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The Role of Organizational Innovation in Sustainable Competitive Advantage in Universities in Kenya

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***Abstract:** Purpose – The purpose of this research was to assess the role of organizational innovation in sustainable competitive advantage of universities in Kenya. Specifically, the study examined the role of product innovation, administration innovation, and process innovation in sustainable competitive advantage of universities in Kenya.*
Design/methodology/approach – The paper adopted a cross-sectional survey design to generate quantitative data to test the research hypotheses. Stratified random sampling technique was used to select a sample of 57 universities out of a target population of 67 universities accredited to undertake university education in Kenya. Primary data was collected by use of self administered questionnaires which were distributed through drop and pick method to a total sample size of 285 academic leaders selected by purposive sampling. A total of 215 complete responses were used for analyses. Data analysis was by descriptive statistics and inferential statistics using the Statistical Packages for Social Sciences (SPSS) version 24. Simple and multiple regression analyses were used for hypotheses testing.
Findings – This research provides empirical evidence on the links between organizational innovation and sustainable competitive advantage. Results revealed that organizational innovation, product innovation, administration innovation, and process innovation play significant role in sustainable competitive advantage of universities in Kenya. The research concluded that organizational innovation forms the basis for building sustainable competitive advantage.
Research limitations/implications – This research has some important limitations that need to be taken into consideration. The study used a cross-sectional survey design with only quantitative measures which can be improved upon by longitudinal studies with mixed quantitative and quantitative measures.
Practical implications – The research has significantly attempted to expand extant literature in strategic management, organizational innovation and sustainable competitive advantage by making several significant contributions.

***Keywords:** Organizational innovation, Product innovation, Administration innovation, Process innovation, Sustainable competitive advantage, Kenya.*

1. Introduction

As the global competition becomes increasingly fierce, how to build sustainable competitive advantage starts obtaining more attention, especially in the higher education sector, because the higher education world over is undergoing rapid transformation in the face of changing environmental dynamics, all higher education institutions are required to build sustainable competitive advantage. On a global perspective, many higher education institutions have shifted from student selection to competitive recruitment (Drake & Sparks, 2012). Păcuraru (2012) and Harrison-Walker (2009) suggested that higher education institutions have to deal with the concurrent challenges of managing expansion of the student body, with the accompanying required increases in facilities, staff, lectures, and courses, maintaining and improving the quality of teaching, facilities, and curriculum, obtaining sustainable funding, improving labor market attractiveness of students, increasing managerial and staff capacities, and innovation in both teaching and managing the organization. On the

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same account, Marginson and van der Wende (2007) have also observed that public higher education institutions are confronted with a big challenge in finding a balance between traditional academic operation and the new but increasingly dominating market-driven dimension of global competition. Eckel (2007), Jiang (2008), and Mazzarol and Souta (2008) emphasized that as a result of the global competition, overall in the world public higher education institutions are increasingly characterized by the new dimension of commoditization where education has been classified as a marketable service in a competitive environment, because education market is assumed the same as a normal market. Marginson (2007) argued that public higher education institutions have to face competition in respect to obtaining governmental and/or research funds, which implies the possession of specific qualities of teaching and research in the institution and in attracting students, which implies specific marketing capability in gaining recognition of their quality.

Today's university colleges and universities exist in a competitive market full of unprecedented change. According to Drew (2010) the most significant challenges facing higher education institutions include the need for strategic leadership, flexibility, creativity and change-capability, maintaining academic quality, the ability to respond to competing tensions and remain relevant. In an environment plagued by questions of financial value and educational impact, the need to teach new and different skills to a shifting workforce, colleges and universities must reassess their quality and relevance in order to fulfill their common mission of educating students for the workforce and world (Drake & Sparks, 2012). In Kenya, universities have also experienced various changes in their external environment, prompting responses from players in the higher education sub-sector with the objective of mitigating risks and taking advantage of opportunities strategic management plays a key role in positioning them in their quest to achieve sustainable competitive advantage. In large part, public universities introduced 'parallel programmes alongside 'regular' programmes attended by government-subsidized students to augment anorexic allocations from the government (Wangenge-Ouma, 2012). As a result, universities must understand the purpose and perspectives of all stakeholders, and leadership frameworks must embrace collaboration over a command and control approach. Due to the fiercely competitive education market which is driven by global competition, strategic management plays a key role in positioning higher education institutions in their quest to achieve sustainable competitive advantage (Mathooko & Ogutu, 2014), because competition has become an inescapable reality of the higher education environment.

Organizational innovation (OI) is one of the most important sources of sustainable competitive advantage (SCA). The studies conducted in other countries including Mavondo, Chimhanzi, and Stewart (2005), Matthews and Becker (2009), García-Morales *et al.* (2008) and Weerawardena (2003) have found OI as main factor for sustainable competitive advantage achieving. Recently, the research conducted by Ganter and Hacker (2013) found that OI has a significant effect on sustainable competitive advantage. However, it appears that there is paucity of empirical research on the role of OI in SCA in the context of Kenya. It appears that there is a general agreement among scholars that innovation is power for all organizations nowadays (Kamasak & Bulutlar, 2010). Based on what has been stated here it can be proposed that organizational innovation should have a significant positive role in sustainable competitive advantage of universities in Kenya.

It has been argued that OI can take the form of a new service or product, a new structure, a new production process, or a new administrative system (Bilgihan, Okumus, & Kwun, 2011;

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Gebauer, Gustafsson, & Witell, 2011). This implies that OI is a social process leads to major changes in the organization and may be operationalized as a three multidimensional concept into product innovation (PI), administrative innovation (AI), and process innovation (PCI). Similarly, Jimenez and Vall (2011) found both product and process innovation to affect firm performance. Additionally, the more recent research conducted by Ussahawanitchakit (2012) of 121 managers of electronics companies in Thailand showed that product innovation and process innovation have the ability to improve competitive advantage, profitability, and performance. Based on what has been stated here it can be argued that product innovation should have a significant positive role in sustainable competitive advantage of universities in Kenya. Therefore, the purpose of this research was to fill existing gaps in the strategic management literature by providing an analysis of the role of organizational innovation in sustainable competitive advantage of universities in Kenya.

1.1 Statement of the Problem

Despite the deliberate move by the Government of Kenya to expand university education through the creation of more universities and expansion of programmes offered to get industrialized by the year 2030 in line with the Kenya Vision 2030, Kenyan universities continue to be ranked low internationally as only University of Nairobi and Strathmore University were ranked among top 50 out of 12000 institutions in Africa in survey conducted by the Webometrics in 2011 and no Kenyan university was ranked among the top 1000 in a survey conducted by the Academic Ranking of World Universities in 2012 thus the competitiveness of Kenyan universities has become a point of concern following these low positions in ranking (Kaluyu, M'chebere, & Gichunge, 2014). Furthermore, literature increasingly considers OI as a basis for gaining a SCA and a key variable in the enhancing of organizational performance (Ganter & Hacker, 2013; García-Morales *et al.*, 2008; Jimenez & Vall, 2011; Mavondo *et al.*, 2005; Matthews & Becker, 2009; Ussahawanitchakit, 2012). However, there is paucity of research examining the role of organizational innovation in sustainable competitive advantage of universities especially in developing countries. The background provided indicates a research gap that can be addressed by answering the research question below: what is the role of organizational innovation in sustainable competitive advantage of universities in Kenya? Therefore, the purpose of this research was to fill existing gaps in the strategic management literature by providing an analysis of the role of organizational innovation in sustainable competitive advantage of universities in Kenya.

