

**DIVERSIFICATION STRATEGY AND SUSTAINABLE
PERFORMANCE OF PRIVATE UNIVERSITIES IN
KENYA**

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**Diversification Strategy and Sustainable Performance of Private
Universities in Kenya**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

This thesis is a special dedication to my late parents; Dad Dickson Mutinda and my mother Lioness Tabitha Mutinda, thank you for instilling in me the resilience and values that gave me the courage to plunge into the intellectual swimming pool. To my children Celine and Everlasting, may this work inspire you to scale the heights of education and to my husband for his understanding, patience, prayers and support during the entire period of my research.

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ABBREVIATIONS AND ACRONYMS

CUE	Commission for University Education
GOK	Government of Kenya Activities
ICT	Information and Communications Technology
IGA	Income Generating Activities
SPSS	Statistical Package for Social Sciences

DEFINITION OF TERMS

- Conglomerate diversification:** Refers to the organization's strategic expansion into business activities that are unrelated to its existing operations with the objective of reducing business risk, creating alternative revenue streams, and exploiting new market opportunities (Peng, 2022).
- Horizontal diversification:** An organization's strategic expansion into new but related products or services that complement its existing offerings and target similar customer segments with the objective of enhancing competitiveness, generating additional revenue, and strengthening organizational sustainability (Ansoff & Sullivan, 2023).
- Vertical diversification:** A strategic approach through which organizations strengthen their competitive position by expanding into activities undertaken at different stages of their value chain (Hitt, Ireland, & Hoskisson, 2023)
- Geographical diversification:** This strategy encompasses an organization's expansion of its operations into new geographical regions or markets to broaden market coverage, increase institutional reach, and enhance long-term organizational sustainability (Rothaermel, 2021).
- Core competencies:** A distinctive combination of organizational knowledge, skills, technologies, and capabilities that enable an organization to create superior value, implement strategy effectively, and sustain competitive advantage over time (Barney & Mackey, 2021).

Sustainable Performance: Ability to achieve and maintain superior economic, social, environmental, and operational outcomes over the long term while creating value for stakeholders and ensuring organizational continuity (Eccles & Klimenko, 2022).

ABSTRACT

Globalization, unfavorable economic conditions, fierce industry competition and evolving needs of the modern clientele have revolutionized higher education worldwide. Despite their mandate to teach, undertake research and training most universities in Kenya are confronted by a plethora of challenges such as diminishing government capitation and competition resulting from over establishment of universities competing for the same students for tuition income. Many of these universities offer related courses which do not provide their students with wider options in the choice of their career. As a result, private universities have been obligated to revamp their strategies, including but not limited to diversification. This study aimed to assess the role of diversification strategies on sustainable performance of private universities in Kenya, with core competencies as the moderating variable. The study was anchored on Dynamic Capabilities Theory, Upper Echelons Theory, and Institutional Theory. Specifically, the study sought to determine the influence of horizontal diversification, vertical diversification, conglomerate diversification, and geographical diversification on the sustainable performance of private universities, and to establish the moderating effect of core competencies on the relationship between diversification strategy and sustainable performance. The study adopted a post-positivist research philosophy and an explanatory research design. The target population comprised 1,444 senior and middle-level management staff drawn from chartered private universities in Kenya, from which a sample of 313 respondents was selected using stratified random sampling. Data were collected using a structured questionnaire and analyzed using descriptive and inferential statistics. Pearson correlation analysis, multiple linear regression, and hierarchical moderated regression analysis were employed to test the study hypotheses. The findings established that horizontal, vertical, conglomerate, and geographical diversification strategies each had a positive and statistically significant influence on the sustainable performance of private universities in Kenya. The results further demonstrated that core competencies significantly enhanced the relationship between diversification strategy and sustainable performance, although the moderating effect was stronger for some diversification strategies than for others, indicating partial rather than uniform moderation across all diversification dimensions. The study concludes that diversification strategy is an important strategic mechanism for enhancing the sustainable performance of private universities when supported by strong organizational core competencies. The study therefore, recommended that university management should strengthen diversification initiatives by investing in institutional capabilities, strategic leadership, innovation, and resource development to improve long-term sustainability and competitiveness. The study contributes to strategic management literature by providing empirical evidence on the relationship between diversification strategy, core competencies, and sustainable performance within the context of private universities in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Over the past four decades, the global higher education sector has undergone unprecedented transformation driven by globalization, rapid technological advancement, demographic shifts, changing labour market demands, reduced public funding, and increasing competition (Bigley, 2018; Ahmed *et al.*, 2020). Universities, once viewed primarily as academic institutions responsible for teaching and research, have increasingly adopted entrepreneurial and market-oriented approaches to ensure their long-term sustainability (Radinger-Peer & Pflitsch, 2017; Torkington *et al.*, 2020). The expansion of private higher education, internationalization of education, digital learning technologies, and growing stakeholder expectations have fundamentally altered the strategic environment within which universities operate. Consequently, university leaders are increasingly required to balance academic excellence with financial sustainability, operational efficiency, innovation, and societal impact.

Historically, universities relied predominantly on tuition fees, government grants, and philanthropic donations to finance their operations. However, declining public funding, fluctuating student enrolment, and increasing operational costs gradually exposed the vulnerability of these traditional revenue models (Altbach, de Wit & Marope, 2019; Marginson, 2016). Consequently, many universities across the world began adopting diversification strategies aimed at expanding academic programmes, commercial ventures, research collaborations, consultancy services, digital education, international partnerships, and satellite campuses (Wang, 2018; Anna & Thomas, 2020; UNESCO, 2024). Diversification gradually evolved from being a growth strategy into a strategic necessity for institutional resilience and sustainable performance.

Beyond higher education, diversification has long been recognized as a survival strategy in organizational settings. Oladimeji and Udosen (2019) note that the increasing demand for product varieties by consumers and their continuous

substitution has forced organizations to develop strategies to improve performance. Irrespective of opportunities in the business environment, organizations face threats that distort their performance, hence increasing the difficulty of survival. Diversification has therefore become a popular survival strategy among organizations in an effort to outpace competitors (Haug & Ultich, 2013). It should not, however, be seen as a panacea capable of resolving every challenge in today's dynamic environment. Instead, its effectiveness depends on how well institutions align diversification with their resources, capabilities, and long-term goals.

As universities diversified their activities, organizational success could no longer be assessed solely through financial indicators or student enrolment. Contemporary higher education institutions are increasingly evaluated based on their ability to achieve financial viability, academic excellence, stakeholder satisfaction, research productivity, innovation, environmental responsibility, and social contribution (Chardine-Baumann & Botta-Genoulaz, 2014; Henao *et al.*, 2019). This multidimensional perspective has shifted scholarly attention towards sustainable performance as a comprehensive measure of institutional success.

1.1.1 Diversification and Sustainable Performance: A Global Perspective

Globally, the higher education sector has undergone profound transformation over the past four decades as universities respond to globalization, technological advancement, demographic changes, internationalization of education, and the growing demand for knowledge-based economies (Marginson, 2016; Salmi, 2023). Traditionally, universities were primarily established to advance teaching, research, and community service, with their operations largely financed through government appropriations, tuition fees, research grants, and philanthropic contributions. These funding arrangements enabled universities to operate within relatively stable financial environments while fulfilling their academic mandates (Altbach, Reisberg, & Rumbley, 2019; Hazelkorn, 2015).

However, the operating environment of universities has become increasingly complex and competitive. The expansion of private higher education institutions, growth in cross-border education, rapid digital transformation, changing labour market demands,

and the rise of global university rankings have intensified competition for students, academic staff, research funding, and international partnerships (de Wit & Altbach, 2021; Aponte-López & Trujillo, 2026). Universities are therefore no longer competing only within their national boundaries but increasingly within a global higher education marketplace where institutional reputation, innovation, quality assurance, and financial sustainability determine competitiveness (Hazelkorn, 2015).

At the same time, the traditional financing model of higher education has become increasingly unsustainable. While global investment in education has generally increased, expenditure per learner has stagnated or declined in many low- and middle-income countries due to population growth, fiscal constraints, rising public debt, and competing government priorities (World Bank, 2024; UNESCO, 2024). International development assistance allocated to education has also declined as a proportion of total aid, compelling universities to explore more sustainable financing mechanisms beyond government support (Joseph & Montgomery, 2025; Johnstone, 2017).

These financial pressures have coincided with increasing expectations from governments, employers, students, and society for universities to demonstrate greater accountability, innovation, graduate employability, research productivity, and societal impact (Salmi, 2023). Consequently, higher education institutions have increasingly embraced entrepreneurial approaches that emphasize innovation, commercialization of research, strategic partnerships, consultancy services, continuing professional education, technology transfer, digital learning, international collaborations, and income-generating ventures. The concept of the “entrepreneurial university” has therefore emerged as an important strategic model through which universities seek to strengthen institutional resilience while reducing dependence on traditional revenue sources (Clark, 1998; Guerrero & Urbano, 2016; Etzkowitz & Zhou, 2017).

Within this evolving environment, diversification strategy has become a central component of institutional strategic management. Universities across North America, Europe, Asia, and Australia have diversified both academically and commercially by introducing interdisciplinary programmes, establishing branch campuses, expanding online and transnational education, strengthening university–industry collaborations, commercializing research outputs, and investing in auxiliary business enterprises

(Knight, 2018; Aponte-López & Trujillo, 2026). These diversification initiatives are intended not only to generate additional revenue but also to enhance institutional competitiveness, improve stakeholder value, strengthen organizational adaptability, and promote long-term sustainable performance (Hitt, Ireland, & Hoskisson, 2007).

The global experience therefore demonstrates that diversification has evolved from an optional growth strategy into a strategic imperative for universities operating in highly competitive and resource-constrained environments (Salmi, 2023). Nevertheless, the nature, scope, and effectiveness of diversification strategies vary considerably across regions because of differences in regulatory frameworks, funding structures, institutional capabilities, and socio-economic conditions (UNESCO, 2024; Knight, 2018).

1.1.2 Diversification and Sustainable Performance: A Regional Perspective

Across Africa, private universities have become central to expanding access to higher education, particularly in contexts where public institutions lack the capacity to absorb rising student demand. The liberalization of higher education systems during the 1990s and early 2000s accelerated their establishment, transforming them from relatively small institutions into significant contributors to national education systems. Today, private universities play an increasingly important role in human capital development, innovation, and socio-economic transformation across the continent (Varghese, 2022; Teferra, 2023; African Union, 2024).

Unlike public universities that benefit from government funding, private institutions depend predominantly on tuition fees, leaving them more vulnerable to enrolment fluctuations, inflationary pressures, and economic downturns (African Development Bank, 2024; UNESCO, 2024). Rising operational costs, stricter quality assurance requirements, and growing expectations from students and employers have further intensified financial pressures, making sustainability a persistent challenge (Langa, 2019; Tamrat, 2018). In response, private universities across Africa have embraced diversification as a strategic approach to resilience and competitiveness. Diversification initiatives include market-driven academic programmes, executive and professional education, consultancy services, research commercialization, blended and

digital learning, international collaborations, and industry partnerships (Guerrero, Urbano, Cunningham, & Organ, 2016; Cloete, Maassen, & Bailey, 2021; Etzkowitz & Zhou, 2017). Increasingly, private universities are adopting entrepreneurial practices that encourage innovation, knowledge transfer, and commercialization of institutional resources as mechanisms for long-term sustainability (Audretsch, 2014; Teferra, 2023).

Nevertheless, the effectiveness of diversification strategies varies considerably across African countries due to differences in regulatory frameworks, governance structures, institutional capabilities, and financial resources. While some private universities have successfully strengthened their sustainability through diversified activities, others continue to struggle with declining enrolment and financial instability (Tamrat, 2018; African Union, 2024; World Bank, 2024). These variations highlight the need for more studies to examine how diversification strategies influence the sustainable performance of private universities, particularly in Kenya where the crisis of declining enrolment and fee dependence is acute.

1.1.3 Diversification and Sustainable Performance; Kenyan Perspective

The Republic of Kenya report (2017) confirmed that university funding in Kenya was inadequate and significant reduction of student enrollment has led to stiff competition in the university sector. While private universities compete equally for the same students with public universities in Kenya, the latter receives substantial funding and support from the government. Private universities, on the other hand, rely almost entirely on student fees to fund their operations. For private universities therefore, it is no longer optional to seek alternative sources of revenue through income generating activities.

Philanthropic funding from external sources and university alumni popularly referred to as third income stream has gained acceptance as a source of revenue diversification for sustainable performance of universities (Masaiti, 2018). Owing to skyrocketing enrollments without corresponding growth in the existing facilities, public universities were confronted with challenges that constrained their ability to fulfill their mandate (Fegher *et al.*, 2020). Qualified students were no longer able to join public universities

due to limited capacity leading to a crisis in the university education. This compelled the government to liberalize university education to create room for other stakeholders (Nderitu *et al.*, 2018).

The government encouraged the establishment and accreditation of private universities to meet the high demand for university education (Kajawo, 2020), a move that led to over establishment sinking the higher education sector into further pitfalls. Newly registered universities, satellite campuses and constituent colleges were established in various parts of the country flooding the higher education subsector.

The proliferation of private universities in Kenya provided a reprieve that was long overdue for qualified students who failed to secure admission to public universities. However, the reprieve was short lived. The education reforms of 2018 which resulted in the cut off for university entry being reduced to C+ significantly reduced student decreased in private universities as almost all qualified students joined public universities. This translated to reduced revenue from student fees as private universities rely almost entirely on student fees to fund all their activities (CUE report, 2019).

Table 1. 1: University Categories in Kenya

UNIVERSITY	NUMBER
Private Chartered Universities	21
Private Constituent Colleges	3
Public Chartered Universities	31
Public Constituent Colleges	6
Institutions with Letters of Interim Authority	14
Total	74

Source: CUE (2021)

Further, significant reduction of student enrollment vis a vis massification of university education subsector presented sustainability challenges for private universities with the point of focus no longer being growth but sustainable performance. Universities were no longer able to break even with many satellite campuses rapidly closing down.

Twenty-eight (28) public and six (6) private satellite campuses closed down between 2016 and 2020 (CUE, 2020). Private universities were therefore under immense pressure to revamp their strategies with a view to adopting strategies that guarantee sustainable performance (Nganga & Kibati, 2016).

Vision 2030 is the Kenya's development blueprint whose key objective is to transform Kenya to a middle-income country by the year 2030 (World Bank 2010). Education and training have been recognized as a key enabler for the social pillar of Vision 2030 (World Bank 2010). Kenya aims at creating a globally competitive and adaptive human capital to meet the requirements of Vision 2030 by providing globally competitive and quality education, training and research (Vision 2030). The findings of the current study were relevant to Vision 2030 in that it contributed to the provision of globally competitive and quality education which enabled the training of globally competitive human capital.

1.1.4 University Education, Diversification and Sustainable Performance

The role of university education in socio-economic, political and technological development cannot be overemphasized (Radinger-Peer & Pflitsch, 2017). Torkington *et al.* (2020) affirm that the Socio-political development of a nation is firmly anchored on its education system which enhances productivity and economic growth. Bennett, Power, Thomson, as quoted by Juma (2016) acknowledge that higher education is the driver of national development whose expected result is skilled manpower.

As the vehicle for transforming society by training decision-makers, leaders, entrepreneurs and academicians therefore the role of university education is invaluable. However, global trends indicate that sustainability of private universities is a big challenge. Sustainability has been defined as the potential for a process to be maintained indefinitely and the capacity to endure shifting and complex market conditions (Bigley, 2018). There is urgent need to improve the quality of higher education to beat global competition as well as meet international academic trend while raising overall academic standards (Ahmed et al., 2020). In this regard, given the dynamic and competitive environment, the biggest challenges for private universities are increasing student enrollment while remaining financially viable,

creating sustainable revenue streams, staff retention and provision of quality service including market relevant programs, and efficiency in service delivery (Nderitu *et al.*, 2018). There is need for private universities to appreciate their resources, capabilities and core competencies which have a direct link to achieving their strategic goals thereby realize sustainable performance.

Many businesses adopt Michael Porter's generic competitive strategies; focus, cost leadership and differentiation strategies to achieve sustainable performance (Nderitu *et al.*, 2018). However, the premise of the current research is diversification strategy in private universities. Kurt and Zehir (2020) opine that diversification strategy in the university setting provides unique services giving the university an edge over its rivals and therefore enables the universities to achieve sustainable performance.

Diversification strategy was first discussed by Ansoff prior to the appearance of Chandler's (1962) or Gort's (1962) seminal works on diversification. In his work, Ansoff (1957) designed a matrix comprising four different growth strategies: market penetration, product development, market development and diversification (Dawes, 2018). Businesses pursue one or more types of Ansoff's growth strategies. Through diversification strategy business entities expand operations and foster sustainable performance by penetrating new markets or launching new products and services (Dawes, 2018). Ansoff (1957) postulates that organizations diversify to compensate for technological obsolescence, to distribute risk, to utilize excess productive capacity and to invest earnings.

Mahmood *et al.* (2017) point to diversification strategy as being among the 21st Century trends shaping businesses today, a position echoed by Asfaw *et al.* (2018) in their finding that diversification strategy accelerates growth by increasing diversity. Further, Santarelli and Tran (2015), in their research paper on diversification strategy in Vietnam, established a positive relationship between the degree of diversification and growth of institutions. Asfaw *et al.* (2018) postulate that diversification is a deviation from a rigid system of business to one capable of accommodating demand from a diverse clientele. Diversification strategy has been found to be an effective tool for countering industry competition. Private universities may therefore adopt diversification to enhance sustainable performance.

Zobel (2017) posits that in concentric (related) diversification a new business opportunity is strategically related to an existing business. According to Tien and Ngoc (2019) related diversification leverages synergistic activities of different units without incurring additional resources or costs. A new business venture benefits from access to the core competencies of an organization by exploiting similar expertise and resources already existing in the organization. Private universities offering Bachelor of Commerce, may, for example, introduce Diploma certificate courses, Masters and Doctoral degree programs in the same or related options thereby exploiting already existing expertise. Conglomerate diversification occurs when there is no common thread of strategic fit or relationship between the new and old lines of business; the new and old businesses are unrelated Nyaga *et al.* (2021). Research has found conglomerate diversification to be more complex than concentric diversification with key challenges being inadequate skills, experience and resources.

Diminishing finances for higher education is a global phenomenon affecting both developed and developing economies. Reduced funding by international donors threw universities in sub-Saharan Africa into financial crises and led to stiff competition in the university sector (Shariff & Kronenberg, 2018). In this regard practitioners in the academic industry opined that universities should embrace alternative sources of revenue for sustainable performance.

Driven by financial stringency therefore universities in developing world have incorporated entrepreneurial approach in their mandate. For instance, Parakhina *et al.* (2017) reported that Harvard and Stanford universities, when confronted by financial short falls, reoriented their strategies to achieve sustainability. In 2010 alone the annual revenues for Harvard University hit \$3.7 billion with Stanford University realizing \$4.1 billion in revenue in the year 2011. Private universities therefore struggle to emulate the world class universities and adopt diversification approach so as to draw realistic, achievable strategic goals capable of driving sustainability.

Declining funding for higher education due to changing priorities is a global phenomenon affecting both developed and developing economies (Sanderson *et al.*, 2017). Serrasqueiro *et al.* (2018) found financial crisis as being among the reasons universities diversify their sources of funding. They further established that financial

stability is key for institutions of higher learning to discharge their mandate. Vedder (2018) collected data from Chief Financial Officers (CFOs) of USA public and private universities to explore the financial sustainability of Higher Education. The study expressed concerns about the fiscal status of these institutions.

Private universities should provide market relevant programs that address the needs of their clientele through innovation and creativity in order to increase customer loyalty and attract students. Through diversification private universities are able to charge premium prices whenever the customers can find value for services received (Ahmed *et al.*, 2018). This will increase student enrollment and therefore increase market share. The ability to offer unique programs which address particular needs of specific clientele and which are different from those offered by competitors will have positive impact on sustainable performance (Candido & Santos, 2019).

Privatization of university education in 2012 whose primary goal was to meet the high demand for university education saw the accreditation of many private universities leading to over establishment (Odhiambo, 2013). Currently there are 21 chartered private universities and 33 chartered public universities in Kenya (CUE, 2021). This heightened competition in the in the university subsector as both public and private universities draw their clientele (students) from the same market making it difficult to survive in the industry without unique and sustainable competitive strategies. Further, the reduction of university entry point to C+ in 2018 significantly reduced student enrollment in private universities since all qualified students were eligible to join public universities.

Massive competition in the university sub sector vis a vis reduced student numbers threatened the sustainability of private universities in Kenya. Satellite campuses started closing down. Twenty-eight (28) public and six (6) private satellite campuses closed down between 2016 and 2020 (CUE 2020). The number of campuses closed down by Kenyan Universities has risen substantially in the post-Covid-19 era. These factors resulted in a call for revamping by private universities in order to realize sustainable performance.

1.2 Statement of the Problem

Private universities are an integral component of Kenya's higher education system, complementing public universities in expanding access to university education, producing skilled human capital, promoting research and innovation, and contributing to national socio-economic development (Varghese, 2022; Teferra, 2023; African Union, 2024). To effectively fulfil this mandate, private universities are expected to achieve sustainable performance characterized by financial sustainability, institutional resilience, academic excellence, operational efficiency, stakeholder satisfaction, and long-term competitiveness (Salmi, 2021; UNESCO, 2024). In an increasingly dynamic higher education environment, achieving sustainable performance requires institutions to adopt strategic responses that strengthen their competitive position, diversify income streams, and enhance their capacity to adapt to changing economic, technological, and regulatory conditions (Kajawo, 2020; World Bank, 2024).

Despite their strategic importance, many private universities in Kenya continue to experience significant sustainability challenges. The sector has witnessed declining student enrolment, heightened competition from public universities, rising operational costs, rapid technological changes, increasing regulatory requirements, and growing pressure to improve teaching quality, research output, and innovation (Nganga & Kibati, 2016; African Development Bank, 2024; CUE, 2026). Between 2016 and 2023, enrolment in private universities fell by over 35%, from approximately 130,000 students to fewer than 85,000 (CUE, 2026). At the same time, public universities increased their share of government-sponsored students to over 90%, leaving private universities with less than 10% of new admissions (Republic of Kenya, 2023). The implementation of the student-centred university funding model in 2023 further transformed the financing landscape by substantially reducing government-sponsored student placements in private universities, thereby increasing dependence on self-sponsored students at a time when enrolment has continued to decline (Republic of Kenya, 2023; Daily Nation, 2025). Consequently, several private universities have experienced financial constraints, programme rationalization, delayed infrastructure development, staff reductions, closure of satellite campuses with at least six private

campuses shut down between 2018 and 2024 and increasing uncertainty regarding their long-term sustainability (The Star, 2025; CUE, 2026).

In response to these challenges, private universities have increasingly adopted diversification strategies aimed at strengthening institutional resilience and reducing dependence on tuition fee income. These initiatives include horizontal diversification through the introduction of new academic programmes, executive education, consultancy services and professional certification courses; vertical diversification through commercialization of research, innovation hubs, technology transfer and university–industry partnerships; conglomerate diversification through investments in unrelated commercial ventures and income-generating enterprises; and geographical diversification through satellite campuses, regional expansion, international collaborations and transnational education programmes (Guerrero, Urbano, Cunningham, & Organ, 2016; Cloete, Maassen, & Bailey, 2021; Etzkowitz & Zhou, 2017; Audretsch, 2014). These strategic initiatives are expected to broaden institutional revenue streams, strengthen competitive advantage and improve sustainable performance (Salmi, 2021; African Development Bank, 2024). Nevertheless, despite the adoption of these diversification strategies, many private universities continue to experience financial instability and operational challenges, suggesting that the effectiveness of diversification strategies in enhancing sustainable performance remains uncertain within the Kenyan higher education sector (Teferra, 2023; Varghese, 2022).

Recent studies have examined diversification strategy in different organizational contexts, including manufacturing firms, financial institutions, small and medium enterprises, construction firms and higher education institutions (Hitt, Ireland, & Hoskisson, 2021; Maringe & Sing, 2014). Within Kenya, studies have also investigated various forms of diversification among public and private universities, including horizontal diversification, vertical diversification, geographical diversification and other strategic responses to environmental change (Kajawo, 2020; CUE, 2026). While these studies have made important contributions to the understanding of diversification strategy, they have generally examined individual diversification dimensions independently, focused on specific organizational contexts, or emphasized organizational and financial performance rather than sustainable

performance as a multidimensional construct (UNESCO, 2024; African Union, 2024). Furthermore, limited empirical attention has been given to the combined influence of horizontal, vertical, conglomerate and geographical diversification strategies on the sustainable performance of chartered private universities in Kenya. Equally, the extent to which core competences strengthen or weaken the relationship between diversification strategies and sustainable performance remains insufficiently understood, particularly within the context of recent funding reforms, heightened competition, technological transformation and increasing stakeholder expectations (World Bank, 2024; Teferra, 2023).

In the absence of sufficient empirical evidence to guide strategic diversification and capability development, private universities risk continued financial instability, declining academic quality, reduced institutional competitiveness, diminished research and innovation capacity, and possible institutional closure, thereby undermining their contribution to Kenya's higher education system and the realization of Kenya Vision 2030 (Republic of Kenya, 2023; African Union, 2024; UNESCO, 2024). It is against this background that this study sought to examine the influence of diversification strategies on the sustainable performance of private universities in Kenya and to determine the moderating role of core competences on the relationship between diversification strategies and sustainable performance.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to examine the role of diversification strategy on sustainable performance of private universities in Kenya.

1.3.2 Specific objectives

The study was guided by the following specific objectives:

- i. To establish the influence of horizontal diversification on sustainable performance of private universities in Kenya.

- ii. To determine the influence of vertical diversification on sustainable performance of private universities in Kenya.
- iii. To assess the influence of conglomerate diversification on sustainable performance of private universities in Kenya.
- iv. To establish the influence of geographical diversification on sustainable performance of private universities in Kenya.
- v. To assess the moderating role of core competency on the relationship between diversification strategies and sustainable performance of private universities in Kenya.

1.4 Research Hypotheses

H01: Horizontal diversification does not significantly influence sustainable performance of private universities in Kenya.

H02: Vertical diversification does not significantly influence sustainable performance of private universities in Kenya.

H03: Conglomerate diversification does not significantly influence sustainable performance of private universities in Kenya.

H04: Geographical diversification does not significantly influence sustainable performance of private universities in Kenya.

H05: Core competency does not significantly moderate the relationship between diversification strategies and sustainable performance of private universities in Kenya.

1. 5 Significance of the Study

1.5.1 Management of Private Universities in Kenya

The findings of this study will be valuable to the management of private universities in Kenya, including university councils, boards of trustees, vice-chancellors, deputy vice-chancellors, finance managers, and strategic planning departments. Specifically, the study will provide empirical evidence on the influence of horizontal, vertical, conglomerate, and geographical diversification strategies on the sustainable

performance of private universities. This evidence will support institutional leaders in identifying and prioritizing diversification strategies that enhance financial sustainability, improve institutional competitiveness, strengthen academic resilience, and promote long-term organizational performance. The findings will also assist university management in developing and leveraging core competences that facilitate the successful implementation of diversification strategies within an increasingly competitive higher education environment.

1.5.2 Policy-Makers

The findings of this study will be useful to policy makers, particularly the Ministry of Education, the Commission for University Education (CUE), Universities Fund, and other agencies responsible for higher education governance in Kenya. The study will provide more insights into how diversification strategies contribute to the sustainable performance of private universities, thereby informing policies aimed at strengthening institutional sustainability, governance, quality assurance, and strategic innovation. The findings will also support the formulation of policy frameworks that encourage universities to diversify their revenue streams while maintaining academic quality and institutional accountability. Beyond the higher education sector, the study will demonstrate how strategic diversification can enhance organizational sustainability, thereby providing lessons applicable to organizations operating in other sectors of the economy.

1.5.3 Researchers and Academia

The study will contribute to the body of knowledge in strategic management and higher education management by providing empirical evidence on the relationship between diversification strategies and the sustainable performance of private universities in Kenya. It will further contribute to strategic management literature by examining the moderating role of core competences, an area that has received limited empirical attention within the higher education sector. The findings are expected to extend the application of Dynamic Capabilities Theory, Upper Echelons Theory, and Institutional Theory in explaining sustainable organizational performance within private

universities. In addition, the study will provide a useful reference for scholars, researchers, postgraduate students, and practitioners undertaking future studies on diversification strategies, organizational capabilities, and sustainable performance in higher education institutions and other organizational settings.

1.6 Scope of the Study

Changing business environment and inability to realize strategic goals resulting from industry competition has greatly challenged the lifeline of private universities. These institutions are under constant pressure to review their strategies. The current study proposed diversification as a key strategy private university may explore to realize sustainable performance. The study sample was stratified and the respondents were selected from the top management and middle level management in all the 21 chartered private universities in Kenya. The study therefore was carried out only in chartered private universities.

The geographical scope of the study was mainly Nairobi as most private universities in Kenya are largely concentrated in this area. However, there are some private universities located in towns surrounding Nairobi such Kitengela, Machakos and Thika. The underpinning theories of the current research included Dynamic Capabilities Theory, Upper Echelons theory and Institutional theory.

1.7 Limitations of the Study

This study was confined to chartered private universities in Kenya. Consequently, the findings are most applicable to this category of higher education institutions and may not necessarily be generalized to public universities, constituent colleges, or private universities operating under interim authority. These institutions differ in terms of governance structures, funding models, and strategic priorities, which may influence their diversification approaches and sustainable performance. Despite this limitation, chartered private universities were considered appropriate because they constituted the population of interest and provided the most suitable context for addressing the study objectives.

The research adopted a cross-sectional design in which data were collected at a single point in time. Such a design provides a snapshot of the prevailing diversification practices and sustainable performance of private universities but does not capture how these variables may evolve over time. Although this limits the ability to make conclusions about long-term changes or causal effects, the use of an explanatory research design, validated research instruments, and appropriate statistical techniques enhanced the credibility and robustness of the findings.

Information for the study was obtained from senior and middle-level managers through structured questionnaires. Since the data were based on respondents' perceptions, there was a possibility of response bias arising from personal opinions, selective recall, or the tendency to provide socially desirable responses. To minimize this risk, respondents were assured that their responses would remain confidential and anonymous, participation was voluntary, and the questionnaires were administered using standardized procedures to encourage honest and objective responses.

The study examined the influence of horizontal, vertical, conglomerate, and geographical diversification strategies on sustainable performance while considering the moderating role of core competences. However, sustainable performance is influenced by a wide range of organizational and external factors, including leadership practices, organizational culture, technological capabilities, government policies, economic conditions, and market dynamics. These factors were beyond the scope of the present study and were therefore not included in the analysis. As a result, the findings should be interpreted within the context of the variables investigated.

Access to some members of the top university management was constrained by their demanding schedules and institutional protocols governing research participation. Although this reduced opportunity to obtain views from every targeted respondent, an adequate number of senior and middle-level managers who are directly involved in strategic planning and implementation participated in the study. The response obtained was therefore considered sufficient to provide reliable evidence for addressing the research objectives.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examined the literature that informed the current study. It summarizes and provides gaps which the current study sought to fill and which were not addressed by previous studies. The chapter further reviews the theoretical framework relevant to the study, conceptual framework and the discussion of study variables, empirical review, and research gaps. It concludes by presenting a summary of literature reviewed in the entire section. The aim of this section is to highlight, through the eyes of previous studies, how the current problem has been addressed and understood.

2.2 Theoretical Framework

A theoretical framework provides the conceptual foundation upon which a study is anchored. It identifies and integrates theories that explain the relationships among the study variables, guides the development of the conceptual framework, informs the formulation of research hypotheses, and provides a basis for interpreting the study findings (Grant & Osanloo, 2014; Ravitch & Carl, 2016). In strategic management research, organizational performance is influenced by multiple internal and external factors that cannot be adequately explained by a single theoretical perspective (Hitt et al., 2023). Consequently, researchers often adopt complementary theories to provide a comprehensive explanation of complex organizational phenomena (Whetten, 1989).

This study examined the relationship between diversification strategies and sustainable performance among private universities in Kenya. This relationship encompassed several dimensions, including the external institutional environment within which universities operate, the strategic decisions made by institutional leaders, and the organizational capabilities required to successfully implement diversification initiatives. Given the multidimensional nature of these relationships, no single theory adequately explains all the study variables and their interactions. The study is therefore anchored on Institutional Theory, Upper Echelons Theory, and Dynamic Capabilities Theory, each of which provides a distinct but complementary perspective for

understanding the phenomenon under investigation (Hambrick, 2007; Scott, 2014; Teece, 2018).

Although these theories originate from different schools of thought, they were not applied as competing explanations. Rather, they operated at different levels of analysis and collectively provided a coherent theoretical foundation for the study. Institutional Theory explained how external regulatory requirements, competitive pressures, professional norms, and stakeholder expectations shape the strategic environment and influence universities' decisions to pursue diversification (Scott, 2014). Upper Echelons Theory complemented this perspective by explaining how senior leaders interpret these environmental conditions and make strategic decisions regarding institutional direction and diversification (Hambrick & Mason, 1984; Hambrick, 2007). Dynamic Capabilities Theory, in turn, explained how universities develop, integrate, and reconfigure organizational resources and capabilities required to successfully implement diversification strategies and translate them into sustainable performance (Teece, 2007; Teece, 2018). Accordingly, the three theories complemented one another by explaining how external environmental forces influence strategic decisions, how leadership responds to those pressures, and how organizational capabilities facilitate the successful implementation of diversification strategies to enhance sustainable performance. Thus, the three theories provided a multilevel explanation that linked the external environment, strategic leadership, and organizational capability development.

2.2.1 Dynamic Capabilities Theory

Dynamic Capabilities Theory (DCT) was advanced by Teece, Pisano and Shuen (1997) and later refined by Teece (2007; 2018). The theory emerged as an extension of the Resource-Based View (RBV), which emphasizes that competitive advantage is derived from valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). While acknowledging the importance of strategic resources, Teece et al. (1997) argued that the possession of resources alone does not guarantee sustained organizational success. As technologies evolve, markets become more competitive, and stakeholder expectations change, organizations must continually develop the capacity to integrate, build, and reconfigure their internal and external resources to

respond effectively to environmental changes (Eisenhardt & Martin, 2000; Teece, 2007). Accordingly, DCT shifts attention from what organizations own to what they are capable of doing with those resources in changing circumstances (Helfat et al., 2007).

The central proposition of DCT is that long-term organizational performance depends on the ability to sense opportunities and threats, seize identified opportunities through timely strategic decisions, and transform organizational resources and processes to remain aligned with environmental changes (Teece, 2007). Sensing involves continuously scanning the environment to identify emerging opportunities, technological developments, market trends, and stakeholder needs. Seizing refers to mobilizing resources and making strategic investments that enable the organization to exploit those opportunities, while transforming entails continuously renewing organizational structures, capabilities, and operational processes to sustain competitiveness over time (Teece, Peteraf, & Leih, 2016; Teece, 2018). Unlike ordinary operational capabilities that focus on efficiency and routine activities, dynamic capabilities enable organizations to adapt, innovate, and strategically reposition themselves in response to changing environmental conditions (Winter, 2003; Teece, 2017). Consequently, organizations with stronger dynamic capabilities are better positioned to sustain performance under conditions of uncertainty than those relying solely on existing operational routines.

Although DCT has become one of the most influential perspectives in strategic management research, it has attracted several criticisms. Scholars have argued that the concept of dynamic capabilities remains broad and difficult to operationalize because the capabilities are embedded within organizational routines and managerial processes, making them difficult to observe and measure directly (Eisenhardt & Martin, 2000; Schilke, Hu, & Helfat, 2018). Others contend that while the theory explains the need for organizational adaptation, it offers limited guidance on how dynamic capabilities are developed or how managers can deliberately build them in different organizational contexts (Winter, 2003). Despite these criticisms, the theory continues to provide a valuable framework for understanding how organizations maintain competitiveness and achieve sustainable performance in volatile environments (Teece, 2018).

DCT is relevant to this study because private universities in Kenya operate in an increasingly competitive and dynamic higher education environment characterized by declining student enrolment, rapid technological change, evolving regulatory requirements, changing labour market demands, and growing stakeholder expectations (Altbach, Reisberg, & de Wit, 2023; CUE, 2026; World Bank, 2024). Responding effectively to these changes requires universities to continuously develop and renew their organizational capabilities rather than relying solely on existing resources (Teece, 2018; Ambrosini & Altintas, 2019). In this context, the theory is not used to explain why universities choose diversification strategies, but rather how they develop the organizational capabilities required to successfully implement those strategies and convert them into sustainable performance (Salmi, 2021; Varghese, 2022).

