

**OPERATIONAL CAPABILITIES, SPONSORSHIP AND
PERFORMANCE OF PRIVATE CHARTERED UNIVERSITIES IN KENYA**

Mary Nthenya Mbithi

SEPTEMBER 2024

DECLARATION

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

Signature..... Date.....

Mary Nthenya Mbithi

BUS-4-1012-3/2020

This thesis has been submitted for examination with our approval as university supervisors.

SignatureDate

Prof. Peter Kihara (PhD)

KeMU Business School

Signature Date:

Dr. Clemence Niyikiza Omanwa (PhD)

KeMU Business School

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DEDICATION

This thesis is first and foremost dedicated to my mom and dad for their belief in education and constant encouragement during this period. For their dedication to ensure we all have an education I am who I am because of them. To my siblings Mwende and Jason you people are always my ride or die. To my family Frank and my children Ndanu and Wendo, this thesis should show you that the sky is the limit. Lastly to my late grandmother Mary Muthenyi that despite the fact that she old had basic education she was the biggest champion of education!

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ABSTRACT

The performance of any institution of higher learning is of great concern to various stakeholders since universities have been seen as drivers of economic development. However, in the recent past private universities have witnessed decline in performance due to rapid changes in the environment. This thus requires that universities need to rethink their operations and leverage on their operational capabilities to boost their performance. The major goal of this undertaking was to probe the influence of operational capabilities, sponsorship and private chartered universities' performance in Kenya. Particularly, the study established the extent to which information technology use, managerial capabilities, knowledge management practices, operational processes and sponsorship influence performance of private chartered universities in Kenya. This study was supported by five theories namely: resource based view theory, dynamic capabilities postulation, knowledge based hypothesis, stewardship theory and the balanced score card. It used a mixed methods research approach, positivist philosophy and cross sectional survey design. The research's population of interest was all the twenty-five private chartered universities in Kenya. Taro Yamane's formulae was adopted to arrive at a sample size of 230 participants. Data was obtained by means of a questionnaire which was evaluated for both content and construct validity and an interview guide. In addition, to determine the questionnaire's reliability, piloting was done at 95% confidence level. Appropriate diagnostic tests were performed prior the data analysis. Descriptive statistics were derived for the quantitative data while inferential statistics was conducted to derive the association between dependent and exogenous variables. Qualitative data analysis was facilitated via content analysis and the study thematic areas. The relationship linking the research variables was tested via logistic regression analysis. Pursuant to the research results, there was a strong, positive link between information technology use, managerial capabilities, knowledge management practices, operational processes, sponsorship and performance of private chartered universities in Kenya. These factors jointly account for 62.8% of the dissimilarity in the performance of private universities. The research findings depicted that despite universities adopting digital learning there was need to upgrade their information technology infrastructure and equipment. Additionally, majority of the universities had capable who inspired members of the university towards change but there was external interference in decision making hence deacons took long to be made. The findings also revealed that universities needed to audit their tacit and explicit knowledge to ensure that existing resources were deployed effectively. The study noted that universities needed to develop guidelines and standardization of processes within the universities. The study also noted that despite sponsors providing financial resources they interfered with the operations of the universities. The study recommended investing in state of the art information technology infrastructure and equipment, having clear policies to deter external parties from interfering with decision making in the university, strengthening policies in knowledge sharing and storage within the outside the universities, increasing training on research writing and increase funding to research and having a framework to allow universities operate independent from the sponsors. Further studies can be conducted in private universities that are not chartered and also public universities to ferret out the impression of the study factors. Additionally, research on

withdrawal of government sponsorship to private universities and the new proposed universities funding model and how these would influence the performance of private chartered universities in Kenya.

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LIST OF ACRONYMS AND ABBREVIATION

- BRICS – Brazil, Russia, India, China and South Africa
- CEO – Chief Executive Officer
- COVID 19 – Corona Virus Disease 2019
- CUE- Commission for University Education
- DC- Dynamic Capability
- HE – Higher Education
- HEI- Higher Education Institutions
- HIE – Higher Institutions of Education
- ICT- Information Communication Technology
- IT- Information Technology
- IT-Information Technology
- KBV- Knowledge Based View
- KeMU – Kenya Methodist University
- KM- Knowledge Management
- KMP- Knowledge Management Practices
- KS- Knowledge Sharing
- NACOSTI – National Commission for Science Technology and Innovation
- OL- Organizational Learning
- OP-Organizational Performance
- PHEI- Private Higher Education Institutions
- R&D- Research and Development

RBV- Resource based view

ROA – Return on Investment

SCA – Sustainable Competitive Advantage

SCP -Supply Chain Performance

SCPIC - Supply Chain Process Integration Capabilities

SME's- Small and Medium Enterprises

SPSS- Statistical Package for Social Sciences

TQ- Tobin's Q

TQM – Total Quality Management

VRIN- Valuable, Rare, Non Imitable, Non-substitutable

US- United States

CHAPTER ONE

INTRODUCTION

1.1 Introduction and Background of the Study

Performance, in relation to learning institutions, points to the consequence of varied educational-affiliated procedures associated with daily operations of those institutions (Hussein et al., 2016). Owing to the need for competitive quality education, pointers of organizational performance in learning establishments take different forms such as engagement of the community, school reputation, curriculum planning, student quality, and results concerning research (Hussein, 2016). In the quest to offer and deliver topnotch services, universities encounter a myriad of challenges, the main ones being relevance of programs, equity of access to and during the progression of studies, maintaining quality teaching, staff development, specialized training, research and outreach services, as well as financial concerns.

Notwithstanding the pre-eminent flexibility, autonomy, and competitiveness inherent in private universities, these universities in Kenya faced difficulties emanating from politically instigated staff promotions and leadership dynamics, potentially affecting their performance and standing in the competitive sector of education (Kathula, 2024). The Covid-19 pandemic disrupted higher education in many ways. Teaching, learning, group, practical work, and assessments moved online and took on new modes. Presently, private universities are facing adversity occasioned by diminished student enrolment, financial

crisis, general management crisis as well as poor academic programs (Muthusi et al., 2024).

Higher education sector universally has been restructured by inauspicious economic conditions, globalization, fierce rivalry within the industry, and the dynamic needs of the contemporary customer. Private universities find themselves with no choice but to reappraise their stratagems (Mutinda et al., 2024)

Operational capability is the ability of the firm to carry out functional duties via resources that are deliberately chosen. Such resources are vital in renewing the competitiveness of a firm or in sustaining its current income streams and they convey the firm's potential in allocating resources with the goal of attaining an objective (Saunila, 2020). It also appertains to a firm's preparedness to affiliate its resources, skills and technologies with its mission, vision and customer focus, as well as the aptness to carry through these processes in a manner that is efficient. They endeavor an organization to perform its operations on a ceaseless basis with an invariable technique and scale that underwrites domineering products and services for a specific clientele. To improve performance and enhance efficiency of a company, operational capability further incorporates a chain of composite activities that the company must undertake (Zulkifli et al., 2022).

Takahashi (2005) posits that operational capabilities entails skills, resources and information, all of which are vital in operationalizing, maintaining and repairing technology and business procedures for effective running of affairs of a firm. The top management is an embodiment of an organization's executive, who constitute the inner

cadre or circle of personnel, who collectively device, articulate, and enforce the strategic and tactical moves of the organization as the management of a contemporary university, in association with the current global trends and changes that have affected all areas of social life (Avetisyan et al., 2023).

Capabilities denote to a firm's capacity to amalgamate all wealth for stellar performance (Pearce, 2012). Performance shortfalls accrue to firms that lack the capacity to productively and creatively bundle control and leverage their resources for value creation for their customers and stakeholders. Capabilities bring about sustainable and viable competitive advantage together with long term performance due to the fact that present-day array of resources is continually assured with the emergence, collision, splitting, evolution and death of markets. Dissimilarities in the performance of many organizations may be elucidated through the divergence in the manner in which organizations put together their resources.

With Universities playing the most substantial function in the data technology age and societies are those that were initially established in higher education. Since these organizations are in charge of producing and disseminating information, the foundation of the information society (Ates, 2019). ICT has an impact on institutions, not to mention academic institutions of higher learning. If we consider the function and significance of Information Communication and technology in the current R&D and educational, where the majority of scholars and dons in these organizations were outsiders until recently, we can clearly understand the necessity of ICT for these organizations. Kakepoto et al. (2021) revealed that poor computer literacy, electricity load shedding, slow internet speed,

expensive internet packages, and lack of interaction between students and lecturers are barriers towards online learning and assessments.

Managerial Capabilities will usually entails the harnessing, collection and utilization of all other skills, knowledge and resources by the management of the various organizations, thus depicting and showing the capacity and capability of the management team to run, coordinate and operate their organizations based on pure rational and logical decision making processes. The feel and impact of management capability and capabilities on the business atmosphere is very clear and distinct since it seeks to provides various clear channels for multi and bilateral communication, that encourages employee involvement and participation, and allows for comments, complements, feedback and criticism (Gatama & Kavindah, 2022).

