and result oriented for improved performance.

New degree programmes and current degree programmes were the core business of accredited universities in Kenya. The extent to which the institution offered a variety of degree courses had a mean score of 4.16 for public accredited universities compared to private accredited universities mean score of 3.67. This implied that the decision makers ensured that their respective accredited universities focused on offering a variety of degree courses, which attracted customers (students). The introduction of new products/degree programmes to existing and new markets had a mean of 4.0 for public accredited universities compared to a mean score of 3.78 for private accredited universities. This implied that focus on offering a variety of degree courses and the introduction of new degree programmes to existing markets and new markets were rated to a large extent.

Accredited universities contribute to economic development by offering degree programmes that are relevant to industrial development. The majority of accredited universities focused on diversification in new markets by introducing new products/degree courses as well as maintaining a variety of degree courses offered. It was, however found that the extent to which the institution focused on acquisition of new constituent colleges had the highest standard deviation of 1.384 implying that there was a high degree of variation among the respondent in the public accredited universities against a standard deviation of 1.231 in the private accredited universities. This could be attributed to the stringent measures on requirements for acquisition of new constituent colleges by CUE (2013) coupled with financial constraints.

Accredited universities contribute to the economic development by training and linking researchers and innovators to industry in pursuit of future success of business. The results of emphasizing on strategic alliances focusing on collaboration were manifested in the extent to which institution entered into mutually beneficial arrangements with other institutions/organizations to share risks and costs and had mean score of 4.33 for private accredited universities and 3.96 for public accredited universities. Participation in several public private partnerships had a mean score of 4.29 for private accredited universities and a mean score of 3.92 for public accredited universities.

The extent to which institution considered supply chain partners as key business partners had a mean score of 4.28 for private accredited universities against 4.12 for public accredited universities. Generally, both private and public accredited universities focused on the supply chain partners as key business partners although the private accredited universities practice was higher. Collaborations with international institutions through foreign students exchange programmes had a mean score of 4.17 and 4.12 for the private and public accredited universities, respectively. This indicated that the majority of accredited universities in Kenya focused on collaboration with international institutions through exchange programmes.

High variations were observed on focus on acquisition of new constituent colleges with a CV of 42.8 and a mean score of 3.07. New investments with lower returns but high probabilities of success with a CV of 33.5 and mean score of 4.00. These results illustrated that the respondents gave varied ratings for these statements implying that the extent to which institutions focused on acquisition of new constituent colleges and investments were issues of contention in the accredited universities in Kenya.

The extent to which decision makers were persistent in implementing new policies to achieve desired result was the least risky (CV = 17.3 percent), whereas extent to which the institution focused on acquisition of new constituent colleges was the most risky (CV = 42.8 percent). The results also showed large t-statistic values ranging between 15.29 and 37.89 implying that there was no significant difference between public and private accredited universities in Kenya with respect to entry into new markets, new degree programmes and acquisition of new constituent colleges.

4.5.2 Top Management Team Characteristics Descriptives

Previous studies on TMT characteristics have continued to attract research attention on how these characteristics affect organizational performance. Organizational processes have been linked to decisions by top management teams with characteristics such as demographic, psychological and behavioral. Studies on top management teams have been conceptualized using TMTs as an independent variable and how these characteristics affect performance (Wasike, 2016; Mkalama, 2014; Muchemi, 2013 and Pegels, Song & Young, 2000). This study has conceptualized TMT demographic characteristics s a moderator of the relationship between SC and OL. The demographics are observable and objective and therefore relevant for this study. They are the basis on which other characteristics such as psychological and behavioral emerge.

There were 16 descriptive statements on TMT characteristics which were investigated using a five point Likert type scale ranging from 1 = not at all to 5 = to a very large extent broken down as follows 1 – 1.49 not at all, 1.5 – 2.49 small extent, 2.5 – 3.49 moderate, 3.5 – 4.49 large extent and $\geq$ 4.5 very large extent. The respondents were asked to indicate the different OL levels in their institutions with an aim of establishing the extent to which they take place at individual, group and institutionalization. The results of the descriptive statistics findings for TMT characteristics are shown in Table 4.25.

Table 4.25: Top Management Team Characteristics

Statement	Number			Mean			Standard Deviation			t value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which age was considered a critical factor for top management teams	43	18	25	3.65	3.89	3.48	1.587	1.676	1.531	15.087	43.4
Extent to which young managers were rated highly due to their ability to be creative and innovative	43	18	25	3.84	4.06	3.68	1.090	1.056	1.108	23.094	28.3
Extent to which older managers were rated higher than younger managers due to their long and unique experience	43	18	25	4.02	4.44	3.72	1.282	.984	1.400	20.587	31.8
Extent to which there was an existing policy on age limit for the top management team members	43	18	25	3.77	3.94	3.64	1.541	1.589	1.524	16.037	40.8
Extent to which the institution had an existing policy on the gender rule for top management team members	43	18	25	3.49	3.33	3.60	1.298	1.414	1.225	17.625	37.1
Extent to which the institution was dominated by male top management team members	43	18	25	3.53	3.44	3.60	1.437	1.504	1.414	16.134	40.7
Extent to which there was ethnic balance within the institution	43	18	25	4.02	4.17	3.92	.831	.786	.862	31.762	20.6

Table 4.19 contd…

Statement	Number			Mean			Standard Deviation			t value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which the institution had a criteria of minimum level of academic qualification for the top management teams	43	18	25	4.23	4.39	4.12	1.192	1.092	1.269	23.285	28.1
Extent to which top management team members with postgraduate training were rated higher	43	18	25	4.30	4.50	4.16	1.124	.924	1.248	25.098	26.1
Extent to which appropriate functional background was an important requirement for top management team members	43	18	25	4.40	4.44	4.36	.929	.922	.952	31.012	21.1
Extent to which top managers had appropriate functional trajectory in the institution	43	18	25	4.20	4.28	4.16	.965	.958	.987	28.602	22.9
Extent to which top managers were specialized in operations management, general management or human resource management are rated higher	43	18	25	4.07	4.06	4.08	1.261	1.305	1.256	21.163	30.9
Extent to which there was an existing policy on minimum number of years one must serve in the institution before he qualifies to join top management team	43	18	25	3.95	3.78	4.08	1.413	1.592	1.288	18.342	35.7
Extent to which length of service of TMTs in the institution was regulated to a maximum number of years	43	18	25	4.09	3.89	4.24	1.394	1.676	1.165	19.252	34.0
Extent to which organizational tenure was important for top management team members in the institution	43	18	25	4.09	3.83	4.28	1.288	1.581	1.021	20.845	31.4
Grand mean and Std Deviation				3.97			1.2				

Source: Field Data 2017

Key: Co - Combined (private and public universities)

Pr - Private universities

Pu - Public universities

The results in Table 4.25 showed a grand mean of 3.97, which indicated that TMT characteristics of age, gender, ethnicity, educational level, functional and tenure affected PAUK to a large extent. The mean scores for the 15 items ranged between 3.49 and 4.40. However, the mean scores for accredited private universities was between 3.33 and 4.50 while the mean scores for accredited public universities ranged between 3.48 and 4.36. Extent to which appropriate functional background was an important requirement for TMT members recorded the highest mean score of 4.44 in accredited private universities against a mean score of 4.36 in accredited public universities. This, therefore meant that most of the respondents in the accredited universities in Kenya agreed to a large extent that functional background was an important requirement for TMT members.

Extent to which age was considered a critical factor for TMT members had a mean score of 3.89 in accredited private universities which meant that the majority of the respondents agreed to a large extent that age was a critical factor for TMT members. The mean score for the accredited public universities was 3.48 implying that most respondents agreed to a moderate extent for the same item. Extent to which young managers were rated highly due to their ability to be creative and innovative had a combined mean score of 3.84 meaning that most of the respondents agreed to a large extent that young managers were rated highly due to their creativity and innovativeness in the accredited universities in Kenya.

However, the extent to which older managers were rated higher than young managers due to their long and unique experience had a combined mean score of 4.02 implying that most of the respondents agreed to a large extent that the older managers had an advantage over the young manages due to their unique experience. The existence of a policy on age limit for TMT members manifested itself in the accredited universities in Kenya with a combined mean score of 3.77 meaning that the majority of respondents agreed to a large extent that the accredited universities had policies which had guidelines on age limit for TMT members.

The existence of a policy on the gender rule for TMT members had a mean score of 3.60 for accredited public universities which meant that most of the respondents in accredited public universities agreed to a large extent that gender rule was practised on a higher scale than accredited private universities (mean score 3.44). This was incompliance with the Kenya Constitution (2010), which stipulated that gender balance should be implemented in the public institutions. The extent to which the institution was dominated by male TMT members, had a mean score of 3.60 (large extent) in accredited public universities against a mean score of 3.44 (moderate extent) in accredited private universities.

Ethnic balance within the institutions was manifested in the accredited universities with a combined mean score of 4.02 meaning that ethnic balance was practised to a large extent across the accredited universities in Kenya. Educational qualifications were considered as an important factor in recruitment of TMT members in the accredited universities as evidenced by a high combined mean score of 4.50.

Extent to which top managers had appropriate functional trajectory in the institution had a combined mean score of 4.20 implying that the majority of the respondents across the accredited universities agreed to a large extent that top managers had appropriate functional trajectory in the institutions. Extent to which top managers were specialized in operations management, general human resource management was rated higher and had a combined mean score of 4.07, which implied that the accredited universities in Kenya placed importance on key functional areas of the top managers.

The regulation of the maximum length of service for TMT members in the institution and the overall importance of TMT members in the institution had a combined mean score of 4.09 with a standard deviation of over one meaning that there were variations in the responses across the accredited universities in Kenya. The existence of a policy on the minimum number of years one must serve in the institution before he/she qualified to join TMT had a combined mean score of 4.09 meaning that the accredited universities had policies regulating this requirement to a large extent.

High variations were observed on the extent to which age was considered a critical factor for TMT members (CV = 43.4; combined mean = 3.65) extent to which there is an existing policy on age limit for TMT members (CV = 4.08; mean = 3.77); extent to which institution is dominated by male TMT members (CV = 40.7; mean = 3.53). The results showed variability in the respondents' ratings for these statements although they agreed to a large extent on the importance of TMT demographics in accredited universities in Kenya. The overall results showed t-statistics ranging between 15.087 to 31.762.

4.5.3 Organizational Learning Descriptives

Sixteen descriptive statements on OL were investigated using a five point Likert type scale ranging from 1 = not at all to 5 = to a very large extent broken down as follows 1 – 1.49 not at all, 1.5 – 2.49 small extent, 2.5 – 3.49 moderate, 3.5 – 4.49 large extent and $\geq$ 4.5 very large extent. The respondents were asked to indicate the different OL levels in their institutions with an aim of establishing the extent to which they take place at individual, group and institutionalization. The results of the descriptive statistics findings for OL are shown in Table 4.26.

Organizational learning theorists (Levitt & March, 1988, Cummings and Whorley, 2009) argue that OL is a process in which new insights are developed and these insights have the potential of influencing organizational behavior. The OL has also been defined as a process which aims at enhancing organizational capability to acquire and develop new knowledge. Strategic management scholars opine that SCs enable organizations to achieve specific objectives through OL. However, very few studies have been carried out to elucidate the relationship of the study variables. A recent study (Namada, 2013) conceptualized OL as a mediator but with different variables in a different context compared to this study.

Table 4.26: Organizational Learning

Statement	Number			Mean			Standard Deviation			t-value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which individuals were motivated to carry out the tasks which are assigned to them	43	18	25	3.72	3.72	3.72	.826	1.018	.678	29.542	22.2
Extent to which individuals were aware of the major challenges of the institution	43	18	25	3.74	3.89	3.64	.875	.900	.860	28.047	23.2
Extent to which individuals were an important source of information	43	18	25	4.12	4.28	4.00	.823	.895	.764	32.814	19.9
Extent to which individual goals conflicted with the individual goals of members of my team	43	18	25	2.21	1.61	2.64	1.186	.698	1.287	12.211	53.6
Extent to which people worked closely with colleagues within their team to do their work properly	43	18	25	3.81	3.83	3.80	1.006	1.043	1.000	24.859	26.4
Extent to which the institution valued group work	43	18	25	4.19	4.06	4.28	.880	.998	.792	31.199	21.0
Extent to which one group shared lessons learned with other groups	43	18	25	3.88	4.06	3.76	.931	.873	.970	27.349	23.9
Extent to which the individual goals of members of the team were well aligned	43	18	25	3.91	3.94	3.88	.868	.998	.781	29.523	22.1
Extent to which organizational structure was as a result of what was learned by employees	43	18	25	3.95	3.94	3.96	1.068	1.211	.978	24.274	27.0
Extent to which the organization had an effective conflict resolution system which guided work groups	43	18	25	3.86	3.72	3.96	.889	.826	.935	28.489	23.0

Table 4.26: Contd…

Statement	Number			Mean			Standard Deviation			t-value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which cultural values were shaped by different ideas	43	18	25	4.02	3.94	4.08	.831	.873	.812	31.762	20.6
Extent to which different points of view were encouraged in group work	43	18	25	3.86	3.94	3.80	.889	.938	.866	28.489	23.0
Extent to which group resolutions were used to improve service delivery	43	18	25	4.12	4.17	4.08	.793	.786	.812	34.034	19.2
Extent to which the institution's systems were compatible with critical issues facing service delivery	43	18	25	4.02	3.89	4.12	.859	.963	.781	30.720	21.3
Extent to which the institution had developed research policies that guide innovation and technological advancements	43	18	25	3.86	3.83	3.88	.941	.985	.927	26.912	24.3
Extent to which the institution had an intellectual property management office to protect knowledge acquired through research project	43	18	25	3.77	3.56	3.92	.996	.984	.997	24.801	26.4
Grand mean and standard deviation				3.81			0.91				

Source: Field Data 2017

Key: Co - Combined (private and public universities)
Pr - Private universities
Pu - Public universities

Table 4.26 shows a grand mean score of 3.81, which was an indicator that OL takes place to a large extent in the accredited universities in Kenya. The mean scores ranged from 2.21 and 4.19 for both accredited public and private universities (combined). However, the mean score for private accredited universities ranged between 1.6 to 4.28, while the mean score for accredited public universities ranged between 2.64 to 4.28. Most of the items had mean scores above 3.6. Extent to which individuals were an important source of information had the highest mean score of 4.28 in the private accredited universities compared to mean score of 4.00 in the accredited public universities which meant that accredited private universities placed a slightly higher rate of value to individuals' contributions in providing relevant information for improved performance than accredited public universities. This means that the majority of the respondents were in agreement that although both accredited private and public universities placed a high rate of value to individuals as an important source of information, the accredited private universities had a higher rate.

Awareness by individuals of the major challenges which faced the institution had a mean score of 3.89 in accredited private universities and 3.64 in accredited public universities which implied that the majority of respondents in both accredited universities in Kenya agreed to a large extent that individuals took cognizance of the challenges that the institutions undergo. The extent to which individual goals of members of the team conflicted with the institution's overall goals had a low mean score of 1.61 in accredited private universities and 2.64 in accredited public universities with a high standard deviation of 1.186 for both accredited universities. This implies that there were variations in the responses by respondents in both accredited universities and also indicates that individual goals of the decision makers were aligned to the overall institutional goals (combined mean score 3.91). This resonates with Senge (1990) who posits that OL takes place through individuals within organizations at different levels.

Organizational learning takes place at group level where the group team members share their ideas, skills and expertise. The extent to which the institution valued group work had the highest mean score of 4.28 in the accredited public universities with a mean score of 4.06 for accredited private universities. This implied that the majority of the respondents agreed to a large extent that accredited universities in Kenya valued group work. Extent to which people worked closely with colleagues within their team had a mean score of 3.83 for accredited private universities and a mean score of 3.80 for accredited public universities implied that the majority of respondents agreed that individuals valued each other's contribution within their respective work groups.

The extent to which one group shared lessons learned with other groups had a combined mean score of 3.88. However, accredited private universities had a higher mean score of 4.06 compared to a mean score of 3.76 for accredited public universities. This means that the majority of respondents agreed to a large extent that learning experiences were shared by different groups within the accredited universities in Kenya. This was done through various meetings at department level, college academic board meetings, senate meetings and university management board meetings among others. Extent to which group resolutions were used to improve service delivery had a combined mean score of 4.12 which indicates that many respondents were in agreement that service delivery was improved when the institutions took cognition of work groups' resolutions.