This distinction addresses the limitation of applying DCT as a diversification-choice theory by instead providing an implementation perspective that explains how universities integrate resources, strengthen institutional processes, embrace innovation, and adapt to changing environmental conditions (Guerrero, Urbano, Cunningham, & Organ, 2016; Cloete, Maassen, & Bailey, 2021). Accordingly, the study adopts Dynamic Capabilities Theory to explain how organizational capabilities through sensing opportunities, seizing them via strategic action, and transforming institutional resources, facilitate the successful implementation of horizontal, vertical, and conglomerate diversification strategies, thereby enhancing the sustainable performance of private universities in Kenya (Teece, Peteraf, & Leih, 2016; African Development Bank, 2024).

2.2.2 The Upper Echelons Theory

Upper Echelons Theory (UET) was developed by Hambrick and Mason (1984) to explain why organizations operating under similar environmental conditions often adopted different strategic responses and achieved different performance outcomes. The theory was founded on the premise that organizational strategies and performance reflected the characteristics of senior executives who made strategic decisions. Hambrick and Mason (1984) argued that executives rarely possessed complete

information when making strategic decisions and therefore interpreted organizational situations through their experiences, values, personalities, and cognitive orientations.

The central proposition of UET is that organizational outcomes are partially predicted by the background characteristics of senior leaders because these characteristics shape their interpretation of complex strategic issues (Hambrick, 2007). Executives with different educational qualifications, professional experiences, functional backgrounds, tenure, and leadership philosophies frequently interpreted the same environmental conditions differently, resulting in varied strategic choices (Finkelstein, Hambrick, & Cannella, 2009). Organizations operating within the same industry therefore did not necessarily pursue similar strategies because strategic decisions were filtered through the cognitive frames of top management teams (Hambrick, 2007). This perspective shifted attention from purely economic explanations of strategy to the influence of managerial judgement and executive discretion on organizational direction.

The theory has been widely applied to explain strategic decision-making in organizations experiencing environmental uncertainty and rapid change (Neely, Lovelace, Cowen, & Hiller, 2020). In higher education, university leaders continually make strategic decisions concerning academic programme expansion, institutional partnerships, investment priorities, digital transformation, and revenue diversification (Altbach et al., 2023; Bolden et al., 2012; de Boer et al., 2007). Such decisions are rarely determined by environmental pressures alone. Instead, they reflect how university councils and senior management teams interpret institutional challenges, evaluate strategic alternatives, balance competing stakeholder expectations, and allocate scarce organizational resources (Hambrick, 2007; Middlehurst, 2013; Taylor, 2013). Consequently, differences in leadership experience, strategic orientation, and managerial judgement may explain why universities operating within similar regulatory and competitive environments pursue different diversification pathways (Carpenter et al., 2004; Finkelstein et al., 2009; Hambrick, 2007).

Upper Echelons Theory has attracted several criticisms. One criticism is that executive characteristics do not operate independently of the organizational context. Strategic decisions may be constrained by governance structures, institutional culture, financial resources, and regulatory frameworks, thereby limiting managerial discretion

(Carpenter et al., 2004; Finkelstein et al., 2009). Another limitation concerns measurement. Many of the executive attributes proposed by the theory, including values, judgement, and cognitive orientation, cannot be observed directly. Consequently, researchers have frequently relied on demographic characteristics such as age, educational attainment, tenure, and functional experience as proxies, although these variables may not fully capture the cognitive processes underlying strategic decision-making (Hambrick, 2007). Nevertheless, empirical evidence has continued to support the proposition that executive characteristics influence strategic choices and organizational outcomes across different sectors (Neely et al., 2020).

UET provided an appropriate foundation for the present study because diversification represented a strategic decision undertaken by the leadership of private universities rather than an automatic response to environmental change. Private universities in Kenya operate in an increasingly competitive environment characterized by declining student enrolment, technological disruption, changing labour market demands, evolving regulatory requirements, and increasing financial pressures (Altbach, Reisberg, & de Wit, 2023; World Bank, 2024; African Development Bank, 2024; CUE, 2026; Teferra, 2023).). Although these environmental conditions create incentives for strategic change, they do not determine how individual institutions respond. Decisions to introduce new academic programmes, establish commercial ventures, expand into new geographical markets, or strengthen institutional partnerships depend largely on the strategic judgement of university councils, vice-chancellors, and senior management teams (CUE, 2026).

The study used UET to explain how senior leadership influenced the strategic direction of universities by interpreting environmental changes, setting institutional priorities, allocating strategic resources, and supporting the implementation of diversification strategies. Leadership decisions created the conditions under which organizational competences were developed and effectively deployed, but they did not constitute core competences themselves. This distinction addressed the conceptual difference between executive capabilities and organizational capabilities that had been highlighted in strategic management literature (Prahalad & Hamel, 1990; Hambrick, 2007).

The Upper Echelons Theory complemented the other theories rather than overlapping with them. Institutional Theory explained the external pressures that shaped the strategic environment within which private universities operated, while Dynamic Capabilities Theory explained how organizational capabilities enabled the effective implementation of strategic initiatives. Upper Echelons Theory occupied the intermediate level by explaining how senior leaders interpreted institutional pressures and translated them into strategic decisions. The integration of the three theories therefore provided a coherent explanation of how diversification strategies influenced the sustainable performance of private universities in Kenya.

2.2.3 Institutional Theory

Institutional Theory originated from the work of Meyer and Rowan (1977) and was later advanced by DiMaggio and Powell (1983) and Scott (2014). The theory argues that organizational structures, policies, and strategic decisions are shaped not only by economic considerations but also by social expectations, regulatory requirements, professional norms, and cultural beliefs (Scott, 2014). Organizations therefore pursue legitimacy alongside efficiency because legitimacy enhances their survival, credibility, and access to critical resources (Meyer & Rowan, 1977; Suchman, 1995).

A key proposition of Institutional Theory is that organizations operating within the same institutional environment tend to become increasingly similar over time through a process known as institutional isomorphism (DiMaggio & Powell, 1983). The theory identifies three mechanisms through which this occurs. Coercive isomorphism arises from formal pressures exerted by governments, regulatory agencies, and other institutions that require organizations to comply with established laws, policies, and standards. Normative isomorphism results from professional norms, shared values, and industry standards promoted by professional associations and accreditation bodies. Mimetic isomorphism occurs when organizations imitate the practices of perceived successful competitors, particularly under conditions of uncertainty (DiMaggio & Powell, 1983; Scott, 2014). These institutional pressures influence organizational behaviour by encouraging the adoption of structures and strategies that are considered legitimate within a particular sector.

The higher education sector provides a practical illustration of these institutional influences. Universities operate within complex regulatory and professional environments where decisions are shaped by government policies, accreditation standards, market competition, technological developments, and societal expectations (Altbach et al., 2023). In Kenya, private universities are required to comply with standards established by the Commission for University Education (CUE), while simultaneously responding to changing student preferences, labour market demands, internationalization, and increased competition for enrolment (World Bank, 2024; African Development Bank, 2024; CUE, 2023). These institutional pressures have encouraged universities to diversify their academic programmes, strengthen industry partnerships, invest in digital learning platforms, establish satellite campuses, and develop alternative sources of revenue to remain competitive and financially sustainable (CUE, 2023; Materu, 2007). Consequently, diversification has increasingly become a strategic response to changes in the external environment rather than merely an internally driven organizational decision.

However, Institutional Theory has been criticized for placing considerable emphasis on conformity and organizational stability while giving less attention to strategic choice and innovation (Greenwood et al., 2017). Critics argued that organizations are not passive recipients of institutional pressures; rather, they possess varying degrees of managerial discretion and organizational capability that enable them to respond differently to similar environmental conditions (Oliver, 1991). The theory also provides limited explanation of how organizations develop the internal capabilities required to implement strategic responses after recognizing institutional pressures. These limitations suggest that Institutional Theory alone cannot fully explain organizational performance in dynamic environments.

Nevertheless, Institutional Theory provided an important perspective for the present study. Government policies, quality assurance requirements, demographic changes, technological advancements, competition from public and private institutions, and stakeholder expectations create pressures that influence institutional strategic choices. The theory therefore explained why universities pursued diversification strategies by highlighting the external forces that encouraged strategic adaptation. However, it did not explain how universities successfully implemented those strategies or why

institutions exposed to similar institutional pressures often achieved different performance outcomes.

For this reason, Institutional Theory was applied alongside Upper Echelons Theory and Dynamic Capabilities Theory. Institutional Theory explained the external context within which diversification strategies emerged, Upper Echelons Theory explained how university leaders interpreted those institutional pressures and made strategic decisions, while Dynamic Capabilities Theory explained how organizational capabilities enabled the successful implementation of those decisions. The integration of the three theories therefore provided a comprehensive explanation of the relationship between diversification strategies and the sustainable performance of private universities in Kenya.

2.3 Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied. It presents an integrated way of looking at a problem under study (Adom & Hussein, 2018). It is arranged in a logical structure to aid provide a picture or visual display of how ideas in a study relate to one another (Grant & Osanloo, 2014). The framework makes it easier for the researcher to easily specify and define the concepts within the problem of the study.

The current research is anchored on four independent variables; horizontal, vertical, conglomerate and geographical diversification strategies as the predictors of sustainable performance of private universities in Kenya. The study further examined the effect of core competencies as a moderating variable as shown in figure 2.1 below:

Diversification Strategies

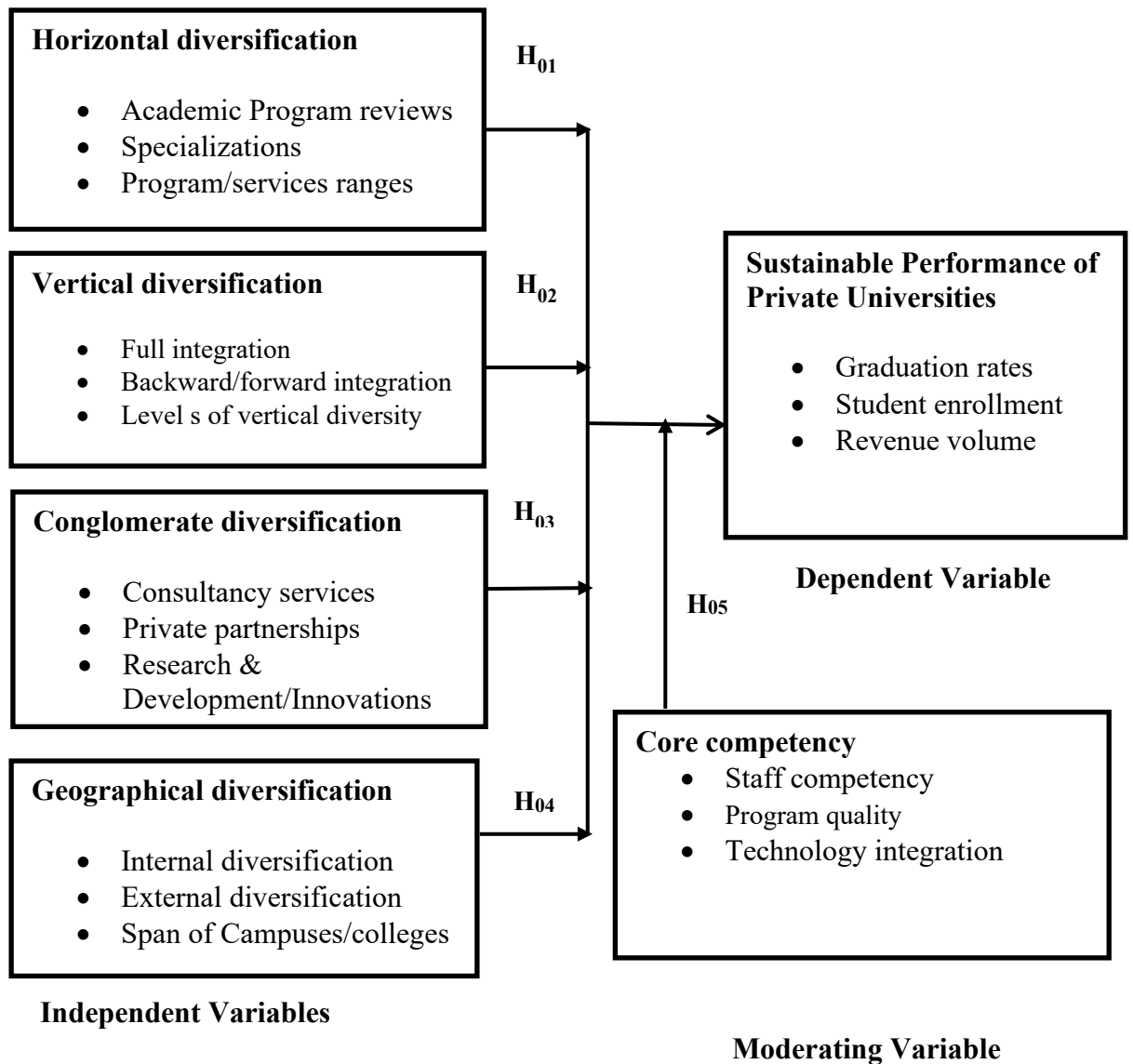


Figure 2.1: Conceptual framework

2.3.1 Horizontal Diversification and Sustainable Performance of Private Universities

Scholars have established a link between horizontal diversification strategy and sustainable performance, affirming that organizations enter new markets to explore new opportunities, address changing customer needs, and respond to technological developments (Ansoff & Sullivan, 2023; Hitt, Ireland, & Hoskisson, 2023; Wheelen *et al.*, 2023). In this study, horizontal diversification refers to an organization's

strategic expansion into new but related products or services that complement its existing offerings and target similar customer segments with the objective of enhancing competitiveness, generating additional revenue, and strengthening organizational sustainability (Ansoff & Sullivan, 2023). This strategy may involve introducing new academic programmes, professional training courses, consultancy services, executive education, and other related educational offerings. The perception that university education guarantees improved employment prospects, coupled with changing societal expectations and increasing demand for highly skilled graduates, has continued to contribute to the expansion and diversification of higher education globally and in Kenya (Altbach *et al.*, 2023; UNESCO, 2024).

Horizontal diversification spreads risk in private universities because challenges experienced in one programme or academic unit may be offset by improved performance in another (Johnson, Scholes, & Whittington, 2020). As noted by Oanda and Jowi (2013), the expansion of university education in Kenya has historically been geographical. However, recent developments indicate that universities have increasingly diversified through programme innovation, digital education, industry partnerships, and international collaborations in response to changing market demands (Commission for University Education [CUE], 2023). The Government of Kenya has also continued to support expansion of higher education through policy reforms, quality assurance frameworks, and the establishment of new university campuses to improve access to university education (Republic of Kenya, 2023).

Sustainable performance of private universities has increasingly been associated with their ability to offer academic programmes aligned with labour market needs, technological developments, and industry expectations (World Economic Forum, 2023). Kenya Vision 2030 continues to emphasize the importance of education in developing entrepreneurial competencies, innovation, and skills required to support national development (Republic of Kenya, 2023). This places greater responsibility on university management to continuously review curricula and strengthen collaboration with industry in order to ensure graduates possess relevant competencies for the evolving labour market. Similarly, UNESCO (2024) emphasizes the need for universities to promote lifelong learning, innovation, and industry-oriented programmes capable of responding to changing socio-economic demands.

The need for flexible academic programming has remained central to higher education reforms worldwide. Universities are increasingly expected to review and redesign their academic programmes to respond to technological changes, globalization, and evolving student expectations (Altbach *et al.*, 2023). Some private universities may choose to introduce new programmes related to their existing academic strengths in order to maximize the utilization of existing expertise, infrastructure, and institutional resources while minimizing additional operational costs (Hitt *et al.*, 2023). For example, a university offering a Bachelor of Commerce programme may introduce diploma, master's, doctoral, and professional certification programmes within related disciplines to leverage existing faculty expertise and academic infrastructure. Such related diversification enables institutions to exploit operational synergies and improve institutional sustainability through efficient resource utilization (Wheelen *et al.*, 2023).

Private universities may also pursue unrelated diversification by introducing programmes outside their traditional areas of specialization, such as expanding from business education into medicine, engineering, or information technology. Although such diversification requires significant investment in new expertise, facilities, and infrastructure, it provides opportunities for risk spreading, market expansion, and revenue diversification (Hitt *et al.*, 2023). Regardless of the diversification approach adopted, the ultimate objective remains the enhancement of sustainable institutional performance through improved competitiveness, financial stability, and responsiveness to stakeholder needs.

In the face of increasing competition, changing funding models, and declining student enrolment, diversification has become an essential strategic option for private universities. The continued placement of government-sponsored students in private universities through the Kenya Universities and Colleges Central Placement Service (KUCCPS) has expanded access to higher education while creating opportunities for institutions to diversify their academic offerings and strengthen financial sustainability (CUE, 2023; Republic of Kenya, 2023). These developments have encouraged universities to redesign programmes that meet the needs of a more diverse student population while strengthening institutional competitiveness.

Consistent with global trends, private universities in Kenya have increasingly sought to supplement traditional sources of income through programme diversification, executive education, professional certification, consultancy services, research commercialization, and strategic industry partnerships (Altbach *et al.*, 2023; UNESCO, 2024). Universities should therefore continue to develop innovative and industry-responsive academic programmes at certificate, diploma, undergraduate, postgraduate, and executive levels while investing in market intelligence, curriculum review, and stakeholder engagement to ensure that their educational offerings remain competitive and responsive to labour market needs (CUE, 2023; World Economic Forum, 2023).

2.3.2 Vertical Diversification and Sustainable Performance of Private Universities

Vertical diversification has increasingly been recognized as a strategic approach through which organizations strengthen their competitive position by expanding into activities undertaken at different stages of their value chain (Hitt, Ireland, & Hoskisson, 2023). Unlike horizontal diversification, which focuses on expanding related products or services, vertical diversification seeks to improve coordination, operational efficiency, service quality, and value creation by integrating activities that support the organization's core operations (Grant, 2022). In this study, vertical diversification refers to an organization's expansion into activities undertaken at different stages of its value chain through backward integration into input-related functions or forward integration into service delivery activities with the objective of enhancing operational efficiency, coordination, and sustainable performance (Hitt *et al.*, 2023).

Within private universities, backward integration may involve strengthening curriculum development, faculty capacity, research capability, academic quality assurance, and learning resources to improve the quality of educational services. Forward integration, on the other hand, may involve expanding executive education, professional certification programmes, consultancy services, digital learning platforms, alumni engagement, industry partnerships, and research commercialization to enhance the delivery and accessibility of university services (Johnson, Scholes, &

Whittington, 2020; Wheelen et al., 2023). Such initiatives enable universities to exercise greater control over the quality of their educational offerings while creating additional revenue streams and improving institutional sustainability.

Vertical diversification enables institutions to maximize the value derived from existing academic resources, infrastructure, and expertise by integrating complementary activities within the university's value chain (Grant, 2022). Universities that successfully integrate teaching, research, innovation, consultancy, and community engagement are better positioned to improve operational efficiency, strengthen stakeholder relationships, and respond to changing market demands (Altbach, Reisberg, & de Wit, 2023). This integration also facilitates knowledge transfer, promotes innovation, and enhances institutional competitiveness by ensuring that different functional units operate towards common strategic objectives (Hitt *et al.*, 2023)

The changing higher education landscape has increased the need for private universities to strengthen both backward and forward integration. Rapid technological advancement, changing labour market requirements, increasing competition, and evolving regulatory standards have compelled universities to continuously improve programme quality while expanding the range of services offered to students, industry, and society (UNESCO, 2024; Commission for University Education [CUE], 2023). Consequently, universities have increasingly invested in digital learning technologies, research centres, innovation hubs, incubation centres, and strategic partnerships with industry to enhance graduate employability and institutional relevance.

Sustainable performance of private universities depends not only on student enrolment but also on the institution's ability to efficiently deliver quality education, generate alternative sources of revenue, strengthen stakeholder satisfaction, and maintain academic excellence over time (Altbach et al., 2023). Vertical diversification supports these outcomes by enabling universities to improve internal coordination, optimize resource utilization, strengthen service delivery, and enhance financial sustainability. Institutions that effectively integrate their academic, research, and commercial activities are therefore more likely to achieve long-term organizational sustainability than those relying primarily on tuition revenue.

Empirical evidence has generally supported the positive relationship between vertical diversification and organizational performance. For example, Mugo and Omwenga (2022) found that vertical integration strategies significantly improved operational efficiency and organizational competitiveness among Kenyan organizations by strengthening coordination across the value chain. Similarly, Amegbe and Boateng (2021) reported that organizations adopting integrated service delivery strategies achieved higher levels of operational performance, customer satisfaction, and long-term sustainability.

2.3.3 Conglomerate Diversification and Sustainable Performance of Private Universities

Conglomerate diversification refers to an organization's strategic expansion into activities that are unrelated to its existing core operations with the objective of creating new sources of revenue, spreading risk, and strengthening long-term organizational sustainability (Peng, 2022). Unlike related diversification, conglomerate diversification involves venturing into businesses that have little strategic or operational connection with the organization's existing activities. According to David, *et al.*, (2020), organizations adopt conglomerate diversification when opportunities for growth within their core operations become limited, prompting investment in unrelated ventures capable of generating additional returns.

Within the higher education sector, conglomerate diversification has become an important strategic response to increasing financial pressures, declining government support, changing student enrolment patterns, and growing competition among universities. Marginson (2022) observes that universities are increasingly expected to operate as entrepreneurial institutions capable of generating income from multiple sources while maintaining academic excellence. Consequently, many private universities have expanded beyond their traditional teaching and research functions by investing in commercial ventures that strengthen institutional financial resilience and reduce dependence on tuition revenue.

Conglomerate diversification in private universities may include investments in commercial real estate, hospitality facilities, healthcare services, publishing enterprises, technology companies, agricultural projects, transport services, or investment subsidiaries that operate independently of the institution's academic programmes (Clark, 2021; Marginson, 2022). Such ventures provide alternative income streams that can support infrastructure development, research activities, staff development, and improvements in student services. According to Clark (2021), entrepreneurial universities that successfully diversify their commercial activities are better positioned to achieve financial sustainability while responding to dynamic socio-economic environments.

Although conglomerate diversification offers opportunities for institutional growth, it also presents significant strategic and governance challenges. Managing unrelated business ventures requires specialized managerial expertise, effective governance systems, and robust financial oversight to ensure that commercial investments complement rather than undermine the university's academic mission. Hill, Schilling, and Jones (2023) argue that organizations pursuing unrelated diversification often experience increased coordination costs and managerial complexity because different business units require distinct capabilities, operational systems, and strategic priorities.

The success of conglomerate diversification in private universities depends on their ability to balance commercial objectives with its educational mandate. Universities that invest in unrelated ventures without adequate strategic planning, governance structures, or managerial capacity risk diverting financial and human resources away from their core functions of teaching, research, and community engagement (Shattock, 2020; de Boer, Enders, & Schimank, 2021; Eurydice, 2022). Conversely, well-managed commercial enterprises can generate financial surpluses that enhance institutional competitiveness, improve service delivery, and strengthen long-term organizational sustainability (International Association of Universities, 2023).

Evidence from higher education indicates that universities with diversified income portfolios are more resilient during periods of financial uncertainty. Institutions with multiple revenue streams were better able to sustain operations and maintain service delivery during recent global disruptions than those relying primarily on tuition

income (World Bank, 2023). In Kenya, increasing financial constraints have prompted universities to pursue alternative income-generating activities to strengthen institutional sustainability (Commission for University Education, 2023; Universities Fund, 2023). These developments suggest that conglomerate diversification enhances institutional resilience by reducing dependence on student enrolment and external funding.

Empirical studies have similarly reported positive associations between unrelated diversification and organizational performance. For example, Kraus, Breier, and Dasí-Rodríguez (2020) found that strategic diversification enhanced organizational resilience and long-term competitiveness by creating multiple revenue-generating opportunities. Likewise, Secundo, Mele, Sansone, and Paolucci (2021) reported that entrepreneurial diversification initiatives enabled higher education institutions to improve financial sustainability and strengthen institutional innovation.

2.3.4 Geographical Diversification and Sustainable Performance of Private Universities

Geographical diversification has become an important strategic approach for expanding access to higher education through the establishment of campuses, learning centres, and institutional partnerships in different geographical locations (Knight, 2022; CUE, 2023). The decentralization of university education into both urban and rural areas enhances access to higher education, attracts diverse student populations, and contributes to sustainable institutional performance by increasing student enrolment and strengthening regional engagement (British Council, 2023; African Union, 2024). As competition within the higher education sector intensifies, private universities are increasingly expanding their physical presence beyond their main campuses to improve market reach and institutional visibility.

Geographical diversification involves an organization's expansion of its operations into new geographical regions or markets to broaden institutional reach, improve access to services, and enhance long-term organizational sustainability (Rothaermel, 2021). In higher education, geographical expansion may involve establishing satellite campuses, regional learning centres, international branch campuses, or cross-border

academic partnerships that enable institutions to serve students in different locations. Knight (2022) notes that internationalization and geographical expansion have become strategic mechanisms through which universities enhance competitiveness, attract international students, and strengthen global academic collaboration.

Wilkins and Huisman (2023) found that universities with geographically dispersed campuses experienced greater enrolment stability, enhanced institutional visibility, and improved organizational resilience by expanding access to diverse student markets. Similarly, Maringe and Sing (2022) observed that geographical expansion enables universities to respond more effectively to demographic changes, regional labour market needs, and increasing demand for flexible higher education opportunities, thereby strengthening long-term institutional sustainability.

Geographical diversification may also take an international dimension through the establishment of branch campuses and strategic academic partnerships across national borders. de Wit and Altbach (2021) argue that such expansion strengthens research collaboration, facilitates knowledge exchange, enhances institutional reputation, and increases access to international student markets. UNESCO Institute for Statistics (2023) reports that geographically diversified universities are better positioned to support regional development while expanding educational access across different locations.

In Kenya, private universities have increasingly expanded their operations through satellite campuses, town campuses, regional learning centres, and digital learning hubs to improve access to higher education and strengthen institutional competitiveness. The Commission for University Education (2023) reports that geographical expansion has enabled universities to reach underserved regions, increase student enrolment, and improve educational accessibility while maintaining quality assurance standards. Odundo, Ganira, and Ngaruiya (2021) found that the establishment of satellite campuses and decentralized learning centres significantly improved access to university education and institutional competitiveness in Kenya. Similarly, Mwanja and Sindani (2022) established that geographical expansion enabled private universities to penetrate emerging education markets, increase student enrolment, and

diversify institutional revenue streams, thereby enhancing organizational sustainability.

Private universities can therefore enhance sustainable performance by investing in physical infrastructure such as lecture theatres, libraries, laboratories, student accommodation, and regional campuses in strategically selected locations. Institutions located in densely populated urban areas may also maximize existing space through vertical infrastructure development and technology-enabled learning environments to accommodate increasing student numbers while improving operational efficiency. Such geographical expansion enhances institutional accessibility, strengthens market presence, and contributes to sustainable performance through increased enrolment, improved resource utilization, and broader stakeholder engagement (International Association of Universities, 2022; Nyang'au & Onsongo, 2023).

2.3.5 Moderating Role of Core Competency

According to Barney and Mackey (2021) core competency involves a distinctive combination of organizational knowledge, skills, technologies, and capabilities that enable an organization to create superior value, implement strategy effectively, and sustain competitive advantage over time. Hadiyanto (2020) while studying the development of core competencies in higher education in Indonesia, suggested that universities may enhance their performance by fostering on their key competencies given that graduate core competencies in higher education has become an actual trend issue due to the greatest concerns of students, governments, and employers about the quality of higher education outcomes.

Core competency comprises institutional strengths that are difficult for competitors to imitate and which enable organizations to effectively implement strategic initiatives and respond to changes in their operating environment (Alemu, 2022; Mohamedbhai, 2021). In higher education, core competencies include staff competencies, programme quality, and technology integration. These enhance universities' ability to implement diversification strategies and achieve sustainable performance. These competencies enable institutions to adapt to changing stakeholder expectations, improve service delivery, strengthen institutional reputation, and create long-term value (Oanda &

Jowi, 2022; Gitonga, 2024).

Core competency is assumed to moderate the relationship between diversification strategy and sustainable performance since the success of diversification depends not only on the strategic initiatives adopted but also on the institutional capabilities available to implement them (Alemu, 2022; Mohamedbhai, 2021; Oanda & Jowi, 2022; Gitonga, 2024; Mugo & Ooro, 2023). Universities possessing strong academic, managerial, and technological competencies are more likely to translate diversification initiatives into improved enrolment, financial sustainability, institutional reputation, and stakeholder satisfaction than institutions with weaker capabilities (Murage, Auka, Owuor, & Kombo, 2025; Murugu, Omanwa, & Muema, 2025). Consequently, the effectiveness of horizontal, vertical, conglomerate, and geographical diversification strategies depends largely on the strength of the university's core competencies (CUE, 2023; African Union, 2024).

Staff competency constitutes one of the most valuable strategic resources within universities. Academic staff, administrators, researchers, and professional support personnel provide the expertise required to design innovative programmes, deliver quality teaching, undertake research, and build productive partnerships with industry and other stakeholders. Universities with highly qualified and continuously developed staff are better positioned to introduce new academic programmes, expand into new markets, and manage institutional change effectively. Evidence from Kenya shows that leadership effectiveness and staff competence significantly influence institutional competitiveness and long-term sustainability (Mugo & Ooro, 2023; Gitonga, 2024).

Programme quality is another critical institutional competency that determines the success of diversification strategies. Diversification creates value only when newly introduced programmes meet acceptable academic standards and respond to market needs. Universities that maintain rigorous curriculum review processes, quality assurance mechanisms, accreditation standards, and industry collaboration are more likely to attract students, enhance graduate employability, and strengthen institutional competitiveness. In Kenya, the Commission for University Education (2023) identifies programme accreditation and quality assurance as critical factors influencing the competitiveness and sustainability of universities. Similarly, Oanda & Jowi (2022)

highlight that programme quality and relevance remain central to institutional reputation and student satisfaction in East African universities.

Technology integration represents an institutional competency that enables universities to enhance teaching, learning, research, and administrative efficiency. Digital learning platforms, learning management systems, enterprise resource planning systems, and online student services improve institutional responsiveness while supporting programme diversification and expanding access to higher education (Nganga, Waruru, & Gilbert, 2020; Mugo & Ooro, 2023; Gitonga, 2024; Murage, Auka, Owuor, & Kombo, 2025). Studies show that universities that invest in digital transformation initiatives demonstrated improved service delivery, administrative efficiency, and institutional competitiveness (Nganga, Waruru, & Gilbert, 2020; Mugo & Ooro, 2023). At the continental level, UNESCO (2024) and the African Union (2024) emphasize that digital capability has become a strategic institutional resource that enhances innovation, accessibility, and organizational sustainability in higher education.

2.3.6 Sustainable Performance of Private Universities

Sustainability reflects an institution's ability to balance competing demands and endure shifting, complex market conditions while maintaining continuity and stakeholder value (African Union, 2024; World Bank, 2024). It is the capacity to achieve and sustain superior economic, social, environmental, and operational outcomes over the long term (UNESCO, 2024; African Development Bank, 2024). In the higher education context, sustainability depends on how universities respond to competition, funding pressures, and stakeholder expectations. Sustainable growth is achieved when institutions expand without excessive reliance on debt and maintain financial stability while enhancing academic quality and institutional reputation (Murugu, Omanwa, & Muema, 2025; Gitonga, 2024).

Sustainable performance refers to the ability of an institution to achieve its objectives consistently while maintaining financial stability, academic quality, operational efficiency, and stakeholder confidence over time. For universities, sustainable performance is reflected in their capacity to maintain quality teaching, research,

innovation, and community service while ensuring that institutional resources are utilized effectively (Commission for University Education [CUE], 2023). According to the Association of African Universities (2023), universities that invest in quality academic programmes, competent staff, sound governance, and effective financial management are more likely to remain competitive and fulfil their mandate in the long term.

Private universities in Kenya operate in an increasingly competitive higher education sector characterized by declining student enrolment in some programmes, increased demand for quality education, changing labour market requirements, and reduced traditional sources of funding. These challenges have compelled universities to adopt strategies that strengthen their competitiveness and support long-term institutional growth. Teferra (2023) notes that universities in Africa must continuously review their academic programmes, improve institutional management, and strengthen innovation if they are to remain relevant and financially sustainable.

The sustainability of private universities is closely associated with their ability to attract and retain students, maintain high academic standards, generate adequate financial resources, and build a strong institutional reputation. Institutions that consistently offer market-driven academic programmes, invest in qualified staff, strengthen research activities, and maintain effective quality assurance systems are more likely to improve their performance. The Commission for University Education (2023) emphasizes that programme quality, institutional governance, financial sustainability, and continuous improvement remain key indicators of university performance in Kenya. Similarly, Oanda and Jowi (2022) argue that universities that align their academic programmes with national development priorities and labour market needs are better placed to sustain growth and remain competitive.

Sustainable performance is not measured by financial results alone. In higher education, it also includes student enrolment and retention, graduate employability, research productivity, institutional reputation, student satisfaction, and efficient utilization of available resources (Oanda & Jowi, 2022). Materu (2021) observes that African universities that strengthen institutional capacity, academic quality, and governance are better positioned to improve performance over time. Kipkebut (2023)

found that investments in staff development, quality assurance, and effective leadership contribute significantly to institutional performance among universities in Kenya.

2.4 Empirical Review of Related Literature

2.4.1 Horizontal Diversification and Sustainable Performance of Private Universities

Adamu, Zubairu, Ibrahim and Ibrahim (2019) evaluated the impact of horizontal diversification on performance. 200 non-profit making organizations were selected for the study and a total of 12 companies submitted full financial report while 10 were incomplete. Data was drawn from both financial and non-financial statements of the organizations while specialization ratio method was used to categorize organizations into low, moderately diversified and highly diversified forms. The study revealed that undiversified organizations outperform the highly diversified organizations in terms of return on total assets and profit margin. Similarly, moderately diversified organizations were found to outperform the highly diversified organization in terms of return on equity, return on asset and profit margin. The results therefore showed that horizontal diversification does not necessarily lead to improvement in sustainable performance, thus organizations are better-off remaining focused if they aim at improving performance.

Ndungu, Ngoze and Wanjere(2020) examined the effect of diversification strategies on the performance of state-owned sugar firms in Kenya. The specific objective was to establish the effect of horizontal diversification on firm performance of sugar firms in Kenya. The study employed descriptive survey study research design. The target population of the study comprised of all sugar firms in western Kenya; Nzoia, Sony, Chemelil, Muhoroni and Miwani that were purposively selected. The null hypothesis was accepted and therefore concluded that there is no relationship between adoption of horizontal diversification strategy and sugar firms' performance. The study recommends that in the current competitive business situation, firms have to strive to open other revenue streams to keep afloat. However, the sugar firms must analyze the effect of horizontal diversification on firm performance.

The reviewed studies presented inconsistent findings regarding the relationship between horizontal diversification and organizational performance. Adamu *et al.* (2019) reported that horizontal diversification was associated with lower organizational performance, whereas Ndungu *et al.* (2020) found no significant relationship between horizontal diversification and firm performance. These inconsistencies may be attributed to differences in the study contexts, measurement of performance, and research methodologies employed. Adamu *et al.* (2019) focused on non-profit organizations using financial statement analysis, while Ndungu *et al.* (2020) examined state-owned sugar firms using a descriptive survey design. Consequently, the findings may not be directly applicable to the higher education sector, where diversification largely involves academic programmes, research, consultancy, and other educational services. In addition, both studies assessed organizational performance without considering sustainable performance as a multidimensional construct encompassing financial sustainability, student enrolment, institutional reputation, and research productivity. Neither study examined the moderating influence of core competency on the relationship between horizontal diversification and performance. This study addressed these contextual, methodological, conceptual, and moderation gaps by examining the influence of horizontal diversification on the sustainable performance of chartered private universities in Kenya while incorporating core competency as a moderating variable.

2.4.2 Vertical Diversification and Sustainable Performance of Private Universities

Martinez-Campilo (2019) built on the agency-stewardship approach to examine the benefits of related and unrelated diversification strategies on leadership style, using 183 Spanish organizations. Survey method was adopted for the study and Chi-square was used to test the representativeness of the sample with regards to principal business and organization size. ROA was used to measure performance while a Likert scale was used to measure the level of organizations vertical diversification strategy. The result provided an insight on the relevance of CEOs leadership style in the provision of the

right fit for organizations pursuing growth and sustainable growth through vertical diversification.

Asrahighi *et al.* (2018) in their qualitative study on vertical diversification strategy and organization performance, result, measures and sampling design revealed that an inconclusive relationship exists between both variables judging by their measures, sampling design and data analysis. That is, the research findings depicted varying perspective, therefore the researchers concluded that although vertical diversification may increase profitability it may be too risky and the cost may outweigh the benefits. Thus, more research on the relatedness of vertical diversification strategy to sustainable performance is needed since existing findings shows inconclusive (linear, nonlinear, curvilinear) relationships.

Oloda (2017) carried out a study on the effect of vertical integration on organizational survival in selected manufacturing firms in Nigeria. The study sample size was 205 managers who were selected from six firms. Both primary and secondary data was used. To test the relationship between the variables reviewed the Spearman Rank-order correlation coefficient was used. The findings of the study established a positive and significant relationship between the dimensions of vertical integration (both forward and backward) and organizational survival. Conclusion from this study is that vertical integration enhances organizational survival.