1.2 Objective of the Study

In light with the identified problem, this research was guided by one general objective and three specific objectives.

1.2.1 General Objective

The general objective of this study was to assess the role of organizational innovation in sustainable competitive advantage of universities in Kenya.

1.2.2 Specific Objectives

1) To examine the role of product innovation in sustainable competitive advantage of universities in Kenya.
2) To establish the role of administration innovation in sustainable competitive advantage of universities in Kenya.
3) To determine the role of process innovation in sustainable competitive advantage of universities in Kenya.

1.3 Research Hypotheses

1) Hypotheses 1

   $H_0$1: There is no significant role of organizational innovation in sustainable competitive advantage of universities in Kenya.

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$H_1$1: There is a significant role of organizational innovation in sustainable competitive advantage of universities in Kenya.

2) Hypotheses 2

$H_0$2: There is no significant role of product innovation in sustainable competitive advantage of universities in Kenya.

$H_1$2: There is a significant role of product innovation in sustainable competitive advantage of universities in Kenya.

3) Hypotheses 3

$H_0$3: There is no significant role of administration innovation in sustainable competitive advantage of universities in Kenya.

$H_1$3: There is a significant role of administration innovation in sustainable competitive advantage of universities in Kenya.

4) Hypotheses 4

$H_0$4: There is no significant role of process innovation in sustainable competitive advantage of universities in Kenya.

$H_1$4: There is a significant role of process innovation in sustainable competitive advantage of universities in Kenya.

1.4 Significance of the Study

Generally, this research can enrich and contribute a theory especially in the science of strategic management that has a significant role in an organization that undergoes organizational changes. The findings can help management to intensify initiatives to encourage greater understanding and acceptance of the concept of organizational innovation that boosts sustainable competitive advantage in the industry.

2. Literature Review

2.1 Theoretical Framework

In the development of the structural relationships among the variables of the study, the Resource-Based View of the firm theory and the Knowledge based theory were integrated.

2.1.1 Resource-Based View Theory

In the strategic management literature, the resource-based view of the firm (RBV) has been considered as one of the most and fast growing research area in the last few decades. The RBV is a theory in strategic management literature that has been applied in management research to analyze and explain resources of a firm that have the potential to create and sustain competitive advantage and, in turn, superior performance among firms (Barney, 2007; Barney, 2001; Barney & Arikan, 2001; Barney & Hesterly, 2010; Sheehan & Foss, 2007). The RBV argues that the organizational success is determined by internal resources. The RBV aspires to explain the internal sources of a firm's sustained competitive advantage (Kraaijenbrink, Spender, & Groen, 2010). Therefore, the RBV is a suitable theory to explain the role of organizational innovation in building sustainable competitive advantage of universities in Kenya through innovatively delivering superior value to customers and use of resources such as product innovation, administration innovation, and process innovation.

2.1.2 Knowledge-based View Theory

The relevant theory that helps significantly towards realizing the important role of organizational innovation (OI) in sustainable competitive advantage (SCA) is the knowledge-based theory. The Knowledge-based view (KBV) theory has been argued by some researchers to be an outgrowth of resource-based view theory where the concept of resources is prolonged to have intangible assets, in particular, knowledge-based resources (Darroch, 2005; Sandhawalia & Dalcher, 2011; Subramaniam & Youndi, 2005). The KBV can be a beneficial framework to develop a firm innovation in an effective way (Diaz-Daiz, Aguir-Diaz, & DeSaa-Perez, 2008). Therefore, the variables used in this study have been underpinned theoretically by KBV through generating and applying various types of knowledge. Consequently, another relevant theory that helps significantly towards realizing the

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important role of OI in SCA of universities in Kenya is the KBV.

2.2 Conceptual Framework

The conceptual framework may be defined as a diagrammatical representation that shows the relationship between dependent variable and independent variables. In the study, sustainable competitive advantage is classified as dependent variable, while organizational innovation: product innovation, administration innovation and process innovation are classified as the independent variables. The conceptual framework for this study attempts to explain an integrative view of the role of organizational innovation (product innovation, administration innovation, and process innovation) in sustainable competitive advantage of universities in Kenya and provide strategic guidelines for both public and private universities in Kenya. Therefore, a conceptual framework is demonstrated as shown in Figure 1.

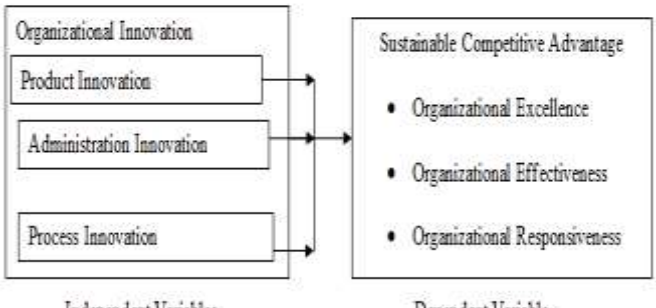

Figure 1: Conceptual Framework

2.3 Organizational Innovation

With increased competition in this era of globalization and knowledge economy, the role of organizational innovation (OI) in building sustainable competitive advantage (SCA) has become important for the survival and sustainable growth of firms in both developed and developing countries. In line with other recent scholars, this current research argues that OI which is based on the changing environment and the highly competitive market leads to SCA (Ganter & Hacker, 2013). Consistent with Steiber (2012) the current research defines OI as an organizational method in working practices, organizing work environment and external relations which are new for organization, and tends to improve organizational performance. Nevertheless, there is no universally agreed definition of OI. However, OI has been defined as the application of ideas that are new to the company, to create added value either directly for the company or indirectly for its customers, whether the newness and added value are embodied in products, processes, services, or in work organization, management or marketing systems (Hernández-Mogollon, Cepeda-Carrión, Cegarra-Navarro, & Leal-Millán, 2010; Weerawardena, 2003). This definition implies that OI is the development or adoption of an idea or behavior into business operations that is new to the whole organization. Camisón and Villar-López (2012) defined OI as the implementation of a new organizational method in a firm's business practices, workplace organization, or external relationships. Fortunately, there is a general agreement among scholars that innovation is power for all organizations nowadays (Kamasak & Bulutlar, 2010). Therefore, OI can take the form of a new service or product, a new structure, a new production process, or a new administrative system (Bilgihan *et al.*, 2011; Gebauer *et al.*, 2011). This implies that OI is a social process leads to major changes in the organization and may be operationalized as a three multidimensional concept into product innovation (PI), administrative innovation (AI), and process innovation (PCI). Mavondo *et al.* (2005), Matthews and Becker (2009), García-Morales *et al.* (2008) and Weerawardena (2003) have established OI as main factor for sustainable competitive advantage achieving. The study by Ganter and Hacker (2013) found that OI has a significant effect on sustainable competitive advantage. However, it appears that there is paucity of empirical research on the role of OI in SCA in the context of Kenya. Based on what has been stated here it can be proposed that product innovation should have a significant positive role

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in sustainable competitive advantage of universities in Kenya.