When learning has taken place at individual and group level, the knowledge is shared, integrated and embedded in the organization – institutionalization. This was manifested by creation of core values, culture and organizational structure. The extent to which cultural values were shaped by different ideas had a combined mean score of 4.02 which means that the majority of the respondents agreed to a large extent that institutions cultural values are shaped by the different ideas of different individual and work groups. The extent to which the institutions systems were compatible with critical issues facing service delivery had a higher mean score of 4.12 for accredited public universities compared to accredited private universities which had a mean score of 3.89 with the majority respondents who agreed to a large extent that the institutions' systems were aligned to service delivery.

The extent to which the institution had developed research policies that guided innovation and technological advancements had a combined mean score of 3.86 meaning that the majority of the respondents were in agreement to high extent that innovation and technological advancements were guided by research policies developed by the accredited universities in Kenya. The extent to which the institution had an Intellectual Property Management Office (IPMO) to protect knowledge acquired through research projects had a combined mean score of 3.92. Most respondents agreed to a large extent that IPMO existed in the accredited universities in Kenya.

High variations were observed on the extent to which individual goals of members of the team conflict with the overall goals with a CV of 53.6, combine mean of 2.21. The results indicate that the respondents gave varied rating for this statement. This means that many respondents were in disagreement with this item. The overall results show t-statistics ranging between 12.21 and 31.765.

4.5.4 Customer Perspective Descriptives

Top managers in a business are concerned with the performance of the organization. Performance measurement is crucial but difficult to implement and this is why some of the organizations in the same industry perform better than others. The top managers have to find ways of improving performance by satisfying the needs of customer, employees and shareholders (Kaplan & Norton, 1996).

This study used nine items based on 5-point Likert type scale descriptive statements on customer perspective ranging from 1 = not at all to 5 = to a very large extent broken down as follows 1 – 1.49 not at all, 1.5 – 2.49 small extent, 2.5 – 3.49 moderate, 3.5 – 4.49 large extent and $\geq$ 4.5 very large extent. Some of the items included regular customer satisfaction survey; customer complaints; customer/institution collaborations; qualified and experienced employees and improved organizational processes. The respondents were asked to indicate the different OL levels in their institutions with an aim of establishing the extent to which they take place at individual, group and institutionalization. The results of the descriptive statistics findings for customer perspective are shown in Table 4.27.

Table 4.27: Customer Perspective

Statement	Number			Mean			Standard Deviation			t-value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which customer complaints were responded to promptly	43	18	25	4.14	4.22	4.08	.915	1.003	.862	29.667	22.1
Extent to which customer surveys were conducted regularly	43	18	25	3.98	4.06	3.92	.963	.998	.954	27.070	24.1
Extent to which customer satisfaction was assessed regularly	43	18	25	4.09	4.11	4.08	.921	1.077	.812	29.141	22.5
Extent to which the organization received compliments from customers	43	18	25	4.26	4.06	4.40	.954	1.211	.707	29.268	22.3
Extent to which established customers collaborated with the institution	43	18	25	4.37	4.33	4.40	.900	1.138	.707	31.843	20.5
Extent to which students and researchers are the institution's core customers	43	18	25	4.49	4.56	4.44	.910	1.097	.768	32.360	20.2
Extent to which students had access to e-journals and books for reference	43	18	25	3.95	4.00	3.92	.785	.840	.759	33.009	19.8
Extent to which students had adequate access to field and laboratory equipment	43	18	25	3.86	3.72	3.96	.966	1.274	.676	26.216	25.0
Extent to which students were guided by highly qualified and experienced academic and support staff	43	18	25	4.12	4.11	4.12	.697	.900	.526	38.712	16.9
Grand mean and standard deviation				4.14			0.89				

Source: Field Data 2017

Key: Co - Combined (private and public universities)
Pr - Private universities
Pu - Public universities

Table 4.27 showed a combined grand mean score of 4.14 implying that customers were regarded to a large extent as key players in the accredited universities in Kenya. A standard deviation of 0.89 indicates a high variability in rating by the respondents across the accredited universities in Kenya. The mean score for all the 9 items ranged between 3.86 and 4.49. However, the mean score for accredited private universities was between 3.72 and 4.56 while accredited private universities had mean scores ranging from 3.92 to 4.44. Most of the items had combined mean above 4.00.

Extent to which customer complaints were responded to promptly had a higher mean score of 4.22 in accredited private universities compared to accredited public universities with a mean score of 4.08. This implies that most of the respondents agreed to a large extent that complaints were handled promptly across that accredited universities in Kenya. Regular customer surveys and customer assessment manifested themselves across accredited universities in Kenya to a large extent with combined mean scores of 3.98 and 4.00 respectively. This means that the majority of the respondents agreed to a large extent that there were regular customer surveys and customer satisfaction assessments across the accredited universities in Kenya. The extent to which the institution received compliments from customers had a combined mean score of 4.26 implying that most of the respondents agreed to a large extent that the accredited universities in Kenya are appreciated for services offered by customers.

Extent to which the established customers collaborated with the institution was rated with a combined mean score of 4.37, 4.33 for the accredited private universities while accredited public universities had a mean score of 4.40. This means that collaborations with established customers manifested themselves to a large extent across the accredited universities in Kenya. The importance of students and researchers as core customers was rated to a large extent with a combined mean score of 4.49. This implies that students and researchers played an important role as core customers. They were the main reason for the existence of accredited universities in Kenya.

Access to field and laboratory equipment had a combined mean score of 3.87 implying that the respondents rated this item to a large extent across the accredited universities in Kenya. The extent to which students were guided by highly qualified and experienced academic and support staff was rated with a combined mean score of 4.12 implying that there were policies which guided the recruitment of both teaching and non-teaching staff in the accredited universities in Kenya.

Extent to which students had adequate access to field and laboratory equipment had the highest CV of 25.0 with a combined mean of 4.12. This implied that although the respondents gave varied rating for this statement, the majority of the respondents agreed to a large extent that the accredited universities in Kenya availed laboratories and field equipment for learning and research. The overall results show t-statistics ranging from 26.216 to 38.712.

4.5.5 Descriptive Statistics for Learning and Growth

Learning and growth are key indicators of non-financial performance of organizations. Continuous learning through training at both individual and corporate level forms the foundation of growth in a knowledge based economy. It reflects that individuals who are employees of the organization. Some of the items which were measured using 5-point Likert type scale were: offer of degree programmes for specific target customers; innovation; increased linkages and collaborations; introduction of new degree programmes; research activities; curricula development; teaching and learning facilities; lecturer to student ratio and supervisor to student ratio.

Twelve descriptive statements on learning and growth were investigated using a five point Likert type scale ranging from 1 = not at all to 5 = to a very large extent broken down as follows 1 – 1.49 not at all, 1.5 – 2.49 small extent, 2.5 – 3.49 moderate, 3.5 – 4.49 large extent and $\geq$ 4.5 very large extent. The respondents were asked to indicate the different OL levels in their institutions with an aim of establishing the extent to which they take place at individual, group and institutionalization. The results of the descriptive statistics findings for learning and growth are shown in Table 4.28.

Table 4.28: Learning and Growth

Statement	Number			Mean			Standard Deviation			t-value	CV
	Co	Pr	Pu	Co	Pr	Pu	Co	Pr	Pu		
Extent to which degree programmes were offered to specific target customers	43	18	25	4.07	4.28	4.04	.799	1.018	1.059	33.415	19.6
Extent to which institution conducted staff training	43	18	25	3.88	4.22	4.16	.762	.943	.987	33.400	19.6
Extent to which institution supports innovation	43	18	25	4.37	4.11	4.12	.846	.900	1.201	33.896	19.3
Extent to which there were increased linkages and collaborations	43	18	25	4.26	4.28	4.20	1.002	1.074	.957	27.846	23.5
Extent to which the institution aggressively introduced new degree programmes	43	18	25	3.88	4.39	4.36	.851	.698	.860	29.925	21.9
Extent to which there were increased research activities	43	18	25	4.09	4.39	4.36	1.151	.698	.810	23.322	28.1
Extent to which there were increased number of schools, colleges and campuses	43	18	25	3.56	4.00	4.00	1.007	1.237	1.080	23.166	28.2
Extent to which there was an effective curricula development policy which incorporates the views of the stakeholders	43	18	25	4.02	3.67	4.16	.801	.840	.943	32.919	19.9
Extent to which curriculum was reviewed regularly	43	18	25	3.91	3.78	4.04	.840	.647	.889	30.503	21.4
Extent to which the university had state of the art technological teaching and learning facilities	43	18	25	3.65	3.89	4.08	.842	.758	.909	28.439	23.0
Extent to which there was equity in lecturer to student ratio	43	18	25	3.49	2.89	3.20	.827	1.231	1.384	27.651	23.6
Extent to which there was equity in supervisor to student ratio	43	18	25	3.35	4.33	3.96	.686	.907	.840	32.009	20.4
Grand mean and standard deviation				3.87			0.87				

Source: Field Data 2017

Key: Co - Combined (private and public universities)
Pr - Private universities
Pu - Public universities

Table 4.28 depicted a grand mean of 3.87 implying that learning and growth is a key aspect to a great extent in the PAUK. A grand standard deviation of 0.87 showed a high variability in the rating by the respondents across the accredited universities in Kenya. The combined mean score for all the twelve items ranged between a mean score of 3.49 and 4.37. However, the mean scores for all the items for accredited private universities was between 2.89 and 4.39 while the accredited public universities had mean scores ranging between 3.20 and 4.36. Most of the items had mean scores above 4.00.

Extent to which degree programmes were offered to specific target customers was rated to a large extent by majority of respondents with a combined mean score of 4.07. Staff training across the accredited universities in Kenya had a combined mean score of 3.88 meaning that the institutions invested in staff training to increase efficiency in performance. Innovation was rated to a large extent with a combined mean score of 4.37. Accredited universities are expected to be market leaders in technological advancements and innovation which contribute to economic development (CUE, 2013).

Increased linkages and collaborations manifested themselves across the accredited universities in Kenya to a large extent with a combined mean score of 4.26 meaning there was increased industry linkages and public private partnerships. Extent to which the institution aggressively introduced new degree programmes had a higher mean score of 4.39 for accredited private universities compared to a mean score of 4.36 for the accredited public universities. This shows that the majority of the respondents agreed to a large extent that accredited universities focused on introducing new degree programmes which were relevant.

The extent to which there were increased research activities was rated with a mean score of 4.39 in accredited private universities while the mean score for accredited public universities was 4.36. The increase in the number of schools, colleges and campuses was rated with equal mean scores of 4.00 for the accredited universities in Kenya. Existence of an effective curricula development policy which incorporated views of the stakeholders manifested itself to a large extent across the accredited universities in Kenya with a mean combined score of 4.02. However, regular review of curricula had a higher mean score of 4.04 in the accredited public universities compared to 3.78 for the accredited private universities implying a rating to large extent by the respondents.

The extent to which the university had state of the art technological teaching and learning facilities had a higher mean score of 4.08 in the accredited public universities compared to 3.78 for the accredited private universities. Equity in lecturer to student ratio had a combined mean score of 3.49 but with high standard deviation of 1.231 for accredited private and 1.384 for accredited public universities meaning high variance in responses rating of equity in lecturer to student ratio. Equity in supervisor to student ratio had a higher mean score of 4.33 in accredited private universities compared to 3.96 for accredited public universities.

The highest variation was observed on the extent to which there were increased number of schools, colleges and campuses which had a CV of 28.2 with a combined mean of 3.56. The results show variability of the respondents' rating for this statement. However, they rated to a large extent, the importance of creation of schools, acquisition of constituent colleges and increased number of campuses to meet the increased demand in university education. The overall results show t-statistics ranging between 23.166 to 33.896.

4.6 Influence of Strategic Choice on Organizational Performance

The study had four specific objectives, which were tested; the first objective was to establish the influence of SCs on PAUK, the second objective was to determine the moderating influence of TMT characteristics on the relationship between SC and PAUK, the third objective was to establish the intervening influence of OL on the relationship between SC and PAUK and the fourth objective was to establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK. From the four objectives, four hypotheses were formulated and tested.

The coefficient of determination, F-test and t-test were used to determine the goodness-of-fit, overall significance and the individual significance, respectively of the study variables. The decision criteria used was that if p-value was equal or less than alpha (α) 0.05 (p-value $\leq$ 0.05) the null hypothesis was rejected, otherwise the hull hypothesis was not rejected. For each hypothesis, a model equation of the variables relationship was computed which showed the marginal changes of the independent variables.

The moderating relationship between the independent variable and the dependent variable was tested using hierarchical regression analysis, which involved three regression models. The interaction term was introduced in the third model and the results of the moderation test were interpreted by assessing the significance of the interaction term. The changes in R^2 and standardized beta coefficients were also assessed. The mediation test was done using Baron and Kenny (1986) stepwise method.

4.6.1 Strategic Choice, Research Grants and Endowment Funds

Research is a core function of the accredited universities in Kenya. The accredited universities receive and manage research grants and endowment funds and therefore the performance of these universities can be measured based on the amount of the funds received for research purposes. This study therefore sought to test the strength of the relationship between strategic choice and research grants and endowment funds. The results are shown in Table 4.29.

Table 4.29: Relationship between Strategic Choice and Research Grants and Endowment Funds

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.320[a]	.102	.077	119.686

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	588.000	1	588.000	4.105	.050[b]
	Residual	516.000	36	143.000		
	Total	574.000	37			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-126.212	102.104		-1.234	.225
	Strategic Choice	995.852	491.837	.320	2.026	.050

a. Dependent Variable: research grants and endowment funds
a. Predictors: (Constant), Strategic Choice
Source: Field data 2017

Table 4.29 shows R^2 of .102 which means 10.2 percent variation in research grants and endowment funds was explained by SC. The remaining 89.8 percent is explained by other factors not considered in the study. The model had a p-value significance of 0.05 which revealed a statistically significant model. This shows that strategic choice has a significant influence on research grants and endowment funds in accredited universities in Kenya.

The Analysis of Variance (ANOVA in Table 4.29 shows the model has a p-value of 0.05 while F – statistics has a value of 4.105. This implies that the overall model was robust with a significance of of a p-value + 0.05. This, therefore supports the positive relationship between SC and Research Grants and Endowment funds.

4.6.2 Strategic Choice and Percentage Growth

Strategic choice shows the various options of strategies employed by organizations to improve performance. These strategies connect the organization to the environment (Johnson et. al., 2009). Percentage growth was a component of non-financial performance in this study. The study sought to establish the relationship between strategic choice and percentage growth. The results of this relationship are shown in Table 4.30.

Table 4.30: Relationship between Strategic Choice and Percentage Growth

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.033[a]	.001	-.025	170.781	2.120

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1207.578	1	1207.578	.041	.840[b]
	Residual	1137.915	39	2916.254		
	Total	1138.493	40			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	34.895	145.044		.241	.811
	Strategic Choice	1.418	6.970	.033	.203	.840

a. Dependent Variable: percentage growth
b. Predictors: (Constant), Strategic Choice
Source: Field data 2017

The results in Table 4.30 show that R^2 is 0.001 which means 0.1 percent variation in percentage growth was explained by strategic choice. The remaining 99.99 percent is explained by other factors not considered in the study. The model had a p-value significance of .840 which revealed a no statistically significant model. This showed that SC had no significant influence on percentage growth in the accredited universities in Kenya.

The Analysis of Variance in Table 4.30 shows that the model has a p-value which is greater than 0.05 while the F-statistics is equal to 0.041. This implies that the overall model was not significant with a p-value >0.05. These results support the finding that there is no significant relationship between SC and percentage growth.

4.6.3 Strategic Choice and Financial Performance

Previous studies (Namada, 2013) focused on non-financial measures of organizational performance only. Chavravarthy (1986) in his study used financial measures only and found that profitability did not distinguish the differences in strategic performance of organizations. This study tested the following hypothesis.

The study therefore sought to establish the relationship between strategic choice and financial performance of accredited universities in Kenya. Table 4.31 shows the results of the analysis which was done.