Sponsorship affects firm performance in a divergent manner. On the other hand, structure of ownership has a pivotal function in establishing eventual success of a firm. Ownership structure of the firm consequently becomes pivotal in measuring its fair valuation in the market (Haija & Alrabba, 2017). Increasing human resource capacity, which is needed for the purpose of economic development and growth of countries, is anchored on higher education (Jalaliyoon & Taherdoost, 2012). However, the higher education sector, has been facing aggressive competition with regard to education globalization. As a result, Hinton (2021) noted that the competitive arena has occasioned new frameworks that supplement strategies in management or consolidation of vision, mission and goals as crucial components informing the focus of an organization. According to Marjanova et al. (2014), vision, mission and objectives determine strategic intent, which in turn becomes

crucial in organizational resource allocation, shaping direction and attaining increased performance. Meanwhile, organizational sponsorship arbitrates the linkage between surroundings and emerging organizations by building a resource-endowed setting aimed at raising survival rates for such emerging organizations (Amezcuca et al., 2013). The same was similarly echoed by Abdahir et al. (2021) who concluded that survival rates among new organizations can potentially rise or reduce on account of sponsorship. To meet financial obligations in the midst of low enrollment, university leaders have no choice but to replenish cash. It is imperative that universities' management comprise strong leaders who have financial competency since gearing and cash flow are recurrent challenges faced by institutions of higher learning (Gelter & Puaschunder, 2021).

Computers, laptops, internet connectivity and usage for learning, knowledge gain and education has expanded vividly (Tynan et al., 2015). Consequently, it has become easier to create online courses. Online learning, which is also known as e-learning, digital learning, web-based studying or computer-based schooling, is a form of teaching and learning that is conducted and delivered over and by using online means. As this form of study undertakes to restructure, transform and change the design and form of the overall schooling journey, the shifting to online learning and instruction during the commencement of the Covid-19 pandemic brought about a challenge to private chartered universities to beef up their information technology infrastructures in order to boost performance. The majority of educators customarily taught via in-person or face to face teaching, and having inadequate ICT skills heightened the dynamic un-certainties on matters employment status and security. Usage of visual materials and recorded audio in

universities led to the distress about a potential curtailment in the supply for lecturers. Moreover, tailoring of adult and mature scholars to information technology uncertainties and adjustments gave rise to unique set of difficulties, since proclivities have a tendency of evolving with age, particularly under circumstances and the background of rapid and unpredictable technological furtherance (Choi & Park, 2022).

Universities remain the epicenter of innovations and knowledge generation. They, however, face an environment that is characterized by complexities and dynamism thereby calling for rudimentary changes in their management so as to conform to current trends (Mwangi & Waithaka, 2018). In Kenya, universities have come under criticism by various stakeholders including parents, the public, opinion leaders as well as the press, for a myriad of reasons. These criticisms, as noted by Munene (2019) include failure by the universities to attain their aims with regard to bringing forth graduates that are well equipped for the purpose of fast tracking national development agenda.

Kirugumi et al. (2021) observed that universities are increasingly being interrogated on the basis of their ability to contend with the dynamic changes happening in the societal, technical and commercial arena with researchers emphasizing the need to understand micro-environment abilities as a powerful factor responsible for successful performance. Uncertainties interrupts plans and courses actions; and this has become a major source of concern for organizations and other decision makers (Ebegbetale & Okon, 2022). Hartini and Ramadhani (2022) posit that institutions of higher learning are presently dealing with a constantly changing environment when looked at from an academic angle and the quality standards that they must attain as a prerequisite for efficient management. Additionally, a

good number of the institutions for higher learning are lacking in terms of adequate strategic solutions to emerging situations.

Nevertheless, Kenyan universities are rapidly changing and they are steadily becoming more competitive and therefore they must incorporate blueprints that allow them to address matters in their macro-environment decisively. Globalization trends and market economies depict fierce competition that has led to business entities adopting dynamic models and exploring new horizons that will enhance their creativity and ability to assimilate changes for purposes of thriving, growth and development (Nguyen, 2015). Performance plays a crucial role in as far as activities of any firm are concerned (Shutibhinyo & Wongkaew, 2018). Shutibhinyo and Wongkaew (2018) notes that in a dynamic universal economy, organizations have no choice but to come up with unprecedented expertise to enable them remain operational amidst diminishing competences and other aged benefits as a result of environmental readjustments.

In years gone by, privately owned universities had a ready market comprising of students who made the cut to join the university but were however ineligible on the premise of the cutoff point determined on yearly basis by the government pegged upon the bed capacity at hand in public universities and due to this, private universities had somewhat minimal competition for qualified candidates (Kirui, 2019). An increasing call for high level learning and the resulting pressure on public universities to deal with this call has occasioned a rise in establishment of private universities in Kenya. Several other components responsible for this exponential establishment of private universities have been advanced, among them being insubstantial opportunities in state affiliated

universities and new policies that encourage their establishment. For private Universities, fees are charged strictly following market forces based on full cost recovery (Kirui, 2019).

Institutions of higher learning need to respond to address changing environments as well as the necessary robustness that is crucial for purposes of remaining viable amidst turbulent surroundings. Providing quality and affordable education is still a governments' responsibility. And just like any other business, the business environment in the institutions of higher learning is characterized by stiff competition triggered by changes in both the micro and macro environment. Universities in the ever changing environment must be willing to change. Universities need to be flexible, quick, and on the lookout for opportunities created by the changing environment (Aidi, 2020).

Capabilities refer to complicated practices responsible for efficiency with which a firm converts inputs into outputs. Operational capabilities emanating from infrastructural and structural choices made by firms often call for time to realize any benefits. Such capabilities eventually get engrained in processes, turn into daily procedures and become competencies that are hard to duplicate thereby outsmarting other organizations (Amoako-Gyampah et al., 2020)

Adrian et al. (2020) posit that besides bringing value to a business, operational capabilities also bring value to the customers in addition to direction, integration and unity for the resources and operational practices thereof. They also create a conducive environment for the business to conduct its key operating activities and they are subdivided into three main categories; managerial, technical / technological and marketing capability. Technical (also

known as technological) capability revolved around operational outlook of the firm. It makes the firm have more efficiency with regard to enhancing quality in executing business processes as well as lowering errors. Marketing capability encompasses procedures that an organization utilizes in selecting its planned value propositions for its intended market and deploying resources to avail the aforementioned propositions. On the other hand, managerial capability entails the managers' capability to oversee the organization's performance as well as its activities. (Khattak & Hassan (2019)

.Operational capabilities are recommended for the purposes of providing integration, unity, operational practices and direction to resources as well as availing explicit elements (resources, practices) and tacit elements (leadership, skills, know-how) to deal with unforeseen scenarios and challenges (Saunila, 2020).

It is imperative to enhance higher education dramatically so as to be at par with global academic trends, and, at the same time, set higher standards for all students (Ahmad & Ahmed (2023). On account of the dynamic and competitive landscape, privately owned universities encounter a myriad of difficulties. They include maintaining a favorable outlook to an adequate number of students while safeguarding their financial security, and putting in place definitive income sources.

1.1.1 Global perspective

Globally, universities have been regarded as moral and cultural indicators but currently they are heavily tasked with social and economic functions (Benajiru, 2017). As a result of the ever changing environment, universities experience enormous transformation

procedures. Based on this, Goddard (2017) notes that in the adaptation process, these organizations mainly draw their attention to their traditional role of teaching, learning and research.

Worldwide, universities have faced considerable modification since the initial years of the ultimate decade of the 20th century (Broucker & De Wit 2015; Chua et al., 2018). In Australia, for instance, the university sector is driven by growth, improved productivity and efficiency (Vesty et al., 2018). Indeed, the country has witnessed the largest cut on government funding within the OECD countries (Sharrock, 2012). The reduction in government funding fell to almost a fifth of some universities recurrent budget currently from full funding. The Australian higher education has had to deal with intense competition on for their students, staff and research funds due to the government changes implemented in higher education where university funding has been refocused to private from public financing. Bobe and Kober (2020) posit that Australian Universities need to make competitive resources generate operational capabilities.

A recent and latest United States of America Census report indicated that after a duration and period of continuous sustained growth, for both graduate and undergraduate study completion rates dwindled by five Percent. The condition of public tertiary academic establishments coupled with the preeminence of U.S. universities is still a hot topic of discussion and debate among students, educators, workers, policy makers as well as other stakeholders, peculiarly given the existing challenging economic conditions, scarce resources and soaring competition (Guzman & Kollar, 2023). The difficulties confronting U.S. higher education industry includes but not limited ot structural challenges with regard

to diminishing government funding, declining and reduced support for research, elevated and increased competition from the private universities, and a growing concern with reference to the intention, worth or the value of a university education. Therefore, these difficulties assign demand on components at the institutional level and may interfere with the performance and operation affairs of even the most outstanding universities.

Baum et al. (2013) stipulate that America's higher level education space is changing and that a sustained stake in effective higher level education is vital for the future of the country. In accordance with Lombardi (2019) the American higher education sector has gone through expansion due to the development of public community colleges, diversity in student population and the rise of for profit colleges with major of high school graduates pursuing some form of higher education. American Universities contribute a third of global journal publications with the highest percentage credited to Harvard and Yale Universities (Carton et al., 2018).