Egessa (2017) studied the effect of vertical diversification on organizational competitiveness, in Mumias Sugar Company, Kenya. The study adopted descriptive correlational survey design and this being a census study, all the sugar firms in Kenya were studied. Using a questionnaire, primary data was collected from the production and marketing managers as key informants of each of the sugar firms.

Secondary data was extracted from annual reports, publications and documentary analysis. In order to test the hypothesis, the aggregate mean score of firm competitiveness measures were regressed against the mean score of measures of vertical diversification. The regression results reveal that vertical diversification had overall significant positive relationship with the competitiveness of sugar firms. The regression results also showed that 46.4 percent of the sugar firm competitiveness can

be explained by vertical diversification. However, the study was based in sugar manufacturing firm, and not universities, thus need for further research so as to compare empirical findings.

A study by Kimani *et al.* (2016) that adopted descriptive analysis for its individual research indicators and correlation and regression analysis to establish the effect of vertical, horizontal and diagonal integration on competitive performance. The findings revealed that vertical and horizontal integration contributed significantly to the competitive performance of the firms while diagonal integration was found to be insignificant. Its regression analysis also revealed that 74% of change in competitive performance of firms was attributed to collective use of the integration strategies.

The reviewed studies suggested that vertical diversification contributes positively to organizational performance and competitiveness. However, the evidence is not conclusive. While Martinez-Campilo (2019), Oloda (2017), Egessa (2017), and Kimani *et al.* (2016) reported positive relationships between vertical diversification and organizational outcomes, Asrahighi *et al.* (2018) found the relationship to be inconclusive, indicating that the benefits of vertical diversification may depend on organizational context and implementation. The differences in findings may be attributed to variations in research designs, performance measures, sampling approaches, and sectors of analysis. Most of the reviewed studies were conducted in manufacturing firms and business organizations, where vertical diversification primarily involves supply chain integration and production processes. Such contexts differ considerably from private universities, where vertical diversification is reflected in activities such as research commercialization, industry partnerships, consultancy services, executive education, innovation hubs, and digital learning platforms. Furthermore, the studies largely focused on organizational competitiveness, profitability, or survival without examining sustainable performance as a multidimensional construct encompassing financial sustainability, student enrolment, institutional reputation, and research productivity. In addition, none of the reviewed studies examined the moderating role of core competency in influencing the relationship between vertical diversification and sustainable performance. They remained limited empirical evidence on how vertical diversification contributes to

sustainable performance in chartered private universities, particularly where institutional core competency may influence the effectiveness of diversification initiatives which the current study focused on.

2.4.3 Conglomerate Diversification and Sustainable Performance of Private Universities

First, an empirical study in the US as was reviewed by Karim and Jürg (2021) showed how many leading universities applied use of continued education as a conglomerate diversification strategy to raise their revenues: That is, they set up an active professional education team focused on building partnerships with corporate and government training divisions. Over five years, the university collaborated with more than 50 companies in which executives share their imperatives and faculty works with them to tailor a suitable program.

Secondly, the University of Michigan, using research and innovation approach established its Business Engagement Center in 2007 as a pathway for faculty to work with business leaders on mutually beneficial projects in a wide range of fields. In a longitudinal review of this approach, the study findings showed that the Business Engagement Center after 14 years of applying research and innovation approach maintained ongoing relationships with more than 1,200 companies which contributed to a 53% increase in corporate philanthropy and a 23% significant increase in its net revenues (Karim & Jürg, 2021).

Thirdly, a descriptive survey on Dartmouth College showed that the college runs seasonal athletic training and sports camps for corporate partners. From a sample of 21 coaches, the descriptive results showed that the coaches keep a small portion of the revenue, while the largest portion goes to Dartmouth college, thus significantly contributing to a growth in the college total revenues (Nickels, 2019). A study conducted on the University of Chicago (Nickels, 2019) on rip-off effects asset utilization found that the University of Chicago not only rents its premises but also assists in event planning. The university has business relationships with event management companies (including wedding planners and corporate event organizers)

that help the university source clients thus significantly contributing to an increase in clientele and revenue base.

Further, using private partnerships, University of Pennsylvania introduced a cobranded credit card to its alumni through Bank of America, the benefits of which include cash back on various purchases, no annual fee and a low annual percentage rate for the first 12 months. The University of Pennsylvania collects additional revenue through a revenue-sharing agreement in which the bank contributes a percentage of funds to the university with every account opened and with every purchase made using the cobranded card. This has significantly boosted its clientele and revenue base (Karim & Jürg, 2021).

However, summarized meta-analysis of application of conglomerate strategy in universities in developing countries show that the universities typically pursue them in an ad hoc approach and lack a consistent conglomerate strategy. As a result, the chances of success are limited and they often fall victim to a host of regional pitfalls. For instance, some universities do not even pursue high-value opportunities, usually due to subpar idea prioritization and a weak assessment of full potential; opportunities are unable to scale up.

This leads to a limited impact on the total revenue pool; opportunities fail to capture their full value, mostly due to limited resource focus and management attention; and also, the opportunities that schools do pursue are misaligned with the institution's strategy and vision, so they either fail at implementation or are too different from core activities to sustain (Hadiyanto, 2020); thus, the need to introduce core competencies as a suggested moderator in the current study.

Conglomerate diversification occurs when there is no common thread of strategic fit or relationship between the new and old lines of business; the new and old businesses are unrelated Nyaga, Wasike and Mote (2021). Research has found conglomerate diversification to be more complex than concentric diversification with key challenges being inadequate skills, experience and resources. Diverse academic programs which are unrelated may be offered ranging from engineering and medicine to business and education, certificate to PhD programs to attract a wide range of students (customers)

which will in turn boost student enrolment ratio, minimize risks and a consequently grow revenue.

The reviewed studies demonstrated that conglomerate diversification has the potential to enhance institutional performance through the creation of alternative revenue streams beyond traditional academic activities. Universities in developed countries have successfully adopted initiatives such as professional education programmes, business engagement centres, commercial partnerships, facility rentals, and alumni affinity programmes to strengthen financial sustainability and institutional growth. However, the evidence remains limited and largely descriptive, with most studies relying on case study and descriptive survey approaches that provide little empirical evidence on the magnitude of the relationship between conglomerate diversification and sustainable performance. Furthermore, the reviewed studies are predominantly drawn from developed economies whose institutional environments, governance structures, funding models, and market conditions differ considerably from those of private universities in Kenya.

Although Hadiyanto (2020) highlighted the challenges experienced by universities in developing countries, the discussion was largely based on a meta-analysis and did not empirically examine the determinants of successful conglomerate diversification. In addition, the reviewed studies primarily focused on revenue generation and institutional growth without examining sustainable performance as a multidimensional construct encompassing financial sustainability, student enrolment, institutional reputation, and research productivity. Moreover, none of the studies explicitly investigated the moderating influence of core competency on the relationship between conglomerate diversification and sustainable performance. The existing evidence therefore left unanswered questions regarding the extent to which conglomerate diversification enhances sustainable performance in chartered private universities and the role that institutional core competency plays in shaping this relationship.

2.4.4 Geographical Diversification and Sustainable Performance of Private Universities

Teixeira *et al.* (2012) adopted a longitudinal approach in exploring program diversity in Portuguese higher education in the last decades and significant institutional competition in recent years. The study provided a detailed analysis of the evolution of diversification of public and private sectors as well as the university polytechnic subsectors; thus, recommended use of geographical diversification for sustainable performance of universities.

Shen, Wang and Su (2019) conducted a study on diversification strategy in Universities in China, whereby 200 both public and private universities were randomly selected. Herfindahl, dummy variables and Regression were adopted in the study. It was revealed that Chinese universities should take medium level of product diversification based on the inverse U-shaped relationship between diversification and performance. They should either use product or geographical diversification and not both strategies.

Valis-Boas and Gonzalez (2018) study on diversification strategy sampled all manufacturing organizations in Europe applying from several Eurozone countries. 291 organizations were selected for the study and classified into sectors such as manufacturing, services and others. Tobin-q was used to capture market-based dimension; correlation analysis was used to check for problem variable inflation factor was used to evaluate major problems of multicollinearity while regression analysis was used to measure organizations return on assets.

The results suggested that the S-curve was an appropriate and complete measure of the relationship between diversification strategy and performance. As such the extent of diversification is negatively linked to performance due to organizations inability to transfer knowledge, negotiate contracts and handle institutional practice in host country. International diversification can be harmful on performance while moderate level of geographical diversification with greater diversity results to better performance.

Haim (2018) conducted a qualitative study on the significance of studying geographic diversification-the interaction impact on Malaysian companies. The study revealed that past research on the impact of geographical diversification produced inconclusive results and that there was no consensus on the interaction impact on both variables. The researcher concluded that geographical diversification could be profitable but when adopted without prior knowledge of the market it may lead to hedging risk and uncertainty.

Okari (2018) examined the effect of geographical diversification on performance of Kenyan universities. The study adopted a survey design and ten accredited universities were purposefully sampled. Data was collected using questionnaires and interview guides. The reliability and validity of the instruments was confirmed to be satisfactory through a pilot study and use of Cronbach alpha coefficient. A full study targeting 116 respondents was then conducted and a response rate of 84.5% was achieved. Data was first analyzed using descriptive and inferential statistics and discussed under various themes.

Normality test was conducted on the dependent variable using Q-Q test. Scatter plots were used to check for systematic pattern of the scatter points. Findings showed that geographical diversification has a very small influence on the performance of universities. The study recommended that Universities should focus less on geographical expansion through establishing branches and campuses in several geographical regions as this may not necessarily add significant value in performing their primary roles.

Empirical evidence has revealed a close link between proximity to a college campus and high student enrollment (Mutinda, 2016). Alando (2016) study also affirmed that physical expansion increases student enrollment. Private universities may expand to exploit new market opportunities or address a market niche by introducing existing programmes to new markets such as opening new campuses in different areas and acquiring land as well as other assets to facilitate expansion.

The evolving landscape of university education means institutions of higher learning can no longer take a back seat and wait for students. There is need to adopt a proactive

approach by setting up centers and campuses in rural homes to increase student enrollment and therefore realize sustainable performance (Mathooko & Ogutu 2015).

The reviewed studies provide mixed evidence regarding the influence of geographical diversification on organizational performance. While Teixeira et al. (2012) and Alando (2016) suggest that geographical expansion enhances institutional growth and student enrolment, Shen et al. (2019), Valis-Boas and Gonzalez (2018), Haim (2018), and Okari (2018) demonstrate that the benefits of geographical diversification depend on the extent of expansion, institutional capacity, and market characteristics. In particular, Shen et al. (2019) found that moderate geographical diversification was more beneficial than extensive expansion, whereas Okari (2018) established that geographical diversification had only a minimal influence on the performance of Kenyan universities. These divergent findings may be attributed to differences in geographical contexts, institutional environments, diversification measures, and methodological approaches adopted by the respective studies. Furthermore, most of the reviewed studies focused on organizational performance, competitiveness, or student enrolment without considering sustainable performance as a multidimensional construct comprising financial sustainability, student enrolment, institutional reputation, and research productivity. Although Okari (2018) examined Kenyan universities, the study primarily focused on geographical expansion through campuses and branches without examining geographical diversification as a broader strategic growth initiative or assessing the moderating influence of core competency. Consequently, the applicability of the existing findings to chartered private universities in Kenya remains limited. The mixed findings and contextual differences in the reviewed studies underscored the need for further study into the relationship between geographical diversification and sustainable performance among chartered private universities in Kenya, while considering the potential influence of institutional core competency.

2.4.5 Core Competence and Sustainable Performance of Private Universities

Fundira (2021) investigated how the attributes of core competence thereof influence organizational (TVET college) performance. This research employed the quantitative approach that falls under a positivistic paradigm with emphasis on a deductive

approach because this study uses a set of pre-tested scales to collect data and create data structures to describe the perceptions and beliefs of stakeholders.

The study population was made up of college staff members and management (stakeholders). A sample of 147 was chosen to participate in the survey. The establishment of the link between core competencies and performance will enable senior managers to design a structure that yields superior sustainable performance. The results showed that core competencies have a significant relationship on the performance of the institution

Jumaah (2019) aimed to test the relationship linkage and the effect between core competency for human resources and organizational excellence. The research problem was that the role of core competency of human resources in achievement of organizational excellence in the state company of electrical industry. A questionnaire was used in data collection where (58) questionnaires were distributed to the research sample respondents. The research made a number of conclusions, one of the key ones being that there is a linkage and impact relation between core competency of human resources, its variables (leadership competency, intellectual competency, self-management competency, make decisions competency) and organizational excellence as a whole.

Katawneh (2014) aimed to identify the impact of core competencies in improving the organization commitment (normative commitment, affective commitment, continuous commitment) in Mutah University. To achieve the objectives of this study a questionnaire was developed for data collection. The sample was valid for analysis (329) where Version of (SPSS 16) was used to analyze the questionnaire data. The most important findings of the study were that there is an impact between core competencies and improving the organization commitment. The perceptions of Mutah University staff toward core competencies was a medium level and to organization commitment was a high level.

Tong, Iqbal and Abd Rahman (2022) examined the effect of core technology competence on competitive advantage of high-tech SMEs (small- and mid-sized enterprises in China). Based on the 379 valid responses collected from a survey,

structural equation modeling (SEM) was employed to examine the research model. The findings confirmed that infrastructure and technology, state-of-the-art technology, innovative research and development (R&D) capability, and organizational flexibility all have a significant impact on competitive advantage, while infrastructure and technology, state-of-the-art technology, and innovative R&D capability have a significant effect on organizational flexibility. Organizational flexibility plays a mediating role between innovative R&D capability effect and competitive advantage.

Rahab, Anwar and Priyono (2016) sought to determine the relationship between firm core competence, competitive advantage and performance of small and medium enterprises based on analysis of data from a survey conducted on 58 owner and manager of small firms of Banyumas batik in Banyumas Region, Central Java, Indonesia. Data was analyzed using multiple regression analysis. The results showed that competence in relationship, adaptation and innovation has significant effect on firms innovativeness. The ability of entrepreneurs to build business network has eased information exchange leading to social relatedness thereby contributing to improved competitive advantage.

Mugo, Namusonge and Sakwa (2016) sought to establish the effect of organizational core competences on performance in the insurance industry in Kenya. The study adopted a descriptive research design. The target population for this study was the senior and middle level management staff of the 49 insurance companies registered with the association of Kenya insurers (AKI) by December 2014. The study selected the respondents using stratified proportionate random sampling technique. Primary data was obtained using self-administered questionnaires administered using a drop and pick later method. The correlation results revealed that core competences promoted performance in the insurance industry in Kenya.

Choge *et al.* (2018) investigated the effect of organizational competencies on organizational competitive advantage of the banking sector in Kenya. The study employed explanatory research design. The survey was carried out in 25 banks within Eldoret town, Uasin - Gishu County. The target population was 748 respondents. A two-stage sampling technique was used whereby cluster sampling techniques was used

to select the banks, thereafter; simple random sampling was used to select sample of 261 respondents from the target population.

Structured questionnaire was used to collect primary data while secondary data was obtained from published sources such as library, internet and research done by other scholars. The outcome was a probability of $R^2 = 0.620$ which means there was 62.0 percent probability of organizational competencies predicting competitive advantage. Organization competencies had positive and significant B values of 0.565. It also had a positive and significant correlation of .787 with competitive advantage.

Jamhour (2010) explored the impact of core competence on performance through competitive advantage of the Paint Industry in the United Arab Emirates, through exploring the impact of core competence variables on Performance directly and indirectly through Competitive advantage. This study was applied on Paint Industry in the UAE, and took the samples from the middle and top managements. In order to achieve the objectives of the study, the researcher designed a questionnaire consisting of (42) paragraphs to gather the primary information from the study sample. The study came to show high level of importance for the study variables for the companies, and showed significant indirect impact of core competence on performance through competitive advantage.

Jerab, Alper and Baslar (2011) examined the impact of core competencies on competitive advantage and success in Istanbul tourist companies and how to sustain the success of these companies. An empirical study was conducted where data was collected from 150 successful tourist companies in Istanbul using a survey. The research results indicate that there is a statistical significant relationship between core competencies, competitive advantages and company success. The core competence types with high impact were Strategic Focus and key staff skill, knowledge management systems, company facilities and infrastructure, dynamic capabilities and key work processes, and unique resources respectively

Makhloufi and Al-Erjal (2014) examined how core competency promotes performance, a study of Chase Petroleum in Ghana. The respondents were purposively selected based on their schedule and position in the Company. Primary data was used

for the study. Both primary and secondary data source was used. The primary data collection tool was structured questionnaire structured to reflect the study's objectives and questions. The findings reveal that core competency is not significantly related to organizational growth. Hence, the result indicated that core competency does not have any significant influence on organizations performance. The study deduced that, Chase Petroleum Ghana promotes operational systems, improved infrastructure, skilled labor as well as lowcost production at the expense of customer relations as its core competencies

Hamid *et al.* (2020) investigated the effect of moderating factor namely core competencies on the relationship between the Perceived Value and Destination Image among green hotel customers in Malaysia. This quantitative research was performed using a survey method through questionnaires. The total of 450 samples selection of data from guests who stayed in Malaysia certified green hotels were collected. Moreover, the effect of Perceived Value toward Destination Image was stronger, when the impact of Core Competencies is strong, as compared to the situation when core competencies is low, which is the effect of Perceived Value toward Destination Image tends to reduce.

The reviewed studies generally provide consistent evidence that core competency positively influences organizational performance, competitive advantage, organizational excellence, and commitment across different sectors. However, the studies were conducted in diverse contexts, including technical and vocational education institutions, manufacturing firms, banks, insurance companies, tourism, petroleum, and small and medium enterprises, whose operational environments differ considerably from those of private universities in Kenya. Furthermore, although Fundira (2021) examined core competence within a TVET institution, the study treated core competence as an independent predictor of organizational performance rather than as a contingency factor influencing the relationship between strategic initiatives and sustainable performance.

Similarly, most of the reviewed studies primarily focused on direct relationships between core competency and organizational outcomes, with limited attention to its moderating role. Although Hamid *et al.* (2020) incorporated core competencies as a

moderating variable, the study was undertaken within the hospitality industry, making its findings difficult to generalize to the higher education sector. In addition, the reviewed studies measured organizational performance using indicators such as competitive advantage, organizational commitment, organizational excellence, and growth, without considering sustainable performance as a multidimensional construct comprising financial sustainability, student enrolment, institutional reputation, and research productivity. Consequently, empirical evidence on the moderating influence of core competency on the relationship between diversification strategies and sustainable performance in chartered private universities remains limited. Although previous studies demonstrated the importance of core competency in enhancing organizational outcomes, little empirical attention had been given to its role as a moderating mechanism in the relationship between diversification strategies and sustainable performance within chartered private universities.

2.5 Critique of Reviewed Literature

Texeira *et al.* (2014) analyzed Revenue Diversification in Public Higher Education in Portugal and found the path of development of binary systems to be key in determining the ability of universities to earn income from tuition fees and other non-public sources. However, the study only considered revenue diversification and left out other variables such as horizontal and vertical strategies which will be addressed by the current research. Doaei *et al.* (2017) sought to assess diversification and sustainable performance of private universities in Bursa Malaysia and found diversification to have a negative impact on sustainable performance of private universities. The study however did not address sustainable performance.

Diverse studies have been conducted on strategies adopted by private universities. Mashiri and Sebele (2014) examined the diversification strategy and its effect on firm performance. The study did not take into account sub-elements such as horizontal and vertical integration strategies. Using accounting-based and market-based measures of firm performance Berg (2016) explored Indian publicly listed firms between 2006 and 2012 and established that on average diversified firms performed better than non-diversified ones. The study further established that the performance of both diversified

and non- diversified firms in India deteriorated due to the meltdown of global economic activities during the global financial crisis.

Mashiri and Sebele (2014) studied diversification as a corporate strategy and its effect on firm performance. The research used both primary and secondary data. Secondary data was gathered from financial statements and management accounts while primary data was collected using personal interviews. The study established that although performance and diversification have been widely studied, the link between them is not clearly understood.

Most studies on diversification have mainly focused on indicators such as sales and organizational growth. Many researchers concur on the lack of consensus on diversification and the precise nature of its relationship with indicators such as organizational growth and therefore the influence of diversification strategies on the value of the organization remains inconclusive (Mashiri & Sebele, 2014).

A census of 45 non-financial firms conducted by Njuguna *et al.* (2018) in their research on the influence of product diversification strategy on performance of non-financial firms listed at the Nairobi Securities established a positive relationship between product diversification and firm performance. The study used semi-structured questionnaires to collect data from 135 departmental managers and used regression model to establish the relationships between variables. The findings established a positive relationship between diversification and firm performance.

Santarelli *et al.* (2015) provided insight into the relationship between diversification strategy and firm performance in Vietnam based on the assumption that a firm's profitability is determined by its degree of diversification. The study applied parametric and semi-parametric approaches to control for sample selection and the indignity of the diversification decision in both static and dynamic models.

The data was analyzed data using the census dataset on the whole firm population in Vietnam, as a representative of transition countries and drew the conclusion that the factors that stimulate firms to diversify do not necessarily encourage them to extend their diversification strategy and that while industry performance does not have a

strong influence on the profitability of firms, it impacts their diversification decision as well as the degree of diversification. Masaiti (2018) examined revenue diversification policy in Zambia's public universities and established that revenue diversification only had a modest impact on sustainability of public universities. The study did not consider other strategies that may influence the sustainability of universities.

In Kenya most studies on diversification are based on fields other than private universities. Sande (2019) explored the influence of growth strategies on performance of public universities in Kenya and used expansion strategy as one of the research variables. The study employed a cross-sectional survey design involving the total population (census) of the 33 public universities in Kenya. Data was collected through semi-structured research questionnaires and analyzed using descriptive and inferential statistics. The study established a positive relationship between expansion strategy and performance.

Njagi (2017) carried out a study on the effect of expansion and diversification strategies on the performance of Naivas chain store and established that expansion and diversification of products and services was a continuous process by the chain and it is usually based on thorough research and analysis aimed at identifying gaps in the market. The study established a positive relationship between expansion and firm performance.

In another study, Onyonka (2013) examined the effect of expansion strategies on performance of commercial banks in Kenya. The study findings were that the banks were expanding by entering into strategic alliances, by merging or acquiring other institutions and also opened new branches/subsidiaries in foreign countries. The study further established that expansion strategy impacted positively on commercial banks in Kenya and that banks embraced expansion strategy as a competitive strategy to realize economies of scale.

Mukangu (2013) adopted descriptive survey design to study the effect of expansion strategies on performance of chartered private universities in Kenya using questionnaire as the research instrument. Due to the small size of the of the study

population, the researcher conducted a census of the 14 private universities in Kenya. The study established a positive link between horizontal strategy and performance of universities.

Njuguna *et al.* (2018) explored the influence of product diversification strategy on performance of non-financial firms listed at the Nairobi Securities Exchange Kenya and established a positive relationship between the two variables. The study however focused on firms in different industries other than private universities. A survey by Njoro (2017) on competitive strategies influencing growth in public universities established that the majority of public universities adopt diversification to spread risk and enhance growth. The study concludes that the adoption of diversification and technology has led to significant growth in Public Universities. However, the study was based on public universities and not private universities.

In his study on the influence of diversification strategies on the competitiveness of Safaricom (K) Limited Kering (2015) established that diversification is a key factor in the success of Safaricom. However, the study was based on a different industry other than higher education. Ohonde (2017) found that competitive advantage is achieved when banks roll out new products and services. The study however focused on competitive advantage and not sustainable performance.

In their survey of public universities in Kenya Mathooko and Ogutu (2015) used questionnaires to establish the coping strategies adopted in countering environmental changes including diversity of academic programs. The target population was top management. The study concluded coping strategies used by public universities to be similar to those applied by corporates which include grand strategies and Porters generic competitive strategy model of cost leadership, differentiation and focus.

Njoro (2017) adopted described research design to study competitive strategies influencing growth in public universities. The target population was drawn from the senior management levels selected on a stratified sampling technique. The sample was 114, arrived at as guided by Yamanes formula and used descriptive and inferential statistics to analyze. The study concluded that the majority of public universities adopt

diversification to spread risk and enhance growth and that diversification and technology have contributed to significant growth in Public Universities.

2.6 Research Gap

The reviewed literature demonstrated that diversification strategy attracted considerable scholarly attention across different sectors and countries. Nevertheless, important gaps remained in relation to the sustainable performance of chartered private universities in Kenya. Most empirical studies on diversification strategy were undertaken in developed economies such as the United States, Europe, China and Japan (Ulrich, 2008; Kitagawa & Oba, 2010; Teixeira *et al.*, 2012; Shen *et al.*, 2019; Karim & Jürg, 2021). Other studies focused on manufacturing firms, insurance companies, banks, tourism enterprises and public universities (Egessa, 2017; Mugo *et al.*, 2016; Choge *et al.*, 2018; Fundira, 2021). Although these studies advanced understanding of diversification strategy, the institutional conditions under which they were conducted differ from those of chartered private universities in Kenya. Differences in governance structures, funding mechanisms, regulatory requirements and competitive pressures made it difficult to generalize their findings directly to the Kenyan private university sector.

The empirical literature tended to examine individual dimensions of diversification separately. For instance, Egessa (2017) concentrated on vertical diversification, Okari (2018) examined geographical diversification, while Karim and Jürg (2021) focused on conglomerate diversification in universities. Such an approach provided valuable insights into specific strategies but offered limited understanding of how different diversification strategies jointly influence sustainable performance. Examining horizontal, vertical, conglomerate and geographical diversification within a single framework therefore provided a more comprehensive perspective of strategic diversification in private universities.

Another notable limitation concerns the role of core competency. Existing studies largely examined core competency as a direct determinant of organizational performance (Jumaah, 2019; Fundira, 2021; Tong *et al.*, 2022). Although Hamid *et al.* (2020) introduced core competency as a moderating variable, the study was undertaken

in the hospitality sector, making it difficult to infer similar relationships within higher education. Consequently, little empirical evidence existed on whether institutional core competency strengthened or weakened the relationship between diversification strategies and sustainable performance in chartered private universities.

The reviewed studies further revealed considerable methodological diversity. Researchers have employed descriptive surveys (Egessa, 2017; Ndungu *et al.*, 2020), qualitative approaches (Asrahaghighi *et al.*, 2018; Haim, 2018), longitudinal designs (Teixeira *et al.*, 2012), financial statement analysis (Adamu *et al.*, 2019) and case studies (Karim & Jürg, 2021). While these approaches enriched the literature, they also produced inconsistent findings regarding the effect of diversification on organizational performance. In addition, performance frequently was assessed using financial outcomes, competitiveness or organizational survival, with relatively limited attention given to sustainable performance as a multidimensional construct.

These gaps provided a strong basis for examining how diversification strategies influenced the sustainable performance of chartered private universities in Kenya and whether institutional core competency shaped their relationship.

2.6 Summary of Literature Review

The existing literature revealed a close association between the diversification strategies adopted by universities and their sustainability. The relationship was explained by different theories including Dynamic Capability Theory, Upper Echelons Theory and Institutional Theory. The key elements of diversification assessed in the literature included vertical diversification strategy, Horizontal diversification, conglomerate diversification and Geographical diversification. This relationship was predicted to be moderated by core competencies in the sector. The majority of empirical literature reviewed demonstrated existence of a relationship between diversification strategy and sustainable performance of private universities in Kenya. However, some gaps emerged from literature including most studies being done in developed countries, focusing on corporates and for profits entities, and emphasis on public universities.

The current study therefore aimed at bridging these gaps by establishing the moderating role of the core competencies on the relationship between diversification and sustainable performance of private universities in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research design and the methodology the study used to investigate the link between diversification strategy and sustainable performance of private universities in Kenya. The research philosophy, research design, target population, sampling technique, sample size, data collection instruments, pilot testing, data collection procedures, measurement of variables, data analysis and presentation are discussed.

3.2 Research Philosophy

A research philosophy refers to a system of beliefs and assumptions about the development of knowledge. It is a set of basic beliefs that guide the design and execution of a research study and emphasizes objectivity and empirical evidence in research (Saunders *et al.*, 2009). A research philosophy is a set of basic beliefs that guide the design and execution of research and different research philosophies shape our understanding of scientific research. A research philosophy is belief about the ways in which data about a phenomenon should be collected, analyzed and used (Tamminen & Poucher, 2020). Research philosophies represent a worldview that defines, for its holder, the nature of the “world,” the individual’s place in it, and the range of possible relationships to that world and its parts.

The current research adopted a post-positivism philosophy which is an advancement of positivism philosophy. Post positivism stepped forward as a reaction to the limitations of positivist as a paradigm. Post positivism is a form of pluralism which balances the positivist and interpretivist approaches. Fischer (1998) observes that it focuses on researching issues in the context of involving experiences of the majority and announcing results of what the majority says is acceptable.

Although post-positivist research scientifically strives to explore the phenomenon, it believes, unlike positivist research, that the absolute truth is nowhere to be found (Phillips & Burbules, 2000). It does not aim to disapprove the scientific/quantitative elements of positivism in research, rather it emphasizes a proper understanding of the directions and perspectives of any research from multi-dimensions and multi-methods (Guba, 1990). Post-positivism is a justification for alternative paradigm for positivism and neo-positivism. Their argument is that “no matter how faithfully the scientist adheres to scientific method research, research outcomes are neither totally objective, nor unquestionably certain” (Crotty, 1998, p. 40).

Post-positivism is a wholesale rejection of the central tenets of positivism. A post-positivist might begin by recognizing that the way scientists think and work and the way we think in our everyday life are not distinctly different (Adam, 2014). Post-positivists believe that there is a reality independent of our thinking about it that science can study. Post-positivist critical realists recognize that all observation is fallible and has error and that all theory is revisable. In other words, the critical realist is critical of our ability to know reality with certainty (Adam, 2014).

Where the positivist believed that the goal of science was to uncover the truth, the post-positivist critical realist maintains that the goal of science is to develop the most credible explanation of reality, while recognizing that absolute certainty can never be attained (Panhwar *et al.*, 2017). Because all measurement is subject to error, post-positivists emphasize the use of carefully designed research instruments, rigorous measurement procedures, and appropriate statistical techniques to minimize bias and improve the accuracy and credibility of research findings. This philosophical stance is therefore appropriate for explanatory quantitative studies that seek to test hypotheses and establish relationships among measurable variables.

3.3 Research Design

It refers to the overall strategy utilized to carry out research that defines a succinct and logical plan to tackle established research question(s) through the collection, interpretation, analysis, and discussion of data (Thakur, 2021). Kothari (2004) postulated that research design is the arrangement of conditions for collection and

analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Cooper and Schindler (2011) defined research design as the structure of investigation which enables a researcher to obtain answers to research questions. The function of a research design is to ensure that the evidence obtained enables you to effectively address the research problem logically and as unambiguously as possible.

This study adopted the explanatory research design. Thakur (2021) observed that the explanatory research design is used to further expand, explore, and explain the researcher's ideas and theories. This type of research design is used to elaborate on the unexplored aspects of a particular topic and try to explain the missing pieces. In explanatory research, the occurrence relation causally relates one determinant to the occurrence (of an event or a state) taking into account other relevant characteristics (confounders and modifiers).

An explanatory research design seeks to explain relationships among variables by establishing why and how a particular phenomenon occurs. According to Grey (2014), explanatory research builds on exploratory and descriptive research by identifying the underlying causes of observed phenomena. This design was considered appropriate for the present study because it sought to examine the influence of diversification strategies on the sustainable performance of chartered private universities in Kenya and to determine the moderating role of core competency in this relationship. The study tested the hypothesized relationships among measurable variables using quantitative data collected through structured questionnaires and analyzed using inferential statistical techniques. Consequently, the explanatory research design provided an appropriate framework for explaining the nature, direction, and significance of the relationships among the study variables and for providing empirical evidence to support or reject the formulated hypotheses.

3.4 Target Population

Cooper and Schindler (2011) observe that a population is the total collection of elements about which inferences can be made. Martínez-Mesa (2014) also describes it as a group of individuals restricted to a geographical region (neighbourhood, city,

state, country, continent etc.) or certain institutions (hospitals, schools, health centres etc.), that is, a set of individuals that have at least one characteristic in common.

Mugenda and Mugenda (2003) define target population as an entire group of individuals, cases or objects with some common observable characteristics while Bryman (2012) defines population as the study universe. It refers to the whole group from which the sample is taken. A target population refers to all the members who meet the criteria specified for a research investigation (Alvi, 2016). A target population needs to be exclusive enough to avoid having participants who do & represent the study needs which will misrepresent the population of interest (Casteel & Bridier, 2021).

The target population for this study comprised 1,444 top and middle-level management personnel drawn from the 21 chartered private universities in Kenya. These personnel included Vice Chancellors, Deputy Vice Chancellors, Registrars, Finance Managers, Human Resource Managers, Deans, Directors, Heads of Departments, and Senior Lecturers. This group was found to be appropriate because of its direct involvement in policy implementation and procedures in private universities. The unit of analysis was the 21 chartered private universities in Kenya, while the unit of observation comprised Vice chancellors, Deputy Vice Chancellors, Registrars, Finance managers, Human Resource Managers, Deans, Directors, HoDs and senior lecturers. The distribution of the target population was as shown in Table 3.1.

Table 3.1: Target population

Category of Officers	Population	Percentage
Vice Chancellors	21	1.3
Deputy Vice Chancellors	57	3.9
Registrars	21	1.3
Finance managers	21	1.3
Human Resource Managers	21	1.3
Deans	76	5.3
Directors	95	6.6
HODs	564	39.1
Senior Lecturers	572	39.6
Total	1444	100

Source: CUE (2021)

3.5 Sampling Frame

A sampling frame is a list of all population units from which a sample is drawn (Cooper and Schindler, 2011). Mugenda (2011) further defines a sampling frame as a list of all the items from where a representative sample is selected for the purpose of a study. A sampling frame source comprises all the units that are potential members of the sample (Kothari, 2004). The sampling frame for this study was drawn from the list of all private universities in Kenya (*see appendix III*). The study sample was drawn from Vice chancellors, Deputy Vice Chancellors, Registrars, Finance Managers, Human Resource Managers, Deans, Directors, HoDs and senior lecturers was then sampled.

3.6 Sample size and Sampling Technique

Mugenda (2011) defines a research sample as a finite and representative number of individuals or objects in a population to be studied. Sampling enables the researcher to identify, select and gain access to the appropriate subjects (Mason, 2004). Through sampling the researcher reduces the amount of data to be collected by examining a subgroup of the total population (Saunders *et al* 2016).

However, Mugenda and Mugenda (2011) postulate that if the target population is less than 100, then a census method can be adopted, that is, when the study population is not large, sampling techniques are not necessarily applied as this could increase sampling error. This study adopted stratified sampling technique drawn from Vice chancellors, Deputy Vice Chancellors, Registrars, Finance Managers, Human Resource Managers, Deans, Directors, HoDs and Senior Lecturers. Stratified sampling technique ensures that the selected group contains elements representative of the characteristics found in the sampling frame (Saunders *et al.*, 2016).

The study sample size was determined using Taro Yamanes proportional sampling technique formula shown below;

$$n = \frac{N}{1 + Ne^2}$$

Where n = Sample size

N = population under study

E = margin error (0.05)

I = constant

Therefore;

$$n=1444/ (1+1444 (0.05)^2)$$

$$n=1444/ (1+1444 (0.0025))$$

$$n=1444/ (1+3.61)$$

$$n=1444/4.61$$

$$n=313$$

From the calculation 313 was used for this study as sample size where respondents were selected through proportionate stratified sampling as shown in the table below;

Table 3.2: Sample size

Category	No. of target population (N)	Sample n= (N/Target Pop.) x Sample size
Vice Chancellors	21	5
Deputy Vice Chancellors	57	12
Registrars	21	4
Finance managers	21	4
Human Resource Managers	21	4
Deans	76	16
Directors	95	21
HODs	564	122
Senior Lecturers	572	125
Total	1444	313

Source: CUE 2021

3.7 Data Collection Instrument

This study adopted a questionnaire to collect primary data. Questionnaires have been used by researchers before to collect data. Glasser and Strauss (2015) refer to a questionnaire as being an imperative instrument in research. Researchers recommend that each item on the questionnaire be carefully developed to address a specific objective or research question (Mugenda and Mugenda, 1999). The questions in the

questionnaire were both structured and unstructured (Cooper & Schindler, 2011). Alternative answers were provided for some questions while some items were closed to provide standardized data and increase the objectivity and validity of the study. The questionnaire included a 5-point Likert-type scale operationalized to reflect the study variables. Use of Likert scale enables respondents to provide information which is quantifiable. Sections of the instrument were adopted from existing sources but modified, while other sections were formulated from existing literature.