Table 4.31: Relationship between Strategic Choice and Financial Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.305[a]	.093	.068	503081766.16174

ANOVA[a]					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	9352.000	1	9352.000	3.695	.063[b]
Residual	9111.000	36	2532.000		
Total	1004.000	37			

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-5152.395	4527.900		-1.138	.263
Strategic Choice	4160.551	2164.716	.305	1.922	.063

a. Dependent Variable: financial performance

b. Predictors: (Constant), Strategic Choice

Source: Field data 2017

Table 4.31 illustrates that R^2 is .093 which means 9.3 percent variation in financial performance was explained by strategic choice. The remaining 90.7 percent is explained by other factors not considered in the study. The model had a p-value significance of .063 which is greater than 0.05 the model was not statistically significant. This showed that strategic choice had no significant influence on financial performance of accredited universities in Kenya.

The Analysis of Variance in Table 4.31 shows a p-value which is greater than 0.05 while the F-statistics is equal to 3.695. Although the model was robust, it was not significant. Implying that it supported the negative relationship between SC and Financial Performance.

4.6.4 Relationship Between Internal Restructuring and Performance of Accredited Universities in Kenya

This study sought to assess the strength of the relationship between internal restructuring and PAUK and also test the hypothesis that there was no relationship between internal restructuring and non-financial PAUK. The results of the analysis which was done are shown in Table 4.32.

Table 4.32: Influence of Internal Restructuring on Organizational Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770[a]	.592	.582	1.88650

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	211.859	1	211.859	59.529	.000[b]
	Residual	145.914	41	3.559		
	Total	357.773	42			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.589	1.500		5.725	.000
	SCIR restructuring	.536	.070	.770	7.716	.000

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), SC internal restructuring

From Table 4.32, R^2 was 0.592 which meant that 59.2 percent of the variation in PAUK was explained by internal restructuring. The remaining 40.8 percent was explained by other factors not considered in this study. On the overall significance, the model was significant because p-value (0.000) was less than alpha ($\alpha = 0.05$), hence the null hypothesis that there was no relationship between internal restructuring and PAUK was rejected at $\alpha = 0.05$, that is internal restructuring influenced non-financial PAUK. The estimation linear regression model for non-financial of PAUK was defined as follows: NFP = 8.589 + 0.536SCIR (where NFP is non-financial performance and SCIR is strategic choice internal restructuring), which meant that if internal restructuring was increased by one unit, NFP of PAUK would go up by 0.536 units.

The results of the Analysis of Variance in Table 4.32 shows a p-value less than 0.05 with F-statistics of 59.529. These results imply that the model was robust with overall significance. The results support the significant relationship between Internal Restructuring (a predictor of SC) and NFP.

4.6.5 Relationship Between Diversification and Performance of Accredited Universities in Kenya

The study sought to assess the strength of the relationship between diversification and PAUK and also to test the hypothesis that there was no relationship between diversification and non-financial PAUK. The results of the analysis which was done are as shown in Table 4.33.

Table 4.33: Influence of Diversification on Organizational Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.666[a]	.444	.430	2.20265		
ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158.855	1	158.855	32.742	.000[b]
	Residual	198.918	41	4.852		
	Total	357.773	42			
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.432	1.697		6.147	.000
	SCD	.502	.088	.666	5.722	.000

a. Dependent Variable: Non-financial performance
b. Predictors: (Constant), Strategic choice diversification
Source: Field data 2017

From Table 4.33, R^2 was .444 which implied that 44.4 percent variation in performance was explained by diversification. The remaining 55.6 percent was explained by other factors not considered in this study. On the overall significance, the model was significant because p-value (.000) was less than alpha ($\alpha = 0.05$), hence the null hypothesis that there was no relationship between diversification and PAUK was rejected at alpha = 0.05, that is, diversification influenced non-financial PAUK. The estimation linear regression model for non-financial PAUK was defined as follows: NFP = 10.432 + 0.502(SCD) (where NFP in non-financial performance and SCD is strategic choice, diversification) which meant that if diversification was increased by one unit, non-financial PAUK would go up by 0.502 units.

The results of the Analysis of Variance in Table 4.33 shows a p-value less than 0.05 with F-statistics of 32.742. These results imply that the model was robust with overall significance. The results support the significant relationship between Diversitification (a predictor of SC) and NFP.

4.6.6 Relationship Between Strategic Alliances and Performance of Accredited Universities in Kenya

The study sought to assess the strength of the relationship between strategic alliances and PAUK and also to test the hypothesis that there was no relationship between strategic alliances and non-financial PAUK. The results of the analysis which was done are shown in Table 4.34.

Table 4.34: Influence of Strategic Alliances on Organizational Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698[a]	.488	.475	2.14064

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	174.477	1	174.477	38.076	.000[b]
	Residual	183.293	40	4.582		
	Total	357.770	41			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.300	1.598		6.445	.000
	SCA	.465	.075	.698	6.171	.000

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), SC alliances

Source: Field data 2017

Table 4.34, R^2 was .488 which implied that 48.8 percent variation in performance was explained by strategic alliance. The remaining 51.2 percent was explained by other factors not considered in this study. On the overall significance, the model was significant because p-value (.000) was less than alpha ($\alpha = 0.05$), hence the null hypothesis that there was no relationship between strategic alliance and PAUK was rejected at $\alpha = 0.05$, that is, strategic alliance for non-financial PAUK was defined as follows: NFP = 10.300 +.465(SCA) (where NFP in non-financial performance and SCA is strategic choice, strategic alliance) which meant that if strategic alliance was increased by one unit, non-financial PAUK would go up by .465 units.

The results of the Analysis of Variance in Table 4.34 shows a p-value less than 0.05 with F-statistics of 38.076. These results imply that the model was robust with overall significance less than 0.05. The results support the significant relationship between Strategic Alliances (a predictor of SC) and NFP.

4.6.7 Strategic Choice and Performance of Accredited Universities in Kenya

The first objective was to establish the influence of SCs on PAUK and it was hypothesized that SCs has no significant influence on PAUK. The study, therefore sought to establish the influence of SCs on PAUK. The SC was operationalized as internal restructuring, diversification and strategic alliances. Internal restructuring indicators were automation of processes, decentralization of colleges, creation of income generating units, and establishment of schools. The indicators for diversification were entry in new markets, new degree programmes and acquisition of new constituent colleges, whereas indicators of strategic alliances were collaboration with research institutes, exchange programmes and public private partnerships. Non-financial indicator comprised of customer perspective, learning and growth and new business processes. The results of the analysis done are as shown in Table 4.35.

Table 4.35: Strategic Choice and Non-Financial Performance

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774[a]	.599	.589	1.89446

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	SC	.589	.076	.774	7.726	.000

a. Predictors: (Constant), strategic choice

b. Dependent Variable: Non Financial performance

Source: Field data 2017

Table 4.35 shows that R^2 was 0.599 which meant that 59.9 percent of variation in non-financial performance was explained by SC. The remaining 40.1 percent was explained by other factors not considered in the study. With respect to overall significance, the model was significant because the p-value (0.000) was less than α-value of 0.05, which meant that the null hypothesis was rejected and therefore SCs influence PAUK. The resulting estimation equation was NFP = 7.954 + 0.589SCs, which meant that if SCs were increased marginally, NFP of accredited universities in Kenya will go up by 0.589 units.

The results of the Analysis of Variance in Table 4.35 shows a p-value less than 0.05 with F-statistics of 59.686. These results imply that the model was robust with overall significance. The results support the significant relationship between SC and NFP.

4.7 Moderating Effect of Age on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

This study tested the moderating effect of age on the relationship between SC and PAUK. The hypothesis, which was tested was that there was no moderating effect of age on the relationship between SC and PAUK. The results of the analysis are shown in Table 4.36

Table 4.36: Moderation of Age on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.782[b]	.611	.591	1.88809	.013	1.270	1	39	.267	
3	.793[c]	.628	.599	1.87094	.017	1.718	1	38	.198	2.324

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	218.741	2	109.370	30.680	.000[c]
	Residual	139.030	39	3.565		
	Total	357.770	41			
3	Regression	224.755	3	74.918	21.403	.000[d]
	Residual	133.015	38	3.500		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	7.795	1.581		4.931	.000
	Strategic Choice	.672	.105	.882	6.372	.000
	age_tmt	-.079	.070	-.156	-1.127	.267
3	(Constant)	.759	5.591		.136	.893
	Strategic Choice	1.015	.282	1.332	3.600	.001
	age_tmt	.415	.383	.820	1.083	.286
	Interact_SC_age	-.023	.018	-1.335	-1.311	.198

a. Predictors: (Constant), Strategic Choice
b. Predictors: (Constant), Strategic Choice, age_tmt
c. Predictors: (Constant), Strategic Choice, age_tmt, Interact_SC_age
d. Dependent Variable: Non-financial performance

Source: Field data 2017

The results in Table 4.36 showed that the results were not significant because the p-values were greater than 0.05. This implied that age did not have a moderating effect on the relationship between SC and PAUK. The results of the Analysis of Variance in Table 4.36 shows a p-value less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 30.680 for Model 2 and 21.403 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.023 implying that although the models were robust, Age had no moderating effect on the relationship beween SC and NFP.

4.7.1 Moderation of Gender on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

This study tested the moderating effect of gender on the relationship between SC and PAUK. The hypothesis, which was tested was that there was no moderating effect of gender on the relationship between SC and PAUK. The results are shown in Table 4.37.

Table 4.37: Moderation of Gender on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.774[b]	.599	.578	1.91807	.000	.021	1	39	.885	
3	.827[c]	.685	.660	1.72298	.086	10.332	1	38	.003	2.440

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	214.289	2	107.145	29.123	.000[c]
	Residual	143.481	39	3.679		
	Total	357.770	41			
3	Regression	244.962	3	81.654	27.505	.000[d]
	Residual	112.809	38	2.969		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	7.966	1.602		4.973	.000
	Strategic Choice	.596	.091	.783	6.529	.000
	gender_tmt	-.009	.061	-.017	-.145	.885
3	(Constant)	-14.778	7.220		-2.047	.048
	Strategic Choice	1.691	.350	2.220	4.828	.000
	gender_tmt	1.498	.472	2.930	3.174	.003
	Interact_SC_gender	-.070	.022	-3.920	-3.214	.003

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Strategic Choice

c. Predictors: (Constant), Strategic Choice, gender_tmt

d. Predictors: (Constant), Strategic Choice, gender_tmt, Interact_SC_gender

Source: Field data 2017

The results in Table 4.37 showed that the results were significant because the p-values were less than 0.05. This implied that gender had a moderating effect on the relationship between SC and PAUK and the relationship can be expressed as NFP = -14.788+ 1.691SC + 1.498Gender – 0.070InteractSC meaning that if gender is increased by one unit, non-financial PAUK will go up by 1.498 units while one unit increase on the interaction between gender and SC, the non-financial performance of PAUK will go down by 0.070 units.

The results of the Analysis of Variance in Table 4.37 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 29.123 for Model 2 and 27.505 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.070.

4.7.2 Moderation of Ethnicity on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

The study tested the moderating effect of ethnicity on the relationship between SC and PAUK. The hypothesis which was tested was that there was no moderating effect of ethnicity on the relationship between SC and PAUK. The results of the analysis are shown in Table 4.38.

Table 4.38: Moderation of Ethnicity on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.827[b]	.683	.667	1.70402	.085	10.440	1	39	.003	
3	.835[c]	.697	.673	1.69035	.013	1.633	1	38	.209	2.317

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	244.527	2	122.264	42.107	.000[c]
	Residual	113.243	39	2.904		
	Total	357.770	41			
3	Regression	249.194	3	83.065	29.071	.000[d]
	Residual	108.577	38	2.857		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	5.244	1.650		3.178	.003
	Strategic Choice	.503	.074	.661	6.833	.000
	ethnicity_tmt	.223	.069	.312	3.231	.003
3	(Constant)	-2.636	6.380		-.413	.682
	Strategic Choice	.944	.353	1.239	2.677	.011
	ethnicity_tmt	.657	.346	.919	1.898	.065
	Interact_SC_ethnicity	-.024	.019	-.985	-1.278	.209

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Strategic Choice

c. Predictors: (Constant), Strategic Choice, ethnicity_tmt

d. Predictors: (Constant), Strategic Choice, ethnicity_tmt, Interact_SC_ethnicity

Source: Field data 2017

The results in Table 4.38 showed that the results were not significant because the p-values were greater than 0.05. This implied that ethnicity had no moderating effect on the relationship between SC and PAUK. The results of the Analysis of Variance in Table 4.38 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 42,107 for Model 2 and 29.071 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.024

4.7.3 Moderation of Educational Background on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

The study tested the moderating effect of educational background on the relationship between SC and PAUK. The hypothesis which was tested was that there was no moderating effect of educational background and the relationship between SC and PAUK. The results are shown in Table 4.39.

Table 4.39: Moderation of Educational Background on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.790[b]	.624	.604	1.85779	.025	2.595	1	39	.115	
3	.864[c]	.746	.726	1.54734	.122	18.219	1	38	.000	2.340

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	223.167	2	111.583	32.330	.000[c]
	Residual	134.604	39	3.451		
	Total	357.770	41			
3	Regression	266.789	3	88.930	37.143	.000[d]
	Residual	90.982	38	2.394		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	7.581	1.567		4.840	.000
	Strategic Choice	.496	.094	.652	5.256	.000
	education_tmt	.106	.066	.200	1.611	.115
3	(Constant)	-15.776	5.625		-2.804	.008
	Strategic Choice	1.738	.301	2.282	5.768	.000
	education_tmt	1.344	.295	2.528	4.554	.000
	Interact_SC_education	-.063	.015	-3.583	-4.268	.000

a. Dependent Variable: Non-financial performance
b. Predictors: (Constant), Strategic Choice
c. Predictors: (Constant), Strategic Choice, education_tmt
d. Predictors: (Constant), Strategic Choice, education_tmt, Interact_SC_education

Source: Field data 2017

The results in Table 4.39 showed that the results were significant because the p-values were less than 0.05. This implied that educational background had a moderating effect on the relationship between SC and PAUK and the relationship can be expressed as NFP = -15.776 + 1.738SC + 1.344educational background – 0.063interactSC meaning that if educational background is increased by one unit non-financial PAUK will increase by 1.344 units while with one unit increase on the interaction between educational background and SC, the non-financial PAUK will decrease by 0.063 units.

The results of the Analysis of Variance in Table 4.39 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 32.330 for Model 2 and 37.143 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.063.

4.7.4 Moderating Influence of Functional Background on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

The study tested the moderating effect of functional background on the relationship between SC and PAUK. The hypothesis which was tested was that there was no moderating effect of functional background on the relationship between SC and PAUK. The results are shown in Table 4.40.

Table 4.40: Moderating Influence of Functional Background on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.777[b]	.604	.584	1.90491	.006	.562	1	39	.458	
3	.829[c]	.688	.663	1.71392	.084	10.176	1	38	.003	2.345

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	216.252	2	108.126	29.798	.000[c]
	Residual	141.518	39	3.629		
	Total	357.770	41			
3	Regression	246.145	3	82.048	27.931	.000[d]
	Residual	111.625	38	2.938		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	7.803	1.601		4.873	.000
	Strategic Choice	.525	.115	.689	4.561	.000
	functbacgrd_tmt	.069	.092	.113	.750	.458
3	(Constant)	-12.850	6.633		-1.937	.060
	Strategic Choice	1.562	.341	2.051	4.578	.000
	functbacgrd_tmt	1.255	.381	2.059	3.295	.002
	Interact_SC_functbacgrd	-.057	.018	-3.111	-3.190	.003

a. Dependent Variable: Non-financial performance

a. Predictors: (Constant), Strategic Choice

b. Predictors: (Constant), Strategic Choice, functbacgrd_tmt

c. Predictors: (Constant), Strategic Choice, functbacgrd_tmt, Interact_SC_functbacgrd

Source: Field data 2017

The results in Table 4.40 showed that the results were significant because the p-values were less than 0.05. This implied that functional background had a moderating effect on the relationship between SC and PAUK and the relationship can be expressed as NFP = 1.562SC + 1.255functional background – 0.057interactSC. This meant that if functional background was increased by one unit, non-financial PAUK will increase by 1.255 units while with one unit increase on the interaction between functional background and SC, the non-financial PAUK will decrease by 0.057 units.

The results of the Analysis of Variance in Table 4.40 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 29.798 for Model 2 and 27.931 for Model 3. These results imply that the models were robust with overall significant values less than 0.05.. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.070.