2.3.1 Product Innovation

Consistent with Valencia, Valle, and Jimenez (2010) the current research defines product innovation as the process by which firms produce and develop new products that can lead to organizational success. Product innovation refers to the introduction of new products or service, while process innovation includes the development of new tools and equipment (Damanpour & Schneider, 2006). In their research Koch and Hauknes (2005) described product innovation as focusing on the features and design of products and services and argued that process innovation refers to the development of policies, procedures, and organizational forms. It has been emphasized that product innovation is associated with the success of organizations and allows them to establish a dominant position in the competitive marketplace (Danneels & Kleinschmidt, 2001; Schilling, 2010). Consequently, Jimenez & Vall (2011) emphasized that organizations with greater product innovation capabilities can achieve a better response from the environment and more easily build the capabilities needed to enhance organizational performance. Therefore, product innovation can respond to unstable environment and create new opportunities for developing effectiveness (Matzler, Schwarz, Deutinger, & Harms, 2008). A recent survey by Ussahawanitchakit (2012) of 121 managers of electronics companies in Thailand showed that product innovation and process innovation have the ability to improve competitive advantage, profitability, and performance. Similarly, Jimenez and Vall (2011) found both product and process innovation to affect firm performance. Based on what has been stated here it can be argued that product innovation should have a significant positive role in sustainable competitive advantage of universities in Kenya.

2.3.2 Administration Innovation

Consistent with prior researchers, the current research conceptualizes administrative innovation to include rules, procedures, management systems and staff development programmes (Trott, 2008; Jaskyte, 2011; Damanpour & Aravind, 2012). Administrative innovation also includes the development and implementation of the organization's activities, such as organizational structure, administrative processes, and changes in the social system that consists of organizational members and relationships among them (Walker, 2007, Schilling, 2010).

2.3.3 Process Innovation

Consistent with Damanpour and Schneider (2006) the current research argues that process innovation includes the development of new tools and equipment. Jaskyte (2004) stated that in the universities should rely on process innovation. Hamel (2006) perceived innovation as encompassing process innovation such as customer services, and logistics, and management innovation such as strategic planning, project management and employee assessment. It has been suggested that process innovation could determine an organization's success or failure (Liao, Fei, & Liu (2008). Consequently, Jimenez & Vall (2011) emphasized that organizations with greater process innovation capabilities can achieve a better response from the environment and more easily build the capabilities needed to enhance organizational performance. A research by Jimenez and Vall (2011) found process innovation to affect firm performance. The recent survey by Ussahawanitchakit (2012) of 121 managers of electronics companies in Thailand showed that process innovation had the ability to improve competitive advantage, profitability, and performance. Based on what has been stated here it can be argued that process innovation should have a significant positive role in sustainable competitive advantage of universities in Kenya.

2.4 Sustainable Competitive Advantage

The pursuit for SCA has been the primary objective in the study of a firm's competitive

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strategy and generation of superior profitability (Hill & Jones, 2009). Porter and Kramer (2006) considers the term sustainable as encompassing the protection of resources for longer period of time into the future (Haberberg & Rieple, 2008; Grant, 2010; Thompson *et al.*, 2012). Barney and Hesterly (2010) maintain that in general a firm has a competitive advantage when it is able to create more economic value than rival firms. Recently, scholars have argued that the concept of SCA can also be understood along the dimensions of durability and imitability (Grant, 2010; Haberberg & Wheelen & Hunger, 2010).

2.4.1 Organizational Excellence

Organizational excellence (OE) has been identified by previous research as one of the dimensions of SCA in organizations. For instance, Peters (2010) argued that organizational excellence in execution was, is, wherever, and forever will be sustainable competitive advantage number one. OE has been defined as the state, quality, or condition of excelling; superiority (Arussy, 2008). Recently, Kalsom and Ching (2011) maintained that for public institutions of higher education to strive for academic excellence, it is vital for the institutions to become learning organizations. However, Wagenge-Ouma and Langa (2010) maintained that isolating a definition of excellence poses the greatest challenge to the field of higher education today.

2.4.2 Organizational Effectiveness

The SCA of higher education institutions such as universities may be conceptualized in terms of organizational effectiveness (OEF). OEF has been defined as the degree or extent to which organization get close to desired objectives (Wzhen, 2010). From a strategic management standpoint, OEF is the degree to which the composite outputs an organization produces align with the demands of its environment in order to achieve a competitive advantage, and strategic leadership is a primary determinant of this set of outputs (Awang *et al.*, 2015). OEF is related to issues such as the ability of an organization to access and absorb resources and consequently achieve its aims. Ashraf and Kadir (2012) have maintained that OEF is the main concern of all higher education institutes.

2.4.3 Organizational Responsiveness

SCA of universities may be conceptualized in terms of organizational responsiveness (OR). Recent research conducted by Vinayan, Jayashree, and Marthandan (2012) established that OR as a dimension of SCA. It gives the organization the advantage in the speed and effectiveness of its response to opportunities and threats (Mei, 2012). Generally, OR refers to the inter-individual knowledge exchanges which, in turn influence the ability of the organization to respond to a changing environment in a particular style. It refers to the extent to which a firm rapidly reacts to the changes of business environment in order to seize potential opportunities (Bernardes & Hanna, 2009; Wei, Samiee, & Lee, 2013). It reflects the ability of an organization to respond to its external environment in an appropriate manner. As OR is dependent on the ability of an organization to learn about changes in its market environment (Ketchen & Hult, 2007), it is important for firms to learn quickly about the changes which are fast-paced and difficult to foresee (Bernardes & Hanna, 2009). Therefore, OL would play a critical role in developing OR.

3. Research Methodology

A cross-sectional survey design was carried out so as to generate data to test the research hypotheses. This study was descriptive quantitative in nature, aiming to develop a better understanding of the role of organizational innovation in sustainable competitive advantage from the academic leaders point of view.

3.1 Selection of Sample and Respondents' University Profile

The study was empirical based on the primary data collected from university academic leaders in Kenya in 2016. Stratified random sampling was adopted to select a sample of 57 universities from

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target population of 67 universities accredited to undertake university education in Kenya according to CUE (2014). On the basis of Field (2006) guidelines, the research covered a minimum of 5 academic leaders per university selected adopting the purposive sampling. In total 285 self administered questionnaires were delivered using the drop and pick method to the academic leaders. The number of usable returned questionnaires was 215 from 43 universities giving valid response rate 75%, a rate that is regarded as good. The Questionnaire was in English, which is the official language in Kenya. A majority of the respondents (85%) were from public chartered universities, (48.8%) were from universities in operation for less than 6 years, (37.2%) were from universities that had 201-500 employees, and (90.7%) were from universities that had less than 25% market share.