3.8 Data Collection Procedure

The study used a questionnaire as the main data collection instrument, which was administered through a drop and pick later method. Adequate time was provided to complete the questionnaires as well as telephone follow ups made to the designate respondents. This mechanism ensured that all the targeted respondents participated in the study and therefore increase the response rate and accuracy of the data. The study made use of the services of two research assistants in the distribution, follow up and collection of the questionnaires. The research assistants were graduates of business studies with basic social science research experience who were also trained on how to approach the respondents, data handling in order to improve the accuracy, responsiveness and reliability of the data.

3.9 Pilot testing

A pilot study was undertaken for the purpose of pre-testing the data collection instruments for reliability and validity. According to Baskarada (2014), a pilot study is always necessary in order to test the reliability and validity of the data collection instruments. Mugenda and Mugenda (1999) recommend a pre- test sample of 1-10% depending on the sample size. The researcher pretested on 10% of the unit of observation (21 chartered private universities which translates to two universities and 10% of the sampled respondents which is 31 (thirty-one) respondents.

The pilot study involved thirty-one respondents drawn from Tangaza University and Gretsia University, both of which were excluded from the main study. These institutions were purposively selected because they possess organizational and administrative structures comparable to those of the chartered private universities included in the

study, thereby providing respondents with characteristics similar to those of the target population. Their exclusion from the main survey minimized the likelihood of respondent contamination while enabling the researcher to assess the clarity, relevance, reliability, and validity of the research instrument before the full-scale data collection.

The purpose and process of the pilot study was carefully explained to the participants before the questionnaires were issued. The researcher then collected the filled questionnaires for processing. Any difficulties with answering the questions such as lack of understanding of the questions, blank spaces or ambiguous questions were reviewed with professional advice from the experts to ensure both content and construct validity. Reliability of the research instruments was tested using Cronbach alpha test which is a measure of internal consistency. The pilot test results should give a Cronbach alpha of 0.7 and above so as to confirm reliability of the research instrument which was then used to collect data from targeted respondents. Pilot data respondents were excluded from the final study.

3.9.1 Measures of Validity

Validity measures the degree to which the results from data analysis represent the phenomenon under investigation. It is the accuracy of the results in relation (Cooper and Schindler, 2011). The questionnaire was subjected to pilot testing to ensure that it is appropriately designed to measure the study variables (Mugenda & Mugenda, 2003). Content validity is based on the extent to which a measurement reflects the specific intended domain of content.

To ensure content validity, discussions were held with experts during the questionnaire formulation stage to ensure the instrument includes adequate and representative set of items. Content validity measures the study objectives and wording of the instrument. Sekaran and Bougie (2009) aver that face validity is a basic and minimum index of content validity. It enables the researcher to assume that they measured what they intended to measure (at face value).

Construct validity is the degree to which a test measures an intended hypothetical construct (Mugenda, 2008). According to Sekaran and Bougie (2009) construct validity measures the extent to which the data collected using the research instrument

is aligned to the research theories. The researcher worked in consultation with the experts (supervisors) familiar with the construct to measure construct validity of the questionnaire. They examined each item of the questionnaire to ensure the instrument yielded responses relevant to the study objective (Kothari, 2004).

Measures of validity increase the effectiveness and objectivity of the research instruments (Zickmund *et al.*, 2010). Mugenda and Mugenda (1999) recommend a pre-test (pilot) sample of 1-10% as being adequate for pretesting in social research. The questionnaire was pretested for clarity and understanding and will be revised depending on the feedback from the respondents to improve understanding. Pre-testing improves the response rate by ensuring that the participants understand the questionnaire (Faux 2010).

Any difficulties encountered in answering the questions such as ambiguity or lack of understanding were addressed and professional advice sought from the supervisors to ensure accuracy and validity of the data collected. The recommendations from the experts and the pilot study respondents were used to refine and improve the validity of the data collection instrument. The research instrument was constructed based on previous studies to ensure construct. Respondents selected to take part in the pilot testing were excluded from the actual study.

3.9.2 Determining Reliability of the Instrument

Golafshani (2013) explain that reliability is a measure of degree to which a research instrument yields consistent results or data after accepted trials. Reliability of measurements concern the degree to which a particular procedure gives similar results over a number of repeated trials. The researcher administered the questionnaire to the pilot sample and then scores the questions. To measure the reliability, Cronbach Alpha technique was employed. Cronbach alpha coefficient was estimated from the response using statistical package for social scientist (SPSS).

In this approach, a score obtained in one item was correlated with scores obtained from other items in the instrument; Cronbachs Alpha was then computed to determine how items correlate among themselves. According to Ahmad, Yussiff and Mustapha (2015), Cronbachs alpha of $\alpha \geq 0.9$ is excellent, $0.7 \leq \alpha < 0.9$ is good, $0.6 \leq \alpha < 0.7$

is acceptable, $0.5 \leq \alpha < 0.6$ is poor, and $\alpha < 0.5$ is unacceptable. A large value of alpha (preferably greater than 0.7) indicated a high level of consistence of the instruments in measuring the variables which this study adopted.

3.10 Data Analysis and Presentation

Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel software through descriptive statistics. Descriptive statistics presents data using measures of central tendency (mean and mode), measures of dispersion (standard deviation and variance) and inferential statistics (correlation and multiple regression). The purpose of descriptive statistics is to provide a simple distribution of scores using statistics. This study used regression and correlation analysis to show the effect of the independent variables on the dependent variable and to test the strength of the relationship between them.

Correlation analysis has been described as the degree to which two or more variables are related (Walliman, 2005). According to Kremelberg (2011) correlation analysis is used to establish the amount, nature and strength of relationship between variables. Regression analysis, on the other hand, estimates the relationships among study variables (Scott, 2012).

Regression goes beyond correlation in that it provides further information about predictive effects of the independent variables on a dependent variable and helps understand change in the dependent variable when any one of the independent variables varies, holding the other independent variables constant. It is used for prediction and forecasting. Through regression analysis researchers are able to understand which among the independent variables are related to the dependent variable and the nature of the relationships.

The study variables are represented by the multiple regression model below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots \dots \dots (i)$$

Where Y was the dependent variable, (Sustainable Performance of Private Universities in Kenya) and X_1 , X_2 , X_3 and X_4 are the independent variables, where:

X_1 = Horizontal diversification

X_2 = Vertical diversification

X_3 = Conglomerate diversification

X_4 = Geographical diversification

β_0 = Constant

Model specification for moderated regression (hypothesis five)

$$Y = \beta_0 + \beta X_5 + \beta m_1 M + \beta m_2 (X_5 * M) + \epsilon \dots \dots \dots (ii)$$

Where;

X_5 = Transformed and summated scores of diversification strategies

M = Moderator variable (core competencies)

$(X_5 * M)$ = Interaction term

Bm_1 = Beta coefficient of moderator

Bm_2 = Beta coefficient of interaction term

ϵ = Error term.

β_0 = Constant

3.11 Multiple Regression Analysis Model Assumptions

In its simplest form, regression analysis allows researchers to analyze relationships between one independent and one dependent variable. The following assumptions as that underlie multiple regression model of analysis as summarized by (Hair *et al.*, 2006) were put into consideration.

3.11.1 Normality

Normality was assumed that the residuals of variables are normally distributed. That is, the errors in the prediction of value Y (the dependent variable) are distributed in a way that approaches the normal curve. The assumption of normality is especially critical when constructing reference intervals for variables and when this assumption does not hold, it is impossible to draw accurate and reliable conclusions about reality (Ghasemi & Zahediasl, 2012). The study, therefore, used the Shapiro -Wilk test for testing the normality of data in line with the recommendation of Thode, (2002). The Shapiro -Wilk test is based on the correlation between the data and the corresponding normal scores and provides better power than the K-S test even after the Lilliefors correction (Steinskog, 2007; Mendes & Pala, 2003).

3.11.2 Linearity

Linearity is when the variables X and Y are linearly correlated; it is meaningless to fit a linear regression model between them. Therefore, *t*-Test is used to examine whether there is some significant linear relationship between the independent and dependent variables or not, (Kothari & Garg, 2014). The decision about the null hypothesis in a two-tailed test were taken by comparing the computed value and critical value of *t* distribution. The null hypothesis is rejected at $\alpha \times 100\%$ level of significance when the computed value and critical value T_r is lower than $-t_{\alpha/2}$ or larger than $t_{\alpha/2}$. Rejecting a null hypothesis means there is a significant linear relationship between the variables (Kothari & Garg, 2014). It is assumed that the relationship between the independent and dependent variables is linear. scatter plots of the variables helped to make this determination.

3.11.3 Homoscedasticity

Homoscedasticity refers to the assumption that the variance of the error terms in a regression model remains constant across all levels of the independent variables. Violation of this assumption, known as heteroscedasticity, can lead to inefficient estimates and biased statistical inferences. This study used the Breusch-Pagan (BP) test to assess the presence of heteroscedasticity in the regression models. The results

yielded a Chi-Square value of 0.567 with 1 degree of freedom and a significance level of 0.451. Since the p-value was greater than 0.05, the null hypothesis of homoscedasticity was not rejected. This indicates that the regression residuals exhibited constant variance, confirming that the assumption of homoscedasticity was satisfied in the study models.

3.11.4 Multicollinearity

Multicollinearity exists when two or more of the predictors in a regression model are moderately or highly correlated. Unfortunately, when it exists, it can wreak havoc on analysis and thereby limit research conclusions in this study if it were detected when the *t*-tests for each of individual slopes are non-significant ($P > 0.05$), but the overall *F*-test for testing all of the slopes are simultaneously 0 is significant ($P < 0.05$); hence relying on variance inflation factor (*VIF*) quantifies how much the variance is inflated; the variances of the estimated coefficients are inflated when multi collinearity exists. Hence a variance inflation factor exists for *each of the k predictors* in a multiple regression model by detecting the presence of multi collinearity in this study. So, the predictor variables should not correlate too highly this was tested using variance inflation factor (*VIF*) and tolerance values.

3.11.5 Autocorrelation

Linear regression analysis requires that there is little or no autocorrelation in the data. Autocorrelation occurs when the residuals are not independent from each other. Source of autocorrelation is the effect of deletion of some variables. As serial correlation biases standard errors make results less efficient. The assumptions of independence Statistical tests that was used in the research study include Durbin-Watson test. Durbin-Watson statistic was obtained to examine the independence of errors.

$$D = \frac{\sum_{i=2}^n (e_i - e_{i-1})^2}{\sum_{i=2}^n e_i^2} D = \frac{\sum_{i=2}^n (e_i - e_{i-1})^2}{\sum_{i=2}^n e_i^2}$$

The assumption of independence is given by

$$e_i = y_i - a - bx_i \quad (i = 1, 2, \dots, n) \quad e_i = y_i - a - bx_i \quad (i = 1, 2, \dots, n)$$

Where

are residuals.

The value D lies between 0 and 4. When it is correlated residuals, it approaches 4. A value of D between 1 and 3 is usually considered to be accepted, (Kothari & Garg, 2014). F -tests were used to test the overall validity of the model or to test if any of the explanatory variables is having a linear relationship with the response variable. Serial correlation was tested using Durbin Watson test.

3.12 Testing of Study Hypotheses

The study tested a total of five hypotheses (H_{01} , H_{02} , H_{03} , H_{04} , H_{05}) stated in null form and tested at $p < 0.05$ using regression analysis after the summated scores of categorical data were statistically transformed into continuous data using SPSS version 24 so as to allow running correlations, linear and multiple regression analyses. Therefore, in testing hypotheses the following procedure was adopted;

(Null Hypothesis) H_{01} : Horizontal diversification does not significantly influence sustainable performance of private universities in Kenya.

(Alternative Hypothesis) H_{A1} : Horizontal diversification significantly influences sustainable performance of private universities in Kenya.

Then the test statistic results were set at $p < 0.05$ significance level;

So, if for instance, the test results indicate $p = 0.02$; then this is significant at $p < 0.05$;

Verdict; reject the null hypothesis (H_{01}) and accept the alternative hypothesis (H_{A1}) that Horizontal diversification significantly influences sustainable performance of private universities in Kenya.

3.14 Operationalization of Study Variables

Table 3.3: Operationalization of Study Variables

Variable	Operational Definition	Indicators	Measurement Scale
Horizontal Diversification (Independent Variable)	Expansion of university academic offerings through related programmes and services aimed at attracting diverse student segments and enhancing institutional competitiveness	Academic programme reviews Programme specializations Range of academic programmes and services	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)
Vertical Diversification (Independent Variable)	Expansion of university activities along the education value chain through integration of upstream and downstream functions	Full integration of academic processes Backward/forward integration Level of vertical diversity	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)
Conglomerate Diversification (Independent Variable)	Diversification into business activities unrelated to the university's core academic programmes to generate additional income and improve sustainability	Consultancy services Private partnerships Research and development/innovation activities	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)

Geographical Diversification (Independent Variable)	Expansion of university operations into new geographical markets through campuses, colleges, learning centres or outreach programmes	Internal diversification External diversification Span of campuses/colleges	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)
Core Competency (Moderating Variable)	Institutional capabilities and strategic resources that enable universities to implement diversification strategies effectively and achieve sustainable performance	Staff competency Programme quality Technology integration	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)
Sustainable Performance of Private Universities (Dependent Variable)	The ability of a university to achieve long-term institutional success through financial sustainability, academic excellence and continuous growth.	Graduation rates Student enrolment Revenue volume	Five-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The study examined the role of diversification strategy on sustainable performance of private universities in Kenya. Specifically, the study objectives were; to establish the influence of horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification on sustainable performance of private universities in Kenya; and to determine the moderating role of core competencies on the relationship between diversification strategy and sustainable performance of private universities in Kenya. This chapter focused on presenting the empirical results of the study including preliminary findings of the characteristics of the study sample and data collected, the descriptive and inferential statistics and data analysis focusing on testing of study hypothesis.

4.2 Response Rate

A total of 313 questionnaires were distributed to the sampled respondents using the drop-and-pick-later method. Table 4.1 presents the questionnaire response rate.

Table 4.1: Response rate

Respondents	Questionnaires distributed	Questionnaires returned	Response rate (%)
Vice Chancellors	5	0	0
Deputy Vice Chancellors	12	8	66.7
Registrars	4	3	75
Finance managers	4	3	75
Human Resource Managers	4	3	75
Deans	16	13	81.3
Directors	21	16	76.2
HODs	122	97	79.5
Senior Lecturers	125	103	82.4
Total sample	313	246	78.6%

Out of the 313 questionnaires distributed, 246 were duly completed and returned, yielding a response rate of 78.6%. According to Baruch and Holtom (2008), response rates above 70% are considered excellent for organizational research. Therefore, the response rate obtained in this study was considered adequate to support reliable statistical analysis and the generalization of the study findings. Although none of the sampled Vice Chancellors returned the questionnaire, responses were obtained from other members of the top and middle-level management who are directly involved in strategic planning, policy implementation, and institutional management. However, the absence of responses from Vice Chancellors is acknowledged as a limitation of the study because of their central role in strategic decision-making.

4.3 Pilot Testing Results

In order to make inferences from the study data to more general conditions, the study entailed inferential statistics. To carry out this exercise, the study established the reliability of variables under investigation, conducted sample adequacy test of the items used to construct the variables and sought factor analysis of these variables. Correlation and diagnostic tests were done first followed by hypothesis testing of each of the study construct items. Correlation analysis was conducted in to determine the direction and the strength of the relationship between the predictor variable(s) and dependent variable.

4.3.1 Reliability of Variables

Reliability refers to the stability of the measuring instrument used and its consistency over time. In other words, reliability is the ability to measure instruments to give similar results when applied at different times. The Reliability of the measuring instrument is essential for the results of the study to be healthy (Surucu & Maslacki, 2020). Reliability is an indicator of the stability of the measured values obtained in repeated measurements under the same circumstances using the same measuring instrument. Reliability is a feature of the results of the measuring instrument.

In this study, reliability tests were conducted to assess whether the five-point Likert scale used in the questionnaire to measure the study constructs (variables) was reliable (measures intended purpose). To achieve this, the study employed internal consistency

of the instrument which is related to the reliability of expressions contained in the measuring instrument. The measuring instrument measures the consistency of the items and how well the measuring instrument measures a particular behaviour or quality. The internal consistency of the measuring instrument depends on the correlation of each item that constitutes the measuring instrument (Surucu & Maslacki, 2020). To assess how reliable, the scale was, a coefficient of 0.7 was adopted as the minimum threshold for determining its sufficiency (Kendell & Jablensky, 2003). Results for reliability test are as indicated in Table 4.2 below:

Table 4.2: Reliability Test Results

Variables (Constructs)	Number of items	Cronbach Alpha	Interpretation
Sustainable Performance of Private Universities	6	0.879	Good
Horizontal diversification	5	0.803	Good
Vertical diversification	5	0.831	Good
Conglomerate diversification	5	0.817	Good
Geographical diversification	5	0.789	Acceptable
Core competencies	5	0.878	Good
Overall reliability	31	0.833	Good

As shown in Table 4.2, the Cronbach's alpha coefficients for the individual constructs ranged from 0.789 to 0.879, exceeding the recommended minimum threshold of 0.70 (Kendell & Jablensky, 2003). These findings indicate that all the study constructs demonstrated satisfactory internal consistency and were therefore considered reliable for subsequent statistical analysis. In addition, the overall questionnaire achieved a Cronbach's alpha coefficient of 0.833, confirming that the research instrument possessed satisfactory internal consistency and was suitable for data collection.

4.3.2 Validity Test Results

Validity is concerned with whether the measuring instrument measures the behavior or quality that it is intended to measure and is a measure of how well the measuring instrument performs its function (Surucu & Maslakci, 2020). Validity is determined by the meaningful and appropriate interpretation of the data obtained from the

measuring instrument as a result of the analysis. Whiston (2012) defined validity as obtaining data that is appropriate for the intended use of the measuring instruments. In this study, the researcher tested for both construct and content validity to define the variables more clearly and to ensure validity of the research instrument. The findings of the pilot study are as explained in the subsequent sections.

4.3.2.1 Construct Validity

To ascertain sampling adequacy of the items used in the constructs, Construct validity was performed which involved Kaiser-Meyer-Olkin (KMO), Bartlett's tests, and factor analysis with Varimax rotation. KMO was used to measure sampling adequacy; that is, to ascertain if the number of items used to measure a particular construct (variable) were adequate; it ranges between 0 and 1 with value of 1 indicating perfect results and a minimum threshold of 0.5 established as the better results (*Kendell & Jablensky, 2003*). Bartlett's Test of Sphericity was used to test whether the study items for each construct were coming from a population with equal variance.

Principal component analysis was used to identify and compute composite scores for the factors underlying the 5-point Likert scale used in the study questionnaire. Varimax rotation provided the best-defined factor structure for all the study variables. Communalities were conducted to determine whether all the items within a common construct variable shared a common variance that can be explained by the factors and a value of 0.3 is considered to be a minimum threshold (*Costello & Osborne, 2008*). The study results for construct validity are shown in Table 4.3.

Table 4.3: Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity Results

Variable	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
		Approx. Chi-Square	Degrees of freedom	p-value
i. Sustainable Performance of Private Universities	0.803	977.715	15	0.000
ii. Horizontal diversification	0.735	439.83	10	0.000
iii. Vertical diversification	0.789	458.918	10	0.000
iv. Conglomerate diversification	0.747	496.573	10	0.000
v. Geographical diversification	0.708	264.49	10	0.000
vi. Core competencies	0.752	923.575	10	0.000

The findings in Table 4.3 show that the value of KMO for all the variables (constructs) were above a minimum threshold of 0.5; Sustainable performance= 0.803, Horizontal diversification= 0.735, Vertical diversification = 0.789, Conglomerate diversification = 0.747, Geographical diversification = 0.708 and Core competencies = 0.752. This indicates that the number of items for each construct (variable) were adequate to measure the respective variables.

The Chi-square test results for Bartlett's Test of Sphericity were all found to be significant; [$\chi^2 (15) = 977.715, p = 0.000 < 0.05$] for Sustainable Performance of Private Universities, [$\chi^2 (10) = 439.83, p = 0.000 < 0.05$] for Horizontal diversification, [$\chi^2 (10) = 458.918, p = 0.000 < 0.05$] for Vertical diversification, [$\chi^2 (10) = 496.573, p = 0.000 < 0.05$] for Conglomerate diversification, [$\chi^2 (10) = 264.49, p = 0.000 < 0.05$] for

Geographical diversification and [χ^2 (10) = 923.575, $p=0.000 < 0.05$] for Core competencies; this indicated that the sampled items for each variable were from a population with equal variance.

4.3.2.2 Factor Analysis of Variables

Factor loadings and communalities based on Principle Component Analysis with Varimax rotation for 6 items was applied to determine Sustainable performance construct validity. The results are as shown below in Table 4.4.

Table 4.4: Factor analysis for sustainable performance

Statement	Factor Loading	Communalities	Decision
The university has high student enrollment	.789	.623	Retained
Unique skills offered by the university have increased the employability of our students	.515	.465	Retained
The university has a high graduation rate of students.	.860	.740	Retained
High number of student enrollment has increased university revenue from student fees	.784	.615	Retained
Unique programs offered by the university have attracted new students	.883	.779	Retained
The university offers unique competitive programs which has increases student enrollment	.876	.768	Retained

The results in table 4.4 show the communalities for all the five items under sustainable performance were all above the minimum threshold of 0.3 (Costello & Osborne, 2008). This indicated that the six items shared a common variance. Factor loadings for all the six items under sustainable performance were above a minimum threshold of 0.4 (Table 4.4), an indication that sample size of the five items were adequate to measure sustainable performance construct.

Factor loadings and communalities based on a principal components analysis with Varimax rotation for five items was conducted to provide best-defined factor structure for horizontal diversification construct. The results as indicated in Table 4.5 confirm that communalities for all the five items under horizontal diversification were above the minimum threshold of 0.3 (Costello & Osborne, 2008) indicating that the five items shared a common variance. Factor loadings for all the five items under horizontal diversification were above a minimum threshold of 0.4 (see Table 4.5), this confirmed that the five items were adequate to measure horizontal diversification construct.

Table 4.5: Factor analysis for horizontal diversification

Statement	Factor Loading	Communalities	Decision
The university conducts Academic Program reviews to improve quality and attract more students	.832	.692	Retained
The university offers specialized/professional courses which attracts more students	.720	.519	Retained
The university has introduced new undergraduate academic programs to increase student intake	.837	.700	Retained
The university has introduced postgraduate programs to increase student numbers	.786	.618	Retained
Horizontal diversification at the university is done through diversification of mode of delivery e.g. Online programs to increase student enrollment	.556	.509	Retained

Factor analysis for vertical diversification based on a principal components analysis with Varimax rotation for 5 items. The findings are shown in Table 4.6 below:

Table 4.6: Factor analysis for vertical diversification

Statement	Factor Loading	Communalities	Decision
The university has upgraded existing programs to attract new students	.767	.588	Retained
The university has increased the number of academic programs to increase student numbers	.803	.644	Retained
The university has diversified academic programs to attract new students and retain old students	.843	.711	Retained
The university has established academic programs based on industry needs in order to attract more students	.725	.526	Retained
The university has fully integrated old and new study programs which has enhanced student enrollment	.739	.546	Retained

Table 4.6 reports that communalities for the five items under vertical diversification were all above the minimum threshold of 0.3 (Costello & Osborne, 2008). This confirms that the five items shared a common variance. Factor loadings for all the five items under vertical diversification were above a minimum threshold of 0.4 (see Table 4.6) therefore the five items were adequate to measure vertical diversification construct.

Factor loadings and communalities based on a principal components analysis with Varimax rotation for 5 items was conducted to provide best-defined factor structure for conglomerate diversification construct and the findings are reported in Table 4.7.

Table 4.7: Factor analysis for conglomerate diversification

Statement	Factor Loading	Communalities	Decision
The university offers consultancy services to corporate firms	.735	.540	Retained
The university offers human resource development services to corporate firms	.822	.676	Retained
The university has formed private partnerships with small/medium scale and corporate firms	.618	.482	Retained
The university has an established a research and development unit	.789	.622	Retained
The university hires out university grounds, halls and other facilities to internal and external partners	.830	.689	Retained

The results in Table 4.7 shows that communalities for all the five items under conglomerate diversification were all above the minimum threshold of 0.3 (Costello & Osborne, 2008). This indicates that the five items shared a common variance. Factor loadings for all the five items under conglomerate diversification were above a minimum threshold of 0.4 (see Table 4.7) indication that the five items were adequate to measure conglomerate diversification construct.

Table 4.8 reports the findings for Factor Analysis for Geographical diversification based on a principal components analysis with Varimax rotation for 10 items.

Table 4.8: Factor analysis for geographical diversification

Statement	Factor Loading	Communalities	Decision
The university has established campuses/constituent colleges within the Main University's County of operation	.643	.495	Retained
The university has campuses/constituent colleges outside the Main University's County of operation to increase student acquisition	.699	.489	Retained
The university has campuses/constituent colleges outside the Main University's Country of operation	.817	.667	Retained
The university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students	.750	.563	Retained
Flexible virtual programs have been established to improve accessibility and increase student retention	.624	.490	Retained

From the results (Table 4.8) communalities for all the five items under geographical diversification were above the minimum threshold of 0.3 (Costello & Osborne, 2008) indicating that the five items shared a common variance. The Factor loadings for all the five items under were above a minimum threshold of 0.4 meaning that the five items were adequate enough to measure geographical diversification construct.

As reported in Table 4.9 factor loadings and communalities based on a principal components analysis with Varimax rotation for 8 items was conducted to provide best-defined factor structure for the core competencies construct.

Table 4.9: Factor analysis for core competencies

Statement	Factor Loading	Communalities	Decision
The university sponsors Academic Staff training to increase their skills	.813	.661	Retained
The university sponsors professional training for Administrative/technical staff	.872	.760	Retained
The university reviews its programs from time to time to improve quality and attract new students	.937	.879	Retained
There is consistent use of modern technologies in reaching out to new markets to increase enrollment in the university.	.814	.663	Retained
The University has unique innovative programs that promote student attraction	.712	.507	Retained

From the results the communalities for all the five items under core competencies were above the minimum threshold of 0.3 (Costello & Osborne, 2008); This confirms that the five items shared a common variance. Factor loadings for all the five items under core competencies were above a minimum threshold of 0.4, an indication that sample size of the five items was adequate to measure core competencies construct.

4.3.2.3 Content Validity

Content validity can be defined as how representative the items or tests are to measure the behavior studied (Cohen & Swerdlik, 2018; Slaney, 2017). Thorndike and Thorndike-Christ (2014) further explained content validity as the extent the test measures construct and the relevancy of the test to the aspects measured. In general, the content of the tests includes wording, format, and display of items. A test is considered content valid when the items relevantly measure the construct. Furthermore, attribute measurement should not use an excessive number of items; thus, representative items to measure constructs are needed.

That constructive feedback can be provided by panelists analyzing and evaluating the quality of measurement tools and objective criteria of the items. The feed-back is the basis for revising tests or items, which upon finalization will be used for a pilot study. Thus, the test should have reasonably good psychometric properties, before being used in larger samples (Roebianto *et al.*, 2023).

According to Rubio *et al.* (2003) experts are divided into content or domain experts and evaluator participants representing the population samples (lay experts). The authors further remarked that domain experts are professionals conducting research or publishing scientific articles on related studies. The selection of experts in the measurement field or in the topic researched should be accurate because the experts are expected to provide constructive feedback for the test design, especially in terms of fulfillment of criteria and relevancy of psychometric properties. Rubio *et al.* (2003) defined experts as professionals having a number of publications and experiences in related fields. Syaiful and Roebianto (2020) added that experts are individuals actively involved in the development of the disciplines.

Scholars hold differing opinions on the proportion of experts required in the content validation process. Lynn (1986) suggested that the minimum number of members in a panel of experts in content validation is three. Similarly, Rubio *et al.* (2003) mentioned that a content validation process should include at least three panels to represent content and lay experts. While other authors (Gable & Wolf, 1993; Rubio *et al.*, 2003; Walz *et al.*, 1991) stated that the number can vary from two to 20. Grant and Davis

(1997) believed that the number of experts should be based on the required expertise and the scope of the research. The content validation procedure is generally used as the initial step to develop instruments with limited research support (Raykov & Marcoulides, 2010; Thorndike & Thorndike-Christ, 2014).

This study adopted the content validity ratio (CVR) to determine score results from the three experts used for rating. The CVR method requires experts to determine whether an item is needed to measure the construct measured by instruments (Ayre & Scally, 2014; Lawshe, 1975; Zamanzadeh *et al.*, 2015). A panel of three experts in strategic management were asked to give a score of 1 to 3 on a scale, where the value of 1 meant the items were not necessary, 2 meant the item was useful but not essential, and 3 meant the item was essential.

The value of CVR varies from -1 to 1 . The closer the value to 1 the higher the agreement among experts is and the more the items should be included in the instrument while the closer the value to -1 the lower the agreement among experts, therefore the items should be removed or revised. The three experts confirmed that the items were valid with a score of 1 .

4.4 Demographic Characteristics of Respondents

This section describes background of the study population based on the data collected and analyzed. Every target population usually has its own characteristics. The demographic information of the respondents was considered very crucial not only for subsequent discussions of the findings but also for the authenticity and generalization of the results. This section analyses the demographic pattern of the respondents among them being gender, age, respondent's level of education and years/work experience.

4.4.1 Distribution of Respondents by Gender

The gender of respondents was considered important in this study. This is because according to the Kenyan constitution there is supposed to be fair distribution of job opportunities to both men and women. The respondents were asked to indicate their gender. The results are as shown in table Figure 4.1.

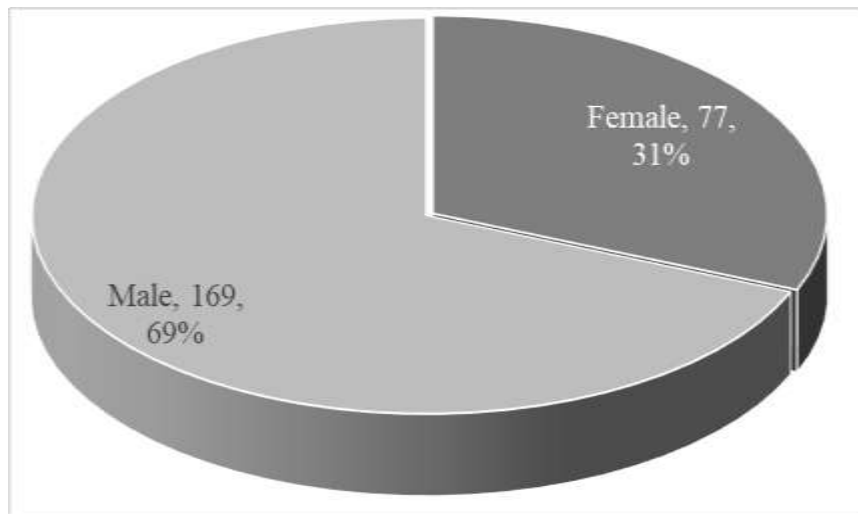


Figure 4.1: Gender of the Respondents

The findings in figure 4.1 shows that majority of the respondents were male with 69% while female was 31%. This indicates that strategic management positions within private universities were predominantly occupied by male employees. Nevertheless, the representation of both genders provided diverse perspectives on diversification strategies and sustainable performance. The findings further implied that the third gender rule has been achieved among private universities in Kenya. This shows a fair representation for all genders in the jobs associated in private universities in Kenya. This implies that almost an equal number of males and females are willing to take up jobs with private universities and that the management practices fair treatment for all its employees, a phenomenon perhaps motivated by prestige and financial benefits associated within private universities.

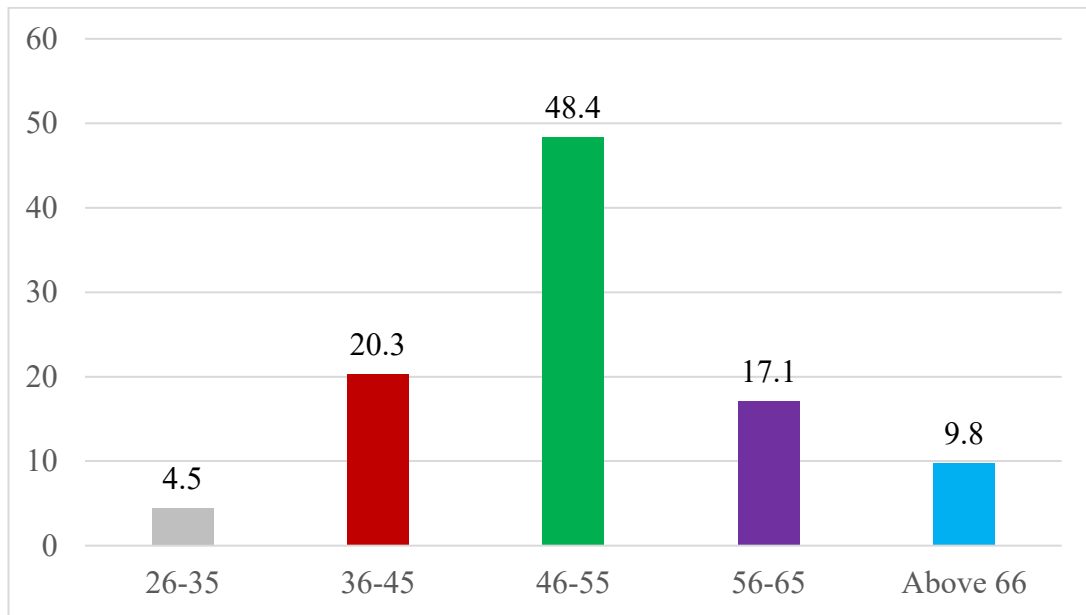


Figure 4. 2: Age of the respondents

The study findings indicate that 4.7% of the respondents aged between 26-35 years, 20.3% were between the ages of 36 and 45, the majority of the respondent were between the ages of 46-55 years, moreover, 17.1% aged between 56-65 and 9.8% of the respondents were above 66 years. Age in this study was also assumed to have some implications on the sustainable performance of the private universities in Kenya.

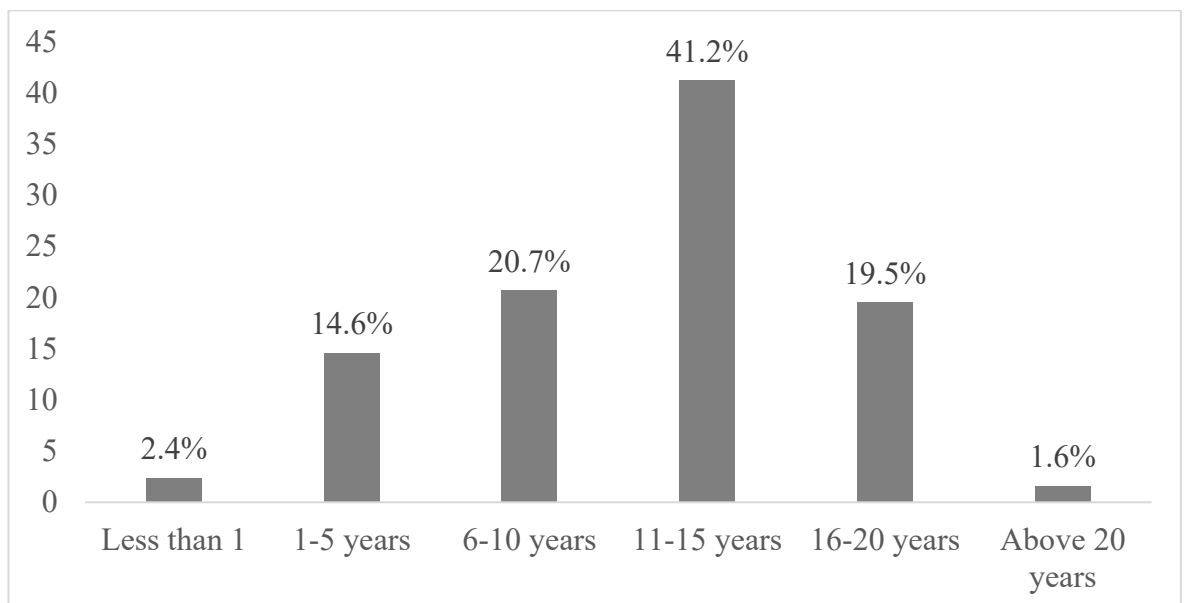


Figure 4. 3: Years of service

The results in figure 4.3 above show that 2.4% of the respondents had worked for less than 1 year, 14.6% of the respondents had worked between 1-5 years, and 20.7% had worked for a period of 6-10years. However, the majority of the respondents had worked for 11-15years at 41.2% and 19.5% for a period of 16-20 years while 1.6% of the respondents had worked for 20 years and above. This implies that majority of the employees had worked for over 10 years.

These results align with Germain and Tejeda (2012) assertion that the years of experience in a particular task or organization, is an important factor to consider in determining the level of expertise and knowledge of an organizations performance and diversification strategies. Quiñones, Ford and Teachout (2015) argued that work experience had the highest correlations with measures of performance in regards to strategy implementation. Ngugi (2012) established that majority of employees in private universities have spent more than five years in their current position which means they understand their institutions and the effect of diversification strategies on performance.