Emergence and growth of markets such as BRICS and nations in Africa has occasioned a surge in university student enrollment (Carton et al., 2018). Projections suggest that enrollment globally will increase to almost 200 million students with 55 percent of this being in India and China. The enactment of the Law of Guidelines and Bases (1996) in Brazil, from an educational perspective, brought about a conducive environment that would favour the increase in institutions working within Brazil's post-secondary education sector. The education sector is gradually becoming complex and dynamic. Competition within universities is also rising and therefore universities must use their capabilities to remain in the market. Takahashi et al. (2018). Majority of the institutions

of learning had to come up with new modes of education and this necessitated a paradigm shift of existing strategies and implementing new ones (Fenech et al., 2020). Menon and Suresh (2020) stipulate that adopting new environmental dynamics in higher education institutions requires a change in the skill sets of the workforce, and therefore practices and processes that reinforce and develop new knowledge and capabilities in the workforce have become imperative for the HEIs to achieve their objectives. In a global education environment, competitiveness plays a significant role in assuring relevance and existence of universities. As a consequence, universities are mandated to recognize and put their money into capabilities and strategies that guarantee them competitive advantage.

Abdahir et al. (2021) indicate that Malaysian institutions of higher education, which were conventionally seen as society's strong institutions, were facing difficulties due to the shift in expectations by stakeholders. They posit that due to the challenges and opportunities experienced, Universities need to be able to enhance their capabilities in order to effectively survive and improve performance.

Tertiary sector of education in Malaysia has grown from simply being a provider of higher education to an exporter (Chin, 2019). This indicates the government's decisiveness in coming up with a sector that is a hub while simultaneously aligning the strategies, policies and actions to dealing with social and economic requirements of the citizens (Akter et al., 2022). Malaysian private higher learning establishments are categorized into these classes: colleges, university colleges and universities (Ghasemy et al., 2018). Education has been seen to become a booming industry due to the growing numbers of private universities, university colleges and colleges. In addition, Shariffuddin et al. (2017) state there are

many macro and micro determinants responsible for the transformation of HEIs in Malaysia. Internationalization, globalization and world-class rankings form part of the set of macro determinants while micro ones are made up of changes in the government policy in mid 1980s such as privatization and corporatization policies. These determinants have stimulated significant shifts from the norm in Malaysian private HEIs.

1.1.2 Regional Perspective

Regionally, Universities have the reputation of being the engines and drivers of economic development devoted to the developing and fostering a qualified and skillful workforce. Universities will offer teaching, undertake to carry out research for advancement of knowledge and fostering creativity in addition to developing innovation. Public universities continue to prominent players in advocating for civic education, since, in comparison with private universities, they fall within the reach of all and are inexpensive. Universities' falling performance in Zimbabwe, Zambia and Mozambique has turn out to be the order of the day attributable to low research grants, scanty community engagement undertakings and low completion rates. It is concerning that the worsening education system and standards thereof at the public universities in the afore-mentioned countries may not cease if redress and correction of these said factors are not addressed in detail (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2015)

In Nigeria, tertiary education has been developed with the intention of contributing towards national development via noteworthy human resource that is ideal in Nigeria and its labour market. It is also designed to offer inexpensive quality learning opportunities

that are accessible in formal and informal education while addressing the ambitions of all. Given these sky-high aims, the anticipated standards of academic service delivery in tertiary institutions have to be top notch at various unique levels and learning tasks coupled with the manner of assessment thereof align accordingly (Adams, 2023)

Tertiary education in Egypt, as posited by Sheikh et al. (2021), is facing numerous radical changes due to the revolution in education. Due to competition, private universities in Egypt have develop capabilities aimed at creating feasible and viable competitive advantage as well as maintain their current learners and attract new ones. This has led to adoption of new practices of doing business by private universities and focusing on how to enhance their brand image as a unique selling postulation.

1.1.3 Local perspective

In Kenya, one of the thriving industries is the tertiary education service sector. With the accelerated growth and development within this one sector, it is distinguished by substantial and growing student numbers, decreased and declining state funding of the state owned universities, and escalated expectation of the quality of service by the ever ambitious stake holders, inception of competitive and affordable private universities to take care of the surplus demand and the need of university education. Kenya's private universities are founded upon the universities rules of 1989, which entail the creation of universities, accreditation and supervision, standardization procedures alongside the Universities Act of 1985 (CAP 210B). The private universities fall under two categories; fully chartered universities and those with an interim charter awaiting full charter. They

offer both undergraduate and postgraduate programs. As profit making ventures, private universities charge higher fees compared to public ones as informed by prevailing forces of the market consistent with full cost recovery (Kubai et al., 2022).

The Kenya government has made some improvement in universities through University Fund Board, Commission for University Education and Salaries and Remuneration Commission to revitalize and improve remuneration of university staff across the board and their work environment. Nonetheless, many of these institutions still perform below the bar (Commission for University Education [CUE], 2021).

Osumba and Sang (2021) posit that Kenya's higher education has undergone monumental transformation in the last decade. As a consequence, a number of institutions have been established to assist in reinforcing the government's university plan. One such institution is Kenya Universities and Colleges Central Placement Service (KUCCPS), initially referred to as Joint Admissions Board, set up in 2012 to handle the role of placing students in different higher institutions of learning (universities and government tertiary colleges). Another institution that was established is National Commission for Science, Technology and Innovation (NACOSTI) whose mandate is promoting research within universities. These earnest government plans were introduced in the midst of a myriad challenges faced by Kenyan universities, key amongst them being dwindling quality standards and diminishing government funding that is disproportionate to enrollment. World Bank (2019) noted that Kenya, via Vision 2030, aims at attaining standards similar to those of Southeast Asian (newly industrializing) countries like China, Taiwan, Republic of Korea, Singapore and Hong Kong SAR. There are, however, a number of drawbacks affecting

Kenyan universities in recent times which include; dwindling quality of output, stiff competition due to new entrants and maladministration (Mwangi & Waithaka, 2018)

Within the region of Eastern Africa, Kenya is considered as an outstanding educational center. Owing to its educational suitability, it has managed to attract students from various diverse regions of the world and as a result of the nature of competition in the educational universities in Kenya and worldwide, there has a risen a conducive set of circumstances for persistent development of curriculum that complements the requirement of the labor market. By and large, management encompasses setting, conveying, and reinforcing organizational desires in order to steer other intelligently and continuously (Amimo, 2016). The COVID 19 pandemic led to the abrupt and unplanned shut down of all tertiary institutions at the beginning of the month of March of 2020 which resulted to significant decrease and decline in monetary generating activities and initiatives. Majority of public Universities, have for several eons significantly had to be dependent on the revenue emanating from school fees payment by its students, especially the non-government sponsored students, so as to service their financial and non-financial obligations, not to mention operational costs and developmental costs which has been in addition to the capitation that they receive. However, after the onset of the outbreak of the pandemic, most of the universities experienced a major and substantial reduction in their revenues arising from internal sources. Therefore, Universities ought to start putting up calculated measures to boost and to enhance income alongside revenue generation. Some of the initiatives may include; partnerships and consultancy, agribusiness, consulting and private consultancies (UNESCO, 2020).

1.1.4 University Performance

Organizational performance may be influenced by many forms of internal capabilities including organizational slack. It incorporates carrying out an analysis on performance of a company visa-a-vis its objectives. Ideally, the actual results are compared with planned output in organizational performance (Ali et al., 2021).

As entities, organizations are regarded as societal units for joint and collective value creation. Entrepreneurs' institute univestites as mechanisms to create value (Drucker, 1992). Literature debates organizations on the basis that they are factual and objective entities and they are. Nevertheless, other senses exist. Fundamentally, organizations are impalpable associations. More often than not, they are deduced from the behavior of the personalities who put created them in the first place (Njehia & Gachara, 2009). And as associations, organizations are made up of two and or more people collaborating towards a mutual interests. As such, they facilitate and allow for societies to pursue and realise undertakings that would not be attained without partnering. To the degree that higher education institutions harmonize actions, process information, put together resources, organize as structures, and have agents (Njehia & Gachara, 2009), universities therefore are eligible to be viewed as organizations. On that basis, they are under managerial procedures and structures, which also include the strategic processes that majority or most of the institutions of higher learning have adopted. Macro-environmental pressures and forces persistently continue to propel universities towards organization actor hood (McKenna, 2020; Tomlinson, 2018). Like all organizations, not to mention the ones that are not completed, the institutions of higher learning will rely on human beings for their

effectiveness and deliberations about their outcomes since it is based around the human factor. As highlighted by Kehm (2014), organizations are more dynamic and strongly have more distinct features in their division of labor alongside the hierarchy of command and coordination in comparison with other institutions. Never the less, the higher education industry has institution-based characteristics and, they hence, keeps on defying characterization as organizations. They, thus, maintain their status as incomplete organizations. According to (Kehm 2014), these institutions are therefore made of rules, guidelines, regulations, procedures and systems that have the normative valid legitimacy and that will influence the behavior ,conduct and morale of individuals in groups. Looking at the universities, as a reference point, they are strategically placed with reference and cognizance to the societal-institutional mandate, are polysomic, and quasi-sovereign (Eaton & Stevens, 2020). Hence, the said components make assessments, monitoring and governance troublesome. As put across by Kehm (2014), these higher education institutions (HEI) are said to be institutions as well as organizations. Institutions are ventures within a society that lead to and transmit knowledge. Organizational units made up of teachers, instructors, researchers, research assistants, learners, non teaching staff, and the leadership who collaborate by way of planned division of tasks. As noted by Drucker (1992) institutions are principally societal, communal, and family units that are conserving and maintain solidity. Conversely, these organization lacks that conserving attribute of an institution. As put across by Drucker (1992), the organization in current and modern times is an essentially destabilizer, by having the aspiration to be associated with present innovations that fragment the status quo so as to stay afloat and flourish. For universities, that is synonymous to a breeding-ground for pressure. Bergan and Damian

(2010) reckoned that these institutions of higher learning will ideally have four (4) diverse roles: the preparation for relevant viable employment, readiness for the future life and productivity as responsible residents in autonomous states, personal and individual development; the expansion and alimentation of the country through an ultra-modern knowledge-based skill set. Therefore, the universities performance should portray the outlined tasks.