Table 1

Respondent's University Profile

Variable	Categorization	Frequency	Percent
University Type	Public Chartered University	85	39.5
	Public University Constituent College	30	14.0
	Private Chartered University	55	25.6
	Private University Constituent College	15	7.0
	Institution with Letter of Interim Authority	30	14.0
	Total	215	100.0
Age of University	Less than 6 Years	105	48.8
	6 - 10 Years	5	2.3
	11 - 15 Years	50	23.3
	16 - 20 Years	25	11.6
	More than 20 Years	30	14.0
	Total	215	100.0
Number of Employees in the University	Less than 101 Employees	30	14.0
	101 – 200 Employees	45	20.9
	201 – 300 Employees	80	37.2
	301 – 400 Employees	45	20.9
	More than 500 Employees	15	7.0
	Total	215	100.0
Market Share of the University	25% - 49% Market Share	20	9.3
	Less than 25%	195	90.7
	Total	215	100.0

3.2 Data Processing and Analysis

The statistical package SPSS (version 24.0) was used for data analysis. Two steps of detailed statistical analysis of data were involved. At the first stage, descriptive statistic analysis was performed to extract the mean and standard deviation of underlying study variables organizational innovation (product innovation, administration innovation, and process innovation) and sustainable competitive advantage (organizational excellence, organizational effectiveness, and organizational responsiveness). At the second stage, simple regression analyses and multiple regression analyses were performed to understand the relationship among these variables.

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3.3 Scale and Measurement

This study required developing a multidimensional organizational innovation (product innovation, administration innovation, and process innovation) measurement scale and a sustainable competitive advantage scale (organizational excellence, organizational effectiveness, and organizational responsiveness). Measurement scales for organizational innovation are operationalized with three indicators: product innovation, administrative innovation and process innovation uses 21 items. In line with these previous measurements a five-point Likert scale is adopted for all item scales, hence on interval scale of measurement. Sustainable competitive advantage measurement scales are based on Barney (2007) and Verma and Jayasimha (2014) consisting of 21 items. All item scales are anchored on a five point scale with 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree and 1 = strongly disagree. This five-point Likert scale ranging from 1= strongly disagree to 5= strongly agree is designed to be easy and quick for potential respondents to complete and approximates an interval scale that is commonly used to assess psychometric attributes in social research (Saunders *et al*., 2009).

3.4 Validity

Validity is defined as the extent to which the research findings accurately reflect the phenomenon under study. Bryman and Bell (2007) emphasized that validity is the most important criterion for research. In this study the following steps were taken to ensure questionnaire validity: the objectives of the study were defined very carefully, draft questionnaire was pre-tested for content validity, and many questions were used from previous studies that had been used in different cultures, different environments, and at different times, a measure that contributed to construct validity. Saunders *et al*. (2009) noted that the questions used in the data collection instrument must be understood by the participants in the way intended by the researcher, and the answers given by the respondents should be understood by the researcher in the way intended by the respondents. In this study content validity was established by means of a comprehensive review of the literature. It has been suggested that content validity can be established by the comprehensive review of the literature (Bryman & Bell, 2007; Cooper & Schindler, 2008).

3.5 Reliability

The reliability was assessed through calculating Cronbach Alpha (α) values. In the scale reliability, Cronbach Alpha coefficients are 0.778 which was at a minimum acceptable level (Hair, Black, Barry, Anderson, & Tatham, 2006). Cronbach Alpha values presented in Table 2 showed a good acceptable reliability coefficient.

Table 2

Reliability analysis of Organizational Innovation and Sustainable Competitive Advantage

Variable	Sub-Variable	n	No of Items	Cronbach alpha (α)	Comments
Organizational Innovation		215	21	0.864	Accepted
	Product Innovation	215	7	0.778	Accepted
	Administration Innovation	215	7	0.800	Accepted
	Process Innovation	215	7	0.890	Accepted
Sustainable Competitive Advantage		215	21	0.914	Accepted
	Organizational Excellence	215	7	0.793	Accepted
	Organizational Effectiveness	215	7	0.860	Accepted
	Organizational Responsiveness	215	7	0.830	Accepted

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4. Results and Discussion

4.1 Descriptive Statistics

The descriptive analysis covered calculating the means and standard deviation scores for all the independent variables and the dependent variable as well as all items in the questionnaire.

4.1.1 Descriptive Statistics Organizational Innovation

Table 3 presents the results of the descriptive statistics in terms of the means and standard deviations for all items for the organizational innovation of universities in Kenya. The results revealed that the mean scores ranged from 3.71 for item suggesting that the university was implementing a reward system (i.e. promotions, thank----you) through 4.10 for the item suggesting that their university was delivering new courses for their students to encourage members of staff to come up with innovative ideas for educational purposes and administrative operations to 4.11 for the item suggesting that their university constantly emphasizes development and doing research projects. The results revealed that administration innovation (AI) had the lowest mean score of 3.88 and a standard deviation of 0.420, followed by process innovation (PCI) with a mean score of 3.91 and a standard deviation of 0.470, while product innovation (PI) had the highest mean score of 3.95 and a standard deviation of 0.397. Overall, the results revealed that organizational innovation of universities in Kenya had a mean score of 3.91 and standard deviation of 0.382.

Table 3

Descriptive Statistics for the Organizational Innovation

Item Code	Item	n	Mean	Std. Deviation
PI1	Our university is delivering new courses for members of staff.	215	3.74	.726
PI2	Our university constantly emphasizes development and doing research projects.	215	4.11	.544
PI3	Our university often develops new teaching materials and methodologies.	215	3.87	.668
PI4	Our university often develops new programmes/services for members of staff and students.	215	3.84	.636
PI5	Our university is extending its programmes/ services to new groups of employees not previously served by the university.	215	4.03	.700
PI6	Our university is delivering new courses for our students.	215	4.10	.392
PI7	Our university is extending its programmes/services to new groups of students in new colleges not previously served by the university.	215	3.93	.507
PI	Product Innovation	215	3.95	.397

Table 3 reveals that for administration innovation, the results suggested that the respondents revealed that their university was trying to bring in new equipment (i.e. computers) to facilitate educational operations, work procedures and administrative operations and their university emphasizes the need for administrative innovation for educational purposes and administrative operations evident from the mean score of 4.00.

Table 3 (Contd.)