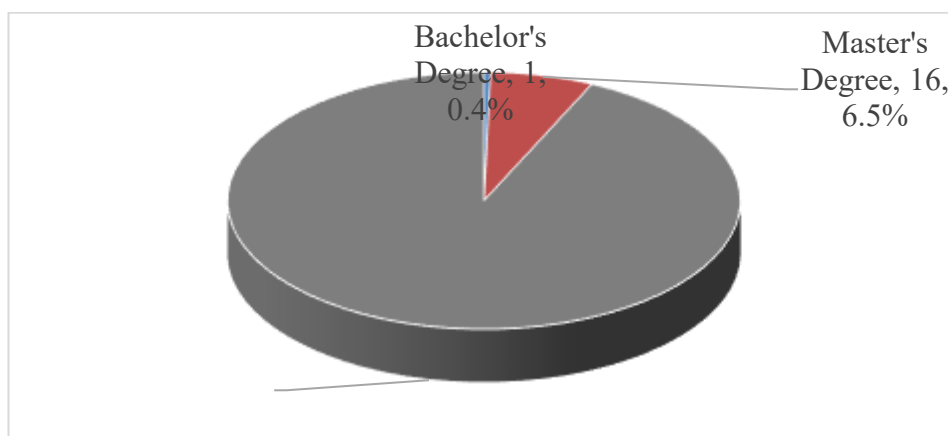


Figure 4. 4: Education level of the respondents

Figure 4. 4 above shows 6.5% of the respondents had master's degrees, 0.4% had bachelor's degree while 93.1% possessed doctoral degrees. The results are consistent with Machoka and Wamugo (2018) who found majority of the respondents from private universities to possess at least a bachelor's degree with academic staff having PhDs and master's degrees. Chege (2015) established that most of the respondents in

the university sector have at least university a first degree although the teaching staff have masters and PhDs. Similar results were obtained by Kosgei and Kibet (2019).

4.5. Descriptive Statistics of Variables in the Study

4.5.1. Horizontal Diversification

The first objective of this study was to assess the influence of horizontal diversification on sustainable performance of private universities in Kenya. To achieve this, the researcher sought from the respondent's academic program reviews, specializations and program/services ranges which were used to measure horizontal diversification. The descriptive analysis of the horizontal diversification findings was as shown below in Table 4.10.

Table 4.10: Descriptive analysis for horizontal diversification:

1-Very little extent, 2-Little extent, 3-Moderate Extent, 4-Great Extent, 5-Very Great Extent

Statements on Horizontal diversification adopted by Private Universities	5	4	3	2	1	Mean	S.D
The university conducts Academic Program reviews to improve quality and attract more students	24.4% (60)	43.9% (108)	20.3% (50)	10.6% (26)	0.8% (2)	3.80	0.95
The university offers specialized/professional courses which attracts more students	8.9% (22)	36.6% (90)	47.2% (116)	5.7% (14)	1.6% (4)	3.46	0.80
The university has introduced new undergraduate academic programs to increase student intake	28.5% (70)	26% (64)	35% (86)	7.3% (18)	3.3% (8)	3.69	1.06
The university has introduced postgraduate programs to increase student numbers	10.6% (26)	54.5% (134)	31.7% (78)	2.4% (6)	0.8% (2)	3.72	0.72
Horizontal diversification at the university is done through diversification of mode of delivery eg. Online programs to increase student enrollment	15.4% (38)	61.8% (152)	13.8% (34)	8.1% (20)	0.8% (2)	3.83	0.82
Average level of Horizontal diversification	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum		
	3.7 (74.0%)	.65671	.04187	2.0	5.00		

As shown in Table 4.10, 24.4% of the respondents agreed that their university conducted academic program reviews to improve quality and attract more students at very great extent while additional 43.9% rated it at great extent. On the other hand, 20.3% of the respondents revealed that their university conducted academic program reviews to improve quality and attract more students at moderate extent while 10.6% agreed at little extent and 0.8% at very little extent. A mean of 3.80 indicated that the universities conducted academic program reviews to improve quality and attract more students at great extent although a standard deviation of 0.95 implied that there was significant variation (dispersion was wide) as some universities were conducting academic program reviews while others were not.

Whether the university offers specialized/professional courses which attracts more students, majority of the 246 respondents, 61.8% agreed at a very great extent and 15.4% at a great extent. 13.8% of the respondents agreed at a moderate while 8.1% at little extent and 0.8% at very little extent. A mean of 3.83 revealed the universities offered specialized/professional courses which attracts more students at great extent with insignificant variation ($S. D=0.82$) among the responses implying that almost all the universities were offering specialized/professional courses which attracts more students.

The results also revealed that 28.5% of the 246 respondents indicated that their university has introduced new undergraduate academic programs to increase student enrollment at very great extent while 26.0% indicated it was at great extent. However, 35.0% of the 246 respondents indicated their university had introduced new undergraduate academic programs to increase student attraction at moderate extent while 8.1% indicated at little extent and 0.8% at very little extent. A mean of 3.69 revealed that the universities had introduced new undergraduate academic programs to increase student enrollment although from the standard deviation of 1.06, some of the universities had not introduced new undergraduate academic programs at great extent, either at moderate extent or very great extent

The results revealed that 54.5% of the 246 respondents indicated their university has introduced postgraduate programs to increase student numbers at great extent while 10.6% of the respondents indicated that it was at very great extent. On the other hand,

31.7% of the respondents indicated their university has introduced postgraduate programs to increase student numbers at moderate extent, 2.4% at little extent and 0.8% at very little extent. A mean of 3.72 indicated that the universities have introduced postgraduate programs to increase student numbers at moderate and this was supported by insignificant standard deviation of 0.72 implying majority of the universities have introduced postgraduate programs at great with few of them at moderate extent.

Lastly 8.9% of the 246 agreed that horizontal diversification at the university was done through diversified mode of delivery e.g. online programs to increase student enrollment at very great extent while 36.6% agreed at great extent. On the other hand, 47.2% of the 246 respondents agreed that horizontal diversification at their university is done through diversification of mode of delivery e.g. online programs to increase student enrollment at moderate extent.

5.7% of the respondents agreed with the statement at a little extent and 1.6% at very little extent. A mean of 3.46 revealed that horizontal diversification at the universities was done through diversification of mode of delivery e.g. online programs to increase student enrollment at moderate with an insignificant standard deviation of 0.80 suggesting that majority of the private universities have diversified mode of delivery to moderate extent although few of them have done so at great extent.

The average level of horizontal diversification according to the sampled respondents was at 67.60% mean response (mean=3.70, std. dev. =.656) rated as shown in Table 4.11. This implies that the level of horizontal diversification of majority of the private universities in Kenya is at great extent however, with minimal standard deviation of 0.66 implying that the responses ranged from moderate extent to great extent.

The findings suggest that horizontal diversification is a well-established strategic practice among chartered private universities in Kenya. The relatively high overall mean score indicates that universities have deliberately expanded and diversified their academic offerings through programme reviews, specialized courses, undergraduate and postgraduate programmes, and alternative modes of programme delivery. These initiatives are likely intended to enhance institutional attractiveness, respond to

changing labour market demands, increase student enrolment, and strengthen long-term financial sustainability. However, the moderate adoption of online and other flexible modes of delivery suggests that some universities have not fully embraced digital transformation, which may limit their ability to reach new student segments and compete effectively in an increasingly technology-driven higher education environment.

Scholars have established a link between horizontal diversification strategy and sustainable performance affirming that businesses enter new markets to explore new opportunities, to address new customer needs or to respond to technological changes (Gudo *et al*, 2011; Njagi, 2017; Onyonka, 2013). Horizontal diversification will spread risks in private universities as challenges in one center will be compensated by great achievements in another campus (Mathooko & Ogutu 2015). Sustainable performance of private universities will be determined by the ability to offer academic programs that are aligned to the expectations and needs of the labour market (Teixeira *et al.*, 2012).

In consistency with global trends there is need for universities in Kenya to supplement inadequate financial support through program diversity while responding to increasing demand for higher education in Kenya and the region (Reichi, 2012; Melly, 2013). These findings reinforce the argument by Reichi (2012) and Melly (2013) that private universities must diversify their programme portfolios to respond to increasing demand for higher education while strengthening their financial sustainability. Similarly, Mukhwana *et al.* (2016) observed that universities offering industry-relevant academic programmes, professional courses, postgraduate programmes, and executive education are better positioned to attract diverse student populations and enhance institutional competitiveness. The current findings therefore suggest that continued investment in programme diversification remains an important strategy for improving the sustainable performance of private universities in Kenya.

4.5.2. Vertical diversification

The second objective of this study was to establish the influence of vertical diversification on sustainable performance of private universities in Kenya. To achieve this, the researcher asked questions about general vertical diversification indicators (full integration, backward/forward integration and the levels of vertical diversity). The descriptive analysis of vertical diversification was as shown in Table 4.11 below:

Table 4. 11: Vertical diversification

Statements on Vertical diversification adopted by Private Universities	5	4	3	2	1	Mean	S.D
The university has upgraded existing programs to attract new students	22% (54)	37.4% (92)	19.5% (48)	18.7% (46)	2.4% (6)	3.58	1.10
The university has increased the number of academic programs to increase student numbers	4.9% (12)	51.2% (126)	27.6% (68)	13.8% (34)	2.4% (6)	3.42	0.88
The university has diversified academic programs to attract new students and retain old students	9.8% (24)	51.2% (126)	29.3% (72)	5.7% (14)	4.1% (10)	3.57	0.90
The university has established academic programs based on industry needs in order to attract more students	11.4% (28)	50.4% (124)	22% (54)	13.8% (34)	2.4% (6)	3.54	0.95
The university has fully integrated old and new study programs which has enhanced student enrollment	13.8% (34)	42.3% (104)	31.7% (78)	9.8% (24)	2.4% (6)	3.55	0.93
Average level of Vertical diversification	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum		
	3.5 (70.0%)	.73653	.04696	1.0	5.00		

The results in Table 4.11 indicate that 22% of the 246 respondents agreed that the university had upgraded existing programs to attract new students to a very great extent while 19.5% of the respondents agreed at moderate extent. 18.7% agreed with the statement at little extent and 2.4% at very little extent. A mean of 3.58 indicates that the university had upgraded existing programs to attract new students at a great extent although a standard deviation of 1.10 implies that there was significant variation in regards to upgrading existing programs to attract new students as some universities

upgraded existing programs to little extent while some university upgraded existing programs to very great extent.

4.9% of the respondents agreed with the statement that their university had increased the number of academic programs to increase student numbers at a very great extent while 51.2% agreed at a great extent. On the other hand, 27.6% of the 246 respondents revealed the university had increased the number of academic programs to increase student numbers at a moderate extent while 13.8% at little extent and 2.4% at very little extent. A mean of 3.42 implied that the university had increased the number of academic programs to increase student numbers at a great extent with a significant variation among the responses of 0.88. This implies that some universities increased the number of academic programs to great extent while other at moderate extent.

From the results 9.8% of the 246 respondents agreed with the statement that the university had diversified academic programs to attract new students and retain old students at very great extent while 51.2% agreed with the statement at a great extent. However, 29.3% of the 246 respondents indicated the university had diversified academic programs to attract new students and retain old students at a moderate extent.

Only 5.7% agreed with the statement that the university had diversified academic programs to attract new students and retain old students at little extent and 4.1% at very little extent. A mean of 3.57 obtained means that their university had diversified academic programs to attract new students and retain old students although from the standard deviation of 0.90 some of the universities have not diversified academic programs to attract new students and retain old students. The extent generally stretched from little extent to great extent.

11.4% of the 246 respondents agreed that the university had established academic programs based on industry needs in order to attract more students at a very great extent whereas more than half of the respondents, 50.4% agreed at a very great extent. Conversely, 22% of the respondents agreed that the university had established academic programs based on industry needs in order to attract more students at moderate extent, 13.8% at little extent and 2.4% at very little extent. A mean of 3.54 implied that the universities had established academic programs based on industry

needs in order to attract more students, a finding which is backed by a significant standard deviation of 0.95. This implies that some universities have established academic programs based on industry needs at little extent while other universities have done the same at great extent.

Lastly 13.8% of the 246 respondents agreed that the university had fully integrated old and new study programs which has enhanced student enrollment at very great extent while the majority, 42.3% agreed with the statement to a great extent. On the other hand, 31.3% of the 246 respondents revealed that the university had fully integrated old and new study programs which has enhanced student enrollment at moderate extent while 9.8% agreed at little extent and 2.4% at very little extent. A mean of 3.55 signifies that the universities have fully integrated old and new study programs which has enhanced student enrollment at moderate extent with a significant standard deviation of 0.93. This implied that there is wide deviation in responses as some universities have fully integrated old and new study programs at little extent while others have integrated at a great extent across the mean.

The average level of vertical diversification according to the sampled respondents was at 70.0% mean response (mean=3.5, std. dev. =.737) rated as shown in Table 4.11. This implies that the level of vertical diversification of majority of the private universities in Kenya is at great extent although, from the standard deviation, the responses concentrated from moderate extent to great extent.

The findings indicate that vertical diversification is practiced to a considerable extent among chartered private universities in Kenya. The relatively high overall mean suggests that most universities have strengthened their position within the higher education value chain by upgrading existing academic programmes, expanding programme offerings, aligning curricula with industry requirements, and integrating existing and new programmes. These initiatives demonstrate that universities are not only focusing on increasing the number of programmes offered but are also enhancing the quality, relevance, and coherence of their academic portfolio to improve student attraction and retention. Such strategic actions are likely to contribute to institutional competitiveness, improved graduate employability, increased student enrolment, and enhanced long-term sustainability.

The findings are consistent with the strategic management literature, which argues that vertical diversification enables organizations to strengthen their competitive advantage through greater integration of activities along the value chain, thereby improving efficiency and service quality. In the higher education context, upgrading academic programmes and aligning them with labour market requirements enhances institutional responsiveness to stakeholder needs and improves organizational performance. The findings concur with those of Mathooko and Ogutu (2015), who observed that diversification strategies enhance institutional competitiveness by enabling organizations to respond effectively to changes in the operating environment. Similarly, Mukhwana et al. (2016) found that universities that continuously review and align their academic programmes with industry requirements are better positioned to attract students and improve institutional performance. The results also support the propositions of Dynamic Capabilities Theory, which emphasizes the continuous renewal and reconfiguration of organizational resources and capabilities to respond to changing environmental conditions. By upgrading programmes, integrating academic offerings, and developing industry-responsive curricula, private universities enhance their capacity to sustain competitive advantage and improve long-term organizational performance.

4.5.3 Conglomerate Diversification

The third objective of this study was to examine the influence of conglomerate diversification on sustainable performance of private universities in Kenya. To achieve this, the researcher probed the respondents about the consultancy services, private partnerships, research and development/innovations. The respondents were asked to rate the extent to which the conglomerate diversification impact sustainable performance of private universities in Kenya. The responses from different respondents were reported in Table 4.12.

Table 4. 12: Conglomerate diversification

Statements conglomerate diversification adopted by Private Universities	on 5	4	3	2	1	Mean	S.D
The university offers consultancy services to corporate firms	18.7% (46)	52% (128)	13% (32)	5.7% (14)	10.6% (26)	3.63	1.17
The university offers human resource development services to corporate firms	29.3% (72)	21.1% (52)	34.1% (84)	12.2% (30)	3.3% (8)	3.61	1.13
The university has formed private partnerships with small/medium scale and corporate firms	14.6% (36)	39.8% (98)	30.9% (76)	8.9% (22)	5.7% (14)	3.49	1.03
The university has an established a research and development unit	26% (64)	30.9% (76)	24.4% (60)	9.8% (24)	8.9% (22)	3.55	1.23
The university hires out university grounds, halls and other facilities to internal and external partners	23.6% (58)	37.4% (92)	22% (54)	14.6% (36)	2.4% (6)	3.65	1.07
Average level of of Conglomerate diversification	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum		
	3.59 (71.8%)	.85568	.05456	1.0	5.00		

From table 4.12 more than half of the respondents, 52% agreed that the university offers consultancy services to corporate firms at a great extent where 18.7% of the 246 respondents agreed to a very great extent. Conversely, 13% agreed that the university offers consultancy services to corporate firms at moderate extent while the least number of respondents, 5.7% agreed with the statement at little extent and 10.6% at very little extent. From the mean of 3.63 the university offers consultancy services to corporate firms at great extent although a standard deviation of 1.17 implied a wide deviation in responses as some universities offered consultancy services to corporate firms at little extent while others at very great extent.

When asked whether the university offers human resource development services to corporate firms, 29.3% of the respondents agreed with the statement at a very great extent while 21.1% agreed at very great extent. The majority of the respondents ,34.1% agreed with the the statement Conversely, respondents revealed that the university offers human resource development services to corporate firms at moderate extent

while 12.2% at little extent and the least, 3.3% agreed at very little extent. A mean of 3.61 implies that the university offers human resource development services to corporate firms and a standard deviation of 1.13 shows a wide deviation in responses as some universities offered human resource development services to corporate firms at little extent while others at very great extent.

The results further revealed that 14.6% of the 246 respondents agreed that the university had formed private partnerships with small/medium scale and corporate firms at very great extent. The highest number of respondents, 39.8% agreed that the university had formed private partnerships with small/medium scale and corporate firms at a great extent whereas 30.8% of the 246 respondents agreed that the university had formed private partnerships with small/medium scale and corporate firms at moderate extent.

8.9% of the respondents agreed with the statement that the university had formed private partnerships with small/medium scale and corporate firms at very great extent at little extent and the least number 5.7% agreed at very little extent. A mean of 3.49 shows that the university had formed private partnerships with small/medium scale and corporate firms although from the standard deviation of 1.03 implies that some of the universities have not formed private partnerships with small/medium scale and corporate firms at little extent while others at very great extent across the mean.

On whether the university had established a research and development unit 26% of the 246 respondents agreed at a very great extent while 30.9% of the respondents agreed with the statement at a great extent. 24.4% of the respondents agreed with the statement that the university had established a research and development unit at moderate extent, whereas 9.8% agreed to at little extent and 8.9% at very little extent. A mean of 3.55 meant that the university had established a research and development unit at moderate extend and this is supported by a significant standard deviation of 1.23 which implies that some of the universities have an established a research and development unit at little extent while others at very great extent.

Lastly 23.6% of the 246 respondents agreed that the university hires out university grounds, halls and other facilities to internal and external partners at very great extent while 37.4% agreed with the statement at great extent. On the other hand, 22% of the

246 respondents agreed that their university hires out university grounds, halls and other facilities to internal and external partners at moderate extent and 14.6% agreed at a little extent. The least number of respondents, 2.4% agreed with the statement at very little extent. A mean of 3.65 revealed that their university hires out university grounds, halls and other facilities to internal and external partners at moderate extent with a significant standard deviation of 1.07 which means that some of the universities hire out their grounds, halls and other facilities to internal and external partners at moderate extent while others do so at very great extent.

The average level of conglomerate diversification according to the sampled respondents was at 71.8% mean response (mean=3.59, std. dev. =.856) rated as shown in Table 4.12. This implies that the level of conglomerate diversification of majority of the private universities in Kenya is at great extent with minimal standard deviation of 0.856 implying that the responses ranged from moderate extent to great extent.

The findings indicate that conglomerate diversification has been adopted to a great extent by most chartered private universities in Kenya. The relatively high overall mean suggests that universities are increasingly pursuing income-generating activities beyond their traditional teaching mandate through consultancy services, human resource development programmes, strategic partnerships, research and development initiatives, and the commercial utilization of institutional facilities. These activities demonstrate a deliberate effort by universities to diversify their revenue streams, reduce dependence on tuition fees, and enhance financial resilience in an increasingly competitive higher education environment. The variation observed across institutions, however, suggests that while some universities have made substantial investments in non-academic ventures, others are yet to fully exploit these opportunities, possibly due to differences in institutional capacity, resource availability, or strategic priorities.

The present findings demonstrate that private universities are increasingly extending their activities beyond conventional academic programmes into consultancy services, research and development, strategic partnerships, and commercial use of institutional resources. This suggests that conglomerate diversification has become an important strategy for generating alternative revenue streams and strengthening institutional sustainability. Although the extent of adoption varies across universities, the overall

results indicate that diversification into complementary non-academic activities is becoming an integral component of strategic management within Kenya's private university sector.

These findings are consistent with those of Karim and Jürg (2021), who found that universities in the United States strengthened their financial sustainability through professional education programmes, business engagement centres, and strategic partnerships with corporate organizations. Their study showed that such initiatives expanded revenue streams while enhancing collaboration between universities and industry. The findings also agree with Nickels (2019), who established that commercial utilization of university assets, including sports camps, facility rentals, and event management partnerships, contributed significantly to institutional revenue growth. The current findings similarly suggest that private universities in Kenya are increasingly exploiting non-academic activities to supplement their traditional sources of income and enhance sustainable performance.

Nevertheless, the variation in the level of conglomerate diversification observed across the sampled universities reflects the concerns raised by Hadiyanto (2020), who noted that universities in developing countries often implement diversification initiatives in an ad hoc manner without a coherent long-term strategy. As a result, some institutions fail to realize the full benefits of diversification because opportunities are inadequately prioritized, poorly resourced, or insufficiently aligned with institutional goals. The present findings therefore imply that while conglomerate diversification has the potential to enhance sustainable performance, its success depends on how strategically these initiatives are planned, coordinated, and integrated within the university's overall development agenda.

4.5.4 Geographical diversification

The fourth objective of this study was to establish the influence of geographical diversification on sustainable performance of private universities in Kenya. To achieve this, the researcher asked the respondents about internal diversification, external diversification and span of campuses/colleges of sustainable performance of private universities in Kenya. The study findings were as detailed in the subsequent sub-

section. The descriptive analysis of the geographical diversification findings are shown in Table 4.13.

Table 4.13: Descriptive Analysis for Geographical diversification:

Statements on Geographical diversification adopted by Private Universities	5	4	3	2	1	Mean	S.D
The university has established campuses/constituent colleges within the Main University's County of operation	15.4% (38)	39.8% (98)	35.8% (88)	2.4% (6)	6.5% (16)	3.55	1.00
The university has campuses/constituent colleges outside the Main University's County of operation to increase student acquisition	15.4% (38)	53.7% (132)	24.4% (60)	2.4% (6)	4.1% (10)	3.74	0.89
The university has campuses/constituent colleges outside the Main University's Country of operation	11.4% (28)	65.9% (162)	9.8% (24)	8.9% (22)	4.1% (10)	3.72	0.93
The university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students	20.3% (50)	48% (118)	22% (54)	5.7% (14)	4.1% (10)	3.75	0.98
Flexible virtual programs have been established to improve accessibility and increase student retention	14.6% (36)	54.5% (134)	16.3% (40)	10.6% (26)	4.1% (10)	3.65	0.99
Average level of Geographical diversification	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum		
	3.68 (73.6%)	.65743	.04192	1.80	5.00		

The results in Table 4.13 shows that 15.4% of the 246 respondents agreed that the university has established campuses/constituent colleges within the main university's county of operation at very great extent. The majority of the respondents, 39.8% agreed with the statement at a great extent whereas, 35.8% of the respondents agreed that the university has established campuses/constituent colleges within the main university county of operation at a moderate extent. The least number of respondents, 2.4% agreed with the statement at little extent while 6.5% agreed at very little extent. A mean of 3.55 indicated that the university has established campuses/constituent colleges within the main university's county of operation at great extent although a standard deviation of 1.00 implies some universities have established

campuses/constituent colleges within the main university's County of operation at moderate extent and others at very great.

In response to whether the university has campuses/constituent colleges outside the main university's county of operation to increase student acquisition, 15.4% of the respondents agreed with the statement at a very great extent. The highest number of respondents, 53.7% agreed with the statement to a great extent while 24.4% of the 246 respondents agreed that the university has campuses/constituent colleges outside the main university's county of operation to increase student acquisition at a moderate extent.

Conversely 2.4% of the 246 respondents agreed with the statement that the university has campuses/constituent colleges outside the main university's county of operation to increase student acquisition at little extent whereas 4.1% of the respondents agreed at very little extent. A mean of 3.74 revealed the university has campuses/constituent colleges outside the main university's County of operation to increase student acquisition while a standard deviation of 0.89 implied some of the universities have campuses/constituent colleges outside the main university's county of operation to increase student acquisition at moderate extent while others at very great extent.

The results also indicate that 11.4% of the 246 respondents agreed that the university has campuses/constituent colleges outside the main university's country of operation at very great extent. A massive 65.9% of the respondents agreed that the university has campuses/constituent colleges outside the main university's country of operation at a great extent while 9.8% of the 246 respondents agreed that the university has campuses/constituent colleges outside the main university's country of operation at a moderate extent.

8.9% of the 246 respondents agreed with the statement the university has campuses/constituent colleges outside the main university's country of operation at a little extent while 4.1% of the respondents agreed with the statement at very little extent. A mean of 3.49 revealed that the university has campuses/constituent colleges outside the Main University's Country of operation although from the standard deviation of 1.03 implied some of the universities have campuses/constituent colleges

outside the Main University's County of operation to increase student acquisition at little extent while others at very great extent.

Further, the results indicated that 20% of the 246 respondents agreed that the university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students at a very great extent whereas approximately half, 48% of the respondents agreed with the statement to a great extent. 22% of the respondents agreed that the university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students at a moderate extent while 5.7% agreed with the statement at little extent and 4.1% at very little extent.

A mean of 3.75 indicated that the university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students at moderate extent and which was supported by a significant standard deviation of 0.98. This implied that some of the universities have introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students at a moderate extent while others were at very great extent,

Lastly 14.6% of the 246 respondents agreed that flexible virtual programs have been established to improve accessibility and increase student retention at very great extent and the majority of the respondents, 54.5% agreed at a great extent. whereas 16.3% of the 246 respondents agreed that flexible virtual programs have been established to improve accessibility and increase student retention at moderate extent, 10.6% agreed at little extent and 4.1% at very little extent. A mean of 3.65 revealed that flexible virtual programs have been established to improve accessibility and increase student retention at moderate with an insignificant standard deviation of 0.99. This shows that some of the universities have flexible virtual programs have been established to improve accessibility and increase student retention at moderate extent while others at very great extent.

The average level of geographical diversification according to the sampled respondents was at 73.6% mean response (mean=3.68, std. dev. =.657) rated as shown in Table 4.13. This implies that the level of geographical diversification of majority of private universities in Kenya is at a great extent, however a minimal standard deviation

of 0.66 indicates that the responses mostly ranged from moderate extent to a great extent.

The findings indicate that geographical diversification is widely practiced among chartered private universities in Kenya. The relatively high overall mean suggests that most universities have expanded their geographical reach through the establishment of satellite campuses, constituent colleges, Open and Distance e-Learning (ODEL), and flexible virtual learning programmes. These initiatives demonstrate that universities are increasingly seeking to extend access to higher education beyond their traditional locations in order to attract new students, improve student retention, and enhance institutional competitiveness. The higher mean scores for campuses established outside the main county of operation and the adoption of ODEL further suggest that universities are placing greater emphasis on expanding their market reach than on increasing their physical presence within their original counties. Nevertheless, the variation across institutions indicates that the pace and scale of geographical expansion differ, reflecting differences in institutional resources, strategic priorities, and capacity to support expansion.

Furthermore, the results show that establishing campuses outside the main county of operation together with the adoption of Open and Distance e-Learning (ODEL) recorded mean scores above the overall average for geographical diversification, indicating that these are the most widely adopted geographical expansion strategies among private universities in Kenya. In contrast, the establishment of campuses within the main county of operation recorded a relatively lower mean, suggesting that universities are increasingly focusing on expanding into new geographical markets rather than concentrating their physical presence within existing locations. This pattern demonstrates a strategic shift towards broader market coverage and improved accessibility, both of which are essential for enhancing sustainable institutional performance.

The findings were consistent with previous empirical studies which suggest that geographical diversification contributes to institutional growth by expanding access to higher education and increasing student enrolment. The relatively high adoption of satellite campuses, constituent colleges, Open and Distance e-Learning (ODEL), and

flexible virtual programmes supports the observations of Teixeira et al. (2012), who found that geographical diversification enhanced the sustainable performance of universities by enabling institutions to respond to increasing competition and changing student needs. The findings also concur with Mutinda (2016) and Alando (2016), who established that physical expansion into new geographical locations increases student enrolment by bringing higher education services closer to prospective learners. Similarly, the widespread adoption of ODEL and virtual learning programmes observed in this study demonstrates that geographical expansion has evolved beyond establishing physical campuses to include technology-enabled delivery models that improve accessibility and attract students from diverse geographical locations.

The findings further lend support to Shen et al. (2019), who argued that universities benefit from a moderate level of geographical diversification that enables them to expand their market reach without overstretching institutional resources. However, the present findings differ from those of Okari (2018), who found that geographical diversification had only a limited influence on the performance of Kenyan universities. The difference may be attributed to the broader conceptualization of geographical diversification adopted in the current study, which considered not only the establishment of campuses and constituent colleges but also Open and Distance e-Learning (ODEL) and flexible virtual learning programmes as strategic approaches to expanding institutional reach. The findings also reflect the concerns raised by Valis-Boas and Gonzalez (2018) and Haim (2018) that the benefits of geographical diversification depend on the institution's ability to effectively manage expansion and align it with available resources and strategic objectives. Overall, the results suggest that geographical diversification can enhance the sustainable performance of private universities when expansion is carefully planned and implemented in line with institutional capacity and long-term strategic goals.

4.5.5 Core competences

The fifth objective of this study was to determine the moderating influence of core competences on the relationship between the diversification strategy (horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification) and sustainable performance of private universities in Kenya. The

respondents were asked to provide evidence of staff competency, programs quality as well as technology integration and the findings are reported in Table 4.14.

Table 4.14: Document analysis for Core competences

Statements on Private Universities Core competences	5	4	3	2	1	Mean	S.D
The university sponsors Academic Staff training to increase their skills	20.3% (50)	28.5% (70)	37.4% (92)	10.6% (26)	3.3% (8)	3.52	1.03
The university sponsors professional training for Administrative/technical staff	22.8% (56)	27.6% (68)	37.4% (92)	8.9% (22)	3.3% (8)	3.58	1.04
The university reviews its programs from time to time to improve quality and attract new students	8.9% (22)	48.8% (120)	33.3% (82)	6.5% (16)	2.4% (6)	3.55	0.84
There is consistent use of modern technologies in reaching out to new markets to increase enrollment in the university.	31.7% (78)	17.9% (44)	39.8% (98)	7.3% (18)	3.3% (8)	3.67	1.10
The University has unique innovative programs that promote student attraction	25.2% (62)	26.8% (66)	21.1% (52)	24.4% (60)	2.4% (6)	3.48	1.18
Average level of Core Competencies	Mean(%Mean) 3.56 (71.2%)	Std. Dev. .85511	Std. Error of mean .05452	Minimum 1.00	Maximum 5.00		

The findings in Table 4.14 indicate that 20.3% of the 246 respondents agreed that the university sponsors academic staff training to increase their skills at very great extent whereas 28.5% rated it at great extent. The highest number of respondents, 37.4% indicated that the university sponsors academic staff training to increase their skills at a moderate extent while 10.6% agreed with the statement at little extent. The least number of respondents, 3.3% agreed with the statement at a very little extent.

A mean of 3.52 is an indication that the university sponsors academic staff training to increase their skills at a great extent although a standard deviation of 1.03 implies that there was significant variation in regards to whether the university sponsors academic staff training to increase their skills since the responses ranged from little extent to very great extent.

Whether the university sponsors professional training for administrative/technical staff, majority of the 246 respondents, 22.8% indicated that the university sponsors professional training for administrative/technical staff at a very great extent while 27.6% agreed to a great extent. The majority of the respondents, 37.4% affirmed that the university sponsors professional training for administrative/technical staff at a moderate extent whereas 8.9% agreed with the statement at a little extent and 3.3% at a very little extent.

As indicated by a mean of 3.58 the university sponsors professional training for administrative/technical staff with a mean of 1.04 implying that some of the universities sponsored professional training for administrative/technical staff at moderate extent while others were at very great extent. The findings also indicate that 8.9% of the 246 respondents agreed that the university reviews its programs from time to time to improve quality and attract new students at a very great extent.

The majority of the respondents, 48.8% agreed with the statements at a great extent whereas 33.3% of the respondents indicated the university reviews its programs from time to time to improve quality and attract new students at moderate extent. 6.5% agreed with the statement at little extent and a mere 2.5% agreed with the statement at very little extent. A mean of 3.55 implies that the university reviews its programs from time to time to improve quality and attract new students and a standard deviation 0.84 points to the fact some of universities have reviewed their programs from time to time to improve quality and attract new students at moderate extent while others did so at very great extent.

From the findings 31.7% of the 246 respondents agreed that there was consistent use of modern technologies in reaching out to new markets to increase enrollment in the university at a great extent while 17.9% of the respondents indicated that it was at very great extent. The highest number of respondents, 39.8% agreed that there was consistent use of modern technologies in reaching out to new markets to increase enrollment in the university at moderate extent while 7.3% agreed with the statement at a little extent and the least number of respondents, 3.3% agreed at very little extent. 3.67 was the mean, indicating a consistent use of modern technologies in reaching out to new markets to increase enrollment in the university at moderate extent which was

supported by a significant standard deviation of 1.10. This implied that some of the universities used modern technologies in reaching out to new markets at moderate extent while others at very great extent across the mean.

Lastly 25.2% of the 246 respondents revealed that the university has unique innovative programs that promote student attraction at very great extent. 26.8% of the respondents agreed with the statement at a great extent. On the other hand, 21.1% of the 246 respondents revealed that the University has unique innovative programs that promote student attraction at moderate extent, 24.4% at little extent and 2.4% at very little extent. A mean of 3.48 signifies that the universities have unique innovative programs that promote student attraction and a standard deviation of 1.18 shows that some of the universities have unique innovative programs that promote student attraction at little extent while others are at very great extent.

The level of core competencies on average was at 71.2% mean response (mean=3.56, std. dev. =0.855) rated high as reported in Table 4.14. This implies that the level of core competency among the majority of the private universities in Kenya is high, with responses generally ranging from moderate extent to very great extent.

The findings indicate that chartered private universities in Kenya have developed their core competencies to a great extent. The relatively high overall mean suggests that most universities recognize the importance of investing in staff development, continuous programme review, technology adoption, and innovation as strategic capabilities that support institutional growth and competitiveness. Staff training equips both academic and administrative personnel with the knowledge and skills required to deliver quality services, while regular curriculum reviews ensure that academic programmes remain relevant to changing labour market demands. Similarly, the adoption of modern technologies and the development of innovative programmes demonstrate that universities are increasingly strengthening their internal capabilities to attract and retain students in a highly competitive higher education environment. Nevertheless, the variation across institutions indicates that some universities have invested more heavily in developing these competencies than others, suggesting differences in institutional priorities, resource availability, and strategic capacity.

This observation is supported by Fundira (2021), who established that core competencies significantly influence the performance of higher education institutions by strengthening their ability to implement institutional strategies effectively. Similarly, Jumaah (2019) found that competencies such as leadership capability, intellectual competence, decision-making skills, and self-management contribute significantly to organizational excellence. The current findings suggest that sustained investment in staff capabilities and institutional systems enables private universities to adapt to changing market demands while improving their overall performance.

The findings also agree with Tong et al. (2022), who demonstrated that technology competence, research and development capability, and organizational flexibility enhance competitive advantage. Likewise, Mugo et al. (2016) and Choge et al. (2018) established that organizational competencies positively influence organizational performance and competitive advantage within Kenyan organizations. These studies reinforce the view that universities with strong internal capabilities are better positioned to implement diversification strategies successfully and achieve sustainable performance.

However, the results differ from those reported by Makhloufi and Al-Erjal (2014), who found no significant relationship between core competency and organizational growth. This difference may be attributed to the contrasting organizational settings, as their study focused on the petroleum industry, whereas the present study examined chartered private universities whose success depends heavily on knowledge, innovation, staff expertise, and programme quality. The present findings therefore suggest that strengthening institutional competencies remains essential for supporting strategic diversification and enhancing sustainable performance.

Hadiyanto (2020) while studying the development of core competencies in higher education in Indonesia suggested that universities can enhance their performance by fostering on their key competencies considering that graduate core competencies in higher education has become an actual trend issue due to the greatest concerns of students, governments, and employers about the quality of higher education outcomes.

4.5.6. Sustainable Performance of Private Universities in Kenya

The researcher sought to evaluate sustainable performance in reference to the following indicators; graduation rates, student enrollment and revenue volume. The results are as shown in Table 4.15.