4.7.5 Moderation of Organizational Tenure on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

The study tested the moderating effect of organizational tenure on the relationship between SC and PAUK. The hypothesis which was tested was that there was no moderating effect of organizational tenure on the relationship between SC and PAUK. The results of the analysis are shown in Table 4.41.

Table 4.41: Moderation of Organizational Tenure on the Relationship Between Strategic Choice and Non-Financial Performance of Accredited Universities in Kenya

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.781[b]	.610	.590	1.89188	.011	1.109	1	39	.299	
3	.782[c]	.612	.581	1.91201	.002	.183	1	38	.671	2.428

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	218.181	2	109.091	30.479	.000[c]
	Residual	139.589	39	3.579		
	Total	357.770	41			
3	Regression	218.851	3	72.950	19.955	.000[d]
	Residual	138.919	38	3.656		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	7.832	1.582		4.950	.000
	Strategic Choice	.661	.102	.868	6.469	.000
	tenure_tmt	-.065	.062	-.141	-1.053	.299
3	(Constant)	5.159	6.444		.801	.428
	Strategic Choice	.803	.347	1.054	2.315	.026
	tenure_tmt	.091	.369	.196	.245	.808
	Interact_SC_tenure	-.008	.018	-.484	-.428	.671

a. Dependent Variable: Non-financial performance
b. Predictors: (Constant), Strategic Choice
c. Predictors: (Constant), Strategic Choice, tenure_tmt
d. Predictors: (Constant), Strategic Choice, tenure_tmt, Interact_SC_tenure

Source: Field data 2017

The results in Table 4.41 showed that the results were not significant because the p-value were greater than 0.05. This implied that organizational tenure had no moderating relationship between SC and PAUK. The results of the Analysis of Variance in Table 4.41 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 30.479 for Model 2 and 19.955 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.008.

4.7.6 Moderating Effect of Top Management Team Characteristics on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

The study tested the moderating effect of TMT characteristics on the relationship between SC and PAUK. The hypothesis which was tested was that there was no moderating effect of TMT characteristics on the relationship between SC and PAUK. The results of the analysis are shown in Table 4.42.

Table 4.42: Relationship Between Strategic Choice, Top Management Team Characteristics and Non-Financial Performance

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.774[b]	.599	.578	1.91848	.000	.004	1	39	.948	
3	.823[c]	.677	.651	1.74513	.078	9.133	1	38	.004	2.203

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	214.228	2	107.114	29.102	.000[c]
	Residual	143.543	39	3.681		
	Total	357.770	41			
3	Regression	242.042	3	80.681	26.492	.000[d]
	Residual	115.729	38	3.045		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	SC	.589	.076	.774	7.726	.000
2	(Constant)	7.960	1.603		4.966	.000
	SC	.595	.121	.782	4.910	.000
	TMT	-.007	.100	-.011	-.066	.948
3	(Constant)	-16.530	8.234		-2.008	.052
	SC	1.749	.397	2.297	4.402	.000
	TMT	1.566	.528	2.488	2.964	.005
	SC*TMT	-.072	.024	-3.802	-3.022	.004

a. Dependent Variable: Non-financial performance
b. Predictors: (Constant), Strategic Choice
c. Predictors: (Constant), Strategic Choice, Top management team characteristics
d. Predictors: (Constant), Strategic Choice, Top management team characteristics, Interaction term between strategic choice and TMT characteristics

Source: Field data 2017

The results in Table 4.42 show that the results were significant since the p-values were less than 0.05. This implied that TMT characteristics had a moderating relationship between SC and PAUK and the relationship can be expressed by NFP = 1.749SC + 1.566TMT - 0.072interactSC. This meant that if TMT characteristics was increased by one unit, non-financial PAUK will increase by 1.566 units while one unit increase on the interaction between TMT characteristics and SC, the Non-Financial PAUK will decrease by 0.072 units.

The results of the Analysis of Variance in Table 4.42 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 29.102 for Model 2 and 26.492 for Model 3. These results imply that the models were robust with overall significance. However, when the interaction term was introduced, there was a negative Unstandardized Beta of -0.072.

4.8 Mediating Effect of Organizational Learning on the Relationship Between Strategic Choice and Performance of Accredited Universities in Kenya

The study tested the mediating effect of OL on the relationship between SC and PAUK. The hypothesis which was tested was that there was no mediating effect of OL on the relationship between SC and PAUK. The results are shown in Table 4.43.

Table 4.43: Relationship Between Strategic Choice, Organizational Learning and Performance of Accredited Universities in Kenya

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.841[b]	.708	.693	1.63749	.109	14.539	1	39	.000	1.701

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	253.197	2	126.598	47.214	.000[c]
	Residual	104.574	39	2.681		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	SC	.589	.076	.774	7.726	.000
2	(Constant)	5.642	1.494		3.776	.001
	SC	.265	.108	.348	2.466	.018
	OL	.468	.123	.539	3.813	.000

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Strategic Choice, Organizational learning

c. Predictors: (Constant), Strategic Choice

Source: Field data 2017

The results in Table 4.43 show that there was mediation - both the independent and intervening variables had a significant influence on the dependent variable with p-values of 0.018 and 0.000 for SC and OL, respectively. The results showed that SC explained 59.9 percent of the variation in non-financial performance. However, when OL was introduced in model 2, the explained variation improved from 59.9 percent to 70.8 percent implying that the influence of OL on non-financial performance was significant. The null hypothesis was rejected since there was a significant mediating effect of OL on the relationship between SC and PAUK and therefore OL mediates the relationship between SC and PAUK. The estimated linear regression equation was NFP = 5.642 + 0.265SC + 0.468OL, which meant that if SC and OL goes up by one unit, NFP will go up by 0.265 units and 0.468 units, respectively and OL had more impact than SC.

The results of the Analysis of Variance in Table 4.43 shows p-values less than 0.05 for Model 1 and Model2 with F-statistics of 59.686 for model 1 and 47.234 for Model 2. The results in Table 4.43 therefore, imply that the models were robust with overall significant values less than 0.05.

In addition to the stepwise regression analysis, a correlation matrix was computed to confirm existence of mediation in order to assess the influence of OL on the relationship between SC and non-financial performance. The first step was to assess the correlation between SC and OL (Table 4.44). In step two, the correlation between OL and non-financial performance was tested.

Table 4.44: Correlation Between Strategic Choice and Organizational Learning

		Strategic Choice	Organizational learning
Strategic Choice	Pearson Correlation	1	
Organizational learning		0.790**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field data 2017

The results in Table 4.44 show that there was a positive and significant correlation (r = 0.790) between SC and OL. Table 4.45 shows the results of correlation analysis between OL and non-financial performance.

Table 4.45: Correlation Between Organizational Learning and Performance

		Organizational learning	Non-financial performance
Organizational learning	Pearson	1	
Non-financial performance	Correlation	0.809**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field data 2017

The results in Table 4.45 indicated that there was a significant and positive correlation (r = 0.809) between OL and non-financial performance. In comparing the correlation results in Tables 4.44 and 4.45 it shows that in both cases, the coefficient signs were positive and significant. This implied that the mediating influence of OL on the relationship between SC and PAUK was supported.

4.9 Joint Effect of Strategic Choice, Organizational Learning, Top Management Team Characteristics and Performance of Accredited Universities in Kenya

The study sought to establish the joint influence of OL and TMT characteristics on the relationship between SC and PAUK and the following hypothesis was tested - joint effect of TMT characteristics and OL is not significantly greater than the individual effect of the same on the relationship between SC and PAUK.

An analysis was done to establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK. The SC was conceptualized as the independent variable, OL as the mediating and TMT characteristics as the moderating while performance was the dependent variable. Data was analyzed using hierarchical regression analysis and the results are shown in Table 4.46.

Table 4.46: Joint Effect of Organizational Learning and Top Management Team Characteristics on the Relationship Between Strategic Choice and Non-Financial Performance

Model Summary[d]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.774[b]	.599	.578	1.91848	.000	.004	1	39	.948	
3	.842[c]	.708	.685	1.65731	.109	14.261	1	38	.001	1.705

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	214.228	2	107.114	29.102	.000[c]
	Residual	143.543	39	3.681		
	Total	357.770	41			
3	Regression	253.397	3	84.466	30.752	.000[d]
	Residual	104.373	38	2.747		
	Total	357.770	41			

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	SC	.589	.076	.774	7.726	.000
2	(Constant)	7.960	1.603		4.966	.000
	SC	.595	.121	.782	4.910	.000
	TMT	-.007	.100	-.011	-.066	.948
3	(Constant)	5.604	1.519		3.690	.001
	SC	.241	.141	.317	1.715	.094
	TMT	.023	.087	.037	.270	.788
	OL	.471	.125	.542	3.776	.001

a. Predictors: (Constant), Strategic Choice

b. Predictors: (Constant), Strategic Choice, Top management team characteristics

c. Predictors: (Constant), Strategic Choice, Top management team characteristics, Organizational learning

d. Dependent Variable: Non-financial performance

Source: Field data 2017

The results in Table 4.46 showed that model 1 explained 59.9 percent of the variations in non-financial performance. This implied that SC alone when OL and TMT characteristics are excluded explained 59.9 percent of the variations in performance. When TMT characteristics were introduced in model 2, the variation in non-financial performance remained the same at 59.9 percent and this meant that TMT had no contribution when included. However, when OL was introduced explanatory power increased to 70.8 percent - model 3. The overall model was significant, because the p-value for model three was less than 0.05, however, SC and TMT were not significant.

The results of the Analysis of Variance in Table 4.46 shows p-values less than 0.05 for Model 1, 2, and 3 with F-statistics of 59.686 for model 1, 29.102 for Model 2 and 30.752 for Model 3. These results imply that the models were robust with overall significant values less than 0.05.

Table 4.47 shows the summary of tests of the hypotheses and the decision taken.

Table 4.47: Summary of Research Objectives, Hypotheses and Decision

Objective	Hypotheses	Decision
Determine the influence of SC on PAUK	H_{11}: Internal restructuring does not influence PAUK	Rejected null hypothesis
	H_{12}: Diversification does not influence PAUK	Rejected null hypothesis
	H_{13}: Strategic alliances does not influence PAUK	Rejected null hypothesis
	H1b: SC does not influence financial performance	Failed to reject null hypothesis
	H_1: SC does not influence non financial performance	Rejected null hypothesis
Determine the moderating influence of TMT characteristics on the relationship between SC and PAUK	H_{21}: Age does not have a moderating effect on the relationship between SC and PAUK	Failed to reject null hypothesis
	H_{22}: Gender does not have a moderating effect on the relationship between SC and PAUK	Rejected null hypothesis
	H_{23}: Ethnicity does not have a moderating effect on the relationship between SC and PAUK	Failed to reject null hypothesis
	H_{24}: Educational background does not a moderating effect on the relationship between SC and PAUK	Rejected null hypothesis
	H_{25}: Functional background does not a moderating effect on the relationship between SC and PAUK	Rejected null hypothesis
	H_{26}: Organization tenure does not have a moderating effect on the relationship between SC and PAUK	Reject null hypothesis
	H_2: TMT characteristics does not have moderating effect on the relationship between SC and PAUK	Rejected null hypothesis
Determine the intervening influence of OL on the relationship between SC and PAUK	H_3: OL has no significant intervening influence on the relationship between SC and PAUK	Rejected null hypothesis
Determine the joint effect of SC, OL and TMT characteristics on PAUK	H_4: Joint effect of SC, OL and TMT characteristics is not significantly greater than the individual effect of the same variables on PAUK	Rejected null hypothesis

Source: Research data, 2017

The chapter presented the study's response rate, reliability test, which was confirmed by Cronbach's alpha coefficient. The institutions' demographic profiles were also presented with an overview of the study's main variables and this was done through the descriptive statistics using mean scores, standard deviation, t-statistics and CV. In addition, the chapter highlighted the assumptions of linear regression analysis which met the conditions for hypotheses testing. There were four hypotheses that were derived from the four objectives of the study. The key findings were that OL had a significant mediating influence on the relationship between SC and PAUK.

CHAPTER FIVE

DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

This chapter presents a discussion of the research findings. The broad objective of this study was to establish the influence of SC, OL and TMT characteristics on the PAUK. Strategic choice was operationalized as internal restructuring, diversification and strategic alliances while the moderating variable was TMT characteristics and the mediating variable was OL.

The results of the tests of hypotheses were in comparison with previous empirical and theoretical propositions from extant literature confirming or refuting the findings. This discussion was guided by conceptual, empirical and theoretical foundations anchoring the study conceptualization. These theories included, IOE theory, RDT and the UET. The discussion was based on the four objectives of the study.

The study used both financial and non-financial measures. This was supported by previous studies (Orucho, 2014; Ombaka, 2014 & Muchemi, 2013) who used both financial and non-financial measures in different organizations in the Kenyan context. Velcu (2007) contends that organizations should use both financial and non-financial indicators to measure the performance of their organizations.

5.2 Preliminary Findings

The results of the study show that SC had a significant effect on non-financial PAUK. The discussion of the findings of the study was based on the four research objectives. The discussion was anchored in theory and previous studies and sought to find out how the study results were interpreted based on the four main study variables, SC, OL, TMT characteristics and PAUK as shown in the conceptual model of this study.

Strategic choice (the independent variable) was measured using three items while OL (the intervening variable) was measured using three items. The TMT characteristics, the moderating variable was measured using six items and performance was measured using three items. Four hypotheses were tested on the relationships to ascertain the study variables.

5.2.1 Strategic Choice and Performance of Accredited Universities in Kenya

The IOE theory anchors SC construct, which was the independent variable of this study. The IOE postulates that organizations achieve superior performance when there is a fit between the organizational SC and the environment. The first objective sought to establish the influence of SC on PAUK. Correlation analysis indicated that there was a high positive correlation between SC and non-financial PAUK. This showed that SCs with a strong orientation result in high organizational performance while SCs with a weaker inclination lead to poor performance.

Regression analysis also showed that SC explained 59.9 percent of the variation in non-financial PAUK. This meant that 40.1 percent variation in accredited universities' non-financial performance was explained by other factors not considered in this study. These results are consistent with IOE theory in connection with the relationship between SC and organizational performance. Porter (1981) pointed out that the development of IOE continues to attract industrial organizations research and some studies contend that SC an organization adapts determines organizational performance. Organizational performance has been at the heart of strategic management research for decades and it explains how organizations make SCs and how they manage the implementation if they have to attain improved performance.

According to Porter (1993), Pearce et al. (2012), SCs adopted by organizations are affected by the environment in which they operate and that the external environment determines how an organization responds to strategy and this in turn, informs performance. For organizations to operate optimally, they require TMTs with different demographics who influence the SCs. These TMTs interpret the environment and allocate resources to match the prevailing circumstances.

The IOE theory posits that organizations achieve superior performance when there is a fit between the organizational strategy and the environment. Strategic choices are made in order to align the organizations to the turbulence in the environment. This is attributed to RDT which explains that organizations are resource dependent on the environment for resources for survival and sustainability (Pfeffer & Salancik, 1978). It is these variations in the environment that prompt organizations to make SCs for the success of organizational performance. This is a pointer to why most strategic management literature focuses on the relationship between strategy and organizational performance.

The first objective together with the corresponding hypothesis sought to establish the influence of SC on PAUK. Statistical analysis was done to establish the percentage of variation in performance which was accounted for in line with the objective and the corresponding hypothesis. Correlation analysis indicated that there was a high positive correlation between SC and PAUK. This indicated that strong SCs yield superior organizational performance. These findings are supported by studies by Johnson et al. (2009) and Mintzberg and Waters (1985) who established that there was a positive relationship between strategy and organizational performance.

The results of the regression analyses established that the influence of SC on non-financial PAUK had positive relationship with $R^2 = 0.599$. This implied that SC accounted for 59.9 percent of variation of PAUK. This meant that 40.1 percent of the variation in performance was explained by other variables not considered in this study. The F statistic was 59.686 and the p-value 0.000. Since the calculated p-value was less than 0.05, it was concluded that the influence of SC on PAUK was statistically significant at 95 percent level of confidence. Carraresi et al. (2011) argue that SCs based on non-financial measures such as innovation, product positioning and chain relationship have a positive effect on performance.

Internal restructuring is a strategic management factor which is used by organizations to attain and sustain superior performance. This study established a strong relationship between internal restructuring and organizational performance. The structure-conduct-performance (S-C-P) of IOE theory (Bain, 1951 & Mason, 1939) explains organizational performance as a function of the industry's/ organizations structure.