Performance is associated with the main function of the organization. The indexes used in its measurement are inherently related to finance or otherwise and they constitute financial performance, business performance and organizational effectiveness. Subsequent days of organizations are determined by their capability in the context of maintaining a good performance even into the future. Every manager is concerned with the performance of their organizational (Dzinekou & Arasa, 2018). It encompasses repetitive activities that form the organizational aims, keep a track on the headway made towards the aims and carry out necessary readjustments with respect to meeting those goals more effectively (Okenda et al., 2017).

University performance is made up of a set whose elements are both financial and non-financial. Financial elements address a university's capability in generation of sufficient revenue to keep it operational. In order to secure this, a university must have a multiplicity of revenue sources such as fee, consultancies and research grants. On the other hand, non-financial elements deal with the ability to attract students, attracting and retaining quality staff and the quality of service delivery. These two elements of university performance are interconnected and inseparable (Dzinekou & Arasa, 2018).

In most branches of management, including strategic management, organizational performance is an intermittent theme (Mkalama, 2014). Performance of an organization is visualized in terms of the functions it carries out to accomplish its mission. Firm performance concept is vital to an organization since it informs the manner in which it will meet its overall objectives. A standard measure for firm performance does not exist but Okeyo et al. (2014) argued that performance is the utility that a firm accrues to its customers and other stakeholders. They further suggested that firm's exceptional performance calls for the set objectives within a firm to be accomplished in an efficient manner. In agreement with this, Kombo et al. (2015) stated that effectiveness forms a habitual construct of performance measurement in a majority of sectors. Kombo *et al.* (2015) also submitted that measurement of performance ought to cover a wide scope while incorporating financial and non-financial components made up of product price, flexibility and reliability so as to establish performance.

Saleem and Khurshid (2014) define performance as the aggregate worth of an organizations' operations output coupled with the legacy it bestows on its stakeholders. The output thereof can be measured in terms of profitability, effort, effectiveness, loyalty, decision-making, participation, quality commitment, innovation, productivity and creativity. Majority of organizations assess performance from the perspective of how efficiently they accomplish their mission, purpose or goals and resource allocation efficiency. Sifuna (2014) reckons that firm performance refers to the degree of standard or laid down parameters of; environmental responsibility like regulatory compliance, waste reduction, cycle time and productivity; efficiency; and effectiveness. Ahmad and

Schroeder (2011), posit that performance, with respect to institutions of learning, should be deduced by assessing their service delivery in regards to teaching, research and efficiency. In reference to Gachugu et al. (2019) they posit that organisational performance is a multidisciplinary construct whose perspective includes both a financial and non-financial outlook and it encompasses real firm results, assessed against the intended outputs, which mostly constitute the firms goals and objectives or performance from the preceding period.

Kenyan Universities are required to provide evidence of the existence of a strategic plan spanning no less than five years that outlining the comprehensive and intensive plan that includes but its not limited to academic programmes, Research, ICT, community Service, physical facilities, staff development, and student enrolment (CUE, 2022) . Subsequently, they are challenged in living up to their core and main role of not only producing and churning out qualified graduates who satisfy the current industrial demands, but also the miss the trustworthiness to be in the vanguard of research, development and innovation (CUE, 2022). Looking at the statistical evidence available about the matriculation rates at the Universities it portrays that the position has declined and changed in the recent years. The number of dropout have been on the rise since 2017-2018 at 64 %, 2018/2019 at 73%, and 2019/2020 at 82% percent (Salmi, 2019). That notwithstanding, Kenya has expressly registered an increase of 21 percent in the number and amount of Higher learning institutions from 2012 and 2018 (CUE, 2018), on account of the advancements made in primary and secondary school enrolments and increased numbers throughout the republic. The expeditious growth of university education within

the Kenyan republic amidst limited and strained resources has led to the worsening and decline of state owned universities in spheres like the calibre of teaching offered, research, innovation, library services, offices, student accommodation and also in scholars and employees representation. A difference must be drawn between academic and organizational performance pertaining to the higher education division, as per Wang et al. (2021) argument. University performance may be measured by the degree to which the institution maintains focus in attaining its overall objectives. Other factors have been identified as performance dimensions for the higher education sector, including organization reputation, quality of learning and teaching, research grants, student support, planning and management, library and information services, physical infrastructure, quality of research output, knowledge and skills, webometric ranking, and social responsibility (Hernandez-diaz et al., 2020; Guarini et al., 2020)

1.1.5 Private Universities in Kenya

In the context of this research, “Private Universities”, “Tertiary Education Institutions”, “Institutions of Higher Learning”, “Institutions of Higher Education (IHE)”, ‘Private Higher Education Institutions’ and “Higher Education Institutions (HEI)” have been used interchangeably. As far as the global economy is concerned with matters knowledge, universities is accorded certain functions. It plays the role of providing goods that are regarded as private and public concerning research and education, and it also has a well-established historical role of availing solutions in social, economic and political affairs (Bejinaru, 2017). In line with thoughts put forward by Bastian et al. (2016), the post-

secondary education industry is comprised of three major types: state owned entities; private not for profit institutions, and private for-profit institutions.

Kenya's private universities are founded on the basis of the Universities Act dating back to 1985 coupled with University Rules of 1989 of the Kenyan laws. The legislations hereby offer a basis upon which university oversight, accreditation, standardization and establishment is done. Responsibility of ascertaining that each and every university in Kenya attains university calibre is vested on the Commission for University Education (CUE) (Oketch, 2004). The pioneer university under private category, started in 1984, was United States International University, situated in Nairobi. CUE was formed in accordance with the University Act No. 42 of 2012 effectively replacing the defunct commission for higher education. Being a government regulatory body, CUE focuses on Kenya's university education. It makes sure that all matters regarding university education, training and research adhere to set quality standards and relevance. This is effected through thorough inspection of programs offered in universities (CUE, 2015).

At present, Kenya has one private institution, thirteen universities having a letter of interim authority, twenty-five chartered private universities that have five private constituent colleges and thirty chartered state owned universities having five constituent colleges (CUE, 2022). Oketch (2003) stipulates that Kenya was at the forefront in affirming the insistence in university level education in contrast to her East Africa member states. Over the last two decades, this has driven the demand and accorded Kenya a favorable environment to set up private universities. However, this speedy growth in setting up private universities has not been without shortcomings to these institutions.

Kenyan private universities derive their funding from various sources including church sponsorship and donations gifts, endowments and tuition fees. Given that these institutions get other funds as well whose provenance is varied, they have their programs subsidized. As noted by Oketch (2003), Kenya was a pioneer in recognizing the need for higher education as was compared to her East African counterparts. This need for higher education at the Kenyan space has availed a good market and decent market for non state owned universities in Kenya over the last twenty. They include: failure to produce industry demand-driven graduates; inability to secure grants for research from government institutions, commerce and industry; inadequate research capacity that is disproportionate to the development agenda; an upsurge in student intakes that is incommensurate with investment in human resources and facilities; and insufficient funding by the owners or sponsors (Abong'o, 2007). Existence of private universities is also threatened by other elements such as competition from public universities which offer parallel programs. More often than not, public universities seem to have a preference amongst many due to their perceived ability to offer better quality education owing to their long history in terms of existence and their superior capacity to attract professional instructors as well as research grants from both government and research institutions. Privately owned universities are costlier compared to their publicly owned counterparts since the former raise their revenue almost entirely from students' fee (Abong'o, 2007).

According to CUE (2016), some of the Kenyan private universities such as Kenya Methodist University (KEMU), student enrollment has significantly dropped in recent years despite massive acquisition of facilities. In the years gone by, tertiary education

system in Kenya has been accustomed to a shift as more private institutions of higher learning have been and continue cropping up, thereby, prompting state-owned universities to measure up and defend their place in the market. The change in market dynamics occasioned by private universities insinuates that there is a competition threat which calls for deployment of competitive strategies by the university management (McCowan, 2018). On a similar note, universities such as Inorero University had to shut down on account of dismal performance. Pioneer universities are depending largely on minimal programs to stay in operation. These scenarios of threats show a situation that depicts private universities as incapable of offering appropriate quality of education. This therefore demonstrates that it is imperative to pinpoint and develop strategic capabilities with the potential to help private universities in Kenya attain sustainable performance. In this case, performance is operationalized with reference to research orientation, utilization of resources, flexibility of programs offered and the quality of those programs.