Table 4. 15: Sustainable performance of private universities

Sustainable Performance of Private Universities	5	4	3	2	1	Mean	S.D
The university has high student enrollment	21.1% (52)	33.3% (82)	35% (86)	6.5% (16)	4.1% (10)	3.61	1.02
Unique skills offered by the university have increased the employability of our students	6.5% (16)	14.6% (36)	35% (86)	38.2% (94)	5.7% (14)	2.78	0.99
The university has a high graduation rate of students.	11.4% (28)	44.7% (110)	23.6% (58)	16.3% (40)	4.1% (10)	3.43	1.02
High number of student enrollment has increased university revenue from student fees	17.9% (44)	49.6% (122)	17.9% (44)	13.8% (34)	0.8% (2)	3.70	0.95
Unique programs offered by the university have attracted new students	22% (54)	22% (54)	34.1% (84)	17.9% (44)	4.1% (10)	3.40	1.13
The university offers unique competitive programs which has increases student enrollment	17.9% (44)	24.4% (60)	35.8% (88)	17.9% (44)	4.1% (10)	3.34	1.09
Average level of Sustainable Performance	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum		
	3.38 (67.60%)	.816729	.052073	1.167	4.667		

Table 4.15 shows 21.1% of the 246 respondents agreed that the university had high student enrollment at a very great extent while additional 33.3% rated it at great extent. On the other hand, 35% of the respondents agreed at a moderate extent while 6.5% agreed at little extent and 4.1% at very little extent. A mean of 3.61 indicates that the university has high student enrollment at great extent although a standard deviation of 1.02 implied that there was significant variation as some universities were having student enrollment at great extent while others at moderate extent.

In regards to if unique skills offered by the university have increased the employability of students 6.5% of the respondents indicated that unique skills offered by the university had increased employability of students at a very great extent and 14.6% indicated at great extent. Conversely 35% of the 246 respondents revealed unique skills offered by the university increased employability of students at moderate extent while 38.2% agreed at little extent and 5.7% at very little extent. A mean of 2.78 revealed unique skills offered by the university had increased the employability of students at moderate extent while a standard deviation of 0.99 indicated that there was significant variation as universities were having employability of their students from little extent to great extent.

The results further revealed that 11.4% of the 246 respondents agreed that the university had a high graduation rate of students at a very great extent while 44.7% indicated it was at great extent. 23.6% of the 246 respondents agreed that the university had a high graduation rate of students at moderate extent while 16.3% indicated at little extent and 4.1% at very little extent. A mean of 3.43 revealed that the university had a high graduation rate of students although from the standard deviation of 1.02, some of the universities do not have a high graduation rate of students since the extent ranged from little extent to great extent.

17.9% of the 246 respondents agreed that a high number of student enrollment had increased university revenue from student fees at a very great extent while 49.6% of the respondents indicated that it was at great extent. On the other hand, 17.9% of the respondents agreed with the statement at moderate extent, 13.8% at little extent and 0.8% at very little extent. A mean of 3.70 confirmed that high number of student enrollment had increased university revenue from student fees at moderate extent which was supported by insignificant standard deviation of 0.95. From the standard deviation, the increase in revenue from student fees as a result of student enrollment ranged from moderate extent to very great extent.

On whether unique programs offered by the university had attracted new students 22% of respondents agreed at very great extent and 22% at a great extent. 34.1% of the 246 respondents agreed that at a moderate extent, 17.9% at little extent and 4.1% at very little extent. A mean of 3.40 means that unique programs offered by the university had

attracted new students and a standard deviation of 1.13 indicated a significant variation in regard to attracting new students as a result of offering unique programs since some university attracted new students at little extent while other universities at great extent.

Lastly, the results revealed that 17.9% of the 246 respondents indicated the university offers unique competitive programs which had increased student enrollment at a very great extent while 24.4% of the respondents agreed at a great extent. 35.8% of the respondents agreed with the statement at a moderate extent, 17.9% at little extent and 4.1% at very little extent. A mean of 3.34 indicated that the university offers unique competitive programs which has increased student enrollment at moderate extent and this was supported by a significant standard deviation of 1.09 which suggested that there was deviation in regards to increase in student enrollment as some universities realized increased enrollment at little extent while other did so at very great extent.

The average level of sustainable performance according to the sampled respondents was at 67.60% mean response (mean=3.38, std. dev. =.816729) rated as shown in Table 4.15. This implies that the level of sustainable performance of majority of private universities in Kenya were at moderate extent. However, there was some variation as shown by a standard deviation of 0.82 implying that the responses ranged from 1.167 (very little extent) to 4.5 (very great extent).

The moderate level of sustainable performance observed among chartered private universities in Kenya suggests that although many institutions have achieved positive outcomes in areas such as student enrolment, graduation rates, revenue generation, and programme competitiveness, there remains considerable scope for improvement. The relatively higher ratings for increased student enrolment and revenue from tuition fees indicate that universities have been more successful in strengthening their financial sustainability than in improving other dimensions of performance. Conversely, the comparatively lower ratings for graduate employability and the ability of unique programmes to attract new students suggest that some institutions continue to face challenges in aligning their academic programmes with labour market expectations and differentiating themselves within an increasingly competitive higher education sector. The variation in responses across universities further implies that sustainable performance is not uniform, with some institutions demonstrating stronger

performance outcomes than others. Overall, the findings suggest that sustainable performance among private universities is influenced by their ability to balance financial sustainability with quality academic programmes, graduate outcomes, and institutional competitiveness.

The environment in which universities operate has become increasingly competitive. This therefore requires private universities to position themselves strategically to achieve sustainable performance. Creating a sustainable performance in universities may be a real challenge, as the governance structure is complex, potentially even an organized anarchy, characterized by overarching government priorities and temporal factors (Gohari, Medalen, & Aranya, 2019), a fuzzy or opaque use of technology, and unclear institutional culture.

Sustainable performance of private universities is the ability to support, maintain and keep private universities functioning properly by enhancing academic programs, the learning environment and the curriculum as they are the major instruments through which universities carry out their functions of inculcating knowledge, values and skills, in order to equip their product to cope with future challenges (Ekpoh & Okpa, 2017).

The ability of private universities to attract more students and increase their market share depends on their reputation, the quality of their output and stakeholder satisfaction. Zangouinezhad and Moshabaki (2011) support the view that in assessing sustainability, consideration should be made to the contribution of teaching and research to the achievement of the university strategic goal.

4.5.7 Summary of Diversification strategy, Core competencies and Sustainable Performance of Private Universities

The composite means and standard deviations of the individual variables were also calculated and summarized in Table 4.16 below.

Table 4.10: Status of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev
Horizontal diversification	246	2.00	5.00	3.6992	.65671
Vertical diversification	246	1.00	5.00	3.5333	.73653
Conglomerate diversification	246	1.00	5.00	3.5854	.85585
Geographical diversification	246	1.80	5.00	3.6813	.65743
Core competencies	246	1.00	5.00	3.5610	.85511
Sustainable performance	246	1.167	4.667	3.37669	.816729
Valid N (listwise)	246				

The research findings in Table. 4.16 indicate that the most satisfactory diversification strategy was horizontal diversification ($M=3.7$, $SD= 0.66$) followed by geographical diversification ($M=3.68$, $SD=0.66$); the least satisfactory was vertical diversification ($M=3.53$, $SD=0.74$). Further, the level of satisfaction of sustainable performance was ($M= 3.38$ $SD=0. 82$) and core competencies satisfaction was ($M=3.56$, $SD=0.86$). In light of findings in Table 4.16, it is possible that vertical diversification process is still at its infant stages with regard to adoption of best diversification strategies.

4.6. Tests of Assumptions

Simple Linear Regression Model was adopted in this study to model the relationship between diversification strategies (independent variables) and sustainable performance (dependent variable). The study dataset was tested for purposes of inference or prediction to check if it satisfied all the assumptions of the model which included: normality, linearity, homoscedasticity and presence of outliers. This is critical because scientific insights yielded by a regression model that has violated these assumptions may be at best, inefficient or at worst, seriously biased or misleading (Oteki, 2019). The findings of the tests are captured below.

4.6.1 Normality Test

To test for normality, the study adopted the Shapiro-Wilk test to test for the assumption of normal distribution of the study variables; sustainable performance of private universities, horizontal diversification, vertical diversification, conglomerate diversification, geographical diversification; and core competencies. The null hypotheses were that; the scores for the sustainable performance of private universities, horizontal diversification, vertical diversification, conglomerate diversification, geographical diversification and core competencies variables were not significantly different from a normal distribution. The findings were as reported in Table 4.17.

Table 4.11: Summary of normality test for distribution of scores for variables

Variable Construct		Shapiro-Wilk test		
		Statistic (W)	df	p-value
1.	Sustainable performance	.804	246	.120
2.	Horizontal diversification	.767	246	.233
3.	Vertical diversification	.677	246	.873
4.	Conglomerate diversification	.780	246	.910
5.	Geographical diversification	.830	246	.700
6.	Core competencies	.813	246	.131

The Shapiro-Wilk test results presented in Table 4.17 indicate that all the study variables had p-values greater than the 0.05 level of significance. Specifically, sustainable performance ($W = 0.804$, $p = 0.120$), horizontal diversification ($W = 0.767$, $p = 0.233$), vertical diversification ($W = 0.677$, $p = 0.873$), conglomerate diversification ($W = 0.780$, $p = 0.910$), geographical diversification ($W = 0.830$, $p = 0.700$), and core competencies ($W = 0.813$, $p = 0.131$) all recorded non-significant Shapiro-Wilk test results. Consequently, the null hypothesis of normality was not rejected for all the study variables, indicating that the data did not significantly deviate from a normal distribution. The findings therefore confirm that the assumption of

normality required for subsequent parametric analyses was satisfied.

4.6.2 Test for Linearity

A linearity test is conducted to find out whether the sampled data from a population that relates to the dependent and independent variables of interest (X and Y) has a straight-line relationship.

4.6.2.1 Linearity Test Between Horizontal Diversification and Sustainable Performance of Private Universities

Normal probability plots were adopted in this study to test for the linearity between horizontal diversification and sustainable performance of private universities in Kenya. The findings of this test are shown in Figure 4.11.

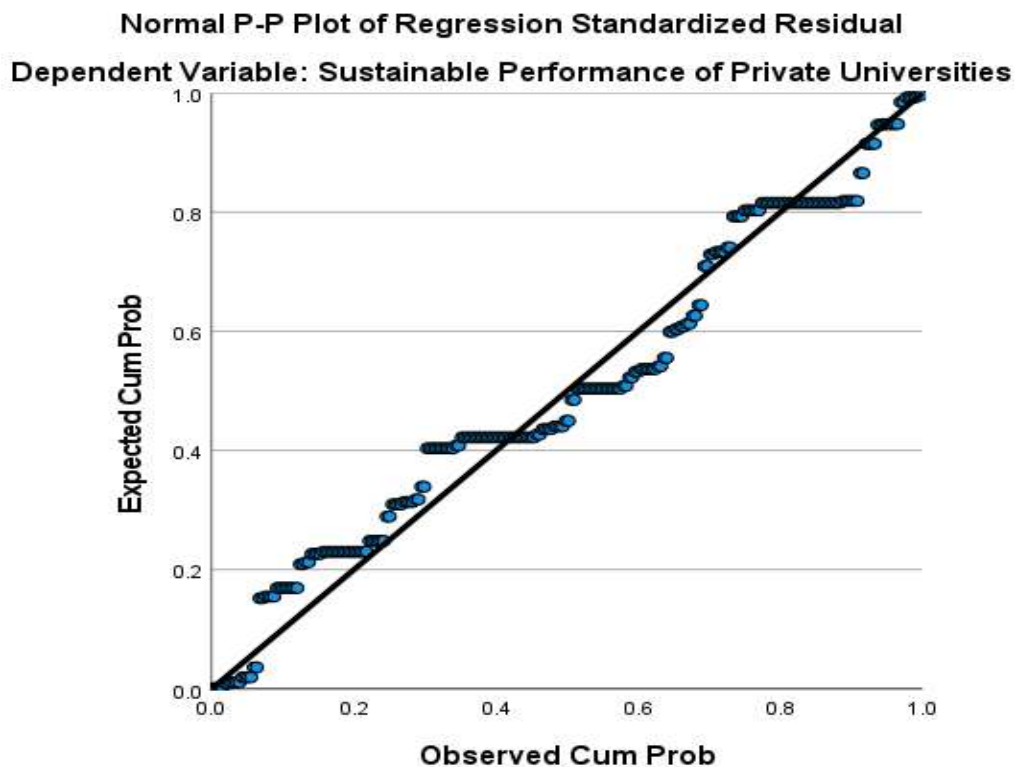


Figure 4.5: Normal P-P Plot for horizontal diversification

The results in figure 4.11 show that the points lie along a reasonably straight diagonal line from bottom left to top right, an indication of a linear relationship between

horizontal diversification and sustainable performance of private universities in Kenya hence, the assumption for linearity is confirmed.

4.6.2.2. Linearity Test Between Vertical Diversification and Sustainable Performance of Private Universities

Normal probability plots were adopted in this study to test for the linearity between vertical diversification and sustainable performance of private universities in Kenya. The findings of this test were as shown below in Figure 4.12.

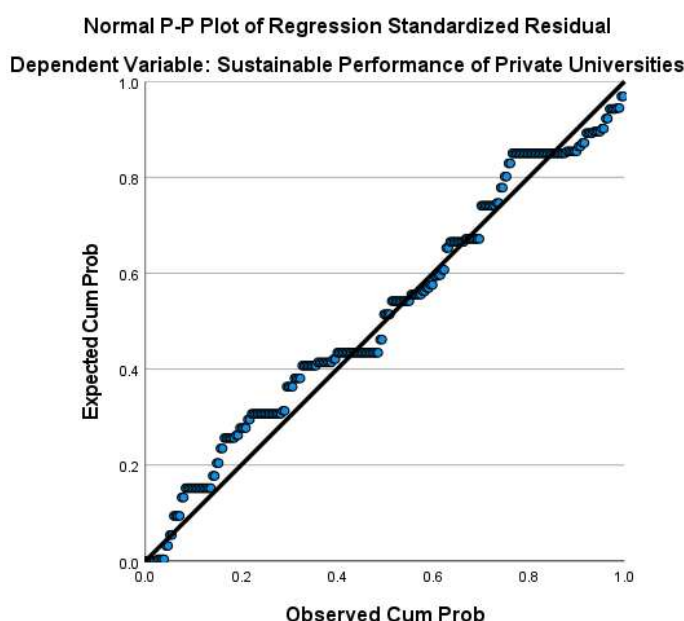


Figure 4.6: Normal P-P Plot for vertical diversification

Figure 4.12 shows that the points lie along a reasonably straight diagonal line from bottom left to top right, indicating a linear relationship between vertical diversification and sustainable performance of private universities in Kenya hence the assumption for linearity holds.

4.6.2.3. Linearity Test Between Conglomerate Diversification and Sustainable Performance

Normal probability plots were adopted in this study to test for linearity between conglomerate diversification and sustainable performance of private universities in Kenya. The findings are shown below in Figure 4.13.

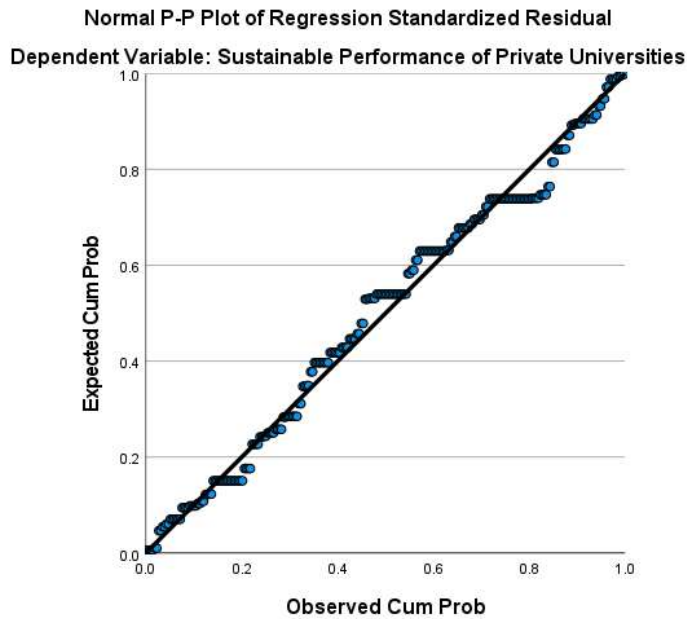


Figure 4.7: Normal P-P Plot for conglomerate diversification

Figure 4.13 shows that the points lie along a reasonably straight diagonal line from bottom left to top right, indicating a linear relationship between conglomerate diversification and sustainable performance of private universities in Kenya therefore, the assumption for linearity confirmed.

4.6.2.4. Linearity Test Between Geographical Diversification and Sustainable Performance of Private Universities

Normal probability plots were adopted in this study to test for linearity between geographical diversification and sustainable performance of private universities in Kenya. The findings of this test were as shown in figure 4.14.

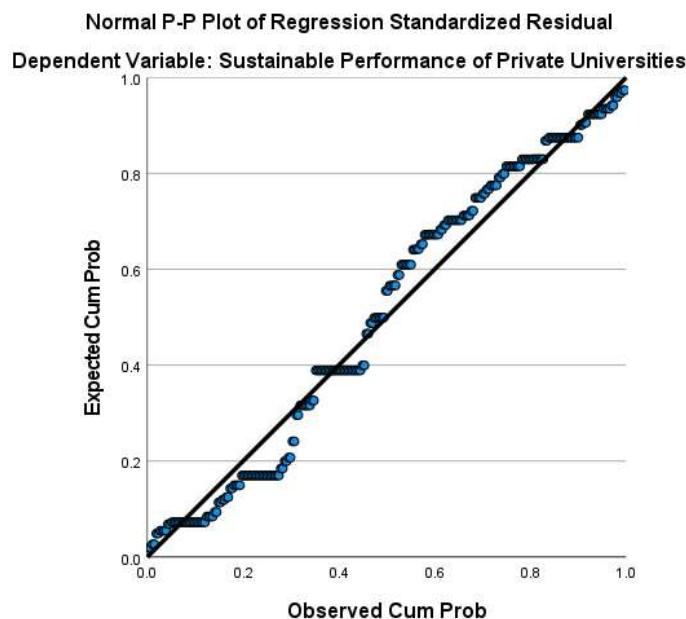


Figure 4.8: Normal P-P Plot for geographical diversification

From the results as reported in figure 4.14, the points lie along a reasonably straight diagonal line from bottom left to top right, an indication of a linear relationship between geographical diversification and sustainable performance of private universities in Kenya, therefore the assumption for linearity is confirmed.

4.6.3 Test for Homoscedasticity

Homoscedasticity test refers to the assumption that the dependent variable exhibits similar amounts of variance across the range of values for an independent variable. Homoskedasticity in this study was tested using Breusch-Pagan Test for heteroskedasticity as shown in Table 4.18.

Table 4. 12: Breusch-Pagan Test for Heteroskedasticity

Chi-Square	df	Sig.
.567	1	.451

a. Dependent variable: Sustainable Performance

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + Horizontal Diversification+ Vertical Diversification + Conglomerate Diversification + Geographical Diversification + Core Competencies

The Breusch–Pagan test was conducted to determine whether the variance of the regression residuals remained constant across the predicted values, thereby testing the assumption of homoscedasticity. The null hypothesis states that the variance of the error terms is constant and does not depend on the values of the independent variables. As presented in Table 4.18, the Breusch–Pagan test produced a Chi-square statistic of 0.567 with a corresponding p-value of 0.451. Since the p-value is greater than the 0.05 level of significance ($p = 0.451 > 0.05$), the null hypothesis was not rejected. This indicates that the variance of the residuals was constant, suggesting that heteroskedasticity was not present in the regression model. Therefore, the assumption of homoscedasticity was satisfied, indicating that the regression estimates are reliable for subsequent inferential analysis.

4.6.4. Test for Outliers

According to Gravetter *et al.* (2000), outliers are defined as points that extend more than 1.5 box-lengths from the edge of the box plot (indicated with a small circle *o*) and extreme points (indicated with an asterisk * in a box plot) are those that extend more than 3 box-lengths from the edge of the box plot. Test for presence of outliers involved the use of box plots.

4.6.4.1. Test for Outliers in Sustainable Performance Scores

The test findings for this assumption were as shown below in Figures 4.15.

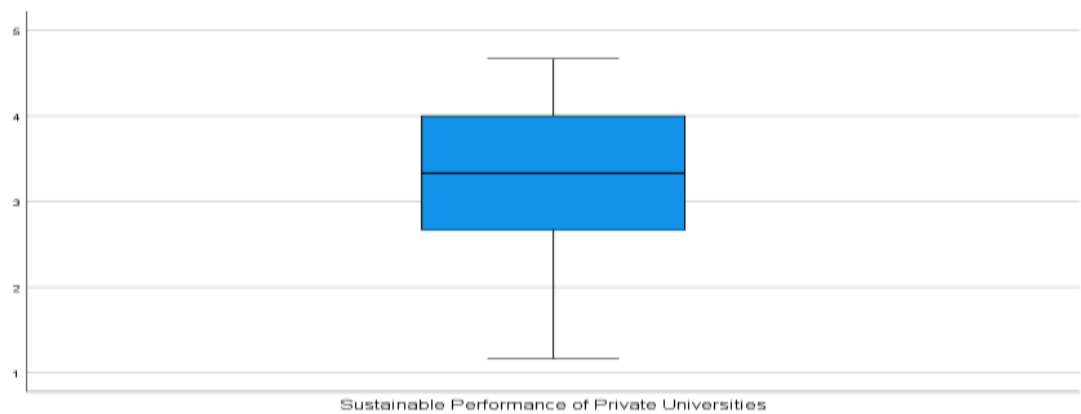


Figure 4.9: Test for presence of outliers for sustainable performance

The results in figure 4.15 show there were no presence of outliers nor extreme values in the data scores for sustainable performance scores since no value extended more than the 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

4.6.4.2. Test for Outliers in Horizontal Diversification Scores

The test findings for this assumption were as shown in Figures 4.16 below.

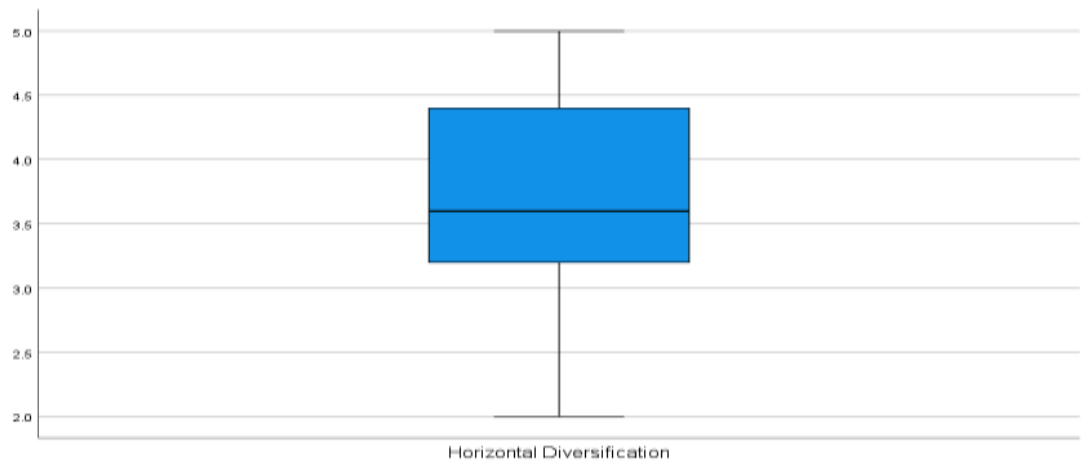


Figure 4.10: Test for presence of outliers for horizontal diversification

Figure 4.16 shows that there were no outliers nor extreme values in the horizontal diversification scores for sustainable performance scores since no value was extended more than the 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

4.6.4.3. Test for Outliers in Vertical Diversification Scores

The test findings for this assumption were as shown in Figure 4.17.

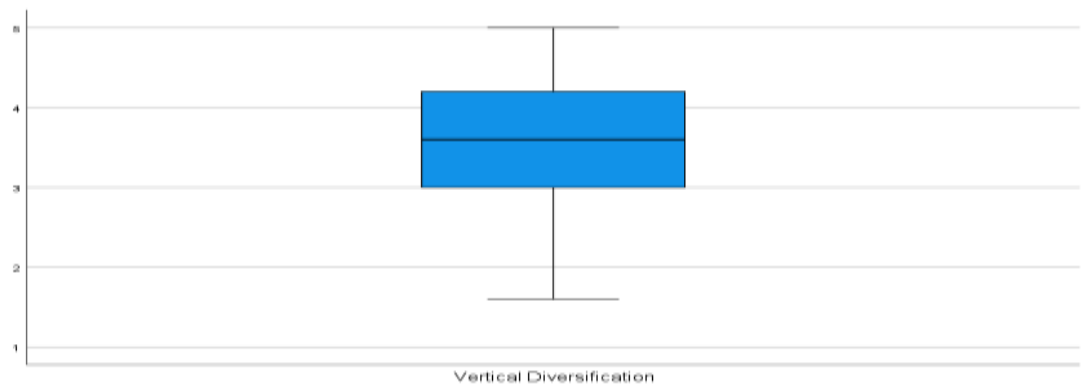


Figure 4.11: Test for presence of outliers for vertical diversification

From the results of figure 4.17, there were no presence of outliers nor extreme values in the data scores for vertical diversification since no value extending more than 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

4.6.4.4. Test for Outliers in Conglomerate Diversification Scores

The test findings for this assumption were as shown in 4.18.

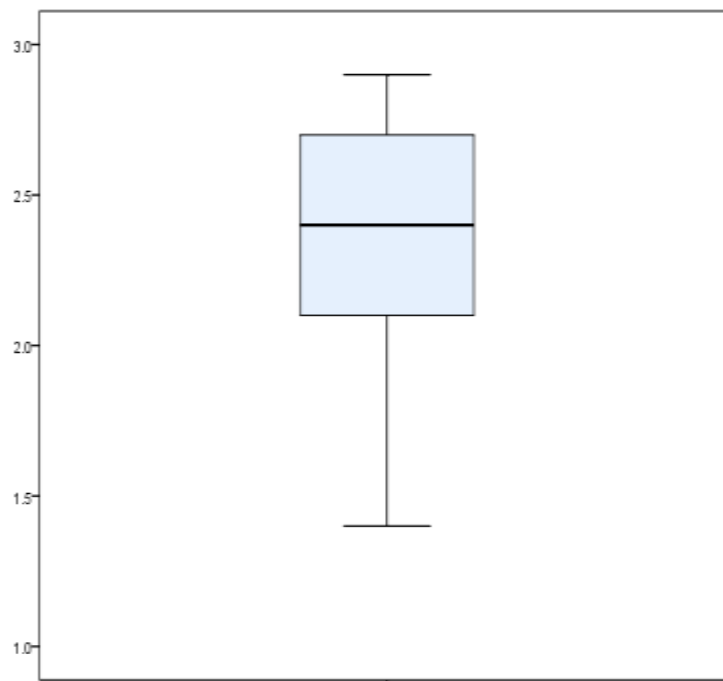


Figure 4. 12: Test for presence of outliers for conglomerate diversification

From the results 4.18, there were no presence of outliers nor extreme values in the data scores for all the variables (sustainable performance and conglomerate diversification) since there was no value extending more than 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

4.6.4.5. Test for Outliers in Geographical Diversification Scores

The test findings for this assumption were as shown below in Figure 4.19.

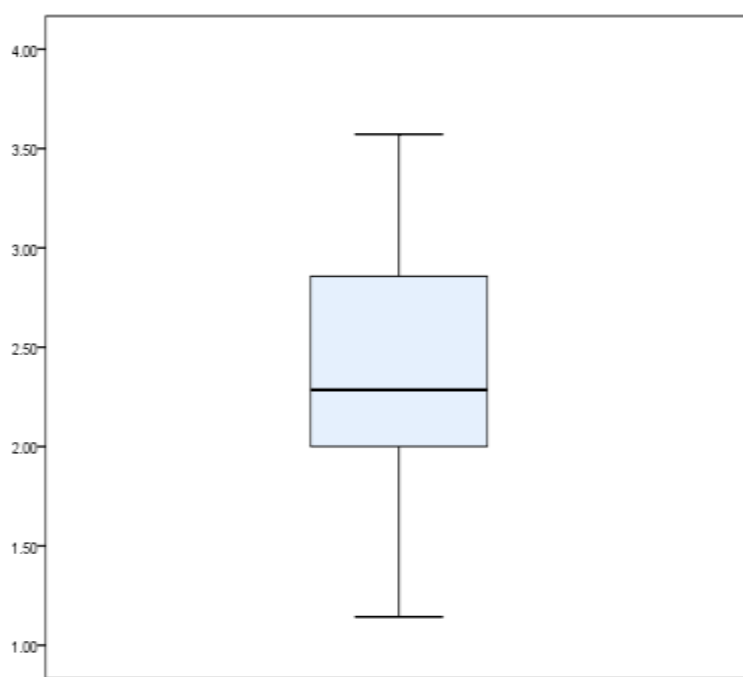


Figure 4. 13: Test for presence of outliers for geographical diversification.

The results further indicate there were no presence of outliers nor extreme values in the data scores for Geographical diversification since no value extended more than 1.5 box-lengths from the edge of the box plots therefore this assumption holds.

4.6.5. Multicollinearity Test

Collinearity denotes the circumstance in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy (Brien, 2007). this phenomenon among the independent variables leads to an effect, whereby the regression model fits the data well, but none of the explanatory variables has a significant influence in forecasting the dependent variable (Brien,

2007). The study adopted the use of Variance Inflation Factor (VIF) to detect any problem of collinearity. According to Brien (2007), it is recommended that independent variables with VIF higher than 5 or a tolerance value less than 0.2 should be removed from the multiple linear regression model as this indicates presence of multicollinearity. The results of collinearity test were as shown in Table 4.19 below:

Table 4. 13: Multicollinearity test using Variance Inflated Factor (VIF)

Variable	Tolerance (1/VIF)	VIF
Horizontal diversification	.684	1.462
Vertical diversification	.642	1.558
Conglomerate diversification	.605	1.652
Geographical diversification	.880	1.136

The findings of collinearity test as shown in Table 4.19 shows that the tolerance values for all the four variables were above 0.20 and VIF values were below 10 signifying lack of collinearity among the independent variables thus all the four independent variables were included in the multiple linear regression model.

4.6.6 Autocorrelation

Durbin-Watson statistic will be obtained to examine the independence of errors. The value D lies between 0 and 4. When it is correlated residuals, it approaches 4. A value of D between 1 and 3 is usually considered to be acceptable, (Kothari & Garg, 2014). Since the value of Durbin-Watson was between 1 and 3, there was no problem of autocorrelation.

Table 4. 14: Autocorrelation

Std. Error of the Estimate	Durbin-Watson
.23415	2.030

4.7. Inferential Analysis

In this section, the study infers the sample findings to the study population through correlation analysis, linear regression analysis and moderation analysis and the findings are as shown below.

4.7.1. Correlation Analysis

Correlation analysis is used to determine the strength and direction of the relationship between the diversification strategies (horizontal diversification, vertical diversification, geographical diversification, conglomerate diversification), core competencies, and the sustainable performance and the findings were as shown in Table 4.21 below:

Table 4.15: Correlation Summary Matrix

		Sustainable performance	Horizontal	Vertical	Conglomerate	Geographical
Sustainable performance	Pearson Correlation	1				
	P-value					
	N	246				
Horizontal diversification	Pearson Correlation	.640**	1			
	P-value	.000				
	N	246	246			
Vertical diversification	Pearson Correlation	.706**	.471**	1		
	P-value	.000	.000			
	N	246	246	246		
Conglomerate diversification	Pearson Correlation	.613**	.526**	.545**	1	
	P-value	.000	.000	.000		
	N	246	246	246	246	
Geographical diversification	Pearson Correlation	.419**	.288**	.331**	.274**	1
	P-value	.000	.000	.000	.000	
	N	246	246	246	246	246
Core competencies	Pearson Correlation	.670**	.576**	.606**	.568**	.291**
	P-value	.000	.000	.000	.000	.000
	N	246	246	246	246	246

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

From the correlation Table 4.21, horizontal diversification was found positively correlated to sustainable performance of private universities in Kenya the coefficient is 0.640 (p value < 0.05) this is significant at 99% confidence level. Thus, increase in horizontal diversification would make sustainable performance of private universities in Kenya also to increase. Gul (2019) examined the effect of integration strategies and

organization performance using 147 manufacturing organizations in Denmark. The study revealed that horizontal (related) integration companies outperform the unrelated diversified organizations and the structure of the market, the level of concentration has varying effects on performance for each type of industry.

Adamu, Zubairu, Ibrahim and Ibrahim (2019) evaluated the impact of horizontal diversification on performance. The results therefore showed that horizontal diversification does not necessarily lead to improvement in organizational performance, thus organizations are better-off remaining focused if they aim at improving performance. Ndungu, Ngoze and Wanjere (2020) examined the effect of diversification strategies on the performance of state-owned sugar firms in Kenya. The null hypothesis was accepted and therefore concluded that there is no relationship between adoption of horizontal diversification strategy and sugar firms' performance.

The positive and significant relationship between horizontal diversification and sustainable performance supports the findings of Gul (2019), who reported that organizations pursuing related diversification outperformed unrelated diversified firms. However, the present findings differ from those of Adamu et al. (2019) and Ndungu et al. (2020), who found that horizontal diversification did not significantly improve organizational performance. The variation in findings may be attributed to differences in study context, since the present study focused on private universities whereas the earlier studies examined manufacturing firms and state-owned sugar companies.

Similarly, the correlation coefficient for vertical diversification was 0.706, $P=0.000$, suggesting that there is significant positive relationship between vertical diversification and sustainable performance of private universities in Kenya. This implies that increase in vertical diversification would results to significant increase in sustainable performance of private universities in Kenya. Martinez-Campilo (2019) built on the agency-stewardship approach to examine the benefits of related and unrelated diversification strategies on leadership style, using 183 Spanish organizations.

The result provided insight on the relevance of CEOs leadership style in the provision of the right fit for organizations pursuing growth and sustainable growth through vertical diversification. Asrahaighi *et al.* (2018) research findings depicted varying perspective, thus, the researchers concluded that though vertical diversification could increase profitability, vertical diversification could be too risky that sometimes its cost outweighs the benefits. Oloda (2017) established a positive and significant relationship between the dimensions of vertical integration (both forward and backward) and organizational survival. Conclusion from this study is that vertical integration enhances organizational survival.

A correlation coefficient of 0.613** implied that there is significant positive relationship between conglomerate diversification and sustainable performance of private universities in Kenya. This implies that increase in conglomerate diversification would results to significant increase in sustainable performance of private universities in Kenya. The positive relationship between conglomerate diversification and sustainable performance is consistent with Karim and Jürg (2021), who argued that diversification into unrelated activities broadens institutional revenue sources and reduces dependence on a single market. However, Hadiyanto (2020) cautioned that such diversification requires adequate managerial capabilities because unrelated ventures may increase organizational complexity. Diverse academic programs which are unrelated may be offered ranging from engineering and medicine to business and education, certificate to PhD programs to attract a wide range of students (customers) which will in turn boost student enrolment ratio, minimize risks and a consequently revenue growth.

Further, a correlation coefficient of 0.419** implied that there is significant positive relationship between geographical diversification and sustainable performance of private universities in Kenya. This implies that increase in geographical diversification would results to significant increase in sustainable performance of private universities in Kenya. Teixeira *et al.* (2012) adopted a longitudinal approach in exploring program diversity in Portuguese higher education in the last decades and significant institutional competition in recent years. The study provided a detailed analysis of the evolution of diversification of public and private sectors as well as the university polytechnic

subsectors; thus, recommended use of geographical diversification for sustainable performance of universities.

Shen, Wang and Su (2019) revealed that Chinese universities should take medium level of product diversification based on the inverse U-shaped relationship between diversification and performance. They should either use product or geographical diversification and not both strategies. Haim (2018) revealed that past research on the impact of geographical diversification produced inconclusive results and that there was no consensus on the interaction impact on both variables. Okari (2018) examined the effect of geographical diversification on performance of Kenyan universities. The findings showed a very small influence of geographical diversification on sustainable performance of universities.

Empirical evidence has revealed a close link between proximity to a college campus and high student enrollment (Mutinda, 2016). Alando (2016) study also affirmed that physical expansion increases student enrollment. The evolving landscape of university education means institutions of higher learning can no longer take a back seat and wait for students. The results confirm the existence of a significant positive relationship between core competencies and sustainable performance of private universities in Kenya as indicated by 0.670^{**} , $p=0.000$. This implies that improvement in core competencies would results to increase in sustainable performance of private Universities.

The present findings corroborate those of Fundira (2021), who established a significant association between core competencies and organizational performance among TVET institutions. Similarly, Jumaah (2019) found that leadership, intellectual, self-management and decision-making competencies positively influenced organizational excellence, suggesting that institutions with stronger internal capabilities are better positioned to achieve sustainable performance.

From the results in Table 4.21 all the relationships were positive, and significant (p -value=0.001) implying that diversification strategies are positively and significantly related with sustainable performance of private universities. The most significant strong relationship was between vertical diversification and sustainable performance

followed by the relationship between sustainable performance and core competence. Fundira (2021) investigated how the attributes of core competence thereof influence organizational (TVET college) performance.