Descriptive Statistics for the Organizational Innovation

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Item Code	Item	n	Mean	Std. Deviation
AI1	New multimedia software is used by this university for educational purposes and administrative operations.	215	3.74	.722
AI2	This university is implementing a reward system (i.e. promotions, thank----you) to encourage members of staff to come up with innovative ideas for educational purposes and administrative operations.	215	3.71	.893
AI3	Our university is trying to bring in new equipment (i.e. computers) to facilitate educational operations, work procedures and administrative operations.	215	4.00	.362
AI4	Our university pays close attention to administrative innovation to facilitate educational operations, work procedures and administrative operations.	215	3.97	.477
AI5	Our university penalizes those persons who do not give ideas for new administrative innovations for educational purposes and administrative operations.	215	3.80	.787
AI6	Our university emphasizes the need for administrative innovation for educational purposes and administrative operations.	215	4.00	.512
AI7	Our university is always first to initiate administrative innovations for educational purposes and administrative operations to which competitors then respond.	215	3.97	.403
AI	Administration Innovation	215	3.88	.420

For process innovation, the results indicated that the respondents perceived that their university often develops new technology (internet, databases, ---) to improve the educational process, their university encourages teamwork and good working relationships between staff members, and their university emphasizes offering innovative approaches to deliver new services as evident from the high mean score of 3.97 as can be seen in Table 3.

Table 3 (Contd.)

Descriptive Statistics for the Organizational Innovation

Item Code	Item	n	Mean	Std. Deviation
PCI1	Our university is developing new training programmes for staff members.	215	3.93	.765
PCI2	Our university encourages teamwork and good working relationships between staff members.	215	3.97	.542
PCI3	Our university emphasizes the need for radical innovation for development.	215	3.93	.356
PCI4	Our university is implementing an incentive system (i.e. higher salaries, bonuses, --) to encourage members of staff to come up with innovative ideas.	215	3.81	.701
PCI5	Our university often develops new technology (internet, databases, ---) to improve the educational process.	215	3.97	.599

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PCI6	Our university emphasizes offering innovative approaches to deliver new services.	215	3.97	.542
PCI7	Our university often uses new technology to improve the educational process.	215	3.80	.648
PCI	Process Innovation	215	3.91	.470
OI	Organizational Innovation	215	3.91	.382
Valid n (listwise)		215		

4.1.2 Descriptive Statistics Sustainable Competitive Advantage

Table 4 presents the results of the descriptive statistics in terms of the means and standard deviations for sustainable competitive advantage (organizational excellence, organizational effectiveness, and organizational excellence) of universities in Kenya. The results revealed that organizational responsiveness had the lowest mean score of 3.84 and a standard deviation of 0.401, followed by organizational effectiveness with a mean score of 3.88 and a standard deviation of 0.455, while organizational excellence had the highest mean score of 3.92 and a standard deviation of 0.356. Overall, the results revealed that sustainable competitive advantage of universities in Kenya had a mean score of 3.88 and standard deviation of 0.349.

Table 4: Descriptive Statistics for the Sustainable Competitive Advantage

Item Code	Item	n	Mean	Std. Deviation
OE1	University management is excellently capable of achieving sustainable competitive advantage.	215	3.93	.507
OE2	University management excellently carries out work through participation and employees interaction in order to build sustainable competitive advantage.	215	3.80	.648
OE3	University management excellently selects new university hires subject to experience, competence, and qualification standards in order to build sustainable competitive advantage.	215	4.04	.482
OE4	University management excellently and highly values openness and accepts change in order to build sustainable competitive advantage.	215	3.77	.662
OE5	University management and employees excellently carry out their duties with high morale and enthusiasm in order to build sustainable competitive advantage.	215	3.87	.613
OE6	University management and employees are excellently aware of achieving a strong linkage among its vision, mission, and objectives in order to build sustainable competitive advantage.	215	4.00	.256
OE7	University management is excellently capable of providing development opportunities in order to build the university's sustainable competitive advantage.	215	4.00	.448
OE	Organizational Excellence	215	3.92	.356
OEF1	We are more effective than our competitors to provide innovative learning to student in order to build the university's sustainable competitive advantage.	215	3.76	.803

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OEF2	The university's staff turnover was lower than that of the competitors indicating sustainable competitive advantage.	215	3.78	.492
OEF3	The university's employee morale is higher than that of the competitors indicating sustainable competitive advantage.	215	3.80	.537
OEF4	The university's effective attraction to professionals was higher than that of the competitors indicating sustainable competitive advantage.	215	3.99	.599
OEF5	The university's image is better than that of the competitors indicating sustainable competitive advantage.	215	3.90	.694
OEF6	The university's growth rate was higher than that of the competitors last year indicating sustainable competitive advantage.	215	3.95	.546
OEF7	The university's employee productivity was higher than that of the competitors last year indicating sustainable competitive advantage.	215	3.97	.599
OEF	Organizational Effectiveness	215	3.88	.455
OR1	We are faster than our competitors to respond to student complaints in order to build the university's sustainable competitive advantage.	215	3.75	.611
OR2	We are faster than our competitors to respond to concerns raised by employees in order to build the university's sustainable competitive advantage.	215	3.79	.611
OR3	We are faster than our competitors to access future student needs and respond in time in order to build the university's sustainable competitive advantage.	215	3.87	.337
OR4	We are faster than our competitors to respond to changes in technology in order to build the university's sustainable competitive advantage.	215	3.80	.648
OR5	We are faster than our competitors to respond to concerns raised by suppliers in order to build the university's sustainable competitive advantage.	215	3.77	.555
OR6	We are faster than our competitors to respond to concerns raised by government in order to build the university's sustainable competitive advantage.	215	3.90	.468
OR7	If a major competitor launches an intensive campaign targeted at our students, we would implement a response immediately in order to build the university's sustainable competitive advantage.	215	4.00	.592
ORR	Organizational Responsiveness	215	3.84	.401
SCA	Sustainable Competitive Advantage	215	3.88	.349

4.2 Test of Hypotheses

To test the hypotheses, simple linear regression analysis and multiple regression analysis were used in this research.

4.2.1 Hypothesis 1

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In order to test the first hypothesis, simple linear regression analysis was used in this research using sustainable competitive advantage as the dependent variable, and the organizational innovation as the predicting variable.

$H_0$1: There is no significant role of organizational innovation in sustainable competitive advantage of universities in Kenya.

$H_1$1: There is a significant role of organizational innovation in sustainable competitive advantage of universities in Kenya.

Table 5 presents the variables entered/removed for the simple regression analysis conducted between organizational innovation and sustainable competitive advantage of universities in Kenya, suggesting that the model to be tested was [$Y= \beta_0 + \beta_1X_1 + \varepsilon$] or [$SCA = \beta_0 + \beta_1OI + \varepsilon$].

Table 5 Variables Entered/Removed[a] in the Simple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model	Variables Entered	Variables Removed	Method
1	Organizational Innovation[b]	.	Enter

a. Dependent Variable: Sustainable Competitive Advantage

b. All requested variables entered.