The COVID-19 pandemic necessitated the instantaneous closure of universities in March of 2020, thereby occasioning a significant decline and reduction in revenue generation initiatives. Further, with the pandemic, majority of the universities hence faced a substantial slump in their internally generated funding. Consequently, the higher education institutions, hence needed to begin coming up with strategic mechanisms with the aim of enhancing income generation and financing. These initiatives comprise; consultancy, research, and partnerships, integrated agribusiness, private consultancy and strategic consultancy (UNESCO, 2020).

1.3 Purpose of the Study

This research investigated the influence of operational capabilities, sponsorship and performance of private chartered universities in Kenya.

1.2 Statement of the Problem

The performance of private universities is increasingly becoming a critical concern point for the various stakeholders given the fact that they assume a fundamental function in any country. During the last decade, the higher education docket has undergone tremendous advancements due to the liberation of Kenya's universities. The increasing numbers of learners completing their high schools has brought about public demand for tertiary level learning (CUE, 2021). Reduction in government capitation prevents private universities from holding up with the growing student numbers and perpetuating optimal academic performance. In Kenya, establishment of universities has risen by over 50% and this has led to increased competition between both private universities and public universities to grow their student numbers and survive in the turbulent times. Because of this university have witnessed reduced finances due to limited government capitation and the reducing student numbers. Since 2016, a significant share of private Universities have pinned their hopes on government for students' allocation through KUCCPS. The phenomena of privately sponsored students has witnessed a declining trend over the years affecting performance (Kubai et al., 2022). Hitherto, private universities had an already market made of students who were eligible to join university but failed to attain the cutoff point determined on yearly basis by the government pegged upon the bed capacity at hand in

public universities hence the few initial private universities had little competition for qualified students (Kirui, 2019).

From the foregoing, private universities have been in the search for modalities through which to enhance their performance. Mwangi and Waitthaka (2018) observe that major players within the education sector focus on positioning themselves strategically in the market so as to expand their market share in privately and publicly owned universities. Rising need for tertiary education has caused significant pressure for expansion in Kenya over the past few years and as such HEI are looking at serious academic and economic drawbacks. Fierce competition between private and state owned universities has left universities with no choice but to identify internal unique capabilities and alternative ways to fund their activities considering that a number of universities have been proclaimed insolvent by the regulator due to their inability to meet their statutory obligations and depict appropriate stewardship over their finances (Nderitu et al., 2020).

Upgraded performance has been a variable of pertinent concern on Private Universities for their sustainability and this has made them to consider varied ways to enhance performance and sustain their operations. One such strategy has been looking operational capabilities in terms of strength to boost performance. In Kenya there is limited literature on operational capabilities and the manner in which they affect performance of higher institutions of learning. Wambui (2021) studied operational abilities as well as service delivery within Nairobi County for savings and credit cooperative societies that take deposits. That research concentrated on those societies and was guided by variables such as operational improvement, operational innovation, and operational customization.

King'oo et al. (2020) investigated how strategic capabilities affect performance of privately owned universities in Kenya. In that research, they arrived at the conclusion that capabilities regarding intellect, networking, human capital and information technology registered a direct and statistically significant bearing on the economic output of privately owned universities in Kenya. From the aforementioned studies much of the literature has focused on strategic capabilities, institutional characteristics and performance without fully exploring operational capabilities, sponsorship and economic output of Kenya's private chartered universities. Existing literature on operational capabilities and performance highlights geographical, methodological, and contextual gaps, particularly regarding universities in emerging economies like Kenya (King'oo et al., 2020; Nderitu et al., 2020; Wambui, 2021). This undertaking addressed these gaps by examining operational capabilities, sponsorship and performance of Kenya's private chartered universities.

1.4 Research Objectives

1.4.1 General Objective

The general objective was to investigate the influence of operational capabilities, sponsorship and performance of private chartered universities in Kenya.

1.4.2 Specific Objectives

The specific objectives of the research were as follows:

- i. To establish the influence of information technology use on performance of private chartered universities in Kenya.
- ii. To determine the influence of managerial capability and performance of private chartered universities in Kenya.
- iii. To determine the influence of knowledge management practices on performance of private chartered universities in Kenya
- iv. To examine whether organizational operational processes and routines affect performance of private chartered universities in Kenya
- v. To establish whether sponsorship moderates the association between operational capabilities and performance of private chartered universities in Kenya
- vi. To investigate whether the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes influences the performance of private chartered universities in Kenya

1.5 Research Hypothesis

H₀₁: Information technology use has no significant effect on performance of private chartered universities

H₀₂: Managerial capability has no significant effect on performance of private chartered universities in Kenya.

H₀₃: Knowledge management practices have no significant influence on performance of private chartered universities in Kenya.

H₀₄: Organizational operational processes have no significant effect on performance of private chartered universities in Kenya.

H₀₅: Sponsorship does not influence the interconnection between operational capabilities and performance of private universities in Kenya.

H₀₆: the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes bears no significant effect on performance of private chartered universities in Kenya.

1.6 Significance of the Study

1.6.1 Research and Academicians

This research will have significance and interest to a number of stakeholders. The ultimate beneficiary of the research will be academia. Output of the research will augment the pre-existing information in academia with regard to the topic through new and additional information. Research gaps pinpointed in the statement of the problem will lay a foundation for supplementary investigations in the thematic area of operational capabilities in chartered private universities. The resulting output of the research will bear immense value to scholars since it will provide a premise for more studies into the as well as offer a rich source for secondary data on the same subject.

The study will also help in developing new theories on operational capabilities. Results to be derived from the research will generate new information to the theory of operational capabilities in private universities via addressing the pre-determined research gaps in the research.

1.6.2 Management

Management teams across many business organizations will draw benefits from the knowledge that will emanate from this research. Inherent beneficiaries here will be managers in private universities who will be more knowledgeable concerning integration and utilization of operational capabilities for improved performance. It will further result in a better understanding of the various operational capabilities and how to harness them into their day to day activities to remain competitive in the turbulent business environment.

1.6.3 Investors

The study would be used to generate findings that can be beneficial to interested investors in the education sector in general on how to grow remain competitive and boost their performance. Additionally, the results to be drawn from the research will be of immense value to industry players across private and public universities by adding to the available information in the context of operational capabilities.

1.6.4 Universities in Kenya

This study will have in-depth implications for the managers of universities in Kenya. The research will have instrumental value to lawmakers especially those in chartered private universities as it will serve as a blue print for the best practices of putting into practice their operational capabilities using the models that will be provided.

1.7 Limitations of the Study

Limitations in research spell out the weaknesses experienced in the course of a research that can take hold of the generalizability of the results thereof (Maisya et al., 2019). They can also give the meaning of methodological factors and issues that can modify interpretation, generalization together with the applicability of the research findings as put across by (Soneka & Phiri, 2019). As Aldhshan et al. (2019) posit, they offer another definition which pertains to the essentials of a research philosophy, methodology or technique that can have an impact on the generalization and elucidation of the outcomes of the subject under study. On a similar note, Da Silva et al. (2021) describe study limitations as the components of and in the research design that hinder generalizability of study results. As a consequence, the shortfalls encountered in this current research study were accompanied by appropriate corresponding corrective measures so as to have integrity and have generalization in the study outcomes

It was anticipated that some participants may have had confidentiality issues and may not participate willingly for fear of the responses that they will provide being used inappropriately by a third party to give their competitors an advantage. However, the study

sought to gain voluntary consent from the participant. Besides, the researcher availed an authorization letter duly obtained from the university as well as authorization from NACOSTI. These two letters were presented to the respondents to enable them to have confidence that the study undertaking will be intended for academic reasons, and therefore no information that would be given nor divulged to a third party. The study solely used personal savings to carry out the study, especially on field trips to collect data with a widely geographically spread region. The financial limitations were however not be a hurdle in ensuring the quality of the research project in any way. Accordingly, another limitation faced in the current research were impediments relating to the time-frame owing to the fact that the research was inherently cross-sectional. This was mitigated via establishing suitable time-frames that were in concurrence with various significant activities in the course gathering and analyzing the requisite data.

Some of the participants in the current research who were given questionnaires failed to hand them over within the stipulated dates, while others happened to have given erroneous data, which could have marred the outcome of the research. This limitation was addressed by convincing the participants on the significance of the study and this was helpful in to lowering the strength of the limitation, thereby making the study a success. Frequently keeping in touch with the participants and being proactive in obtaining the feedback also assisted in overcoming this limitation. Anonymity was also assured to the participants and this instilled confidence in the respondents when providing the anticipated responses.

In addition, the findings of the research were confined to the extent to which the participants were ready and willing to avail accurate, objective and reliable information.

This limitation was countered by checking for consistency and testing the reliability of the information that was amassed.

The undertaking's focus was only limited to the chartered private universities in Kenya. These cadre of universities are mainly reliant on their own sources of financial resources as opposed to public universities whose financial muscle is replenished by the government. Besides, decision making and leadership in the privately owned universities are predominantly centered on private proprietorship while those of state owned universities are centered on the government. This gives the notion that the information gathered from these Universities falls short of replication in the state owned universities, and other higher learning institutions and organizations.

1.8 Delimitation of the Study

Delimitations of a research undertaking can be expressed as extremities that can be experienced by the investigator in as far as the objective and scope of the undertaking are concerned (Tlali, 2018). The delineation of the research insinuates the nature as well the magnitude of the sample of what is used to the study, hand in hand with the distinctiveness of study variables and the period within which a particular research can be conducted. Over and above that, the study de-limitations could also mean the set of confines and limits that the researcher creates with the sole aim of bearing control and manipulating the confines of the research and which closely connects with the notion by Suh and Owens (2021) who assert that delimitation of the study is essentially a set of all aspects that will not be within a given research undertaking by design.