This study's finding is supported by IOE theory, which further states that organizations achieve superior performance when there is a fit between the organization's strategy, the environment and structure. Managers have to provide and control the valuable, rare and inimitable resources to achieve enhanced performance through internal restructuring of simplified business processes that align the organization to structure. Carraresi (2011) in his study on Italian food Small and Medium Enterprises (SMEs) established a positive relationship between SCs based on innovation, product positioning and chain relationship development on performance. The study findings are in partial agreement since it used different variables.

The findings of this study also established a positive relationship between diversification and organizational performance. The study also established that there was a strong positive relationship between strategic alliances and organizational performance. An important theoretical contribution of this research was the empirical support it provided to IOE theory. In this study, internal restructuring, diversification and strategic alliances were the strategic options which can be used by organizations to align with the changes in the turbulent environment. Jennings and Disney (2006) concluded that organizations need to achieve adaptation to the environment through an integration of SCs. The findings of this study established positive relationships with non-financial performance. Conversely, Ogbeide and Harrington (2011) study supported the relationship with financial performance.

5.2.2 Strategic Choice, Top Management Team Characteristics and Performance of Accredited Universities in Kenya

The second objective of this study was to determine the moderating effect of TMT characteristics on the relationship between SC and PAUK. The TMT characteristics, the moderating variable of this study was anchored on UET developed by Hambrick and Mason (1984). The UET posits that organizational outcomes through SCs, are a reflection of the top managers who are the powerful actors in an organization (Hambrick & Mason, 1984; Hambrick, 2007; Hambrick et al., 2015). It is these top managers who scan the environment and interpret the information according to their perception. These are based on the observable attributes of age, gender, ethnicity, educational level, functional background and organizational tenure, among others. The other stimuli can be interpreted based on unobservable psychological attributes which includes individual values, cognitive values and personality traits (Finklestein & Hambrick, 1996).

This study deviated from the majority of past studies which have focused on TMTs as the independent variable and focused on TMT characteristics as a moderator between SC and PAUK. Secondly, the study focused on the observable TMT demographic characteristics of age, gender, ethnicity, educational background, functional background and organizational tenure. This is in agreement with Hambrick and Mason (1984), who argue that observable demographic TMT characteristics are preferred "in management selection/development" when considering organizational competitor analysis and performance.

Past studies on TMT characteristics have mixed findings; Van Knippenberg and Schippers (2007) argue that different demographic variables contribute to group bias, prejudice and discrimination. Finklestein and Hambrick (1996) established that, while TMT diversity was hypothesized to have similar effects of certain dimensions when applied empirically, variability in TMT demographic factors had different magnitudes and direction of influence.

From the results of the moderation of TMT characteristics on the relationship between SC and PAUK, as age, ethnic and organizational tenure increased, PAUK decreased. This can be attributed to the fact that some studies (Botwick, 1977; Awino, 2011; Muchemi, 2013) argue that young managers have versatile learning and cognitive abilities with latest technology than older managers whose knowledge capabilities diminish with age. However, Pfeffer (1983) on the contrary, argues that variation in values and attitudes result in conflicts which affect TMT cohesive action, development and ultimately performance. Further findings showed that team tenure leads to low performance and this could be explained by the fact that long tenured top managers usually resist change which leads to the organization's poor performance (Schmidt & Posner, 1983). The TMT tenure could further lead to stratification which may lower productivity.

Gender, educational level and functional background showed results that had a significant moderating effect on the relationship between SC and PAUK. This is consistent with SC theorist (Child, 1972), who argued that top managers in an organization are the ones who determine the future direction of the organization. However, the overall results of the regression showed an inverse moderating relationship between SC and PAUK. The findings of this study therefore contradict some past studies.

Weiner and Mahoney (1981) argued that top managers are powerful decision makers who have to choose among courses of action and therefore determine the fate of their organizations. In addition, Bantel and Jackson (1989) pointed out that high variations in TMT diversity results in top managers' creativity, more effective decision making and improved organizational outcomes.

The second objective of this study was to determine the influence of TMT characteristics on the relationship between SC and PAUK. Results of the regression analysis showed that TMT characteristics had a negative moderating effect on the relationship between SC and PAUK. However, p-value of 0.004 indicated TMT characteristics had an inverse influence on the relationship between SC and PAUK.

The negative moderating effect may be attributed to different reasons. Studies on TMT demographics have yielded both negative and positive results. The upper echelon theorists (Hambrick & Mason, 1984; Hambrick, 2007) argue that the top managers are the strategists in the industry who determine the organization's contour and direction. Recent studies however have found out that both the observable and unobservable characteristics of the TMTs influence performance (Awino, 2013, Kinuu, 2014). The complexity of the environmental conditions and the top managers' capabilities post a limitation on SCs which may be formulated, thus affecting organizational performance. Cyert and March (1983) opine that variables which affect choice are those that influence how a critical problem is defined by the top managers in an organization when they scan the environment.

When the individual demographics of age, gender ethnicity, educational background, functional tenure and functional background were regressed to determine the magnitude of their moderation effect on SC and non-financial PAUK, they yielded mixed findings. Age, gender, ethnicity and organizational tenure had inverse moderating effects on the relationship between SC and non-financial PAUK. On the other hand, educational background and functional background had statistically significant moderating influence on the relationship between SC and non-financial PAUK. These findings are consistent with previous studies on TMT characteristics (Hambrick & Mason, 1984, Muchemi, 2013) who established that there were both negative and positive effects of the variables on organizational performance.

These studies, however did not use TMT demographic characteristics as moderating variables as compared to this study which sought to test the moderating effect on the relationship between SC and non-financial PAUK. This study therefore bridged this gap by using TMT characteristics as the moderator and therefore established the magnitude of the effects of TMT demographic characteristics on organizational PAUK. In the analysis of top managers in the institutions, different perspectives should be considered depending on the complexity of the managerial functions and the prevailing environmental factors.

Child (1972) posits that SC perspective focuses on the top manager's decisions in order to adapt to the environment that explains the organizational outcomes. Organizational learning as informed by extant literature facilitates improved performance through a social learning process by managers in an organization (Andersen, 2006). However, it has been argued that a moderator variable may reduce or enhance the direction of the relationship between a predictor variable and a dependent variable , or it may even change the direction of the relationship between two variables from positive to negative or the other way round (Lindley and Walker, 1993)

5.2.3 Strategic Choice, Organizational Learning and Performance of Accredited Universities in Kenya

The third objective of this study was to establish the mediating influence of OL on the relationship between SC and PAUK. The results of this study showed that the strength of the relationship between SC and PAUK depend upon the strength of the type of SCs and the magnitude of OL that takes place from individuals, groups and institutional level. Strategic choices were strongest when OL levels were high and weakest when OL in accredited universities was low. To this extent, the results are consistent with IOE theory since there was a significant intervening effect of OL on the relationship between SC and PAUK.

Regression analysis showed that OL in accredited universities in Kenya strengthened the relationship between SC and PAUK by an additional 8.6 percent variation in performance. In model three of the joint effect of OL and TMT characteristics on the relationship between SC and PAUK, OL showed a high R^2 of 0.708.

When each of the indicators of SC were treated as independent variables and regressed with non-financial PAUK, all the three indicators were found to be significant predictors of PAUK. The model revealed that internal restructuring was the most sensitive in influencing PAUK with R^2 of 0.592 followed by strategic alliances with R^2 of 0.488 and diversification with R^2 of 0.444.

This was an indicator of a major finding of this study that performance of accredited universities was significantly influenced by SC and OL. However, TMT characteristics had a negative influence on PAUK. Different strategies are formulated by organizations aimed at improved performance. However, there are strategies that are emergent when changes occur in the environment. New SCs emerge as OL takes place within the organization. According to Porter (1981), IOE theory contributes in explaining that SCs the organization adopts determines performance. Therefore, the learning that takes place at different levels in the accredited universities in Kenya determines their performance, ultimately this explains why organizations in the same industry like the accredited universities perform differently.

The third objective of this study was to establish the mediating influence of OL on the relationship between SC and PAUK. The results of the regression analysis showed a partial mediating effect on the relationship between SC and PAUK. The findings of this research indicated a positive and significant influence on non-financial performance.

Strategic choice was measured using internal restructuring, diversification and strategic alliances while OL in this study was measured in terms of individual learning, group learning and institutional learning which was expressed by the 4i framework of intuition, interpretation, integration and institutionalization (Crossan, Lane & White, 1999). Crossan and Bedrow (2003) posit that the 4i framework is the one which provides a link of the facets of OL.

According to Pfeffer and Salancik (1978), organizations respond to uncertainties in the environment and they depend on resources from the environment. The survival and performance of an organization depends on the available resources and how top managers control these resources (Daily, Dalton & Canella, 2003; Abdullah & Valentine, 2009). A combination of SCs in organizations can enhance their performance through learning. Hsu and Fang (2009) in their study observed that through learning, SC enables firms to improve product and service development. Crossan, Lane and White (1999) in their study argued that intuition which takes place at the individual level is interpreted and shared within work groups and finally culminates into the organization's systems, culture and structures. These studies concluded that OL capability is a significant mediator between intellectual capital and product development performance. Namada (2013) in her study established OL as a mediator between strategic planning systems and organizational performance.

This study, however, showed evidence that OL mediated the relationship between SC and non-financial performance. This study therefore demonstrated that if organizations have to adapt to the environment and formulate strategies to attain improved sustainable performance, the top managers should be capable of learning and interpreting the changes within the environment. A study (Tippins & Sohi, 2003) showed that OL has an important role in mediating the effects of information technology competency on firm performance. Their observation was that it is through learning that success oriented SCs are formulated to facilitate achievement of sustainable competitive advantage.

The result of this study showed evidence of a significant mediation of OL on the relationship between SC and organizational performance. The RDT (Pfeffer & Salancik, 1978) posits that in order for firms to survive they should attain and be able to utilize and control the resources from the environment. It is through learning as a dynamic capability that accredited universities can achieve competitive advantage for survival and sustainability.

5.2.4 Strategic Choice, Organizational Learning, Top Management Team Characteristic and Performance of Accredited Universities in Kenya

The fourth objective of this study was to establish the joint effect of SC, OL and TMT characteristics on PAUK. This study therefore contributed to the body of knowledge that IOE theory and SCs cannot operate in isolation. Organizational learning takes place at individual, group and integrated at institutional level. The top managers have to interpret the changes in the environment through learning and influence performance. However, overall results of the moderating effect of TMT characteristics on the relationship between SC and performance had a negative effect. This was consistent with the upper echelons theorists who found both positive and negative results.

The RDT emphasizes the need for organizations to manage and utilize available resources for survival and sustainability (Pfeffer & Salancik, 1978). In order to attain superior performance, these resources must be valuable, rare and inimitable (Peteraf, 1993). According to RDT, organizations need to develop ways to exploit their resources which are also being sought by other organizations.

Both private and public accredited universities in Kenya are resource dependent on private investors and the Government of Kenya, respectively. Therefore, SCs of these institutions in development and management of the available resources depends on OL that takes place in each institution and ultimately performance. This is supported by the strong relationship of OL on the relationship between SC and PAUK according to the findings of this study. The accredited universities, therefore must ensure that they develop SCs through learning in order to ensure that they attain dynamic capabilities through the resources they have and thus sustain competitive advantage.

There are very few studies, which have investigated the influence of SC, OL and TMT characteristics on PAUK. The SC was conceptualized as the independent variable, OL as the mediating variable, TMT characteristics as the moderating variable and PAUK as the dependent variable. The results of the regression analysis showed that SC had the highest contribution on non-financial PAUK with 59.9 percent variation in PAUK followed by OL with 14.26 percent. The TMT characteristics as a moderating variable had no contribution to PAUK. Therefore a significant finding of this study was that OL had a contribution to the relationship between SC and PAUK.

The results, therefore showed that the joint effect of SC, OL and TMT characteristics was greater than the individual effect of the same variables on the relationship between SC and PAUK. But these predictor variables had varied effect on organizational performance. The results of this study are consistent with Namada (2013) in her study on EPZs in Kenya found that OL significantly influenced non-financial performance. The study focused on non-financial measures only in EPZs in Kenya while this study filled the gap by focusing on both financial and non-financial PAUK.

Bustinza et al. (2010) focused their study on the direct relationship between OL and organizational performance. This study addressed this gap by interrogating the influence of SC, OL and TMT characteristics on PAUK. Irungu (2007) in his study on TMT characteristics on organizational performance focused on financial performance only, and as Chakravathy (1986) points out, it is necessary to use both financial and non-financial performance in measuring strategic performance.

The mean score for both private and public universities yielded high combined mean scores of OL meaning that great emphasis was placed on learning within the institutions at all levels. This was consistent with Namada (2013) who established that OL had a positive influence on organizational performance of EPZs in Kenya. This study focused its study on the accredited universities of Kenya and found consistent results. Previous studies on TMT characteristics have continued to attract research attention seeking to find out the extent to which these characteristics affect organizational performance.

These studies have conceptualized TMTs as independent variables and found mixed results in different organizational contexts (Pegels, Song & Young, 2000; Wasike, 2016, Mkalama, 2014 and Awino, 2013). This study bridged this gap by focusing on TMT characteristics as a moderator on the relationship between SC and PAUK. This study used demographics which are observable and objective which are relevant for this study (Hambrick & Mason, 1984). To confirm this hypothesis, the joint effect should be higher than when each of the moderating and mediating variable is individually considered.

The main research gaps which had been identified and highlighted were shown and this research was used to fill the gaps. Overall, the study established that the findings were consistent with previous studies with some in agreement and others in disagreement. These differences are attributed to variations in the conceptual, contextual and methodological gaps. Therefore, PAUK was significantly influenced by SC and OL. However, TMT characteristics has no significant moderating influence on PAUK. This is depicted in the resultant empirical conceptual framework as shown in Figure 5.1.

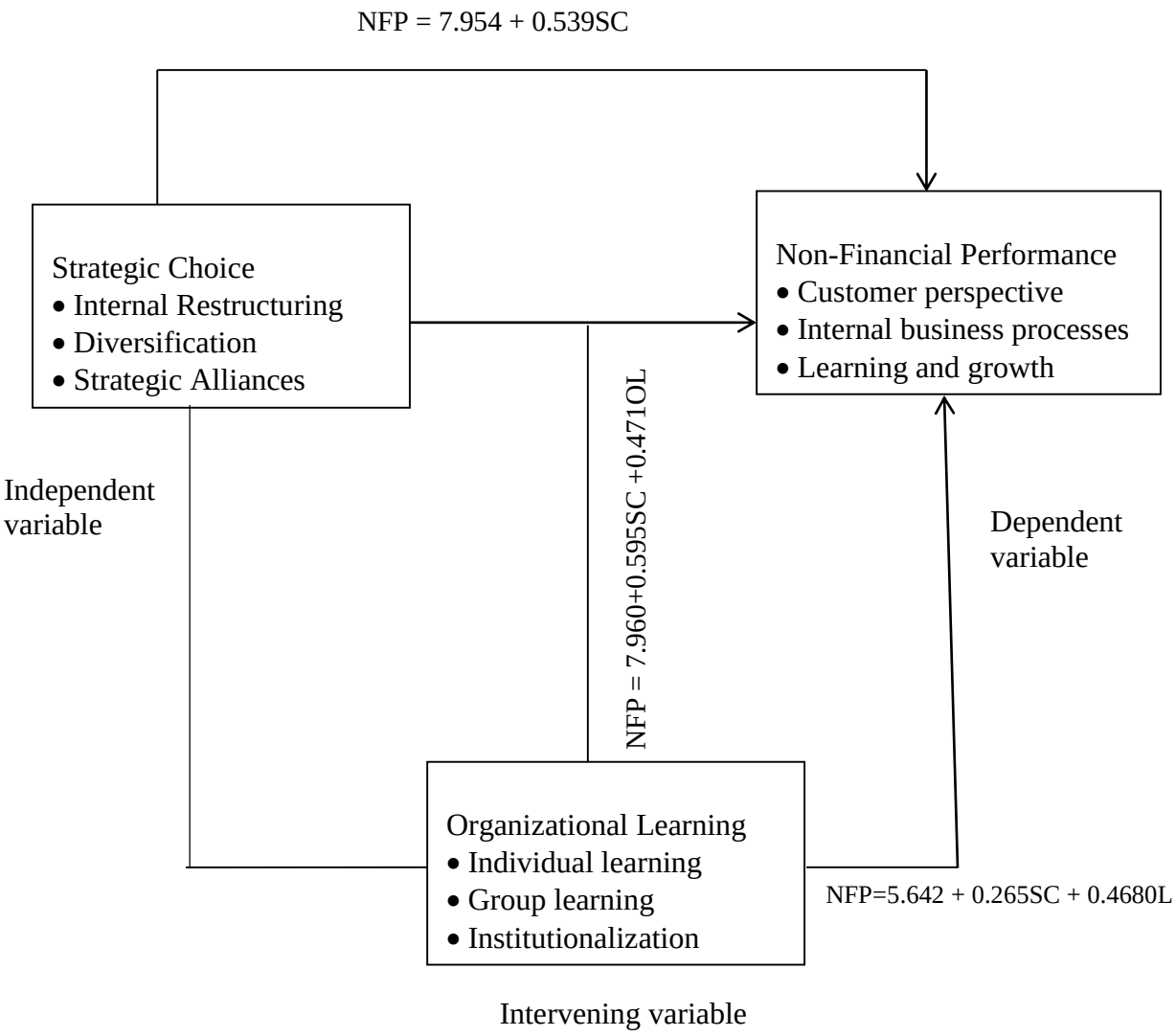

Figure 5.1: Relationship Between Strategic Choice, Organizational Learning and Performance of Accredited Universities in Kenya

Source: Researcher, 2017

Figure 5.1 presents the relationship between SC, OL and PAUK. The framework shows that SC has a direct influence on organizational performance. The framework also indicates that OL mediates the relationship between SC and organizational performance. In addition, the framework shows the joint influence of SC and OL on performance.