From the model summary in Table 6, it is clear that the value of R was 0.917; while the value of R^2 was 0.841, and the value of the adjusted R^2 was 0.840 suggesting that organizational innovation (OI) can predict and explain approximately 84.0% of the variation in the sustainable competitive advantage (SCA) of universities in Kenya. Therefore, other factors not studied in the current research predict and explain the remaining 16.0% of the variation in the sustainable competitive advantage (SCA) of universities in Kenya. Consequently, future research should be conducted to discover the other variables.

Table 6 Model Summary[b] of the Simple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.917[a]	.841	.840	.140	1.940

a. Predictors: (Constant), Organizational Innovation

b. Dependent Variable: Sustainable Competitive Advantage

The ANOVA tests whether the model is significantly better than the mean at predicting the outcome variable. The results in Table 7 present the ANOVA. From the ANOVA table, it is clear that the overall standard multiple regression model, [$Y= \beta_0 + \beta_1X_1 + \varepsilon$] or [$SCA = \beta_0 + \beta_1OI + \varepsilon$] achieves a high degree of fit, as reflected by an R^2 of 0.841, $F(1, 213) = 1126.089$, $p < 0.001$).

Table 7 ANOVA[a] of the Simple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.978	1	21.978	1126.089	.000[b]
	Residual	4.157	213	.020		
	Total	26.135	214			

a. Dependent Variable: Sustainable Competitive Advantage

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b. Predictors: (Constant), Organizational Innovation

Table 8 presents the coefficients for the role of organizational innovation (OI) in sustainable competitive advantage (SCA) of universities in Kenya. From the coefficients table, it is clear that organizational innovation (OI) had a positive and significant role in sustainable competitive advantage of universities (SCA) in Kenya ($\beta = 0.917$; $t = 33.557$; $p < 0.001$), as a result the $H_0 1$ that posited that there is no significant role of organizational innovation in sustainable competitive advantage of universities in Kenya was rejected while the $H_1 1$ that posited that there is a significant role of organizational innovation in sustainable competitive advantage of universities in Kenya was accepted. Therefore, conclusion is made that is made that there was a significant role of organizational innovation in sustainable competitive advantage of universities in Kenya. The findings are consistent with the results of the studies by Ganter and Hacker (2013), García-Morales *et al.* (2008), Jimenez and Vall (2011), Mavondo *et al*. (2005), Matthews and Becker (2009) and Ussahawanitchakit (2012).

Following the recommendations by Pallant (2007), the unstandardized regression coefficients (B) were used to construct a regression equation, calculate the predicted values for each observation and to express the expected change in the criterion variable for each unit change in predictors. The model that was being tested [$Y= \beta_0 + \beta_1 X_1 + \varepsilon$] or [$SCA= \beta_0 + \beta_1 OI + \varepsilon$] then becomes [$Y = 0.590 + 0.840X_1$] or [$SCA= 0.590 + 0.840OI$] suggesting that that taking all factors into account (organizational innovation) constant at zero, sustainable competitive advantage of universities in Kenya will be 0.590, and that a unit increase in organizational innovation can lead to 0.840 increase in sustainable competitive advantage of universities in Kenya. Therefore, organizational innovation forms the basis for building sustainable competitive advantage.

Table 8 Coefficients[a] of the Simple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.590	.098		5.996	.000	.396	.784		
Organizational Innovation	.840	.025	.917	33.557	.000	.791	.889	1.000	1.000

a. Dependent Variable: Sustainable Competitive Advantage

4.2.2 Hypothesis 2 to Hypothesis 4

In order to test H2, H3, and H4, the researcher conducted a standard multiple regression analysis using sustainable competitive advantage as the dependent variable, and the various components of organizational innovation: product innovation, administration innovation, and process innovation as the predicting variables. The Table 9 shows the independent variables that entered into the multiple regression equation (product innovation, administration innovation, and process innovation, and the variables that were excluded from entry into the equation, and also refers to the method used and the regression was Enter where the program it turns out that the all the independent variables entered in the multiple linear regression equation,

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and none of them was excluded from the multiple regression analysis. The multiple regressions model to be tested for the study was: $[Y= \beta_o + \beta_1X_1 + \beta_2X_2+ \beta_3X_3 + \varepsilon]$ or $[SCA = \beta_o + \beta_1PI + \beta_2AI+ \beta_3PCI + \varepsilon]$

Where:
Y = Sustainable competitive advantage (Dependent variable),
X_1 = Product innovation (Independent variable),
X_2 = Administration innovation (Independent variable),
X_3 = Process innovation (Independent variable),
β_o = Constant (coefficient of Y intercept),
$\beta_1 - \beta_3$ = Regression coefficient for each Independent variable,
ε = Error Term (Random or Stochastic Term).

Table 9
Variables Entered/Removed[a] in the Multiple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model	Variables Entered	Variables Removed	Method
1	Process Innovation, Product Innovation, Administration Innovation[b]	.	Enter

a. Dependent Variable: Sustainable Competitive Advantage
b. All requested variables entered.

Before applying the multiple regression analysis in order to testing the study hypothesis the researcher conducted the following tests to ensure the fitness of data for the regression analysis assumptions: Variance Inflation Factory (VIF) Test, and Tolerance Test to ensure there is no high correlation between the independent variables (Multicollinearity), and Skewness Test to ensure the normal distribution of the data, and the Durbin-Watson test to test for the assumption of autocorrelation. When the Durbin-Watson test was performed, the results in Table 9 suggest that the assumption of autocorrelation was met as the value of the Durbin-Watson was 1.919 within the optimal range of between 1.5-2.5 and close to 2.0 suggesting that there was no autocorrelation between the independent variables of the study, hence the validity of the model (Hair *et al*., 2006; Tabachnick & Fidell, 2007). The results in Figure 2 to Figure 6 suggest that the assumptions of normality, linearity, and Homoscedasticity were met. Multicollinearity was tested by examining the variable inflation factor (VIF) and tolerance values for all variables. The presence of multicollinearity threatens the internal validity of multiple regression analysis and increases the likelihood of errors in hypothesis testing (Field, 2009). In order to conclude that multicollinearity is absent, the VIF values and the tolerance values are acceptable if they are below 10 and over 0.1 respectively (Hair *et al*., 2006; Tabachnick & Fidell, 2007). The results for testing multicollinearity in terms of VIF and tolerance values with sustainable competitive advantage as the dependant variable are presented in Table 12 which revealed that product innovation had VIF of 2.690 and tolerance of 0.372, administration innovation had VIF of 3.361 and tolerance of 0.316, and process innovation had VIF of 5.823 and tolerance of 0.172, suggesting multicollinearity was absent among the variables (Hair *et al.*, 2006). Accordingly, the researcher proceeded to the next phase of testing to test the hypotheses H2, H3, and H4.