Firstly, the theoretical foundation of the research was de-limited to six theories : The Resource Based Theory, the Dynamic Capabilities postulation, The Knowledge-Based Theory, Agency hypothesis , Stewardship premise and the balanced score card. The resource based theory was useful in bringing out how the first indicator ie information technology use is essential to the organization. Dynamic capabilities was the theory that underpinned the study while The knowledge-based theory was applied to discuss in detail in what way knowledge management plays a pivotal function as an asset which universities can use to improve their competitiveness and performance. Agency hypothesis was useful in elucidating the interconnection between the managers' capabilities and the university while the stewardship theory was useful in explaining the relationship between sponsors and performance and lastly the balanced score card was used to discuss organizational performance. The delimitation to these six theories was arrived at and brought about by the fact that these selected theories were adequate in elucidating the thinking and reasoning behind operational capabilities, sponsorship and economic output of Kenya's private chartered universities.

Methodologically, this research was delimited to 25 private chartered universities in Kenya certified by the Commission for University Education. A Census was to incorporate all the study's targeted private chartered universities. Additionally, the work utilized cross-sectional survey research technique. It made use primary as well as secondary sources of data. To gather primary data, questionnaires were developed and employed. From the analytical perspective, the study derived first and second order averages which constituted descriptive analysis of the study results. Meanwhile, for

inferential analysis, the study was used ordinal logistic regression and binary logistics regression.

Conceptually, the study was limited to investigating operational capabilities, sponsorship and performance of Kenya's private chartered universities. Particularly, the undertaking paid attention to four specific independent variables; information technology use, Managerial Capabilities, Knowledge Management practices, operational processes with sponsorship being the moderating variable.

1.9 Scope of the Study

This research examined operational capabilities, sponsorship and performance relating to private chartered Kenyan universities and was therefore be restricted only to those universities in Kenya. The study was conducted between January 2023 - February 2024.

1.10 Operational Definition of Terms

Chartered University A university that is analogous to a public university, a university that has received a charter that has laid out guidelines for the establishment, management, and control as well as the administration of the university (Polonsky & Rosenberger, 2001).

Information Technology Use – Degree of utilization of technology tools so as to come up with or bring value that is beneficial to an individual, a group or an organization well inclined towards adoption of technology (Dewett & Jones, 2001).

Knowledge Management – refers to the manner in which recognition, growth and management of intellectual capital in a firm is achieved so as to bring about superior value, increase productivity and attain a sustainable competitive advantage (Kurnia et al., 2020).

Managerial capability - the manager's capability to enthusiastically take part business activities relating to the organization (Khattak & Hassan 2019)

Operational capability – business entity potential to modernize its major technologies, resource pool and instrumental processes while at the same time addressing customer needs optimally and minimizing costs (Ali et al., 2019).

Organizational Operational Processes - a concatenation of reasonably interconnected activities that have to be carried out alongside a particular value chain with the aim of availing a commodity to a consumer as well as achieving strategic goals inherent to a firm (De Simone, 2014).

Organizational performance – Prospective of an organization to achieve set goals via efficient allocation and utilization of resources with the aim of deriving optimal efficiency (Al-Zuhairi & Khlif, 2022).

Private University: A university founded or run via means of other funds different from public funds. CUE posits that these are institutions supported fundamentally by their endowment funds and students' tuition fees (CUE, 2020).

Sponsorship - business ventures linked to financial backing coupled with exceptional impetus, the likes of jurisdiction or privileges (Wang & Lee, 2021).

CHAPTER TWO

LITERAURE REVIEW

2.1 Introduction

In this section, theories that directed this research and empirical review of past scholars were presented.

2.2 Theoretical Review

A discussion of theories anchored in this research and connecting them to the research variables under investigation is provided in this section.

2.2.1 The Resource Based View of the Firm

Resource Base View Theory was initiated in the early 1950s through the workings and contributions of Penrose (1959). This theory addresses the aspect of performance and an organisations competitive edge on the basis of resources being of value, rare, inimitable and organized resources of any establishment (Baia et al., 2020). As such, economic output in any regard of an organization is a function of the resources and potential of the firm in their possession. Penrose, in 1959, developed Resource Based View (RBV) of the firm. The theory asserts that higher-ranking performance of a business entity is attained at the point where the firm gets to have total jurisdiction over its resources and particularly based on how it will control its key resources (Wernerfelt, 1984). RBV's major focus is on the characteristics of resources and the ability from the point of origin the resources

are obtained from to clarify a firm's diversity, sustainability and performance (Mahoney & Pandian, 1992)

RBV further holds that a viable competitive edge of a firm is modelled upon the foundation of its distinctive interplay relating to its inherent capacities and its peculiar resources within its micro environment (Barney, 1991; Wernerfelt, 1984). These capacities and peculiar resources can be of two kinds: non-physical (intangible resources like intellectual property and knowledge) or physical (tangible resources, the likes of assets and equipment) ones (Barney, 1991). Of essence, these resources have to be of such high value to customers, rarely found, very hard to imitate and non-substitutable ("VRIN" attributes). They also have to be efficiently organized and allocated by the firm. RBV perceives a firm as resource bundles deployed across the firm heterogeneously and that the resource have spatial differentiation (Amit & Shoemaker, 1993; Wernerfelt, 1984). The theory puts emphasis on the fact organizations become more competitive sustainably by making use of their valuable resources and capacities whose supply is inelastic (Barney, 1986; Peteraf, 1993; Wernerfelt, 1984).

In the RBV, a capability refers to a set the complex skills an organisation achieves, ability, knowledge, and work experience through which a firm avails management for its functions by making use of its resources to attain its vision (Chandler et al., 2009). A majority of firms have a mix of resources in their possession that can either be physical and also non-physical in nature (Barney, 2001). On account of a study done by Barney (2001), it was established that there exists an existence an interconnecting correspondence between vital resources and superior performance. They drew the inference that firms tend

to have a leaning towards utilizing economic resources at their disposal optimally to make informed decision with the guidance of an economic framework (Barney, 2001).

In terms of organizational success, RBV postulates that this is majorly anchored on the micro environment of the firm. According to RBT, it is not the entirety of an entity's resource endowment that make up its superior competitiveness but only the ones that have value, are rare, imperfectly imitable as well as imperfectly substitutable (Barney, 1991). Collis (1994) further stated that organizations have to apportion these set of resources for strategic activities, allocate them efficiently so as to guarantee superior competitiveness and meet strategic objectives. These properties further incorporate organizational capacities or assets. Organizational assets could either be physical or non-physical (Collis, 1994), while the capacities can take an intangible form comprising of internal knowledge and competencies. RBV theory of the firm is meant to avail competitive advantage to a firm over its competitors by ensuring that the firms' resources act as inputs which are necessary for the process of production and they can take a physical or non-physical form. Physical resources can easily be identified and evaluated and they are also solid. They comprise financial and tangible assets which are usually going to be found and accounted for in the company's balance sheet statements. They include resources such as land, machinery, raw materials, factories and capital. Conversely, non-physical resources are quite cumbersome with regard to measurement, evaluation and transfer. They comprise technology, culture, motivation, relationships, knowledge, skills and competencies. Lev (2001) affirmed that intangible resources are ingrained in physical assets (for example knowledge in physical assets) as well as in labor (for example tacit knowledge) hence

bringing forth worthwhile interdependence between non-physical and physical assets in realizing value. In addition, he elucidates that they do not all bear similar significance or potential as wellsprings of livable competitive edge. A competitive edge into the future is premised on the owning distinct resources of a firm. It has four traits that stand for the acronym VRIN (Barney, 2001) - Valuable, Rare, Inimitable and Non-substitutable.

Valuable Resources: they permit the organization to formulate and enact strategies that enhance overall efficiency. The ultimate objective, as aforementioned, is firm performance that can be reached when a strategy allows for maximum exploitation of opportunities or neutralizes and minimizes the threats within a firm's environment (Barney, 1991).

Rare Resources: ownership of valuable resources does not guarantee competitive advantage. This is because other firms can imitate them. Hence, the second step is to ascertain that such resources are in scarce circulation when compared to the firms required in the dynamics for perfect competition (Barney, 1991). Rare resources have scarce supply and they are not matched or equally available across the firm's present state of competition.

Imperfectly Imitable Resources: Barney (1991) postulates that valuable and rare resources bring about sustainable competitive advantage (SCA) provided that competing firms have no reach of such resources. Inimitability is the degree of difficulty in other firms replicating resources and this may be as a result of other aspects like social complexity.

Substitutability: Should there be other strategically equivalent resources, it means that other firms with the same set of resource bundles can manage to adopt the same strategies from a different perspective (Barney, 1991). Non-substitutability of resources is the ability of a resource to not be substituted or replaced by an alternative (Peteraf & Barney, 2003).