The results as reported in Table 4.21 point to a significant relationship between core competencies and organizational performance of the institution. Jumaah (2019) came up with a set of conclusions, the most important being that there is a linkage and impact relation between core competency of human resources, its variables (leadership competency, intellectual competency, self-management competency, make decisions competency) and organizational excellence as a whole.

Although geographical diversification exhibited the weakest correlation with sustainable performance ($r = 0.419$), the relationship remained positive and statistically significant. This suggests that geographical expansion contributes to sustainable performance, albeit to a lesser extent than the other diversification strategies examined in this study. The relatively weaker association may reflect the substantial financial and operational investments required to establish new campuses or expand into new markets.

4.7.2. Linear Regression Analysis

Prior to estimating the multiple regression model, simple linear regression analysis was conducted for each independent variable to determine its individual influence on sustainable performance without controlling for the effects of the other predictors. This approach enabled the study to establish the independent explanatory power of horizontal diversification, vertical diversification, conglomerate diversification, and geographical diversification in relation to sustainable performance. Thereafter, multiple regression analysis was performed to examine the combined effect of all the diversification strategies while controlling for the influence of the other predictors in the model. Comparing the results of the simple and multiple regression models made it possible to determine whether the observed relationships remained significant after accounting for the simultaneous effects of the other diversification strategies and to identify the unique contribution of each predictor to sustainable performance. The study used the linear regression analysis to assess the influence of diversification

strategies (Horizontal diversification, vertical diversification, geographical diversification, conglomerate diversification) and sustainable performance of private universities in Kenya.

4.7.2.1. Linear Regression Between Horizontal Diversification and Sustainable Performance of Private Universities

The study used a Simple Linear Regression between horizontal diversification and sustainable performance of private universities in Kenya by assessing the influence of horizontal diversification on sustainable performance of private universities in Kenya. The researcher tested the following hypothesis;

H₀₁: Horizontal diversification does not significantly influence sustainable performance of private universities in Kenya.

Table 4.16: Linear Regression Analysis between Horizontal Diversification and Sustainable performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.640 ^a	.410	.408	.628621		
<i>a. Predictors: (Constant), Horizontal diversification</i>						
<i>b. Dependent Variable: Sustainable performance</i>						
ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	67.006	1	67.006	169.566	.000 ^b	
Residual	96.420	244	.395			
Total	163.426	245				
<i>a. Dependent Variable: Sustainable performance</i>						
<i>b. Predictors: (Constant), Horizontal diversification</i>						
Coefficients ^a						
	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	
Model 1 (Constant)	.431	.230		1.875	.062	
Horizontal diversification	.796	.061	.640	13.022	.000	
<i>a. Dependent Variable: Sustainable performance</i>						

The findings as reported in table 4.22 indicate that the ANOVA test results were $F(1, 244) = 169.566$, $P = 0.000 < 0.05$ which means that the Simple Linear Regression model was a good fit to our dataset. The model (Horizontal diversification) to explained 41.0% of the variation in the sustainable performance of private universities in Kenya as indicated by the $R^2 = 0.410$ as shown in the model summary in Table 4.22.

The regression coefficient results showed that $\beta = 0.796$, $t = 13.022$, $p = 0.000 < 0.05$; therefore, horizontal diversification had a statistically significant influence on the sustainable performance of private universities in Kenya. Horizontal diversification had a positive unstandardized beta coefficient = 0.796 as shown in the coefficients results implying that sustainable performance is predicated to improve by 0.796 when the horizontal diversification practice variable goes up by one unit. To predict sustainable performance of private universities in Kenya when given the level of horizontal diversification, the study used of the following model;

$$\text{Sustainable performance} = 0.431 + 0.796 \text{ Horizontal diversification}$$

Gul (2019) examined the effect of integration strategies and organization performance using 147 manufacturing organizations in Denmark. The findings were that horizontal (related) integration companies outperform the unrelated diversified organizations and the structure of the market, the level of concentration has varying effects on performance for each type of industry. Adamu, Zubairu, Ibrahim and Ibrahim (2019) evaluated the impact of horizontal diversification on performance.

The results as presented are a clear indication therefore that horizontal diversification does not necessarily lead to improvement in organizational performance, thus organizations are better-off remaining focused if they aim at improving performance. Ndungu, Ngoze and Wanjere (2020) examined the effect of diversification strategies on the performance of state-owned sugar firms in Kenya. The null hypothesis was accepted and therefore concluded that there is no relationship between adoption of horizontal diversification strategy and performance of sugar firms.

This aligns with other research findings which show that horizontal diversification often results in lower firm performance because of various agency problems. These include incompetent or irrational managers, competent but self-interested managers, wasteful spending in general and wasteful investment in poorly performing divisions and, finally, the inability of the internal economy of the firm to correctly signal. Horizontal diversification consists, instead, of corporate expansion into more than one industry across businesses not necessarily related to each other.

From Martins & Silva (2019) findings theoretical grounding behind horizontal diversification is less clearcut as compared to vertical diversification. Further, in modern theory of the firm, employees usually acquire and accumulate knowledge that is specific for the firm and which cannot be used elsewhere (Markides, 2005). However, when the firm is liquidated the knowledge streams that had been created are destroyed and this resource is lost.

4.7.2.2. Linear Regression Between Vertical Diversification and Sustainable Performance of Private Universities

The second hypothesis of the study sought to establish the significance of the causal and effect relationship between vertical diversification and sustainable performance of private universities in Kenya. The hypothesis was:

H₀₂: Vertical diversification does not significantly influence sustainable performance of private universities in Kenya.

The findings of this hypothesis test were as shown below in Table 4.23;

Table 4.17: Linear Regression Analysis Between Vertical Diversification and Sustainable Performance of Private Universities in Kenya

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.706 ^a	.498	.497	.579259	
<i>c. Predictors: (Constant), Vertical diversification</i>					
<i>d. Dependent Variable: Sustainable performance</i>					
ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	81.554	1	81.554	243.054	.000 ^b
Residual	81.872	244	.336		
Total	163.426	245			
<i>a. Dependent Variable: Sustainable performance</i>					
<i>b. Predictors: (Constant), Vertical diversification</i>					
Coefficients ^a					
Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
1 (Constant)	.609	.181		3.358	.001
Vertical diversification	.783	.050	.706	15.590	.000
<i>a. Dependent Variable: Sustainable performance</i>					

The ANOVA test results in table 4.23 were $F(1, 244) = 243.054$, $P = 0.000 < 0.05$; an indication that the Simple Linear Regression model was a good fit to our dataset. The model (Vertical diversification) explained 49.8% of the variation in the sustainable performance of private universities in Kenya as indicated by the $R^2 = 0.498$ as shown in the model summary of Table 4.23.

The regression coefficient results showed that $\beta = 0.783$, $t = 15.590$, $p = 0.000 < 0.05$; therefore, vertical diversification had a statistically significant influence on the sustainable performance of private universities in Kenya. Vertical diversification had a positive standardized beta coefficient = 0.783 as shown in the coefficients results in table 4.23; this indicates that sustainable performance is predicated to improve by 0.783 when the vertical diversification practice variable goes up by one unit. The study used the following model to predict sustainable performance of private universities in Kenya when given the level of vertical diversification;

$$\text{Sustainable performance} = 0.609 + 0.783 \text{ Vertical Diversification}$$

The findings align with earlier studies; Egessa (2017) studied the effect of vertical diversification on organizational competitiveness in Mumias Sugar Company in Kenya. The regression results reveal that vertical diversification had overall significant positive relationship with the competitiveness of sugar firms ($\beta = 0.464$, $p\text{-value} = 0.004$). The regression results reveal that 46.4 percent of the sugar firm competitiveness can be explained by vertical diversification ($R^2 = 0.464$).

A study by Kimani *et al.* (2016) adopted descriptive analysis for its individual research indicators and correlation and regression analysis to establish the effect of vertical, horizontal and diagonal integration on competitive performance. The findings indicated that vertical and horizontal integration contributed significantly to competitive performance of the firms while diagonal integration was found to be insignificant. Its regression analysis also revealed that 74% of change in competitive performance of firms was attributed to collective use of integration strategies.

4.7.2.3. Linear Regression between Conglomerate Diversification and Sustainable Performance of Private Universities

The third hypothesis of the study sought to examine the significance of the causal and effect relationship between conglomerate diversification and sustainable performance of private universities in Kenya. The researcher sought to test for the following hypothesis;

H₀₃: Conglomerate diversification does not significantly influence sustainable performance of private universities in Kenya.

To test the above third objective, the study adopted Simple Linear Regression analysis and the findings are reported in Table 4.24.

Table 4.18: Linear regression analysis between conglomerate diversification and sustainable performance

Model Summary						
	Adjusted R					
Model	R	R Square	Square	Std. Error of the Estimate		
1	.613 ^a	.375	.373			.646860
<i>e. Predictors: (Constant), Conglomerate diversification</i>						
<i>f. Dependent Variable: Sustainable performance</i>						
ANOVA ^a						
Model	Sum of Squares	Df	Mean Square	F		Sig.
1 Regression	61.330	1	61.330	146.572		.000 ^b
Residual	102.097	244	.418			
Total	163.426	245				
<i>a. Dependent Variable: Sustainable performance</i>						
<i>b. Predictors: (Constant), Conglomerate diversification</i>						
Coefficients ^a						
	Unstandardized Coefficients	Std. Error	Standardized Coefficients			
Model	β		Beta	T		Sig.
1 (Constant)	1.280	.178		7.193		.000
<i>Conglomerate diversification</i>	.585	.048	.613	12.107		.000
<i>a. Dependent Variable: Sustainable performance</i>						

The ANOVA test results from table 4.24 were $F(1, 244) = 146.572$, $P = 0.000 < 0.05$; an indication that the Simple Linear Regression model was a good fit to our dataset. The model (conglomerate diversification) explained 37.5% of the variation in sustainable performance of private universities in Kenya as indicated by the R Square = 0.375 as shown in the model summary of Table 4.24.

The regression coefficient results showed that $\beta = 0.585$, $t = 12.107$, $p = 0.000 < 0.05$; hence conglomerate diversification had a statistically significant influence on sustainable performance of private universities in Kenya. Conglomerate diversification had a positive standardized beta coefficient = 0.585 as shown in the coefficients results of Table 4.24; The findings show that sustainable performance is predicated to improve by 0.585 when conglomerate diversification practice variable goes up by one unit.

The study used the following model to predict sustainable performance of private universities in Kenya when given the level of conglomerate diversification;

$$\text{Sustainable performance} = 1.280 + 0.585 \text{ conglomerate diversification}$$

The findings demonstrate that sustainable performance is positively influenced by conglomerate diversification. These findings are consistent with those of Gyan (2017) who established that firms may adopt conglomerate diversification strategy to appeal to a new group of customers. The debate regarding diversification strategies of firms and their performance is very controversial. Most studies in the field of finance of corporate level demonstrate negative effect of diversification on firm performance. On the other hand, literature on strategic management supports diversification strategies as having positive impact on the creation of value of the firm (Brost & Kleiner, 2015).

In addition, Itohowo (2018) argues that firms that diversify into unrelated field get maximum financial and other benefits as compared to those firms which adopt related diversification in their firms. According to Afonso (2015) extensive research substantial research has been conducted on diversification supporting unrelated diversification. The findings of Kiricheko *et.al.* (2020) recommend unrelated diversification strategy as being suitable in emerging markets where competition is low.

However, in German diversification in the banking sector has encountered reduction in profits even when the risks are controlled (Ridder & Achtereekte, 2016). Only a minimal number of high-risk banks and industrial diversification have had a positive significant relationship between diversification and bank revenues. Further, moving out of the current products and current markets represents a step into the unknown. This uncertainty carries a high degree of business risk (Lynch, 2006). There is limited knowledge of the new services and markets which makes accurate predictions of diversification success levels very difficult.

4.7.2.4. Linear Regression Geographical Diversification and Sustainable Performance of Private Universities

The fourth hypothesis of the study sought to establish the influence of geographical diversification on sustainable performance of private universities in Kenya, the researcher sought to test for the following hypothesis;

H₀₄ Geographical diversification does not significantly influence sustainable performance of private universities in Kenya.

The findings were as shown in Table 4.25.

Table 4.19: Linear Regression Analysis Between Geographical Diversification and Sustainable Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.419 ^a	.175	.172	.743252		
<i>g. Predictors: (Constant), Geographical diversification</i>						
<i>h. Dependent Variable: Sustainable performance</i>						
ANOVA ^a						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1 Regression	28.635	1	28.635	51.835	.000 ^b	
Residual	134.791	244	.552			
Total	163.426	245				
<i>a. Dependent Variable: Sustainable performance</i>						
<i>b. Predictors: (Constant), Geographical diversification</i>						
Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
Model	β	Std. Error	Beta			
1 (Constant)	1.462	.270			5.415	.000
<i>Geographical diversification</i>	.520	.072	.419		7.200	.000
<i>a. Dependent Variable: Sustainable performance</i>						

The ANOVA test results as indicated in Table 4.25 were $F(1, 244) = 51.835$, $P = 0.000 < 0.05$; an indication that the Simple Linear Regression model was a good fit to our dataset. The model (geographical diversification) was able to explain 17.5% of the variation in sustainable performance of private universities in Kenya as indicated by the $R^2 = 0.175$ as shown in the model summary of Table 4.25. The regression coefficient results showed that $\beta = 0.520$, $t = 7.200$, $p = 0.000 < 0.05$; hence geographical diversification had a statistically significant influence on the sustainable performance of private universities in Kenya.

Geographical diversification had a positive standardized beta coefficient = 0.520 as shown in the coefficients results of Table 4.25; this indicates that an improvement in the geographical diversification by a unit was likely to result to an improvement in the sustainable performance of private universities in Kenya by 0.520 units. To predict the sustainable performance of private universities in Kenya when given the level of Geographical diversification, the study used the following model;

$$\text{Sustainable performance} = 1.462 + 0.520 \text{ Geographical diversification}$$

These findings are in consistent with the findings of Barringer and Greening (2010) who affirmed that geographic growth is an especially critical increase strategy for agencies whose enterprise scope has been geographically limited. By way of broadening client base through venturing into new markets, corporations are able to gain a bigger quantity of manufacturing and grow. Further, there are variations in market situations across specific geographic regions. Organizations adopt geographic expansion method to explore new possibilities to control middle skills across a wider series of markets (Zahra et al., 2011).

Shen, Wang and Su (2019) conducted a study on diversification strategy in Universities in China by which 200 both public and private universities were randomly selected. The study proposed that Chinese universities should undertake medium level product diversification based on the inverse U-shaped relationship between diversification and performance and recommended use of product or geographical diversification and not both strategies.

Haim (2018) investigated qualitative study on the significance of studying geographic diversification-the interaction impact on Malaysian companies.

The results indicated that past research on the impact of geographical diversification were inconclusive and that there was no consensus on the interaction impact on both variables. Okari (2018) examined the effect of geographical diversification on performance of Kenyan universities. The study further showed that geographical diversification has very small influence on sustainable performance of private universities. Empirical evidence has revealed a close link between proximity to a college campus and high student enrollment (Mutinda, 2016).

Alando (2016) also affirmed that physical expansion increases student enrollment. The evolving landscape of university education signals an urgent need to adopt a proactive approach in private universities to ensure sustainability. However, Nzioka (2017) found geographical diversification strategy to have no significant influence on a firm's capital structure decisions. These findings contradict Kim and Mathur (2008) findings that firms which diversify in related segments promote the use of equity to finance the growth of the companies. However, the findings are backed by Yaffe (2008) argument that there is no significant relationship between geographical diversification and capital structure. Eiteman *et al.* (1998) in their research made an observe that MNCs and their subsidiaries use less debt as compared to their domestic counterparts but gradually the leverage of MNCs increases with the increase of their foreign involvement. The sophistication of geographically diversified organizations can result in higher costs of coordinating business guidelines due to information unevenness between company headquarters and divisional managers.

The results of the simple linear regression analyses showed that each diversification strategy individually had a statistically significant positive effect on sustainable performance. However, because the diversification strategies are related to one another, a multiple regression analysis was subsequently performed to determine the unique contribution of each strategy after controlling for the effects of the remaining predictors. This comparison establishes whether the significance and magnitude of the regression coefficients change when the predictors are considered simultaneously.

4.7.3 Multiple Linear Regression Between Diversification Strategies and Sustainable Performance of Private Universities

The study sought to determine the effect of the diversification strategies (horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification) on sustainable performance of private universities. Multiple Linear Regression Model was used to demonstrate the effect of the diversification strategies (horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification) on sustainable performance of private universities in Kenya. The results are shown in Table 4.26.

Table 4.20: Multiple Linear Regression

Model Summary ^b									
Std.						Change Statistics			
		Adjusted	Error of	R					
Model	R	R Square	R Square	the Estimate	Square Change	F Change	df1	df2	Sig. F Change
1	.814 ^a	.662	.657	.478504	.662	118.189	4	241	.000
<i>a. Predictors: (Constant), Horizontal diversification, Vertical diversification, Conglomerate diversification and Geographical diversification</i>									
ANOVA ^a									
Model	Sum of Squares			Df	Mean Square	F	Sig.		
1	Regression			108.245	4	27.061	118.189	.000 ^b	
	Residual			55.181	241	.229			
	Total			163.426	245				
<i>a. Dependent Variable: Sustainable performance</i>									
<i>b. Predictors: (Constant), Predictors: (Constant), Horizontal diversification, Vertical diversification, Conglomerate diversification and Geographical diversification</i>									
Coefficients									
Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.		
	β	Std. Error	Beta						
	(Constant)	-.944	.221			-4.266	.000		
	Horizontal diversification	.381	.057	.306		6.671	.000		
1	Vertical diversification	.458	.052	.413		8.780	.000		
	Conglomerate diversification	.179	.046	.187		3.903	.000		
	Geographical diversification	.177	.050	.142		3.538	.000		
<i>a. Dependent Variable: Sustainable performance</i>									

ANOVA results in Table 4.26 were, $F(4, 241) = 118.189$, $P = 0.000 < 0.05$; an indicator that the multiple linear regression model was a good fit to our dataset. The model (horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification) explained 66.2% of the variation in

sustainable performance of private universities in Kenya as indicated by the R Square = 0.662 as shown in the model summary in Table 4.26. Although all four diversification strategies significantly predicted sustainable performance, the magnitude of their regression coefficients differed, indicating that some strategies contribute more strongly to sustainable performance than others. These differences reflect the varying mechanisms through which each diversification strategy creates value within private universities.

From the research findings in Table 4.26, diversification strategies had a significant partial influence in predicting sustainable performance of private universities in Kenya as indicated by the significant unstandardized beta coefficients: Horizontal diversification had $\beta = 0.381$, $t = 6.671$, $p\text{-value} = 0.00 < 0.05$; vertical diversification had $\beta = 0.458$, $t = 8.780$, $p\text{-value} = 0.00 < 0.05$; Conglomerate diversification had $\beta = 0.179$, $t = 3.903$, $p\text{-value} = 0.001 < 0.05$ and Geographical diversification had $\beta = 0.177$, $t = 3.538$, $p\text{-value} = 0.002 < 0.05$ which were considered to be significant at 5% level of significance. These findings indicate that each diversification strategy made a positive and statistically significant unique contribution to sustainable performance after controlling for the effects of the other diversification strategies. Among the four predictors, vertical diversification exerted the strongest influence on sustainable performance, whereas geographical diversification exhibited the weakest, although still statistically significant, effect.

The variation in the strength of the regression coefficients suggests that the diversification strategies do not contribute equally to sustainable performance. Vertical diversification emerged as the strongest predictor because it enables private universities to strengthen internal academic value chains through improved programme development, quality assurance, resource utilization and operational efficiency. Such improvements have a direct influence on institutional sustainability through enhanced service quality, student satisfaction and financial performance. Horizontal diversification also demonstrated a relatively strong effect because expansion into related academic programmes allows universities to leverage existing institutional resources, competencies and market reputation while responding to changing student demand.

In contrast, conglomerate diversification exhibited a relatively weaker influence on sustainable performance. This may be attributed to the complexity of managing unrelated business ventures, which often require additional managerial expertise, financial resources and governance structures before meaningful performance gains can be realized. Geographical diversification recorded the weakest influence among the four predictors, possibly because establishing satellite campuses or expanding into new geographical markets requires substantial capital investment, regulatory approvals and considerable time before enrolment growth and financial returns are achieved. Consequently, although geographical diversification contributes positively to sustainable performance, its benefits may take longer to materialize than those associated with internal programme expansion or vertical integration.

The regression constant was negative and statistically significant ($\beta = -0.944$, $t = -4.266$, $p < 0.05$), suggesting that in the absence of the diversification strategies included in the model, sustainable performance would be expected to decline. The significant intercept further implies that sustainable performance is also influenced by other organisational, managerial, financial, regulatory and environmental factors that were not included in the model, thereby providing opportunities for future research to examine additional determinants of sustainable performance.

Although conglomerate diversification accounted for 17.7% of the variation in sustainable performance, this does not imply that the model is weak or invalid. Sustainable performance of private universities is influenced by numerous organisational, financial, institutional, regulatory, technological, and environmental factors that were beyond the scope of the present study. Consequently, it is expected that a single predictor would explain only a portion of the total variation in sustainable performance. The statistically significant regression coefficient nevertheless demonstrates that conglomerate diversification makes a meaningful contribution to sustainable performance

The model summary further indicates that geographical diversification explained 17.7% of the variation in sustainable performance of private universities in Kenya. Although this represents a modest proportion of the total variance, the model was statistically significant, implying that geographical diversification contributes

meaningfully to sustainable performance. Sustainable performance is influenced by numerous organisational, financial, technological, institutional and environmental factors that were not included in this simple regression model. Therefore, the remaining 82.3% of the variation may be attributed to other determinants beyond geographical diversification. This finding justifies the subsequent use of multiple regression analysis to examine the combined contribution of all diversification strategies.

To determine the variable that had the most significant influence on sustainable performance among the four diversification strategies, the study used the standardized beta coefficient (Brien, 2007) by which the higher the value of standardized beta coefficient, the stronger a variable is in predicting the dependent variable. From the partial coefficient results of Table 4.26, vertical diversification had the greatest influence in predicting sustainable performance of private universities in Kenya as it had the highest coefficient of 0.458; this means that an improvement in vertical diversification by one percent in the presence of the other three factors is likely to lead to improved sustainable performance by 45.8%.

Martinez-Campilo (2019) built on the agency-stewardship approach to examine the benefits of related and unrelated diversification strategies on leadership style using 183 Spanish organizations. The result provided an insight on the relevance of CEOs leadership style in the provision of the right fit for organizations pursuing growth and sustainable growth through vertical diversification. Asrahighi *et al.* (2018) in their qualitative study on vertical diversification strategy and organization performance. That is, the research findings depicted varying perspective, thus, the researchers concluded that though vertical diversification could increase profitability, it may be too risky and sometimes the cost outweighs the benefits.

Oloda (2017) carried out a study on the effect of vertical integration on organizational survival in selected manufacturing firms in Nigeria. The findings of the study established a positive and significant relationship between the dimensions of vertical integration (both forward and backward) and organizational survival. The study concluded that vertical integration enhances organizational survival.

From Table 4.26, horizontal diversification had the second largest influence in predicting the sustainable performance of private universities in Kenya as it had the second highest coefficient value of 0.381; an indication that an improvement in horizontal diversification by one unit, in the presence of the other three factors was likely to lead to improved sustainable performance by 0.381 units. Gul (2019) examined the effect of integration strategies and organization performance using 147 manufacturing organizations in Denmark. The study revealed that horizontal (related) integration companies outperform the unrelated diversified organizations and the structure of the market, the level of concentration had varying effects on performance for each type of industry.

Adamu, Zubairu, Ibrahim and Ibrahim (2019) evaluated the impact of horizontal diversification on performance. The results therefore showed that horizontal diversification does not necessarily lead to improvement in organizational performance, thus organizations are better-off remaining focused if they aim at improving performance. Ndungu, Ngoze and Wanjere (2020) examined the effect of diversification strategies on the performance of state-owned sugar firms in Kenya. The null hypothesis was accepted and therefore concluded that there is no relationship between adoption of horizontal diversification strategy and sugar firms' performance.

Conglomerate diversification had the third largest influence in predicting sustainable performance of private universities in Kenya as it had the third highest coefficient value of 0.179, an indication that an improvement in conglomerate diversification by one percent, in the presence of the other three factors was likely to lead to an improved sustainable performance by 17.9%. These findings correspond with those of Kuwari (2020) which found that a firm reduces risks when it engages in unrelated diversification.

Researchers in the fields of finance and strategic management have established varying factors influencing the choice of unrelated diversification over related (Makokha, Namusonge & Sakwa, 2017). Firms diversify into business different from their core business for sustainable revenue streams. A diversified firm keeps its all units strictly independent which makes easy for the firm to reallocate its capital. Organizations may also diversify to lower business risks. Managers of organizations have their personal

objectives and gains and when firms venture into unrelated diversification managers surrender their authority and rights to other managers (Mutege, 2015).

The results in table Table 4.26 indicate that geographical diversification had the least influence in predicting sustainable performance of private universities in Kenya as it had the least coefficient value of 0.177, an indication that an improvement in geographical diversification practices by one unit, in the presence of the other three factors was likely to lead to an improved sustainable performance of private universities in Kenya by 0.177 units. Okari (2018) examined the effect of geographical diversification on performance of Kenyan universities. The findings revealed that geographical diversification has a very small influence on the performance of universities.

Empirical evidence has revealed a close link between proximity to a college campus and high student enrollment (Mutinda, 2016). Alando (2016) affirmed that physical expansion increases student enrollment. The evolving landscape of university education means that it has become imperative for private universities to adopt a proactive approach in order to achieve sustainability. However, Valis-Boas and Gonzalez (2018) study on diversification strategy sampled all manufacturing organizations in European applying from several Eurozone countries.

The extent of diversification was found to be negatively linked to performance due to organizations inability to transfer knowledge, negotiate contracts and handle institutional practice in host countries. The study also established that international diversification may be harmful to performance while moderate level of geographical diversification with greater diversity results to better performance.

Multiple Linear Regression model equation that was used to predict sustainable performance of private universities in Kenya when given the diversification strategies (Horizontal diversification, vertical diversification, conglomerate diversification and Geographical diversification) was:

$$Y = -0.944 + 0.381X_1 + 0.458X_2 + 0.179X_3 + 0.177X_4$$

Where;

Y is Sustainable performance

X₁ is Horizontal Diversification

X₂ is Vertical Diversification

X₃ is Conglomerate Diversification

X₄ is Geographical Diversification

Although all the diversification strategies were statistically significant in the simple regression models, the magnitude of their effects changed in the multiple regression model after controlling for the influence of the other diversification strategies. Vertical diversification remained the strongest predictor of sustainable performance, while geographical diversification exhibited the weakest effect. This demonstrates that the predictors share some common variance and that multiple regression provides a more robust estimate of the unique contribution of each diversification strategy to sustainable performance.

4.8. Moderation Analysis

To determine whether core competencies moderated the relationship between diversification strategies and sustainable performance, hierarchical multiple regression analysis was conducted. Hierarchical regression was considered appropriate because it enables variables to be entered into the regression model in successive stages, allowing the incremental contribution of the moderator and the interaction terms to be assessed. Moderation exists when the interaction between the independent variables and the moderator significantly improves the explanatory power of the model and significantly predicts the dependent variable.

The fifth objective of this study was to determine the moderating influence of core competencies on the relationship between diversification strategies (Horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification) and sustainable performance of private universities in Kenya. To achieve this, the researcher tested for the following null hypothesis;

H₀₅: Core competencies do not significantly moderate the relationship between diversification strategy and sustainable performance of private universities in Kenya.

The study evaluated the moderating effect using hierarchical regression analysis as proposed by Baron and Kenny (1986). The study noted that there are three steps involved in testing the moderating effect.

Step one involved testing the influence of independent variables in this case diversification strategies on dependent variable.

Step two entailed testing the effect of independent variables and moderating variable in this case core competencies on dependent variable.

Finally step three involved testing the effect of, independent variable, moderating variable and the interactive term (product of independent and moderating variable) on dependent variable. Moderating effect happens if the effect of interaction is significant in the third step.

The three steps involved in hierarchical regression analysis for moderating effect were written as:

Step One: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Step Two: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \varepsilon$

Step Three: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 M + \beta_6 X_1 M + \beta_7 X_2 M + \beta_8 X_3 M + \beta_9 X_4 M + \varepsilon$

Where,

β_0 represented Constant Term,

β_i ; $i = 1$ to 9 is the regression coefficients which measured the change induced on the study variables.

X_1 = Horizontal diversification

X_2 = Vertical diversification

X_3 = Conglomerate diversification

X_4 = Geographical diversification

M =Core competencies;

$X_i..n * M$ =Interaction term between Diversification strategies; and Core competencies;

Y =Sustainable performance of private universities in Kenya and;

ε =Error/disturbance.

The relevant results are summarized in Table 4.27.

Table 4.21: Moderation Effect on the Relationship between Diversification strategies and Sustainable Performance of Private Universities in Kenya.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics	F	df1	df2	Sig. F Change
1	.814 ^a	.662	.657	.478504	.662	118.189	4	241		.000
2	.825 ^b	.681	.674	.466083	.019	14.017	1	240		.000
3	.837 ^c	.701	.690	.454782	.020	4.019	4	236		.004

a. Predictors: (Constant), Geographical Diversification (GD), Conglomerate Diversification (CD), Horizontal Diversification (HD), Vertical Diversification (VD)

b. Predictors: (Constant), Geographical Diversification, Conglomerate Diversification, Horizontal Diversification, Vertical Diversification, Core Competencies (CC)

c. Predictors: (Constant), Geographical Diversification, Conglomerate Diversification, Horizontal Diversification, Vertical Diversification, Core Competencies, CD*CC, VD*CC, GD*CC, HD*CC

d. Dependent Variable: Sustainable Performance of Private Universities

The moderation analysis was conducted in three hierarchical regression models. Model 1 estimated the direct effects of the four diversification strategies on sustainable performance. Model 2 introduced the moderator (core competencies) into the regression model to determine whether it independently explained additional variation in sustainable performance beyond the diversification strategies. Model 3 included the interaction terms between each diversification strategy and core competencies to determine whether core competencies significantly altered the strength or direction of the relationship between diversification strategies and sustainable performance.

From the results in Table 4.27, in Model 1, all the independent variables were jointly found to have a positive and significant relationship with sustainable performance of private universities in Kenya ($p=0.000$). The R^2 of 0.662 was obtained in this model. This means that these variables explain 66.2% of variance in the dependent variable. Further, in Model 2 the findings also showed that when core competencies were added as a moderator, the results obtained indicated that independent variables and the moderating variable were significantly and jointly related to sustainable performance of private universities in Kenya ($p<0.05$). The R^2 increases to 0.681 (68.1%) from 0.653 (66.2%) implying that an additional 0.019 (1.9%) was added in the model.

Lastly in Model 3, the findings also showed that when core competencies interact with diversification strategy the results obtained show that there was significant

moderation. The inclusion of the interaction terms in Model 3 resulted in a further improvement in the explanatory power of the regression model, indicating that core competencies modified the relationship between diversification strategies and sustainable performance. However, the interaction effects were not uniform across all diversification strategies. The interaction terms involving vertical diversification and conglomerate diversification were statistically significant, implying that the contribution of these diversification strategies to sustainable performance depends on the level of core competencies within the university. In contrast, the interaction terms involving horizontal diversification and geographical diversification were not statistically significant, suggesting that their influence on sustainable performance remains relatively stable regardless of the level of core competencies.

The changes observed in the regression coefficients between Models 2 and 3 are consistent with the effects commonly observed in moderated regression analysis. When the interaction terms between diversification strategies and core competencies were introduced in Model 3, part of the variance that had previously been explained by the main effects was captured by the interaction effects. Consequently, some regression coefficients reduced in magnitude or became statistically insignificant. This phenomenon is referred to as a suppression effect, whereby the inclusion of interaction terms redistributes the explained variance among the predictors without necessarily reducing the overall explanatory power of the model. Therefore, changes in the regression coefficients should not be interpreted as indicating that the original relationships disappeared; rather, they demonstrate that the effects of certain diversification strategies depend on the level of core competencies.

These findings suggest that strong core competencies enhance the effectiveness of diversification strategies that require substantial organisational capabilities, such as vertical and conglomerate diversification. Universities possessing highly competent staff, strong programme quality and effective technology integration are better positioned to transform these diversification strategies into improved sustainable performance. Conversely, the benefits associated with horizontal and geographical diversification appear to be less dependent on internal competencies and may instead be influenced by external market conditions, institutional policies or resource availability.

The R^2 increased to 0.701 (70.1%) from 0.681 (68.1%) implying that an additional 0.020 (2.0%) was added in the model. The increase in the coefficient of determination (R^2) from Model 2 to Model 3 demonstrates that the interaction terms contributed additional explanatory power beyond the direct effects of diversification strategies and core competencies. Although the increase was relatively modest, it indicates that moderation explains additional variation in sustainable performance that would not have been captured by considering only the direct effects. The reduction in the magnitude and statistical significance of some main-effect coefficients after the interaction terms were introduced is expected in moderated regression analysis. This occurs because part of the variation previously attributed to the main effects is captured by the interaction terms, indicating that the influence of certain diversification strategies depends on the level of core competencies rather than remaining constant across all universities.

The results are consistent with the findings of Rahab, Anwar and Priyono (2016) who sought to determine the relationship between firm core competence, competitive advantage and performance of small and medium enterprises based on analysis of data from a survey conducted on 58 owners and managers of small firms of Banyumas batik in Banyumas Region, Central Java, Indonesia. The results affirmed that competence in relationship, adaptation and innovation has significant effect on firms' innovativeness. The ability of entrepreneurs to build business network has eased information exchange leading to social relatedness thereby contributing to enhanced competitive advantage. Another study by Tong, Iqbal and Abd Rahman (2022) revealed that infrastructure and technology, state-of-the-art technology, innovative research and development (R&D) capability, and organizational flexibility all have a significant impact on competitive advantage, while infrastructure and technology, state-of-the-art technology, and innovative R&D capability have a significant effect on organizational flexibility. Organizational flexibility plays a mediating role between innovative R&D capabilities effect and competitive advantage. Mugo, Namusonge and Sakwa (2016) sought to establish the effect of organizational core competences on performance in the insurance industry in Kenya.

The moderation analysis demonstrated partial moderation. Specifically, core competencies significantly moderated the relationships between vertical diversification and sustainable performance, and between conglomerate diversification and sustainable performance. However, the interaction effects involving horizontal diversification and geographical diversification were not statistically significant. Consequently, the findings indicate that the moderating influence of core competencies is selective rather than universal across all diversification strategies.

Table 4. 22: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	108.245	4	27.061	118.189	.000 ^a
	Residual	55.181	241	.229		
	Total	163.426	245			
2	Regression	111.290	5	22.258	102.462	.000 ^b
	Residual	52.136	240	.217		
	Total	163.426	245			
3	Regression	114.615	9	12.735	61.573	.000 ^c
	Residual	48.811	236	.207		
	Total	163.426	245			

a. Dependent Variable: Sustainable Performance of Private Universities

b. Predictors: (Constant), Geographical Diversification, Conglomerate Diversification, Horizontal Diversification, Vertical Diversification

c. Predictors: (Constant), Geographical Diversification, Conglomerate Diversification, Horizontal Diversification, Vertical Diversification, Core Competencies

d. Predictors: (Constant), Geographical Diversification, Conglomerate Diversification, Horizontal Diversification, Vertical Diversification, Core Competencies, CD*CC, VD*CC, GD*CC, HD*CC

The ANOVA results demonstrate that the regression models are statistically significant in explaining the variation in sustainable performance of private universities. Model 1 (with four predictors: geographical, conglomerate, horizontal, and vertical diversification) had an F-value of 118.189 with a significance level of $p = .000$. This indicates that the predictors jointly explain sustainable performance significantly. Model 2 added core competencies as a predictor, yielding an F-value of 102.462 ($p = .000$).

Although the F-value is slightly lower than in Model 1, the inclusion of core competencies improves the model's explanatory power by accounting for additional variance. Model 3 incorporated interaction effects between diversification strategies and core competencies. It produced an F-value of 61.573 ($p = .000$), showing significance but with a reduced F-ratio due to increased predictors and degrees of freedom. Overall, all three models demonstrate that diversification strategies and core competencies significantly contribute to sustainable performance of private universities.