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Table 10 presents the model summary of standard multiple regression results for the role of organizational innovation (product innovation, administration innovation, and process innovation) in sustainable competitive advantage of universities in Kenya. From the model summary, it is clear that the value of R was 0.928, while the value of R^2 was 0.862, and the adjusted R^2 was 0.860, suggesting that a combination of three organizational innovation variables (product innovation, administration innovation, and process innovation) can predict and explain approximately 86% of the variation in the sustainable competitive advantage of universities in Kenya. Therefore, approximately 14.0% of the variation in sustainable competitive advantage universities in Kenya cannot be explained by the organizational innovation (product innovation, administration innovation, and process innovation) alone. Consequently, there might be other variables that have an influence also necessitating the need for future research to discover these variables that were not within the scope of the present research.

Table 10

Model Summary[b] of the Multiple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.928[a]	.862	.860	.131	1.919

a. Predictors: (Constant), Process Innovation, Product Innovation, Administration Innovation

b. Dependent Variable: Sustainable Competitive Advantage

The ANOVA tests whether the model is significantly better than the mean at predicting the outcome variable. Table 11 presents the results of the ANOVA of standard multiple regression results for the role of organizational innovation (product innovation, administration innovation, and process innovation) in sustainable competitive advantage of universities in Kenya. From the ANOVA table, it is clear that the overall standard multiple regression model (the model involving constant, product innovation, administration innovation, and process innovation) achieves a high degree of fit, as reflected by the value of R was 0.635, while the value of R^2 was 0.404, and the adjusted R^2 was 0.395, $F(3, 211) = 47.636$, $p < 0.001$). The results show that all the three organizational innovation variables (product innovation, administration innovation, and process innovation) were significant in predicting and explaining sustainable competitive advantage of universities in Kenya.

Table 11

ANOVA[a] of the Multiple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.531	3	7.510	439.615	.000[b]
	Residual	3.605	211	.017		
	Total	26.135	214			

a. Dependent Variable: Sustainable Competitive Advantage

b. Predictors: (Constant), Process Innovation, Product Innovation, Administration Innovation

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Table 12 presents the standard multiple coefficients for the role of organizational innovation variables (product innovation, administration innovation, and process innovation) in sustainable competitive advantage of universities in Kenya. Following the recommendations by Pallant (2007), the unstandardized regression coefficients (B) were used to construct a regression equation, calculate the predicted values for each observation and to express the expected change in the criterion variable for each unit change in predictors. Therefore, when the unstandardized regression coefficients (B) were substituted to the multiple regression model which was:

$[Y = \beta_o + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon]$ or $[SCA = \beta_o + \beta_1PI + \beta_2AI + \beta_3PCI + \varepsilon]$, hence the multiple regression equation became:

$[Y = 0.912 + 0.111X_1 + 0.111X_2 + 0.536X_3]$ or $[SCA = 0.912 + 0.111PI + 0.111AI + 0.536PCI]$.

The multiple regression equation has established that taking all factors into account (product innovation, administration innovation, and process innovation) constant at zero, sustainable competitive advantage of universities in Kenya will be 0.912 units. The established multiple regression equation suggests that taking all other independent variables at zero, a unit increase in product innovation can lead to 0.111 increase in sustainable competitive advantage; a unit increase in administration innovation can lead to 0.111 increase in sustainable competitive advantage; a unit increase in process innovation will lead to 0.536 increase in sustainable competitive advantage. The results suggest that process innovation contribute most to sustainable competitive advantage of universities in Kenya. Therefore, leaders and managers in universities in Kenya should focus on utilizing the process innovation, followed by product innovation and administration innovation as opportunities or drivers of sustainable competitive advantage of universities in Kenya.

For H2 the regression results revealed that product innovation had a positive and statistically significant role in sustainable competitive advantage of universities in Kenya ($\beta = 0.126$; $t = 3.012$; $p < 0.05$), consequently the Ho2 which proposed that there is no significant role of product innovation in sustainable competitive advantage of universities in Kenya was rejected while the H_12 which predicted that there is a significant role of product innovation in sustainable competitive advantage of universities in Kenya was accepted, and thus conclusion was made that there was a significant role of product innovation in sustainable competitive advantage of universities in Kenya. The findings are consistent with results of Jimenez and Vall (2011) and in harmony with results of Ussahawanitchakit (2012). For H3 the regression results indicated that administration innovation had a positive and statistically significant role in sustainable competitive advantage of universities in Kenya ($\beta = 0.133$; $t = 2.922$; $p < 0.05$), consequently the Ho3 which proposed that there is no significant role of administration innovation in sustainable competitive advantage of universities in Kenya was rejected while the H_13 which proposed that there is a significant role of administration innovation in sustainable competitive advantage of universities in Kenya was accepted, and thus conclusion was made that there was a significant role of administration innovation in sustainable competitive advantage of universities in Kenya. With regard to the H4 the regression results revealed that process innovation had a positive and statistically significant role in sustainable competitive advantage of universities in Kenya ($\beta = 0.722$; $t = 11.704$; $p < 0.001$), consequently the Ho4 which predicted that there is no significant role of process innovation in sustainable competitive advantage of universities in Kenya was rejected while the H_14 which proposed that there is a significant role of process innovation in sustainable competitive advantage of universities in Kenya was accepted, and thus conclusion was made that there was a significant role of process innovation in sustainable competitive advantage of universities in Kenya. The findings are consistent with results of Jimenez and Vall (2011) and in harmony with results of

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Ussahawanitchakit (2012). Overall, the statistical analyses revealed that organizational innovation plays a positive and statistically significant role in sustainable competitive advantage. More recent empirical findings have emphasized that organizational innovation is a critical competence and a key element for gaining a sustainable competitive advantage (Ganter & Hacker, 2013; García-Morales *et al.*, 2008; Jimenez & Vall, 2011; Mavondo *et al*., 2005; Matthews & Becker, 2009; Ussahawanitchakit, 2012).

Table 12

Coefficients[a] of the Multiple Regression Analysis between Organizational Innovation and Sustainable Competitive Advantage of Universities in Kenya

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.912	.108		8.426	.000	.699	1.125		
	Product Innovation	.111	.037	.126	3.012	.003	.038	.184	.372	2.690
	Administration Innovation	.111	.038	.133	2.922	.004	.036	.185	.316	3.165
	Process Innovation	.536	.046	.722	11.704	.000	.446	.627	.172	5.823

a. Dependent Variable: Sustainable Competitive Advantage

5. Conclusion and Recommendations

With increased competition in this era of globalization and knowledge economy, the role of organizational innovation in building sustainable competitive advantage has become important for the survival and sustainable growth of universities in both developed and developing countries. However, most previous studies were conceptually grounded and empirically examined in advanced, developed and newly industrialized countries and from a large company perspective. The purpose of this research was to assess the role of organizational innovation in sustainable competitive advantage of universities in Kenya. Specifically, the study examined the role of product innovation, administration innovation, and process innovation in sustainable competitive advantage of universities in Kenya. Results revealed that organizational innovation, product innovation, administration innovation, and process innovation play significant role in sustainable competitive advantage of universities in Kenya. The research discusses these findings and provides theoretical and managerial implications. We suggest that it is essential for professionals to understand the types of organizational innovation and their features because a specific type of organizational innovation requires unique and sophisticated responses from an organization in building sustainable competitive advantage. The research has significantly attempted to expand extant literature in strategic management, organizational innovation and sustainable competitive advantage by making several significant contributions.