The results showed that R2 was 0.599 implying that 59.9 percent of the variation in NFP was explained by SC meaning that the remaining 40.1 percent was explained by other factors which were not considered in this study. The p-value was less than 0.05 implying that SC had a significant influence on NFP expressed in the equation NFP = 7.954 + 0.539SC. The third objective was to determine the intervening influence of OL on the relationship between SC and PAUK. The results of the analysis showed a variation in Model 2 from 59.9 percent to 70.8 percent when OL was introduced. The p-value for OL was less than 0.05 implying that OL mediates the relationship between SC and NFP. This is expressed in the equation NFP = 7.960+0.595SC+0.471OL.

The fourth objective was to determine the joint effect of SC, OL and TMT on PAUK and Model 1 showed that 59.9 percent of the variation in NFP was explained by SC alone when OL and TMT characteristics were excluded. This variation remained the same when TMT characteristics in Model 2 was introduced. However, the explanatory power increased to 70.8 percent when OL was introduced in Model 3. The F-statistics revealed that the models were robust with overall significance. This is expressed by the equation NFP = 5.642 + 0.265SC + 0.468OL.

Since the moderating variable does not explain organizational performance in accredited universities in Kenya, it would be necessary for future researchers to further explore this study to establish other moderating variables influencing this relationship with a view to find out the lack of contribution of the moderating effect.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The chapter presents a summary of the research findings, the conclusion and recommendations for further research. It highlights an overview of the study objectives from which the hypotheses were derived. It provides a summary of the study conceptualization, the population of the study and how data was collected. A brief summary of the outcomes of the descriptives of the study variables is provided. It gives a comparison of these outcomes across the accredited universities in Kenya.

The chapter also highlights the four major relationships of the study variables outlining the major findings. These lead to the conclusions that were drawn. Relevant recommendations based on the study findings have also been outlined. These recommendations if implemented could result in improved performance of PAUK including other institutions of higher learning in the African region.

The last part of this chapter provides a discussion on the implication of the study findings to theory, policy and managerial practice. Lastly, the chapter discusses the limitations of the study and how they were mitigated to ascertain credible results of the study. These limitations of the study notwithstanding, the chapter provides suggestions for further research based on the limitations.

6.2 Summary

The main objective of the study was to establish the influence of SC, OL and TMT characteristics on PAUK. The SC was the independent variable while OL was conceptualized as the intervening variable. The TMT characteristics was conceptualized as the moderating variable on the relationships between SC and PAUK. Four specific research objectives were formulated; the first objective was to establish the influence of SC and PAUK.

The second objective sought to determine the influence of TMT characteristics on the relationship between SC and PAUK. The third objective was to establish the intervening influence of OL on the relationship between SC and performance of accredited universities in Kenya. The fourth objective sought to establish the effect of OL, TMT characteristics on the relationship between SC and PAUK.

The population of the study were the accredited universities in Kenya which had been in operation for at least five years. The study adopted a descriptive survey for collection of data which was analyzed. Data was collected using a structured and semi-structured questionnaire to capture both primary and secondary data. The questionnaire used scales which were adopted from strategic management literature.

Primary data was collected using a self-administered questionnaire which targeted one Deputy Vice-Chancellor (Administration and Finance) or equivalent from each accredited university. The collection of data from one senior manager in each institution gave information relating to the institution. The collected data was analyzed using descriptive statistics, contingency tables, and linear regression analysis. Simple linear regression analysis was used to test the direct relationship of SC and performance. The Baron and Kenny (1986) model was used to test mediation and moderation while hierarchical regression analysis was used to test the joint effect of SC, OL, TMT characteristics and performance.

Organizational performance had the highest grand mean of 4.15 with a standard deviation of 0.89 for combined private and public accredited universities. The SC had a grand mean of 4.05 with a standard deviation of 0.87. The SC was strongly manifested through simplified business processes at minimal cost; implementation of new policies to achieve partnerships; participation in public/private partnerships; support by organization structure in development of products and services; internal reorganization to optimize on business opportunities and transformation of value chain from being protective to productive in both private and public accredited universities.

Organizational learning was strongly manifested across the accredited universities through individuals as a source of information; value of group work in the institution; shaping of cultural values by different ideas; use of group resolutions to improve service delivery; and compatibility of institution's systems with critical issues facing service delivery.

The attributes which were strong on TMT characteristics included importance of postgraduate training when rating TMT members; importance of minimum level of academic qualification; higher rating for older managers due to long and unique experience; ethnic balance; appropriate functional background and trajectory; specialization in operations management; general management in human resource; regulation of length of service of TMT members and importance of tenure of TMT members in the institutions.

Organizational performance was strongly manifested in the accredited universities through customer perspective attributes which included resolution of customer complaints; assessment of customer satisfaction; receiving compliments from customers; collaboration with established customers; student and researchers as institutions core customers; accessibility to e-journals and guidance to students by highly qualified and experienced academic and support staff.

Another aspect of organizational performance, learning and growth was strongly manifested in the accredited universities through offering degree programmes to specific target customers; staff training; support of innovation; increased linkages and collaborations; introduction of new degree programmes; increased research activities; increased number of schools, colleges and campuses; effective curricula development policy which incorporates news of stakeholders and regular review of curricula.

6.2.1 Strategic Choice and Performance of Accredited Universities in Kenya

The first objective of this study sought to establish the influence of SC on PAUK. The results of the simple linear regression analysis which were carried out to determine the influence of SC on PAUK revealed that there was no significant relationship between SC and financial PAUK. However, SC had a positive relationship with non-financial PAUK. When each of the three SC indicators were regressed with PAUK, internal restructuring was found to be the most significant predictor of PAUK with p-value less than 0.05, followed by strategic alliances with a p-value less than 0.05 and diversification with a p-value less than 0.05. All the three predictors of SC were found to be statistically significant with p-values less than 0.05.

The regression model relating each SC and PAUK was also established. These results were consistent with both theory and practice, with internal restructuring as the most consistent and stable indicator of PAUK with R^2 of 59.2. This was followed by strategic alliances with R^2 of 0.488. Diversification had the least R^2 of 0.444. However, all the three indicators were important predictors of SC since they had positive relationships between SC and PAUK.

In summary, the findings showed that there existed high positive correlation between SCs and PAUK. The relationship showed that SCs explained 59.9 percent of the variation in PAUK. Therefore, the null hypothesis was rejected since there was a significant relationship between SC and PAUK. These results were consistent with IOE theory in relation with SC and organizational performance. This theory emphasizes the organization's alignment to the environment through SC that lead to superior organizational performance (Bain, 1951; Mason, 1939; Porter, 1981).

6.2.2 Strategic Choice and Performance of Accredited Universities in Kenya as Moderated by Top Management Team Characteristics

The second objective of the study was to establish the moderating influence of TMT characteristics on the relationship between SC and PAUK. The study used the demographic observable TMT characteristics of age, gender, ethnicity, educational background, functional background and organizational tenure. The results showed that TMT characteristics had no moderating effect on the relationship between SC and PAUK.

However, when each of these indicators (age, gender, ethnicity, educational background, functional background and organizational tenure) were regressed for moderation on the relationship between SC and non-financial PAUK, they yielded mixed findings both negative and positive on the relationship between SC and non-financial PAUK. This is consistent with previous studies (Muchemi, 2013, Wasike, 2016) who found out that TMT characteristics have varying magnitudes of influence on organizational performance.

In summary, the findings showed that the strength of the relation between SC and PAUK was strongest with educational background and functional background in the accredited universities in Kenya but weakest with age, gender, ethnicity and organizational tenure. Therefore, there was an inverse or negative relationship between SC and PAUK. Although educational background and functional background were found to be the most consistent, age had the highest mean score in private accredited universities. These findings were consistent with the UET (Hambrick & Mason, 1984; Finklestein & Hambrick, 1996).

6.2.3 Strategic Choice, Organizational Learning and Performance of Accredited Universities in Kenya

The third objective of this study was to establish the intervening influence of OL on the relationship between SC and PAUK. One sample t-tests which were carried out on various levels of learning revealed varying results in the accredited universities in Kenya. However, the mediating influence of OL on the relationship between SC and PAUK was statistically significant.

Learning at individual level recorded the highest combined mean of 4.28 in both private and public accredited universities in Kenya. The results showed that the independent variable had a significant influence on the dependent variable with a p-value less than 0.05 respectively. The SC explained 59.9 percent of the variance in non-financial performance, and when OL was introduced in model two the explained variance improved from 59.9 percent to 70.8 percent implying that the influence of OL on non-financial PAUK was significant.

Therefore, the moderation of OL improved the relationship of SC and non-financial PAUK and thus, the null hypothesis was rejected since there was a significant mediating effect of OL on the relationship between SC and non-financial PAUK. From the findings, it was concluded that OL had a strong mediating effect on the relationship between SC and non-financial PAUK.

6.2.4 Strategic Choice, Organizational Learning, Top Management Team Characteristics and Performance of Accredited Universities in Kenya

The fourth objective was to establish the joint effect of OL and TMT characteristics on the relationship between SC and PAUK. The result of the findings was that the joint influence was greater than the individual influence of the three variables on the PAUK. This was consistent with previous studies that a mix of SCs, made by TMT characteristics with different demographic characteristics and continuous OL positively affects performance.

Model one explained 59.9 percent variation in non-financial PAUK implying that SC alone when OL and TMT characteristics were excluded, explained 59.9 percent of the variation in performance. When TMT characteristics was introduced in model two, the variation in non-financial PAUK remained the same. The study therefore, established that the predictor variables had varied effect on non-financial PAUK. The SC had the greatest effect on non-financial PAUK followed by OL. The null hypothesis four was therefore rejected since the joint effect of OL and TMT characteristics was significantly greater than the individual effect of the same variables on the relationship between SC and PAUK.

Generally, both private and public accredited universities recorded almost similar scores for most of the variables in the descriptive statistics. The coefficient of variation values were consistent for the combined accredited private and public universities. The study findings were a clear indication that if accredited universities were to remain relevant and competitive they needed to align to their environments by formulating strategies to foster growth and sustainability. Previous studies that echo these findings relate to scholars who found out linked strategy to organizational performance in the context of the higher education institutions in Kenya (Eshiwani, 1999, Karanja, 2011, Martin, 2000; Orucho, 2014).

6.3 Conclusion

The main objective of the study was to establish the influence of SC, OL, TMT characteristics on PAUK. The research findings established that there was statistically significant influence of SC, OL, TMT characteristics on PAUK. An analysis of the influence of three components of SC revealed that all the three components of internal restructuring, diversification and strategic alliances had a significant influence on performance. Therefore, these were established as important predictors of organizational performance.

The study examined the moderating influence of TMT characteristics on the relationship between SC and organizational performance using the interaction term. The moderation was supported but with a negative relationship which showed that TMT characteristics had a negative influence on the relationship between SC and performance. The UET proponents argue that TMT characteristics have both positive and negative influence on performance. It can be concluded that despite the fact that TMT characteristics had no moderation effect, in practice, in order for organizations to improve performance, they rely on appropriate top managers who when put together share their expertise and experience that translate to the success of the organization. This therefore is an indicator that future studies may be carried out focusing on a more comprehensive combinations of TMT characteristics in comparison with other variables.

The study also examined the mediating influence of OL on the relationship between SC and PAUK and the relationship was supported. The results showed that when OL was introduced, the explained variation in organizational performance improved. This indicates that OL had a strong positive contribution to the variation in organizational performance. The OL is a dynamic resource capability that takes place through individuals and groups in an organization. These individuals acquire skills and knowledge for aligning the organization to the environment to enhance organizational performance. As Senge (1990) points out that organizations that embrace OL are usually well prepared with networks, teams and structures with a high capacity of human resource which result in improved performance.

The joint influence of SC, OL, TMT characteristics on performance was statistically significant. It was, therefore concluded that SC, OL and TMT characteristics had a synergistic effect that translates to improved PAUK. This study, therefore draws conclusions based on theory, concepts and contextual orientation which serve to link SC, OL and PAUK that have been inconclusive. The most significant finding of this study was that OL had a positive mediating influence on the relationship between SC and organizational performance.

The higher education sector in Kenya has undergone restructuring in order to match the ever changing technological advancements and the emergence of universities both private and public to meet the increased customer needs. This calls for formulation of unique and relevant SCs that could steer the institutions in the dynamic future. This study focused on relevant variables which when combined in the right perspectives by the institutions would shed light on the earlier theoretical propositions that remain unresolved. Universities have increased in numbers over the years, yet they continue to operate with minimal facilities due to under-funding by the investors and the Government of Kenya.

This meant that if universities have to maintain capacity building, they have to invest in highly skilled manpower to meet the country's relevance in development while maintaining quality and equity in the education sector. In this regard, accredited universities need to develop a concrete manpower plan to generate top managers who would manage the resources available and develop and manage the strategic direction of the institutions. It is through these highly skilled individuals that OL takes place through acquisition, integration and interpretation of knowledge that shapes the organizational culture and core values that embrace the alignment of SCs to the environment for superior performance.

6.4 Recommendations

Following the findings of this study, several recommendations can be made. The study findings clearly show that SC had a positive influence on NFP. This study, therefore recommends that the accredited universities in Kenya should focus on the mix of SCs of internal restructuring, diversification and strategic alliances for improved performance. Universities should, therefore promote collaborative development in universities through curricula that is relevant to economic sectors operating in Kenya and other African countries. They should also promote joint research and contract research with local small and medium enterprises including multinational corporations which operate in Kenya. This would increase the research capacity of local universities, increase in number of publications and patents which may be useful to the economic sector.

The study also established that internal restructuring had a higher positive effect on organizational performance. This study, therefore recommends that organizations should have more emphasis on internal restructuring through automation of processes. These include online student applications, registration and payments to both staff and suppliers. Universities should focus on decentralization of colleges for ease of management, establishment of schools and creation of meaningful income generating units which could provide self-reliance and growth of these institutions.

The Government of Kenya and private investors should support the universities in their efforts to diversify by entering new markets, in order to increase their potential to reach the market, development of new degree programmes and acquisition of new constituent colleges. This will improve their relevance in the provision of increasing demand for higher education. OL should be embraced at all levels in the institutions since it perfects strategy evaluation, formulation and implementation. It is through OL that organizations learn from past mistakes and provide a stock of organizational memory. OL is a dynamic capability, a valuable, rare and inimitable resource that contributes to superior organizational performance in the face of competition as witnessed in accredited universities.

6.5 Implications of the Study

This section provides a synthesis of the research findings and their implications to theory, policy and practice. The findings having been interpreted and implications of the results to theory, policy and practice drawn, this sub-section delves into a discussion on how the findings can be used by strategic management scholars, policy makers and practitioners. The limitations of the study are discussed culminating to suggestions for future research.