Varied criticisms of the RBV hypothesis have been advanced by copious researchers. The most conspicuous thrust of the theory gravitates mostly around intangible resources. This statement is somewhat blurry since it gets rather difficult to determine the contribution they make the impact with reference to competitiveness and performance owing to the fact that an attempt at construing the composition of these resources and how they associate is an uphill task (Tsai, 2001). On the whole, other researchers point out some of the subsequent impediments of RBV that include the lack of conclusiveness on the requisite number of resources and assets to be accumulated to acquire some competitive advantage; failure to offer a clear and precise description and discussion of competitive advantage; and the presence of unexpected problems. Other scholars certify that the four premises of value, inimitability, rarity and non-substitutability can be pretty indispensable and may not be exactly adequate preliminaries for sustainable competitive edge and economic output.

According to Teece et al. (1997), a sustainable competitive advantage within a dynamic competitive environment is founded on expeditiously creating unrivalled sets of resources and competencies via diverse capacity management. This is as a result of the ease with which existing resources become eroded and obsolete in such environments. Nevertheless, RBV hypothesizes that historically, the set of VRIN resources of a firm as well as its

capacities is expanded gradually over time. It is possible for resources to be multifunctional thereby giving them versatility in application over varying surroundings. Therefore, it rests upon management to orchestrate to foster a profitable allocation of the resources they control. Collis and Montgomery (2008) state that RBV intricately combines an entity's micro capacities and its macro environment with the prospects of attaining unparalleled firm performance. The resource type does not really matter but rather, the usage of the resource (Peteraf & Bergen, 2003).

RBV of the firm by Wernerfelt (1984) also considers that managerial skills as the bedrock of the firm's better performance and competitive advantage. The theoretical arguments are that resources that are valuable, rare, inimitable, and non-substitutable (VRIN), drive the firm's comparative advantage. The managerial skills can be one such resource of the firm to drive its growth and sustainable process.

The RBV theory has, nevertheless, been critiqued just as it has been supported. One of the critics is that it makes the reality in a firm seem rather uncomplicated and also assumes there is a linear interconnection between competitive edge, firm resources and the organization performance (Kraaijenbrink et al., 2010). Moreover, the model is oblivious to environmental attributes that affect the economic output of the organization. Be that as it may, in reality the organization resources might not have any relationship with its performance. Nonetheless, this undertaking still utilized this hypothesis as it is appropriate with respect to the unique capabilities of the firm. Specifically, this postulation was key in evaluation of the capabilities that can guarantee a competitive edge to a firm and improve the economic output of private universities in Kenya. This hypothesis was

significant in this study since organizations will keep striving to renew resources at their disposal in a manner that aligns with an ever changing environment. The theory portrays the function of resources in aiding firms to attain superior organizational performance.

2.2.2 Dynamic Capabilities View of the Firm

Writings on Dynamic Capabilities (DC) are widely attributable to the pioneering literature by Schumpeter concerning; ingenious demolition and competition founded on innovativeness (Cyert & March,1963), asset security, hierarchies, markets and firms' behavioural theory (Teece, 1982; Williamson, 1999), an overview of the firm (Penrose, 1959) as well as isolating mechanisms and the function accrued to assets specific to a firm (Rumelt et al., 1994). This theory is normally seen as an expanded view of RBV's core competence perspective and knowledge based perspective. The theorists hereby treat firms as bundles of resources with heterogeneous features in their makeup and dependence with regard to their processes. They further deal with how these resources permit business entities to create a competitive advantage that is sustainable (Lockett & Thompson, 2004).

The DC hypothesis transcends and surpasses the proposition insinuating and suggesting that the livable competitive edge of any firm is premised upon its accretion of valuable, rare, inimitable and non-substitutable (VRIN) resources whereas business entities can manage to amalgamate, collect, marshal and reallocate their resources and capacities in a manner that aligns with expeditiously changing and dynamic environments courtesy of dynamic capabilities. This then allows dynamic capabilities procedures that accredit an organization to re-model its strategically placed resources to acquire livable competitive

edge and superior economic output in their dynamic surroundings. A firm's potential to put into effect uninterrupted and successful, processes and assignments relates more critically and significantly to a firm's adroitness in making its operations more valuable via change management and change implementation in the production procedures. Lee et al. (2001) assert that the impact of organizational capabilities and the exterior webs or interconnections on its economic output is a vital interface for the transformation, deployment, development and mixing a set of resources to aid and assist in enhancing the narrative of competitive positioning and solidness for unparalleled economic output. Operational capabilities are an intrinsic and very essential transformational processes that aids in problem solving, brainstorming, enhance decision making processes, enhance direction and invigorate creativity while at the same time assisting managers of an organization in effective implementation of organizational objectives.

As an addendum to RBV (Barney, 1991), its focal premise is expounding how firms reestablish their VRIN (valuable, rare, non-imitable and non-substitutable) resource pool and capabilities amidst their outside environment so as to match emerging market trends and attain evolutionary fitness. Teece et al. (1997) seminar paper, which is the most cited paper with respect to DC, describes dynamic capacities as the potential of an entity to amalgamate, form as well as redesign inside and outside competences to resonate with surroundings that are fast becoming diversified. DC allows firms to readjust their ordinary capabilities so as to deal with external turbulence (Teece et al., 1997; Winter, 2003). Teece et al. (1997) lay emphasis on the fact that DC are distinct processes of firms that are path dependent, that is, they advance the pre-existing knowledge of firms and managers

concerning services, products and the environment in which they operate. These (dynamic) capacities are integral components of strategic management that are targeted at redesigning, adapting, incorporating micro and macro resources and competencies to deal with changing circumstances.

Teece et al. (1997) further explained this notion in their previous early nineties publications and it became a success within the area of strategic management. Here, the authors assert much more specifically that dynamic capabilities are able to answer concerns regarding ways of sustaining competitive advantage so as to complement the resource-based. Further, these authors work became the introductory publication to highlight the idea of dynamic capacities, and it thereby became the motivation behind a research agenda in strategic management regarding how organizations manage to alter their operational procedures to address the needs of dynamic surroundings. They fronted a perspective of the firm which was to some degree more enriched as compared to RBV. In their argument, they stated in addition to the available bundle of resources, it was also imperative to factor in the techniques through which firms gain knowledge and amass emerging skills and capacities as well as the driving forces responsible for the rate and course for this process.

Dynamic capabilities avails the capacity for cross-organizational enlightening (Doz & Shuen, 1988). The importance the proficiency of a firm plus its dynamic capabilities lies within its organizational processes. The expansion path (history) of an entity coupled with its assets (positions) shapes dynamic capabilities. In most cases, dynamic capabilities are characterized and classified as distinct and individualistic processes which arise from

path-reliance and histories of a firm. Teece et al. (1997), in contrast to Eisenhardt and Martin (2000), state that dynamic capacities form the basis for a competitive edge. As an example, should entities possess, build and incorporate dynamic capacities in their practices, then they stand a chance to surpass the performance of their rivals. Teece et al. (1997) further put it that dynamic capacities display two idiosyncratic elements: firstly, ‘dynamism’ provides a solution to the challenge of re-establishing competencies; and secondly, the concept of ‘capabilities’ underscores the need for top management teams to spearhead their pivotal responsibility of modelling and establishing the expertise of organizations. Dynamic capacities carry the potential to revitalize firms’ competencies and ameliorate performance, particularly in the face of diverse and high-velocity environments. The DC perspective is conceptualized in three dimensions: (1) the place (position), (2) course (path), and (3) the process. Dynamic capabilities are considered to be the utmost origin of competitive advantage, thus catapulting these ideologies to the fore of strategy research.

As defined by Teece (2018), dynamic capabilities encompass routines which allow an entity to re-adjust and re-direct its resources such as research, innovation and development, new product development and acquisition skills thereby, as was considered in this study, enhancing state corporation performance. In the work of Girod and Whittington (2017), dynamic capabilities are considered to be the superior-level processes which bring forth the crucial and critical day to-day procedures and routines that are necessary to be re-aligned with the aim of tailor-fitting them to demands of new contexts and developments so as to sustain organizational performance. Similarly, Teece (2014)

agreed with the study by Hong et al. (2018) who associated and linked dynamic capabilities with round the clock change to make them more pliable and adaptable to dynamic and very uncertain business environment to boost performance.

It is worth noting that dynamic capabilities are non-ordinary, critical to success, strategic, higher-level capabilities applied by top echelons of management (Williamson, 1999). In essence, they are the consequence of not only collaborative but also time-intensive learning (Eisenhardt & Martin, 2000) responding to noticeable changes within the operations (Brown & Eisenhardt, 1997; Teece et al., 1997). A critical insertion inherent in this set up is the fact that dynamic capabilities aren't particularly innate to firms; they earn them through continued scanning of the operating environment and consequently making the necessary adjustments (Grant, 1996; Kogut & Zander, 1992; Pisano, 1994). Winter (2003) came up with two groups of dynamic capabilities: first order and second order capabilities. First order capabilities entail those which make a daily contribution to the firm's day to day activities, that is, the kind that a firm 'earns a living' from. On the other hand, second order (higher order) dynamic capabilities refer to a category of components responsible for the transformation of lower order capabilities and firm resources. On this level, for instance, Schilke (2014) concluded that higher order alliancing capabilities are responsible for an improved firm performance by transforming first order capabilities. In this research, the dynamic capability perspective upholds three exogenous variables: Managerial Capability, Operational Processes and Information Technology.