Table 4.23: Regression Coefficients for Moderation Effect

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.944	.221		-4.266	.000
Horizontal Diversification	.381	.057	.306	6.671	.000
Vertical Diversification	.458	.052	.413	8.780	.000
Conglomerate Diversification	.179	.046	.187	3.903	.000
Geographical Diversification	.177	.050	.142	3.538	.000
2 (Constant)	-.910	.216		-4.218	.000
Horizontal Diversification	.311	.059	.250	5.288	.000
Vertical Diversification	.386	.054	.348	7.090	.000
Conglomerate Diversification	.138	.046	.144	2.994	.003
Geographical Diversification	.168	.049	.136	3.454	.001
Core Competencies	.186	.050	.194	3.744	.000
3 (Constant)	.521	.762		.684	.495
Horizontal Diversification (HD)	.114	.244	.092	.467	.641
Vertical Diversification (VD)	.008	.177	.007	.043	.966
Conglomerate Diversification (CD)	.594	.149	.623	3.998	.000
Geographical Diversification (GD)	-.074	.225	-.060	-.328	.743
Core Competencies (CC)	-.294	.216	-.308	-1.359	.175
HD*CC	.086	.071	.510	1.198	.232
VD*CC	.117	.047	.712	2.475	.014
CD*CC	.152	.045	.967	3.367	.001
GD*CC	.070	.066	.374	1.062	.289

a. Dependent Variable: Sustainable Performance of Private Universities

The results in Table 4.29 indicate coefficient results for the moderation effect of core competencies on the relationship between diversification strategies and sustainable performance of private universities in Kenya. In step 1, after entering the diversification strategies, all the diversification strategies used in this study were found to have a positive and significant predicative power ($P < 0.05$).

In step 2, when core competencies were entered in the model, it also had a positive and significant effect on sustainable performance of private universities in Kenya ($\beta=0.186$, $P=0.000$) although horizontal diversification; vertical diversification and conglomerate diversification recorded reduction in coefficient. This implies that if core competencies change by one unit, the sustainable performance of private universities in Kenya significantly change by 0.186 units in same direction.

In step three, upon introduction of the interaction term (cross-product between core competencies and sustainable performance of private universities in Kenya), core competencies maintained its significance and its predictive power increased. Three of the diversification strategies constructs lost their significance (geographical diversification, Horizontal Diversification and Vertical Diversification). Two of the added interaction terms were found to be significant. Vertical diversification interaction core competencies ($\beta= 0.117$, $t=2.475$, $p = .014$) and conglomerate diversification interaction core competencies ($\beta= 0.152$, $t=3.367$, $p = .001$) while the interaction of horizontal diversification and geographical diversification were all insignificant.

The results in model 3 therefore show that core competencies have a significant moderating effect on the relationship between vertical diversification and sustainable performance of private universities in Kenya. These findings were also represented in the model equation as shown in below:

The final moderation model is as shown below

$$y = 0.521 + 0.114X_1 + 0.008X_2 + 0.594X_3 - 0.074X_4 - 0.294M + 0.086X_1*M + 0.117X_2*M + 0.152X_3*M + 0.070X_4*M$$

Where;

Y	=	Sustainable performance
X ₁	=	Horizontal diversification Practice
X ₂	=	Vertical diversification Practice
X ₃	=	Conglomerate diversification Practice
X ₄	=	Geographical diversification Practice
M	=	Core competencies

Clearly from model three, various deductions can be made; first, the horizontal diversification interaction with Core competencies coefficient is positive, meaning that the interactive effect is positive, therefore, as core competencies increases, the level of horizontal diversification effect on sustainable performance insignificantly increases by 0.086 units ($\beta=0.086$, $p>0.05$). However, vertical diversification interaction core competencies coefficient is positive, meaning that the interactive effect is positive, therefore, as core competencies increases, the level of vertical diversification effect on Sustainable performance significantly increases 0.117 units ($\beta=0.117$, $p<0.05$).

Conglomerate diversification interaction with core competencies coefficient is positive, meaning that the interactive effect is positive. Therefore, as core competencies increases, the level of conglomerate diversification effect on Sustainable performance significantly increases by 0.152 units ($\beta=0.152$, $P<0.05$). However, for geographical diversification interaction with core competencies, the coefficient is positive and insignificant, meaning that the interactive effect is insignificantly positive. Thus, as core competencies increases by one unit, the level of geographical diversification effect on sustainable performance insignificant increases by 0.070 units ($\beta=0.070$, $p=0.289$).

The results reported in table 4.29 show that core competencies had a positive effect on the relationship between diversification strategies and sustainable performance of private universities in Kenya. Increase in core competencies increases the effect of diversification strategy on sustainable performance of private universities. Hamid, Ong, Razak, Jamil, Mohi and Shukur (2020) investigated the effect of moderating factor namely core competencies on the relationship between the Perceived Value and Destination Image among green hotel customers in Malaysia.

Choge, Namusonge, Makokha and Musau (2018) investigate the effect of organizational competencies on organizational competitive advantage of the banking sector in Kenya. The outcome was a probability of R square= 0.620 which means there was 62.0 percent probability of organizational competencies predicting competitive advantage. Organization competencies had positive and significant B values of 0.565. It also had a positive and significant correlation of .787 with competitive advantage.

The results are further supported by Jerab, Alper and Baslar (2011) whose findings confirmed a statistically significant relationship between core competencies, competitive advantages and company success. The core competence types with high impact were Strategic Focus and key staff skill, knowledge management systems, company facilities and infrastructure, dynamic capabilities and key work processes, and unique resources respectively. Makhoulfi and Al-Erjal (2014) revealed that core competency is not significantly related to organizational growth. Hence, the result indicated that core competency does not have any significant influence on organizations performance.

The study deduced that, Chase Petroleum Ghana promotes operational systems, improved infrastructure, skilled labour as well as low-cost production at the expense of customer relations as its core competencies.

4.9 Summary of Hypothesis Tested

This study sought to investigate the influence of diversification strategies on sustainable performance of private universities in Kenya. To achieve this, five specific objectives and subsequently, five corresponding null hypotheses were formulated and tested.

H₀₁: *Horizontal diversification does not significantly influence sustainable performance of private universities in Kenya.*

The results presented in Table 4.22 indicate a positive and statistically significant correlation between horizontal diversification and sustainable performance ($r = 0.640$, $p < 0.001$), suggesting that universities with higher levels of horizontal diversification tend to exhibit higher levels of sustainable performance. The simple linear regression results further demonstrated that horizontal diversification significantly influenced sustainable performance, explaining 41.0% of the variation in sustainable performance ($R^2 = 0.410$). The regression coefficient was positive and statistically significant, indicating that horizontal diversification is an important predictor of sustainable performance.

The multiple linear regression results (Table 4.26) further showed that, after controlling for the effects of the other diversification strategies, a one-unit increase in horizontal diversification was associated with a 0.381-unit increase in sustainable performance ($\beta = 0.381$, $t = 6.671$, $p < 0.05$). The positive and statistically significant coefficient indicates that horizontal diversification makes a significant unique contribution to sustainable performance. Therefore, the null hypothesis (H01) was rejected, and it was concluded that horizontal diversification has a statistically significant positive influence on the sustainable performance of private universities in Kenya.

H02: *Vertical diversification does not significantly influence sustainable performance of private universities in Kenya.*

The results presented in Table 4.23 indicate that there was a positive and statistically significant correlation between vertical diversification and sustainable performance ($r = 0.706$, $p < 0.001$), suggesting that higher levels of vertical diversification are associated with improved sustainable performance among private universities in Kenya. The simple linear regression analysis further demonstrated that vertical diversification had a statistically significant influence on sustainable performance, explaining 49.9% of the variation in sustainable performance ($R^2 = 0.499$). This indicates that vertical diversification is an important predictor of sustainable performance.

The multiple linear regression results presented in Table 4.26 further showed that, after controlling for the effects of the other diversification strategies, a one-unit increase in vertical diversification was associated with a 0.458-unit increase in sustainable performance ($\beta = 0.458$, $t = 8.780$, $p < 0.001$). The positive and statistically significant regression coefficient indicates that vertical diversification makes a significant unique contribution to sustainable performance. Therefore, the null hypothesis (H02) was rejected, and it was concluded that vertical diversification has a statistically significant positive influence on the sustainable performance of private universities in Kenya.

H03: *Conglomerate diversification does not significantly influence sustainable performance of private universities in Kenya.*

The results presented in Table 4.24 indicate that there was a positive and statistically significant correlation between conglomerate diversification and sustainable performance ($r = 0.613$, $p < 0.001$), suggesting that higher levels of conglomerate diversification are associated with improved sustainable performance among private universities in Kenya. The simple linear regression analysis further demonstrated that conglomerate diversification had a statistically significant influence on sustainable performance, explaining 37.5% of the variation in sustainable performance ($R^2 = 0.375$). This finding indicates that conglomerate diversification is a significant predictor of sustainable performance.

The multiple linear regression results presented in Table 4.26 further showed that, after controlling for the effects of the other diversification strategies, a one-unit increase in conglomerate diversification was associated with a 0.179-unit increase in sustainable performance ($\beta = 0.179$, $t = 3.903$, $p < 0.001$). The positive and statistically significant regression coefficient indicates that conglomerate diversification makes a significant unique contribution to sustainable performance, although its contribution is relatively smaller than that of horizontal and vertical diversification. Therefore, the null hypothesis (H03) was rejected, and it was concluded that conglomerate diversification has a statistically significant positive influence on the sustainable performance of private universities in Kenya.

H04: *Geographical diversification does not significantly influence sustainable performance of private universities in Kenya.*

The results presented in Table 4.25 indicate that there was a positive and statistically significant correlation between geographical diversification and sustainable performance ($r = 0.419$, $p < 0.001$), suggesting that higher levels of geographical diversification are associated with improved sustainable performance among private universities in Kenya. The simple linear regression analysis further demonstrated that geographical diversification had a statistically significant influence on sustainable performance, explaining 17.5% of the variation in sustainable performance ($R^2 = 0.175$). This finding indicates that geographical diversification is a significant predictor of sustainable performance.

The multiple linear regression results presented in Table 4.26 further showed that, after controlling for the effects of the other diversification strategies, a one-unit increase in geographical diversification was associated with a 0.177-unit increase in sustainable performance ($\beta = 0.177$, $t = 3.538$, $p < 0.001$). The positive and statistically significant regression coefficient indicates that geographical diversification makes a significant unique contribution to sustainable performance, although its influence is relatively smaller than that of horizontal and vertical diversification. Therefore, the null hypothesis (H04) was rejected, and it was concluded that geographical diversification has a statistically significant positive influence on the sustainable performance of private universities in Kenya.

H05: *Core competencies do not significantly moderate the relationship between diversification strategy and sustainable performance of private universities in Kenya.*

The Pearson correlation analysis indicated a positive and statistically significant relationship between core competencies and sustainable performance, suggesting that universities with stronger core competencies generally exhibited higher levels of sustainable performance. However, the moderating effect of core competencies was evaluated using hierarchical multiple regression analysis rather than correlation analysis.

The hierarchical regression results revealed that the inclusion of the interaction terms between diversification strategies and core competencies increased the model's explanatory power by 3.9%, raising the coefficient of determination to $R^2 = 0.701$. The change in the model was statistically significant ($\Delta R^2 = 0.039$, $p = 0.004$), indicating that the interaction between diversification strategies and core competencies explained additional variation in sustainable performance beyond the direct effects of the independent variables.

The interaction term between vertical diversification and core competencies was positive and statistically significant ($\beta = 0.117$, $p = 0.014$), indicating that higher levels of core competencies strengthened the positive influence of vertical diversification on sustainable performance. Similarly, the interaction between conglomerate diversification and core competencies was also positive and statistically significant (β

= 0.152, $p = 0.001$), suggesting that stronger core competencies enhanced the positive effect of conglomerate diversification on sustainable performance.

However, the interaction effects involving horizontal diversification and geographical diversification were not statistically significant, indicating that core competencies did not significantly moderate these relationships. Therefore, the findings demonstrate that core competencies exerted a partial moderating effect on the relationship between diversification strategies and sustainable performance. Accordingly, the null hypothesis (H05) was partially rejected, and it was concluded that core competencies significantly moderated the relationships between vertical diversification and conglomerate diversification and sustainable performance, but did not significantly moderate the relationships involving horizontal diversification and geographical diversification.

Table 4.24: Results of the Hypothesis Tests

S/No	Hypothesis	Decision
H ₀₁	Horizontal diversification has no significant influence on sustainable performance of private universities in Kenya.	Reject H ₀₁
H ₀₂	Vertical diversification has no significant influence on sustainable performance of private universities in Kenya.	Reject H ₀₂
H ₀₃	Conglomerate diversification has no significant influence on sustainable performance of private universities in Kenya.	Reject H ₀₃
H ₀₄	Geographical diversification has no significant influence on sustainable performance of private universities in Kenya.	Reject H ₀₄
H ₀₅	Core competencies do not moderate the relationship between diversification strategies and sustainable performance of private universities in Kenya.	Reject H ₀₅

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, conclusions, recommendations and contributions of the study to theory, methodology, policy and practice of strategic management made by the researcher based on the findings. Lastly, this chapter ends with suggestions for further study areas to help expand or make a review of the current research study.

5.2 Summary

The study aimed at investigating the influence of diversification strategies on sustainable performance of private universities in Kenya. The independent variables for the study were: horizontal diversification, vertical diversification, conglomerate diversification and geographical diversification. The study also investigated the moderating effect of core competencies on the relationship between diversification strategies and sustainable performance of private universities in Kenya.

From the study general objective, the overall finding of the study was that diversification strategies (Horizontal, vertical, conglomerate and geographical diversification) has significant effect on sustainable performance of private universities in Kenya. The four diversification strategies explained 65.3% of variation in sustainable performance of chartered private universities in Kenya. The findings as per the specific objective are as follows

5.2.1 Horizontal Diversification and Sustainable Performance

The first objective of the study was to assess the influence of horizontal diversification on the sustainable performance of private universities in Kenya. The findings established that private universities have embraced horizontal diversification to a considerable extent through regular academic programme reviews, the introduction of specialized and professional courses, and the expansion of undergraduate and

postgraduate programme offerings. However, diversification through alternative modes of programme delivery, particularly online learning, was found to be implemented to a relatively moderate extent, suggesting that there is still room for further expansion in this area.

The study further established that horizontal diversification has a positive and statistically significant influence on the sustainable performance of private universities in Kenya. Universities that continuously diversify their academic programmes and related educational services are more likely to improve their competitiveness, attract and retain students, enhance institutional reputation, and strengthen their long-term sustainability. The findings also demonstrate that horizontal diversification remains a significant predictor of sustainable performance even after accounting for the influence of the other diversification strategies. The study therefore concludes that expanding related academic programmes and educational services is an effective strategic approach for enhancing the sustainable performance of private universities in Kenya.

5.2.2 Vertical Diversification and Sustainable Performance

The second objective of the study was to establish the influence of vertical diversification on the sustainable performance of private universities in Kenya. The findings indicate that private universities have adopted vertical diversification to a considerable extent through upgrading existing academic programmes, diversifying programme offerings to attract and retain students, aligning academic programmes with industry needs, and integrating new programmes with existing ones. These initiatives demonstrate the universities' efforts to strengthen their academic value chains, improve programme relevance, and enhance their competitiveness in the increasingly dynamic higher education sector. However, increasing the number of academic programmes as a strategy for expanding student enrolment was found to be implemented to a relatively moderate extent, suggesting that universities remain cautious in expanding programme portfolios without considering quality, resource availability, and market demand.

The study further established that vertical diversification has a positive and statistically significant influence on the sustainable performance of private universities in Kenya.

The findings suggest that universities that continuously strengthen and integrate their academic programmes are better positioned to improve operational efficiency, enhance student satisfaction, increase enrolment, and achieve long-term institutional sustainability. Moreover, vertical diversification remained the strongest predictor of sustainable performance even after controlling for the effects of the other diversification strategies, highlighting its strategic importance in improving university performance. The study therefore concludes that strengthening academic integration, aligning programmes with industry needs, and continuously enhancing existing programmes are critical strategic initiatives for improving the sustainable performance of private universities in Kenya.

5.2.3 Conglomerate Diversification and Sustainable Performance

The third objective of the study was to examine the influence of conglomerate diversification on the sustainable performance of private universities in Kenya. The findings indicate that private universities have adopted conglomerate diversification to a considerable extent by expanding beyond their traditional academic functions into consultancy services, human resource development, research and innovation, and the commercial utilization of university facilities. These initiatives demonstrate that universities are increasingly leveraging their institutional resources and expertise to generate additional revenue streams, strengthen stakeholder engagement, and enhance institutional sustainability. However, the formation of strategic partnerships with small, medium-sized, and corporate firms was found to be implemented to a relatively moderate extent, suggesting that there is still potential for universities to strengthen collaborations with industry and the private sector.

The study further established that conglomerate diversification has a positive and statistically significant influence on the sustainable performance of private universities in Kenya. The findings suggest that universities that diversify into complementary non-academic activities are better positioned to strengthen their financial sustainability, enhance institutional resilience, and reduce dependence on tuition fees as their primary source of revenue. Although the contribution of conglomerate diversification to sustainable performance was relatively smaller than that of horizontal and vertical diversification, it remained a significant predictor of sustainable

performance after controlling for the effects of the other diversification strategies. The study therefore concludes that expanding consultancy services, strengthening research and innovation, commercializing institutional resources, and developing strategic partnerships are important diversification initiatives that can enhance the long-term sustainable performance of private universities in Kenya.

5.2.4 Geographical Diversification and Sustainable Performance

The fourth objective of the study was to establish the influence of geographical diversification on the sustainable performance of private universities in Kenya. The findings indicate that private universities have embraced geographical diversification to a considerable extent through the establishment of constituent colleges and satellite campuses within and outside their primary counties of operation, as well as the adoption of Open, Distance and e-Learning (ODEL) and flexible virtual learning programmes. These initiatives reflect the universities' commitment to expanding access to higher education, reaching new student markets, and improving educational accessibility for learners across different geographical locations. The findings further suggest that geographical diversification has enabled universities to broaden their institutional presence while responding to the changing educational needs of students through flexible modes of programme delivery.

The study further established that geographical diversification has a positive and statistically significant influence on the sustainable performance of private universities in Kenya. The findings suggest that expanding institutional presence through physical campuses and digital learning platforms enables universities to increase student enrolment, strengthen institutional visibility, and enhance long-term sustainability. Although geographical diversification made the smallest unique contribution to sustainable performance compared to the other diversification strategies after controlling for their effects, it remained a significant predictor of sustainable performance. This finding implies that geographical expansion, when strategically planned and supported by adequate institutional resources, complements other diversification strategies in enhancing the sustainable performance of private universities. The study therefore concludes that continued investment in strategic campus expansion, Open, Distance and e-Learning (ODEL), and flexible virtual

learning programmes can strengthen the long-term competitiveness and sustainability of private universities in Kenya.

5.2.5 Moderating Effect of Core Competencies

The fifth objective of the study was to determine the moderating influence of core competencies on the relationship between diversification strategies and the sustainable performance of private universities in Kenya. The findings indicate that core competencies play an important role in enhancing the effectiveness of diversification strategies by strengthening the ability of universities to leverage their institutional resources, capabilities, and expertise in achieving sustainable performance. Strong core competencies, reflected in staff competence, programme quality, and technology integration, enable universities to implement diversification strategies more effectively and respond to the dynamic needs of the higher education sector.

The study further established that the moderating effect of core competencies was partial rather than universal. Specifically, core competencies significantly strengthened the positive influence of vertical diversification and conglomerate diversification on sustainable performance. This suggests that universities with well-developed institutional capabilities are better able to maximise the benefits of programme integration, research and innovation, consultancy services, and other diversified activities. Strong core competencies therefore enhance the capacity of universities to transform diversification initiatives into improved institutional performance and long-term sustainability.

However, the moderating effect of core competencies was not statistically significant in the relationships involving horizontal diversification and geographical diversification. This finding suggests that while these diversification strategies contribute directly to sustainable performance, their effectiveness is less dependent on existing institutional competencies and may instead be influenced by other organisational or environmental factors. The study therefore concludes that core competencies selectively strengthen the relationship between diversification strategies and sustainable performance. Consequently, universities should continuously invest in developing staff capabilities, improving programme quality, and strengthening

technology integration, as these competencies enhance the effectiveness of strategic diversification initiatives and contribute to long-term institutional sustainability.

5.3 Conclusions

The study concluded that horizontal diversification does significantly influence sustainable performance of private universities in Kenya therefore, the first null hypothesis was rejected. This implied that increase in academic program reviews, specializations and program/services ranges would result to improvement in graduation rates, student enrollment and revenue volume. The universities conducted academic program reviews to improve quality and attract more students and horizontal diversification at the university was done through diversification of mode of delivery such as online programs to increase student enrollment.

The study concluded that vertical diversification does significantly influence sustainable performance of private universities in Kenya hence, the second null hypothesis was rejected. This meant that increase in full integration backward/forward integration and levels of vertical diversification would result to improvement in graduation rates, student enrollment and revenue volume demonstrated by majority of universities upgrading existing programs to attract new students and diversifying academic programs to attract new students and retain old students.

The study concluded that conglomerate diversification significantly influenced sustainable performance of private universities in Kenya therefore, the third null hypothesis was rejected. This implied that increase in consultancy services, private partnerships, research & Development /Innovations would result to improvement in graduation rates, student enrollment and revenue volume. The universities hire out university grounds, halls and other facilities to internal and external partners and the universities offer consultancy services to corporate firms.

The study established that geographical diversification significantly influenced sustainable performance of private universities in Kenya hence, the fourth null hypothesis was rejected. This implied that increase in internal diversification, external diversification and Span of Campuses/colleges would result to improvement in graduation rates, student enrollment and revenue volume. This was illustrated by the

universities having campuses/constituent colleges outside the Main University's County of operation to increase student acquisition; introducing Open Distance Learning to reach out to distant students and attract new students and flexible virtual programs have been established to improve accessibility and increase student retention.

The study concluded that core competencies partially moderate the relationship between diversification strategies and the sustainable performance of private universities in Kenya. Specifically, core competencies significantly strengthened the positive influence of vertical diversification and conglomerate diversification on sustainable performance, indicating that universities with stronger staff competencies, high programme quality, and effective technology integration are better positioned to realize the benefits of these diversification strategies. However, the moderating effect of core competencies was not statistically significant in the relationships between horizontal diversification and sustainable performance, or between geographical diversification and sustainable performance. The study therefore concludes that core competencies selectively enhance the effectiveness of diversification strategies rather than exerting a uniform moderating influence across all diversification strategies. Consequently, the fifth null hypothesis was partially rejected, as the moderating effect was significant only for vertical and conglomerate diversification.

5.4 Recommendations

Based on the findings of this study, several recommendations were proposed to enhance the sustainable performance of private universities in Kenya.

5.4.1 Policy Recommendations

The Commission for University Education (CUE) and university councils should develop policies that facilitate regular curriculum review and approval of market-driven academic programmes. Universities should continuously introduce relevant specializations, professional courses, and flexible learning modes, including online and blended learning, to respond to changing labour market demands and attract diverse categories of learners.

University management should establish policies that strengthen articulation pathways between diploma, undergraduate, postgraduate, and doctoral programmes. Greater collaboration with TVET institutions, secondary schools, professional bodies, and industry should be encouraged to enhance programme relevance, improve graduate employability, and increase student retention.

Private universities should formulate policies that support consultancy services, research commercialization, innovation hubs, and strategic partnerships with government, industry, and development partners. Institutional facilities should be optimally utilized to generate alternative revenue streams and reduce dependence on tuition fees.

5.4.1 Practice Recommendations

University management should strategically establish satellite campuses in areas with demonstrated demand while investing in Open, Distance and e-Learning (ODEL) and virtual learning technologies. Flexible delivery models should be strengthened to improve accessibility, increase enrolment, and support student retention across diverse geographical locations.

Since core competencies were found to selectively strengthen the effectiveness of diversification strategies, universities should prioritize continuous staff development, strengthen quality assurance systems, enhance technology integration, and promote research and innovation. These investments will improve the successful implementation of vertical and conglomerate diversification strategies and contribute to long-term institutional sustainability.

Private universities should implement diversification strategies as complementary rather than isolated initiatives. Integrating horizontal, vertical, conglomerate, and geographical diversification within institutional strategic plans, while strengthening organizational capabilities, will improve student enrolment, financial sustainability, institutional resilience, and overall sustainable performance.

Overall, the study recommends that private universities in Kenya pursue a strategic blend of horizontal, vertical, conglomerate, and geographical diversification, supported by robust investments in core competencies. This integrated approach will not only improve graduation rates, student enrollment, and revenue volumes but also secure long-term institutional sustainability in an increasingly competitive higher education landscape.

5.5 Contribution of Research

This study contributes to strategic management literature by providing empirical evidence on the relationship between diversification strategies, core competencies, and the sustainable performance of private universities in Kenya. While diversification has been examined in different organizational contexts, limited empirical attention has been given to its application within private universities in Kenya. By examining the influence of horizontal, vertical, conglomerate, and geographical diversification simultaneously, and assessing the moderating role of core competencies, the study provides a more comprehensive understanding of how strategic diversification contributes to institutional sustainability. The findings also provide useful evidence for university managers, policymakers, and researchers seeking to improve the competitiveness and long-term sustainability of private universities.

5.5.1 Contribution to New Knowledge

This study contributes new empirical evidence by simultaneously examining the influence of four dimensions of diversification strategy; horizontal, vertical, conglomerate, and geographical diversification on the sustainable performance of private universities in Kenya within a single explanatory model. Previous studies largely examined these strategies independently or in different organizational contexts. The study further contributes to knowledge by demonstrating that core competencies exert a selective rather than universal moderating effect, strengthening only the relationships between vertical diversification, conglomerate diversification, and sustainable performance.

Second, the study extends existing empirical knowledge by demonstrating that core competencies play a selective moderating role in the relationship between diversification strategies and sustainable performance. The findings established that core competencies significantly strengthened the influence of vertical diversification and conglomerate diversification, while no significant moderating effect was observed for horizontal diversification and geographical diversification. This finding provides a more nuanced understanding of the role of organizational capabilities in supporting strategic diversification and highlights that the effectiveness of core competencies depends on the type of diversification strategy being implemented.

Third, the study contributes context-specific evidence from private universities in Kenya, a sector that has received relatively limited attention in studies on diversification strategies and sustainable performance. The findings therefore enrich the existing body of knowledge by providing empirical evidence from the higher education sector in a developing economy and offer a basis for future studies on strategic management within universities and other knowledge-based institutions.

5.5.2 Implications of the Study to Practice

The findings of this study have important implications for the management of private universities and other higher education institutions. The positive influence of horizontal, vertical, conglomerate, and geographical diversification on sustainable performance suggests that university management should view diversification as a strategic approach for enhancing institutional competitiveness, improving student enrolment, strengthening financial sustainability, and increasing organizational resilience.

The study also demonstrates that diversification strategies should not be implemented in isolation. Universities should strengthen their internal capabilities by investing in staff development, improving programme quality, enhancing technology integration, and promoting research and innovation. These core competencies improve the effectiveness of selected diversification strategies, particularly vertical and conglomerate diversification, thereby enabling universities to achieve better long-term performance.

The findings further provide practical guidance to university councils, institutional leaders, and policymakers responsible for higher education. Strategic decisions regarding programme development, institutional partnerships, digital transformation, research commercialization, and geographical expansion should be supported by strong organizational capabilities to maximize their contribution to sustainable institutional performance.

5.5.3 Theoretical Implications

The findings of this study provide empirical support for the application of Institutional Theory, Upper Echelons Theory, and Dynamic Capabilities Theory in explaining the relationship between diversification strategies and sustainable performance within private universities in Kenya. The study demonstrates that strategic diversification contributes to sustainable performance when implemented within supportive institutional environments, guided by strategic leadership, and reinforced by organizational capabilities.

The findings further support the Dynamic Capabilities perspective by demonstrating that organizational capabilities enhance the effectiveness of selected diversification strategies. Specifically, core competencies strengthened the influence of vertical diversification and conglomerate diversification on sustainable performance, suggesting that institutional capabilities play an important role in enabling universities to derive greater value from these strategic initiatives. However, because the moderating effect was not significant for horizontal and geographical diversification, the study also indicates that the influence of organizational capabilities may differ across diversification strategies. Rather than extending or redefining the underlying theories, the study provides additional empirical evidence supporting their application in understanding strategic management within private universities in Kenya.

5.6 Suggestions for Further Research

Although this study achieved its objectives and made significant contributions to knowledge, several areas require further investigation. First, the findings showed that diversification strategies explained 66.2% of the variation in the sustainable performance of private universities in Kenya. This implies that approximately 33.8%

of the variation was attributable to factors not included in the study. Future research should therefore investigate other organizational and environmental variables that may influence sustainable performance, such as strategic leadership, organizational culture, innovation capability, financial resource management, governance practices, stakeholder engagement, and external policy factors. Examining these variables would provide a more comprehensive understanding of the determinants of sustainable performance in higher education institutions.

Second, this study focused exclusively on private universities in Kenya. Consequently, the findings may not be directly generalizable to public universities or other higher education institutions operating under different governance and funding structures. Future studies should therefore undertake comparative research involving public and private universities or universities across different countries within the East African region to establish whether the relationships identified in this study remain consistent across different institutional contexts.

Third, the study established that core competencies partially moderated the relationship between diversification strategies and sustainable performance by strengthening the effects of vertical diversification and conglomerate diversification, while no significant moderating effect was observed for horizontal diversification and geographical diversification. Future studies should examine whether similar moderating effects exist in other sectors or industries. Researchers may also investigate the individual dimensions of core competencies, including staff competencies, programme quality, and technology integration, to determine their independent contributions to organizational performance.

Finally, this study employed a cross-sectional survey design and quantitative methods. Future researchers may adopt longitudinal research designs to examine how diversification strategies influence sustainable performance over time. In addition, mixed-methods or qualitative studies could provide deeper insights into how university managers formulate and implement diversification strategies, the challenges they encounter, and the organizational processes through which diversification contributes to sustainable performance.

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APPENDICES

Appendix I: Letter of Introduction

Dear Sir/Madam

I am a post graduate student pursuing Doctor of Philosophy in Business Administration in -Strategic Management option - at Jomo Kenyatta University of Agriculture and Technology. I am currently conducting research in the area of Strategic Management on the topic: Diversification Strategy and Sustainable performance of Private Universities in Kenya.

The purpose of this letter is to request you to respond to the attached questionnaire. The information you provide will be treated as confidential and will not be relayed to any other person or institution and will be solely used for academic purposes. Thank you in advance for your time.

Agnes MueniMutinda

PhD student

Appendix II: Questionnaire

SECTION A: PERSONAL DETAILS

1. i. Gender: Male ☐ Female ☐
- ii. Age (years) 18-25 ☐ 26-35 ☐ 36-45 ☐ Above 45 ☐
- iii. Years of Service 0-2 ☐ 3-5 ☐ 6-10 ☐ Above 10 ☐
- iv. What is the highest level of education you have attained?
- Bachelors degree ☐ Masters degree ☐
Doctoral degree ☐
- Other (please specify).....
- vi. What is your designation in the university?
- Vice Chancellor ☐ Deputy Vice Chancellor ☐ Registrar ☐ Director ☐
Dean ☐ COD/HOD ☐ Senior Lecturer ☐
Finance managers ☐ Human Resource Managers ☐

Part B: Diversification and Performance of the University

- 1(a) Please indicate with a tick the **extent to which the use of the following Horizontal diversification approaches affect the Performance of the University**. Use the point where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Statements on Horizontal diversification adopted by Private Universities	1	2	3	4	5
The university conducts Academic Program reviews to improve quality and attract more students					
The university offers specialized/professional courses which attracts more students					
The university has introduced new undergraduate academic programs to increase student intake					
The university has introduced postgraduate programs to increase student numbers					
Horizontal diversification at the university is done through diversification of mode of delivery eg. Online programs to increase student enrollment					

2(a) Please indicate with a tick the extent to which the use of the following **Vertical diversification** approaches affect the Performance of the University. Use the point where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Statements on Vertical diversification adopted by Private Universities	1	2	3	4	5
The university has upgraded existing programs to attract new students					
The university has increased the number of academic programs to increase student numbers					
The university has diversified academic programs to attract new students and retain old students					
The university has established academic programs based on industry needs in order to attract more students					
The university has fully integrated old and new study programs which has enhanced student enrollment					

3(a) Please indicate with a tick the extent to which the use of the following **conglomerate diversification** approaches affect the Performance of the University. Use the point where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Statements on conglomerate diversification adopted by Private Universities	1	2	3	4	5
The university offers consultancy services to corporate firms					
The university offers human resource development services to corporate firms					
The university has formed private partnerships with small/medium scale and corporate firms					
The university has an established a research and development unit					
The university hires out university grounds, halls and other facilities to internal and external partners					

4(a) Please indicate with a tick the extent to which the use of the following **Geographical diversification** approaches affects the Performance of the University. Use the point where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Statements on Geographical diversification adopted by Private Universities	1	2	3	4	5
The university has established campuses/constituent colleges within the Main Universitys County of operation					
The university has campuses/constituent colleges outside the Main Universitys County of operation to increase student acquisition					

The university has campuses/constituent colleges outside the Main Universitys Country of operation					
The university has introduced Open Distance Learning (ODEL) to reach out to distant students and attract new students					
Flexible virtual programs have been established to improve accessibility and increase student retention					

5(a) Please indicate with a tick the extent to which the following **Core competencies** affect the Performance of the University. Use the point where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Statements on Private Universities Core competencies	1	2	3	4	5
The university sponsors Academic Staff training to increase their skills					
The university sponsors professional training for Administrative/technical staff					
The university reviews its programs from time to time to improve quality and attract new students					
There is consistent use of modern technologies in reaching out to new markets to increase enrollment in the university.					
The University has unique innovative programs that promote student attraction					

SECTION F: SUSTAINABLE PERFORMANCE OF PRIVATE UNIVERSITIES

Please indicate with a tick the extent to which each of the following performance indicators has contributed to sustainable performance of the university. Use the point scale where: 1-Very little extent, 2-little extent, 3-moderate extent, 4-Great extent and 5-Very great extent

Measurements	1	2	3	4	5
The university has high student enrollment					
Unique skills offered by the university have increased the employability of our students					
The university has a high graduation rate of students.					
High number of student enrollment has increased university revenue from student fees					
Unique programs offered by the university have attracted new students					
The university offers unique competitive programs which has increases student enrollment					

Appendix III: List of Private Universities in Kenya

LIST OF PRIVATE CHARTER ED UNIVERSITIES			
	Name of university	Year of establishment	Year of award of charter
1.	University of Eastern Africa, Baraton	1989	1991
2.	Catholic University of Eastern Africa	1989	1992
3.	Daystar University	1989	1994
4.	Scott Christian University	1989	1997
5.	United States International University	1989	1999
6.	Africa Nazarene University	1993	2002
7.	Kenya Methodist University	1997	2006
8.	St. Pauls University	1989	2007
9.	Pan Africa Christian University	1989	2008
10.	Kabarak University	2002	2008
11.	Strathmore University	2002	2008
12.	Africa International University	1989	2011
13.	Kenya Highlands Evangelical University	1989	2011
14.	Mount Kenya University	2008	2011
15.	Great Lakes University of Kisumu	2005	2012
16.	Adventist University	2005	2013
17.	KCA University	2007	2013
18.	KAG - EAST University	1989	2016
19.	UMMA University	2013	2019
20.	Aga Khan University	2002	2021
21.	Presbyterian University of East Africa	2007	2020
	TOTAL 21		

TOTALNUMBER OF PRIVATE CHARTERED UNIVERSITIES 21

SOURCE: CUE 2021

Appendix IV: Introduction Letter



**JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY**

OFFICE OF THE DIRECTOR, GRADUATE SCHOOL

P.O. BOX 62000, 00200 • NAIROBI • KENYA • TEL: (067)-5870000-4 Email: director@bps.jkuat.ac.ke

REF: BPS/HDB411-C002-1714/2017

February 14th, 2023

The Director, NACOSTI
Nairobi

Dear Sir/Madam

**RE: INTRODUCTION LETTER FOR AGNES MUENI MUTINDA - Ph.D. STUDENT
REGISTRATION NO. HDB411-C002-1714/2017**

The above named is a bonafide student in this university undertaking a Ph.D. programme in Business Administration in the School of Business and Entrepreneurship.

She completed coursework and her approved proposal is entitled: "Diversification Strategy and Sustainable Organizational Performance of Private Universities in Kenya". Currently she is at the stage of data collection. Any assistance accorded to her is highly appreciated.

**PROF. LOSENGE TUROOP
DIRECTOR, GRADUATE SCHOOL**



Appendix V: NACOSTI Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
RefNo: 379728	Date of Issue: 24/March/2023
RESEARCH LICENSE	
	
This is to Certify that Ms.. Agnes Mueni Mutinda of Jomo Kenyatta University of Agriculture and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Diversification Strategy and Sustainable organisational performance of private universities in Kenya for the period ending : 24/March/2024.	
License No: NACOSTI/P/23/24373	
379728	
Applicant Identification Number	Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION	
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See overleaf for conditions	

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
 - i. Endanger national security
 - ii. Adversely affect the lives of Kenyans
 - iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
 - iv. Result in exploitation of intellectual property rights of communities in Kenya
 - v. Adversely affect the environment
 - vi. Adversely affect the rights of communities
 - vii. Endanger public safety and national cohesion
 - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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