The results confirm IOE theory, which is based on SCP paradigm and also demonstrates that SC, which an organization adopts determines the ease or difficulty of a firm's entry in an industry. The IOE theory explains that superior performance is attained when there is a fit between the organization and the environment. The environment has to be interpreted by top managers through learning therefore a policy framework on development of highly skilled manpower should be enforced in the institutions to manage the resources available. This could lead to eventual self-reliant as opposed to being resource dependent. The institutions can, therefore develop and manage resources that are valuable rare and inimitable that may be required by other institutions.

Organizational learning is concerned with the various levels of learning at individual, group and institutional and therefore complements SCs, which are formulated by TMTs with diversified characteristics that have an impact on organizational performance. The results of the study confirmed the linkage of IOE theory and UET and RDT with PAUK. The results of the study also established the mediation of OL on the relationship between SC and organizational performance, thus providing an extension of theory by explaining the different means through which SC indirectly influence PAUK.

All accredited universities should focus their efforts on research activities that generate large amounts of research funding that culminate in projects that are income generating to improve the financial sustainability and survival. More academic staff should be involved in sourcing for research grants instead of the few that attract minimal funding. As pointed out by Orucho (2014), it should be re-emphasized that accredited universities should focus on bigger income generating activities that can sustain the institutions while students fees and stakeholder funding can be supplementary.

The findings of the study contributed to the understanding that there is a linkage between IOE theory, UET and RDT. The IOE informs the environment strategy performance which explains SCs the organization adopts. While UET strategic thinking including the actions of TMTs interfaces with RDT that determines alignment and adaptations to the environment for resources. All these theories inform OL through the managers who learn about the environment in order to align their organizations to different strategic choices that have to be made for improved performance.

This study confirmed the influence of SC on organizational performance. Policy makers can use the results of this study when allocating resources both human and capital to implement the appropriate SCs of their organizations. The policy makers should prioritize SCs, which steer the organization to success in order to attain and sustain a competitive edge.

Following the confirmation of the mediation of OL on the relationship between SC and organizational performance, policy makers can develop frameworks that promote learning at all levels within organizations, which translate to dynamic capabilities and enhanced performance. Accredited universities can use OL to contribute to a knowledge based economy and enhanced knowledge management, which will culminate into superior innovations and technological advancement. This should be re-emphasized by the policy makers in the organizations.

The results of this study will be a useful source of information to managers and practitioners in the choice of strategies that propel the organizations to success through OL as a dynamic capability. These results will also be useful in the development of tools that match the best management practices in the accredited universities in Kenya. The study, therefore highlights some of SCs that influence PAUK.

The study established that SC had a positive effect on non-financial performance. The managers of accredited universities should focus on the three SCs of internal restructuring, diversification and strategic alliances, which focus on superior performance in growth and sustainability. The managers should focus on learning and growth together with customer perspective, as these are key players in strategic management of the accredited universities in Kenya. This is demonstrated by the results of the study, which showed that SC and OL provided a major contribution to improved performance.

The key customers are lecturers and students and therefore quality in university education and research is manifested in the ratio of student/lecturer involvement and qualified support staff. The accredited universities should embrace increased research which leads to innovation as a dynamic capability for superior performance. They should focus on increased income generating activities so that both accredited private and public universities can become self-reliant even in the absence of the private investors and government funding. This will ensure that the accredited universities can offer dynamic state of the art learning and teaching facilities that will promote innovations and technological advancements, which translate to financial stability, among others. This may lead to financial profitability, which could enable the institutions to hire highly qualified and specialized staff that will result in the provision of quality education.

6.6 Limitations of the Study

The first limitation was that the study used TMT characteristics as a moderator while most previous studies have used TMT characteristics as the independent variable. Apart from TMT characteristics, the relationship between SC and performance may be influenced by other external environmental factors which include political, economic, social, technological and legal frameworks. These factors were not controlled for in this study since they are external environmental factors.

Another limitation relates to the population of the study, which was located in various geographical parts of the country and the process of getting authority to collect data from the institutions was lengthy. It required a lot of documentation causing bureaucracy and time consuming. Although it took a lot of time and other resources to get the approvals for data collection, it was deemed necessary in order to ensure the data was provided by the relevant offers. The researcher had to sign a commitment to share the results of the study both in soft and hard copy with the institutions. The school's introductory letter, NACOSTI's authority letter and permit together with the researcher's formal request helped in getting access to the accredited universities.

The third limitation was that primary data was collected from only one respondent from each accredited university. However, common methods bias was mitigated by reference to secondary data to validate the primary data. Therefore, this limitation did not affect the credibility of the results, which were presented and discussed in this study.

6.7 Suggestions for Further Research

The finding on the mediating influence of OL between SC and performance was the main contribution of this study. Future studies may need to include other factors such as the external environment as the moderator as this may contribute to giving a meaningful relationship between OL and organizational performance.

The study focused on the accredited universities in Kenya and obtained results, which are useful in the Kenyan context. It would be useful for a replication of the study to be carried out in the next five years in order to confirm or refute the relationships between the variables. The mediating effect of OL on organizational performance may also be investigated in future studies. A case study on a few major accredited universities is recommended to facilitate collection of in-depth information.

The findings, which linked the three variables of SC in this study on organizational performance indicated that the influence of internal restructuring was greater than those of diversification and strategic alliances. Future studies on the influence of SC on performance will be useful in explaining IOE theory, RDT and UET further. Although, the findings of this study show that TMT characteristics had no contribution to organizational performance, a scrutiny of the descriptive analysis showed high means of some of the attributes in both the private and public universities in Kenya. Therefore, future studies may combine demographic characteristics, psychological characteristics and behavioral characteristics. The chapter provides a summary of the study according to the study objectives. The results were partially supported. Conclusions were drawn based on theory, policy and practice. Recommendations, which were drawn from the conclusions were explained. The chapter also highlighted the implications of the study and the main limitations of the study were discussed with an explanation of the mitigation.

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APPENDICES

Appendix I: Letter of Introduction from University of Nairobi

UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
SCHOOL OF BUSINESS
DOCTORAL STUDIES PROGRAMME

Telephone: 4184160/1-5 Ext. 225
Email: dsp@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

27th June, 2016

TO WHOM IT MAY CONCERN

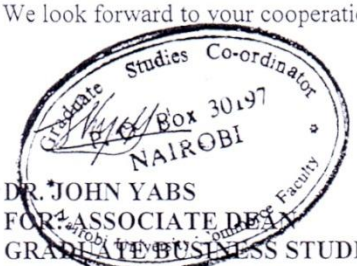
RE: ANGELINE MUKOKHO AYUYA – D80/71541/2011

This is to certify that, **ANGELINE MUKOKHO AYUYA : D80/71541/2011** is a Ph.D Candidate in the School of Business, University of Nairobi. The title of her study is: **"Strategic Choice, Organizational Learning, Top Management Team Characteristics and Performance of Accredited Universities in Kenya".**

The purpose of this letter therefore, is to kindly request you to assist and facilitate in carrying out the research/study in your organization. A questionnaire is herewith attached for your kind consideration and necessary action.

Data and information obtained through this exercise will be used for academic purposes only. Hence, the respondents are requested not to indicate their names anywhere on the questionnaire.

We look forward to your cooperation.



DR. JOHN YABS
FOR: ASSOCIATE DEAN
GRADUATE BUSINESS STUDIES
SCHOOL OF BUSINESS

JY/nwk

Appendix II: Researcher's Letter of Introduction

Angeline Mukokho Ayuya
University of Nairobi
School of Business
Email: mayuya@uonbi.ac.ke
Mobile No. 0722842233

August 17, 2016

The Vice-Chancellor
Strathmore University

REQUEST FOR AUTHORITY TO COLLECT DATA FOR PhD THESIS

I am a fully registered PhD Doctoral candidate in Strategic Management, Department of Business Administration at the School of Business, University of Nairobi. The topic of my research proposal is entitled: **Strategic Choice, Organizational Learning, Top Management Team Characteristics and Performance of Accredited Universities in Kenya.**

The context of my research is the accredited universities in Kenya. The purpose of this letter is to request for authority to collect data from the University of Nairobi. The respondent will be the Deputy Vice-Chancellor (Administration and Finance) or the Registrar (Administration) and the Finance Officer (for the Financial Performance).

I have attached a copy of the Questionnaire, Research Authorization Letter from NACOSTI, Authorization letter from School of Business and an extract of aim of study, objectives of the study and timeline for the study. I hereby commit that I will be ready to sign the Confidential Information Form (Appendix 1) and an Information Sharing Form (Appendix 2) and comply on completion of writing the thesis.

I look forward to your positive response.

ANGELINE MUKOKHO AYUYA
REG.NO. D80/71541/2011

Encls.(3)

Appendix III: Letter of Introduction from National Commission for Science, Technology and Innovation

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email:dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

NACOSTI/P/16/66382/12461

Date:

22nd July, 2016

Angeline Mukokho Ayuya
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Strategic choice organisational learning, top management teams and performance of accredited universities in Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for the period ending **22nd July, 2017.**

You are advised to report to **the Vice Chancellors of selected Universities, the County Commissioners and the County Directors of Education of the selected Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Universities.

The County Commissioners
Selected Counties.

The County Directors of Education
Selected Counties.

Appendix IV: Permit from National Commission for Science, Technology and Innovation

THIS IS TO CERTIFY THAT:
MS. ANGELINE MUKOKHO AYUYA
of UNIVERSITY OF NAIROBI, 0-100
Nairobi,has been permitted to conduct research in *Bungoma , Embu , Kakamega , Kericho , Kisii , Kisumu , Machakos , Meru , Mombasa , Nairobi, Nakuru , Nyeri Counties*

on the topic: *STRATEGIC CHOICE, ORGANISATIONAL LEARNING, TOP MANAGEMENT TEAMS AND PERFORMANCE OF ACCREDITED UNIVERSITIES IN KENYA*

for the period ending:
22nd July,2017

Applicant's Signature

Permit No : NACOSTI/P/16/66382/12461
Date Of Issue : 22nd July,2016
Fee Recieved :Ksh 2000

Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 10243

CONDITIONS: see back page

Appendix V: Authority from Accredited University for Data Collection

Strathmore UNIVERSITY

7th October 2016

Angeline Mukokho Ayuya
PhD Doctoral candidate (Strategic Management)
Department of Business Administration
School of Business,
University of Nairobi
Email: mayuya@uonbi.ac.ke

Dear Angeline,

AUTHORISATION TO COLLECT DATA AT STRATHMORE UNIVERSITY

The Research Office at Strathmore University has granted you the authorization for a period of one month commencing October 10th to 28th 2016 to collect data from academic staff within the University. The data collection is towards your PhD at the University of Nairobi. Your study is entitled **"Strategic Choice, Organizational Learning, Top Management Team Characteristics and Performance of Accredited Universities in Kenya"**

Please seek clearance from the University's Security Office to facilitate your movement within the University.

Please note that this is an administrative authorization and does not constitute an ethical approval of your research. You are strongly advised to obtain an ethical clearance from an accredited ethics review board, before commencing data collection.

Please sign the declaration form binding you to the ethical use of the data you will access from Strathmore University (meant strictly for the purposes of your study) and requiring you to share the findings of your study and the resulting publications with the Strathmore University Research Office through email address: research@strathmore.edu

Yours Sincerely,

Prof. Izael Da Silva
Deputy Vice-Chancellor, Research

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

STRATHMORE UNIVERSITY

APPENDIX 1: CONFIDENTIAL INFORMATION DECLARATION FORM

I, ANGELINE MUKOKHO AYUYA, solemnly declare that I will NOT willingly divulge confidential information/data collected from Strathmore University without due consent from Strathmore University. I will strictly utilize the information for the purposes of my academic research.

Sign:.....

ID/Passport No. 2127132

Date: 10-10-2016

APPENDIX 2: INFORMATION SHARING DECLARATION FORM

I, ANGELINE MUKOKHO AYUYA, solemnly declare that I will share the Research Results of the study by depositing a copy of the final research report at the Strathmore University Research Office.

Sign:.....

ID/Passport No. 2127132

Date: 10-10-2016

©Strathmore University Research Office. Revised March, 2016

Appendix VI: Research Questionnaire

The purpose of this questionnaire is to collect data on Strategic choice, organizational learning, top management team characteristics and performance of accredited universities in Kenya. The information will be treated in strict confidence and will be used for academic purposes only. Online users may save the file as a PDF and send to: mayuya@uonbi.ac.ke.

Please answer the questions as completely and as clearly as possible by ticking on only one answer from the choices given or writing your response as appropriate in the spaces provided.

PART ONE: GENERAL INFORMATION

(Please indicate your answers in the space provided)

1. Name of University …….……
2. Year of establishment ……....
3. Indicate ownership structure (tick as appropriate)

   Public [ ] Private [ ]

4. Indicate principal target market (tick as appropriate)

   Local [ ] Foreign [ ] Both local and foreign [ ]

5. Please indicate the undergraduate and postgraduate degree programmes offered by your institution.

   Undergraduate [ ] Postgraduate [ ] Both Undergraduate and Postgraduate [ ]

6. Designation of Respondent: (tick as appropriate)

   Deputy Vice-Chancellor (Administration and Finance) [ ]

   Other (Specify) [ ] …….

7. Number of year in the University (tick as appropriate)

   Less than 10 years [ ]
   11 – 20 years [ ]
   Over 20 years [ ]

8. Number of years in current position (tick as appropriate).

   Less than 1 year [ ]
   2 – 4 years [ ]
   More than 5 years [ ]

PART TWO: STRATEGIC CHOICE

On aspect of this study is strategic choice. This consists of the strategic choice mix of business portfolio that may be adopted in the institutions.

1. Kindly indicate to what extent the following statements concerning strategic choices apply to your organization. Give your ratings in the scale of 1-5 (Where 1 = Not at all; 2 = Small extent 3 = Moderate extent 4 = Great extent 5 = Very great extent)

	STATEMENTS	**Respondent's rating**				
		1	2	3	4	5
Internal restructuring						
i.	Our institution's organizational structure supports speedy development of products and services.					
ii.	The organization's value chain is continuously transformed from being protective to being productive.					
iii.	The institution strives to align its structures into end-to-end process rather than departments					
iv.	Internal reorganization is pursued to optimize on business opportunities.					
v.	The institution strives to make Business processes simplified at minimal cost.					
vi.	The decision makers are persistent in implementing new policies/programmes to achieve desired results					
Diversifications						
vii.	The institution makes new investments with lower returns but with higher probabilities of success.					
viii.	Our institution has a variety of degree courses/programmes					
ix.	The institution has been introducing new products/degree programmes to existing markets					
x.	Our institution invests in Income Generating Units that have high chances of high returns.					
xi.	The institution focuses on acquisition of new constituent colleges.					

Strategic alliances						
xii.	The institution enters into mutually beneficial arrangements with other organizations to share risks and costs.					
xiii.	The institution continues to participate in several public private partnerships.					
xiv.	The institution considers its supply chain partners as key business partners.					
xv.	The institution collaborates with international institutions through foreign students exchange programmes.					

PART THREE: ORGANIZATIONAL LEARNING

To what extent is individual, group and institutional learning practised in your institution?

1-Not at all, 2-Small extent, 3-Moderate extent, 4-Great extent, 5-Very great extent

	Details	1	2	3	4	5
(i)	Individuals are motivated to carry out the tasks which are assigned to them					
(ii)	Individuals are aware of the major challenges of the institution					
(iii)	Individuals are an important source of information					
(iv)	Individual goals conflict with the individual goals of members of my team					
(v)	I have to work closely with colleagues within my team to do my work properly					
(vi)	My institution values group work					
(vii	One group shares lessons learned with other groups					
(viii)	The individual goals of members of my team are well aligned					
(ix)	Our organizational structure is a result of what we learn as employees					
(x)	We have an effective conflict resolution system which guides our work groups					
(xi)	Our cultural values are shaped by our different ideas					
(xii)	Different points of view are encouraged in group work					

(xiii)	Group resolutions are used to improve service delivery					
(iv)	The institutions systems are compatible with critical issues facing our service delivery					
(xv)	The institution has developed research policies that guide innovation and technological advancements					
(xvi)	The institution has an intellectual property management office to protect knowledge acquired through research projects.					