6. Limitations and areas for further research

This research has some important limitations that need to be taken into consideration. The study used a cross-sectional survey design with only quantitative measures which can be improved upon by longitudinal studies with mixed quantitative and quantitative measures. For future

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research, more studies are required to examine the role of organizational innovation along with other resources such as organizational culture, organizational learning and knowledge management in sustainable competitive advantage.

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Appendix

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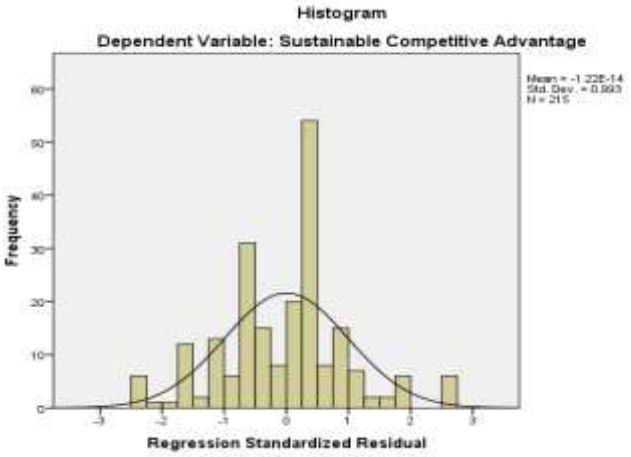

Figure 2 : Histogram for the Standard Multiple Regressions between Organizational Innovation and Sustainable Competitive Advantage

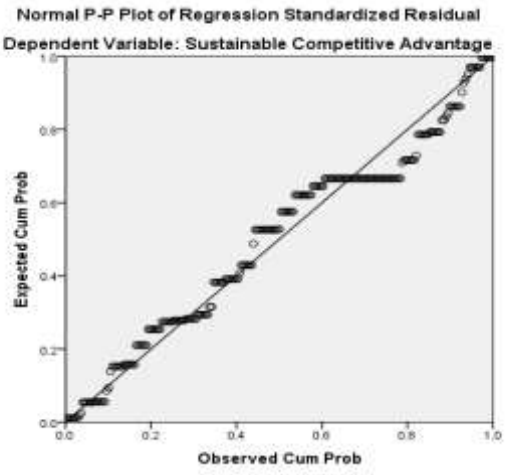

Figure 3: Normal P-P Plot for the Standard Multiple Regressions between Organizational Innovation and Sustainable Competitive Advantage

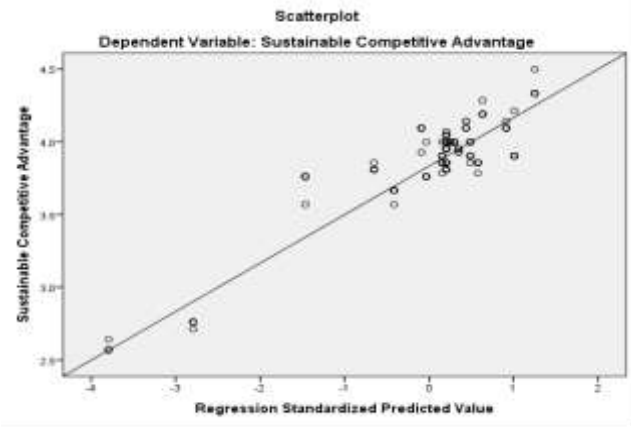

Figure 4: Scatter Plot of Standard Multiple Regression between Organizational Innovation and Sustainable Competitive Advantage

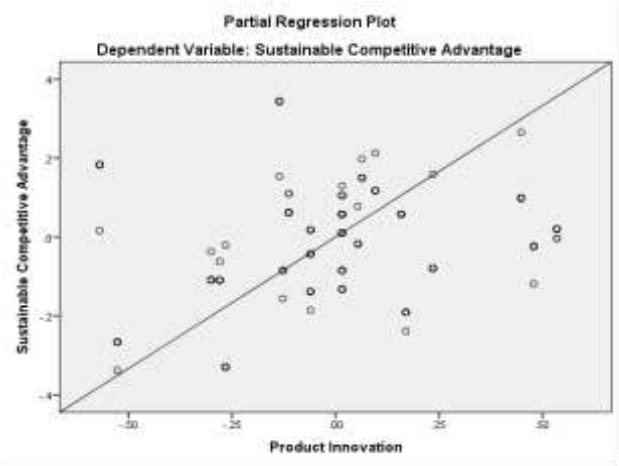

Figure 5 : Partial Regression Plot for Product Innovation and Sustainable Competitive Advantage

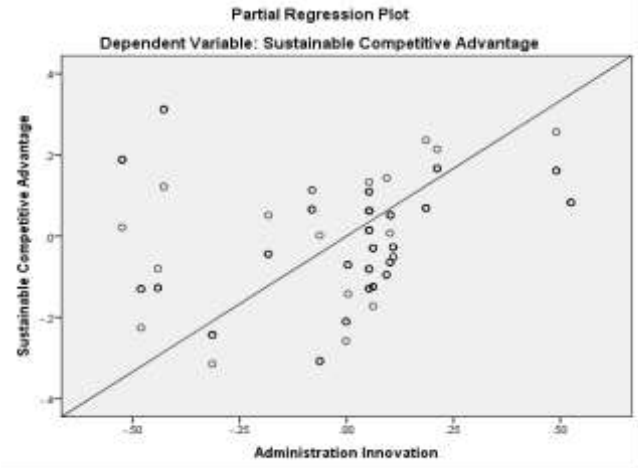

Figure 6 : Partial Regression Plot for Administration Innovation and Sustainable Competitive Advantage

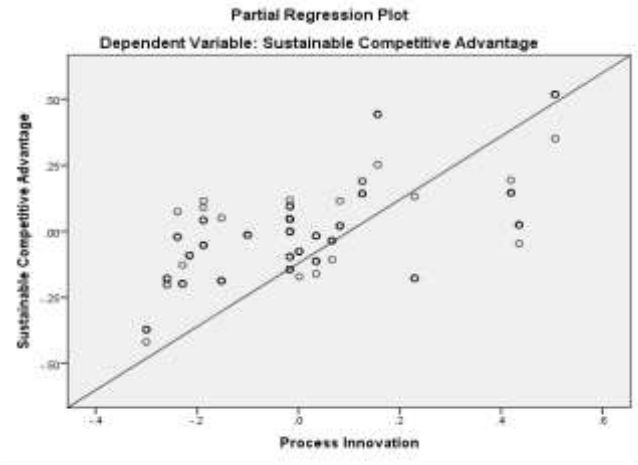

Figure 7 : Partial Regression Plot for Process Innovation and Sustainable Competitive Advantage

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