PART FOUR: TOP MANAGEMENT TEAM CHARACTERISTICS

Another aspect of this study is the top management team demographics. These are the unique observable personal attributes ascribed to individual top managers. For purposes of this study top managers are from the level of heads of departments, Directors, Deans, Principals, Deputy Vice-Chancellors and Vice-Chancellor)

1. Indicate the number of top managers in your institution.

(i) Male ……. (Number)

(ii) Female ……. (Number)

2. Please indicate how many top managers in your institution are in the following age brackets:

Age bracket	Number of Top Managers
35 – 40	
41 – 45	
46 – 50	
Over 50	

Please indicate the number of top managers who have the following educational background as the highest level.

Level of Qualification	**Number of Top Managers**
"O" Level	
"A" Level	
Diploma	
Undergraduate Degree	
Masters Degree	
PhD	

3. To what extent do the following statements apply in your institution? Give your ratings in the scale of 1-5. (Where 1 = Not at all; 2 = Small extent 3 = Moderate extent 4 = Great extent 5 = Very great extent)

	STATEMENTS	**Respondent's rating**				
		1	2	3	4	5
	The value of TMT Characteristics/Demographics					
i.	Age is considered critical factor for top management teams in our institution.					
ii.	Young top managers are rated highly due to their ability to be creative and innovative					
iii.	Older top managers are rated higher than young managers due to their long and unique experience					
iv.	There is an existing policy on age limit for the top management team members.					
v.	Our institution has an existing policy on the gender rule for top management team members.					
vi.	Our institution is dominated by male top management team members.					
vii.	There is ethnicity balance in our institution					
viii.	Our institution has a criteria of minimum level of academic qualification for the top management teams.					
ix.	Top management team members with post graduate qualification are rated higher.					

x.	Appropriate functional background is an important requirement for top management team members.					
xi.	Top managers have had appropriate functional trajectory in this institution.					
xii.	Top managers who are specialized in Operations management, general management or Human Resource as their functional background are rated higher.					
xiii.	There is an existing policy on minimum number of years one must serve in the institution before he qualifies to be in the top management team.					
xiv.	Length of service of TMTs in this institution is regulated to a maximum number of years.					
xv.	Organizational tenure is important for Top management team members in this institution.					

PART FIVE: NON-FINANCIAL PERFORMANCE INDICATORS OF ACCREDITEDUNIVERSITIES IN KENYA

To what extent has your institution achieved the following non-financial measures?1-Not at all, 2-Small extent, 3-Moderate extent, 4-Great extent, 5-Very great extent

1. **Customer Perspective**

	Variables	1	2	3	4	5
(i)	Responds to customers complaints promptly					
(ii)	Conducts regular customer surveys					
(iii)	Continuously assesses customer satisfaction					
(iv)	We receive compliments from our customers					
(v)	Our established customers collaborate with our institution					
(vi)	Students and researchers are our core customers					
(vii)	The students have access to e-journals and books for reference					
(viii)	The students have adequate access to field and laboratory equipment					
(ix)	The students are guided by highly qualified and experienced academic and support staff					

2. Learning and Growth

	Variables	1	2	3	4	5
(i)	Offering degree programmes for specific target customers					
(ii)	Conducts training for staff					
(iii)	Supports innovation					
(iv)	Increased links and collaborations					
(v)	Aggressively introduces new degree programmes					
(vi)	Increase in research activities					
(vii)	Increase in number of schools/institutes/campuses/constituent colleges					
(viii)	We have an effective curricula development policy which incorporates the views of the stakeholders.					
(ix)	The curricula in this university is reviewed on a regular basis					
(x)	This university has state of the art technological teaching and learning facilities					
(xi)	There is equity in lecturer to student ratio					
(xii)	There is equity in supervisor to student ratio					

3. Percentage Growth over the last five years

	Details	2010	2011	2012	2013	2014
(i)	Percentage growth in the number of permanent employees					
(ii)	Percentage growth in the number of students who have graduated over the last five years					
(iii)	Percentage growth in the number of new degree programmes over the last five years					
(iv)	Percentage increase in number of completed capital projects					
(v)	Percentage increase in research grants					

PART SIX: TREND IN FINANCIAL PERFORMANCE OVER THE LAST FIVE YEARS

	Details	2010	2011	2012	2013	2014
(a)	Surplus/(deficit) over the last 5 years					
(b)	Research grants and endowment funds over the last five years					

What other factors contribute to the improvement of performance of your University?

……

……

……

……..…

THANK YOU

Appendix VII: Accredited Universities in Kenya for this Study
Public Chartered Universities

1. University of Nairobi
2. Moi University
3. Kenyatta University
4. Egerton University
5. Jomo Kenyatta University of Agriculture and Technology
6. Maseno University
7. Dedan Kimathi University of Technology
8. Chuka University
9. Technical University of Kenya
10. Technical University of Mombasa
11. Pwani University
12. Kisii University
13. Masinde Muliro University of Science and Technology
14. Masai Mara University
15. South Eastern Kenya University
16. Meru University of Science and Technology
17. Multimedia University of Kenya
18. Jaramogi Oginga Odinga University of Science and Technology
19. Laikipia University
20. University of Kabianga
21. University of Eldoret
22. Karatina University
23. Kibabii University
24. Embu University
25. Kirinyaga University
26. Garissa University
27. Muranga University
28. Machakos University
29. Rongo University
30. Kaimosi Friends University

Private Chartered Universities

1. University of Eastern Africa Baraton
2. Catholic University of East Africa
3. Daystar University
4. Scott Christian University
5. United States International University
6. St Paul's University
7. Pan Africa Christian University
8. Africa International University
9. Kenya |Highlands Evangelical University
10. Africa Nazarene University
11. Kenya Methodist University
12. Strathmore University
13. Kabarak University
14. Great Lakes University of Kisumu
15. KCA University
16. Mount Kenya University
17. Adventist University of Africa
18. Aga Khan University
19. The East African University
20. Presbyterian University of East Africa
21. Management University of Africa
22. International Leadership University

Source: Commission for University Education, Kenya (2016)

Appendix VIII: Summary of Descriptive statistics for Strategic Choice

One-Sample Test

Statements	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Extent to which organizational structure supports speedy development of products and services	26.177	43	.000	4.13953	3.8204	4.4587
Extent to which organization's value chain is continuously transformed from being protective to being productive	28.666	43	.000	4.18605	3.8913	4.4807
Extent to which institution strives to align its structure into end to end process rather than departments	25.140	43	.000	4.11628	3.7858	4.4467
Extent to which internal reorganization is pursued to optimize on business opportunities	27.863	43	.000	4.23256	3.9260	4.5391
Extent to which institution strives to make business processes simplified at minimal cost	36.406	43	.000	4.37209	4.1297	4.6144
Extent to which top managers are persistent in implementing new policies to achieve desired results	37.890	42	.000	4.37209	4.1392	4.6050
Extent to which institution makes new investments with lower returns but with higher probabilities of success	23.132	43	.000	4.00000	3.6510	4.3490
Extent to which the institution has a variety of degree courses	28.038	43	.000	3.95349	3.6689	4.2380
Extent to which the institution has been introducing new products/degree programmes to existing markets	32.269	43	.000	3.93023	3.6844	4.1760
Extent to which the institution invests in income generating units that have high chances of high returns	31.035	43	.000	4.00000	3.7399	4.2601
Extent to which the institution focuses on acquisition of new constituent colleges	15.291	43	.000	3.06977	2.6646	3.4749
Extent to which the institution enters into mutually beneficial arrangements with other organizations to share risks and costs	30.723	43	.000	4.11628	3.8459	4.3867
Extent to which the institution continues to participate in several public private partnerships	24.189	43	.000	4.07143	3.7315	4.4114
Extent to which the institution considers its supply chain partners as key business partners	26.664	43	.000	4.18605	3.8692	4.5029
Extent to which the institution collaborates with international institutions through foreign students exchange programmes	22.871	43	.000	4.13953	3.7743	4.5048

Source: Field data 2017

(Appendix VIII Contd...)

Summary of descriptive statistics on organizational learning

One-Sample Test

Statements	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Extent to which individuals are motivated to carry out the tasks which are assigned to them	29.542	43	.000	3.72093	3.4667	3.9751
Extent to which individuals are aware of the major challenges of the institution	28.047	43	.000	3.74419	3.4748	4.0136
Extent to which individuals are an important source of information	32.814	43	.000	4.11628	3.8631	4.3694
Extent to which individual goals conflict with the individual goals of members of my team	12.211	43	.000	2.20930	1.8442	2.5744
Extent to which people work closely with colleagues within their team to do their work properly	24.859	43	.000	3.81395	3.5043	4.1236
Extent to which the institution values group work	31.199	43	.000	4.18605	3.9153	4.4568
Extent to which one group shares lessons learned with other groups	27.349	43	.000	3.88372	3.5971	4.1703
Extent to which the individual goals of members of my team are well aligned	29.523	43	.000	3.90698	3.6399	4.1740
Extent to which organizational structure is as a result of what we learn as employees	24.274	43	.000	3.95349	3.6248	4.2822
Extent to which the organization has an effective conflct resolution system which guides work groups	28.489	43	.000	3.86047	3.5870	4.1339
Extent to which cultural values are shaped by different ideas	31.762	43	.000	4.02326	3.7676	4.2789
Extent to which different points of view are encouraged in group work	28.489	43	.000	3.86047	3.5870	4.1339
Extent to which group resolutions are used to improve service delivery	34.034	43	.000	4.11628	3.8722	4.3604
Extent to which the institution's systems are compatible with critical issues facing service delivery	30.720	43	.000	4.02326	3.7590	4.2876
Extent to which the institution has developed research policies that guide innovation and technological advancements	26.912	43	.000	3.86047	3.5710	4.1500
Extent to which the institution has an intellectual property management office to protect knowledge acquired through research project	24.801	43	.000	3.76744	3.4609	4.0740

Source: Field data 2017

(Appendix VIII Contd…)

Summary of descriptive statistics for top management team characteristics

One-Sample Test

Statements	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Extent to which age is considered a critical factor for top management teams	15.087	43	.000	3.65116	3.1628	4.1395
Extent to which young managers are rated highly due to their ability to be creative and innovative	23.094	43	.000	3.83721	3.5019	4.1725
Extent to which older managers are rated higher than younger managers due to their long and unique experience	20.587	43	.000	4.02326	3.6289	4.4177
Extent to which there is an existing policy on age limit for the top management team members	16.037	43	.000	3.76744	3.2933	4.2415
Extent to which the institution has an existing policy on the gender rule for top management team members	17.625	43	.000	3.48837	3.0890	3.8878
Extent to which the institution is dominated by male top management team members	16.134	43	.000	3.53488	3.0927	3.9770
Extent to which there is ethnic balance within the institution	31.762	43	.000	4.02326	3.7676	4.2789
Extent to which the institution has a criteria of minimum level of academic qualification for the top management teams	23.285	43	.000	4.23256	3.8657	4.5994
Extent to which top management team members with postgraduate training are rated higher	25.098	43	.000	4.30233	3.9564	4.6483
Extent to which appropriate functional background is an important requirement for top management team members	31.012	43	.000	4.39535	4.1093	4.6814
Extent to which top managers have appropriate functional trajectory in the institution	28.602	43	.000	4.20930	3.9123	4.5063
Extent to which top managers are specialized in operations management, general management or human resource management are rated higher	21.163	43	.000	4.06977	3.6817	4.4579
Extent to which there is an existing policy on minimum number of years one must serve in the institution before he qualifies to join top management team	18.342	43	.000	3.95349	3.5185	4.3885
Extent to which length of service of TMTs in the institution is regulated to a maximum number of years	19.252	43	.000	4.09302	3.6640	4.5221
Extent to which organizational tenure is important for top management team members in the institution	20.845	43	.000	4.09302	3.6968	4.4893

Source: Field data 2017

(Appendix VIII Contd…)

Summary of descriptive statistics for customer perspective

One-Sample Test

Statements	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Extent to which customer complaints are responded to promptly	29.667	43	.000	4.13953	3.8579	4.4211
Extent to which customer surveys are conducted regularly	27.070	43	.000	3.97674	3.6803	4.2732
Extent to which customer satisfaction is assessed regularly	29.141	43	.000	4.09302	3.8096	4.3765
Extent to which the organization receives compliments from customers	29.268	43	.000	4.25581	3.9624	4.5493
Extent to which established customers collaborate with the institution	31.843	43	.000	4.37209	4.0950	4.6492
Extent to which students and researchers are the institution's core customers	32.360	43	.000	4.48837	4.2085	4.7683
Extent to which students have access to e-journals and books for reference	33.009	43	.000	3.95349	3.7118	4.1952
Extent to which students have adequate access to field and laboratory equipment	26.216	43	.000	3.86047	3.5633	4.1576
Extent to which students are guided by highly qualified and experienced academic and support staff	38.712	43	.000	4.11628	3.9017	4.3309

Source: Field data 2017

(Appendix VIII Contd…)

Summary of descriptive statistics for Learning and Growth

One-Sample Test

Statements	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Extent to which degree programmes are offered to specific target customers	33.415	43	.000	4.06977	3.8240	4.3156
Extent to which institution conducts staff training	33.400	43	.000	3.88372	3.6491	4.1184
Extent to which institution supports innovation	33.896	43	.000	4.37209	4.1118	4.6324
Extent to which there are increased linkages and collaborations	27.846	43	.000	4.25581	3.9474	4.5642
Extent to which the institution aggressively introduces new degree programmes	29.925	43	.000	3.88372	3.6218	4.1456
Extent to which there are increased research activities	23.322	43	.000	4.09302	3.7388	4.4472
Extent to which there are increased number of schools, colleges and campuses	23.166	43	.000	3.55814	3.2482	3.8681
Extent to which there is an effective curricula development policy which incorporates the views of the stakeholders	32.919	43	.000	4.02326	3.7766	4.2699
Extent to which curriculum is reviewed regularly	30.503	43	.000	3.90698	3.6485	4.1655
Extent to which the university has state of the art technological teaching and learning facilities	28.439	43	.000	3.65116	3.3921	3.9103
Extent to which there is equity in lecturer to student ratio	27.651	43	.000	3.48837	3.2338	3.7430
Extent to which there is equity in supervisor to student ratio	32.009	43	.000	3.34884	3.1377	3.5600

Source: Field data 2017

Appendix IX: Mediating Effect of Organizational Learning on the Relationship between Strategic Choice and Non-financial Performance

Step 1: Relationship between strategic choice and non-financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.774[a]	.599	.589	1.89446	2.136

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic choice	.589	.076	.774	7.726	.000

a. Predictors: (Constant), strategic choice

Source: Field data

Appendix IX: (Contd…)

Step 2: Relationship between Strategic Choice and Organization Learning

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.790[a]	.624	.615	2.10771

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	295.265	1	295.265	66.464	.000[b]
	Residual	177.698	40	4.442		
	Total	472.963	41			

coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.935	1.758		2.808	.008
	Strategic Choice	.692	.085	.790	8.153	.000

a. Dependent Variable: Organizational learning

b. Predictors: (Constant), Strategic Choice

Source: Field data 2017

Step 3: Relationship between Organizational Learning and Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809[a]	.654	.645	1.73788

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	233.943	1	233.943	77.459	.000[b]
	Residual	123.830	41	3.020		
	Total	357.773	42			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.622	1.537		4.307	.000
	Organizational learning	.699	.079	.809	8.801	.000

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Organizational learning

Source: Field data 2017

Appendix IX (Contd…)

Step 4: Relationship between strategic choice, organizational learning and performance

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774[a]	.599	.589	1.89446	.599	59.686	1	40	.000	
2	.841[b]	.708	.693	1.63749	.109	14.539	1	39	.000	1.701

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.212	1	214.212	59.686	.000[b]
	Residual	143.559	40	3.589		
	Total	357.770	41			
2	Regression	253.197	2	126.598	47.214	.000[c]
	Residual	104.574	39	2.681		
	Total	357.770	41			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.954	1.580		5.034	.000
	Strategic Choice	.589	.076	.774	7.726	.000
2	(Constant)	5.642	1.494		3.776	.001
	Strategic Choice	.265	.108	.348	2.466	.018
	Organizational learning	.468	.123	.539	3.813	.000

Source: Field data 2017

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Strategic Choice, Organizational learning

c. Predictors: (Constant), Strategic Choice