2.2.3 Knowledge Based Theory

Knowledge is entrenched and advanced via a multiplicity of entities, among them being the employees, documents, systems, routines, policies as well as organizational culture and identity. This perspective emanates from strategic management literature and it adds to and reinforces the RBV theory formally advanced in the works of Penrose (1959) and then expounded by other researchers who include (Barney, 1991; Conner 1991; Wernerfelt, 1984). Knowledge is an integral non-physical resource and is the principal origin of sustainability in the context of competitiveness (Acedo et al., 2006; Conner & Prahalad, 1996). A firm is not just mandated to obtain array of capacities and resources, but instead to build its knowledge of the organization so as to bring about a competitive advantage that is sustainable (Grant, 1996). Knowledge-based hypothesis is founded on the pre-supposition that merits based on capacity and resources emanate from high level acquisition and consolidation of esoteric knowhow (Grant, 1996). Knowhow is initiated and clasped by specific people, but it is possible to have it entrenched in an organization as part of its frequent routines and processes (Conner & Prahalad, 1996).

Knowledge is perceived to be an eminently critical resource that a firm can utilize. Those in agreement with this research argue that it is challenging to duplicate knowledge-based hypotheses and they are complicated from a societal point of view. The components responsible for sustained competitive advantage and unparalleled corporate performance of firms are knowledge bases that are heterogeneous to a firm and its capabilities (Maskell, 2008). The knowledge is put in action and it faces a number of entities comprising of employees, systems, routines, documents, policies and organizational culture and identity.

Emanating from the literature on strategic management, this frame of mind adds to and exceeds the RBV inclination that Grant (1996) supported and later more researcher added to the literature (Grant & Baden-Fuller, 1995). Therefore, firms are a reflection of bundles of knowledge, whereby knowledge is a valuable asset whose role is to foster differentiation and competitive advantage. There are two fundamental knowledge processes that accrue to firms that bundle knowledge. These are creation / formation and relocation or transfer (Von Krogh et al., 2001). With reference to creation / formation, organizational knowledge is the procedure involved in availing and magnifying resources of knowledge originating from people and at the same time coalescing and bridging it to the knowledge system of an organization (Nonaka et al., 2006). Once formed, know how then has to be initiated into an organization or brought within it. Concerning relocation or transfer, this is not an insignificant issue because the very set of complex technologies that cannot be imitated are also quite challenging to train others (Kogut & Zander, 2003). Difficulties associated with transfer of knowledge externally include non-uniform knowledge transfer capacities among or within alliance partners, whereby the parties bearing more efficiency in knowledge transfer surpass those less adept (Dyer & Singh, 1998). This theory elaborates the knowledge management variable.

2.2.4 Stewardship theory

The stewardship premise, identified also as the stakeholders' theory, was initiated by Donaldson & Davis (1991) and later ameliorated by Davis et al. (1997) and it takes a distinct diverse stance from the agency postulation. Far from the agency hypothesis which puts forward that managers may indulge in moral hazards and consequently must be

checked, the stewardship postulation posits that managers are not self-seeking but exhibit the essentials that enhance high interest in the estate of the firm. The proposition postulates that managers acting solely, will act and be dependable stewards of the assets they manage and control, and if asked to choose between self-serving behavior and the interests of the organization behavior, a steward will highly and likely regard cooperation as opposed to defection and will act responsively in planning, organizing and monitoring the economic thrive of the business. Additionally, a steward will not act against the will of the owners but will dedicate their attention to steering the business to improved economic output and increased growth (Chavunduka et al., 2015; Davis et al., 1997). Sundaramurthy and Lewis (2003) fronted an intriguing contrast between Agency and Stewardship theories in various contexts. Firms' micro and macro interconnections and their environment are ever changing. As a result, the authors analyze corporate's performance over a variety frameworks of the mentioned states. The steward holds the belief that collectivism and push for the achievement of set goals and objectives, *ceteris paribus*, as shareholders' value realizes maximization, the interest and utilities of stewards similarly get to be maximized (Smallman, 2004). Its conception is from the notion that firms have a colossal mandate socially and not just maximizing the wealth and value of the shareholders. In addition, the postulation additionally asserts that corporations also constitute social entities that influence the welfare of most stakeholders. Stakeholders are groups or individuals who make interactions with a firm and they influence or are impacted and affected by the attainment of the firm's goals and targets (Donaldson & Preston, 1995). For thriving organizations, they are evaluated on the basis of their potential to create and bring forth some worth to all stakeholders. A number of scholars are of the view that the

natural environments is a key primary (Dunphy, 2003; Starik & Rands, 1995). Stakeholders can be seen to be influential to prosperity and having moral and legal rights (Donaldson & Preston, 1995). Where the stakeholders achieve their goal, they return to the firm to gain further (Freeman & McVea, 2001). Consequently, leaders must deliberate on the privileges and claims of stakeholders at the time when decisions are being made and operate the business in manner that they are accountable to stakeholders (Manville & Ober, 2003).

Owing to complexity, multi-faceted and multidisciplinary character of the stakeholder concept, there is new evidence-based contribution founded on practice which is useful in management and running of universities. It is the contention of stakeholder theory that, in organizations, there exists other vested parties, comprising of students, employees, sponsors, customers, suppliers, financiers, alumni, regulatory bodies, political groups, labour associations, and trade unions. As a matter of fact, competitors are sometimes referred to as stakeholders with the genesis of their stature emanating from their potential to influence and have a hold on the organizations and their stakeholders. Sometimes, the structure of the composition of a stakeholder is queried with a multitude of explanations that are present in academic literature (Jones et al., 2018). Engagement of stakeholders in the decision-making process can lower efficacy, and minimize conflicts (Rothman & Friedman, 2001).

Kaptein and Van Tulder (2017), reiterated that establishments implement reactive or proactive strategies when incorporating stakeholders' concerns in the decision making process within the organisation. An organization can prefer to utilize a reactive strategy

when it does not take into consideration the stakeholders within its decision making processes. This then may lead to a mis-alignment of organizational expectations and stakeholder demands. Adams et al. (2011) argues that the stewardship theory still has its place as the theoretical backbone for much regulation and legislation. Stewardship theory's central assumption is that the interconnection between the owner and the steward is voluntary cooperation with positive results for both parties. The need for financial intermediaries may decrease because each participant knows the other's intentions, actions, and gestures throughout the encounter. When the partnership is focused on common goals and objectives, it is less essential to rebid the agreement frequently and to carefully monitor the stewards' institutional and organizational actions (Chrisman, 2019).

In the long run, the custodian will benefit from having more predictability and fewer administrative and labor costs associated with ongoing negotiations. In addition, the owner will benefit from such a long-term agreement. An unscrupulous decision that may be upheld by management may abuse the shareholders' values and concerns. Consequently, many scholars have placed an argument that there exists a critical need to structure the phenomena that aligns shareholders and managers welfare, such as structure of ownership. Further this would augment the sustainable economic output of firms (Buallay et al., 2017).

According to Kao et al. (2019) they give the impression that for a prosperous livable economic output and to have minimal agency drawbacks, the organizations ownership structure will dedicate more energy to establishing control and guiding management decisions which give rise to efficiency where there is minimization of agency costs and

asymmetry of information. A proactive approach is chosen by conglomerates that coalesce stakeholder concerns into their decision-making procedures and those that institute requisite governance organs and structures.

Comprehending the interests of stakeholders is significantly crucial in university management and therefore the manner in which government responds to these interests and the interests of society in general plays a foundational role in service delivery and performance of universities as organizations. Stewardship theory indicates that the managers and owners of the firm bear no conflict of interest but they would rather find avenues through which these two parties can work together with the sole purpose of attaining the goals of the firm. It advocates for the common interests of both parties rather than agents focusing on their interests. The theory makes certain that the firm's management has no instances of abuse of power. The interests of the principals are lined up with the behaviors of the manager. This postulation was significant to this undertaking since it highlights the delicate interrelationship between managers and owners of an institution and how they influence each other.

2.2.5 Balanced Score Card

Kaplan and Norton brought into the limelight the Balanced Score Card (BSC) premise (Kaplan & Norton, 1992). The model's approach assists leaders, executives and managers fostering efficient in addition to effective performance analysis techniques. The model advocates for utilization of performance models across a variation of components that need to include both financial measurements and otherwise. The hypothesis has four

primary viewpoints namely; customer overview, financial overview, training and development, and internal business process. The financial outlook within an organization, which is centered on optimizing returns on capital investment of the unit, portrays its long-term objectives. Financial components, which since ancient times have been operationalized to assess organizational efficacy, encompasses profitability, unit sale revenue, and sales growth. The BSC focusses attention on the noteworthiness of incorporating extra components as an instrument to measure performance. The Financial Perspective approach continues to give priority to the traditional financial data that it provides in terms of financial position and financial results. Indicators of a financial perspective can, for example, be a growth of sales, profits, ROI, cash flow, or cost cutting. The stakeholders get insights into the financial perspective that helps them understand how efficient the organization is at accomplishing its financial goals and aims. The customer perspective determines the organization's efficiency based on the opinion of the customers at the point when they look at it. The metrics that are assessed within the aspect include customer satisfaction, loyalty, retention, and increased share of the market (Norrie & Walker, 2004). Additionally, Identifying and attending to customer needs while maintaining a high level of service are mandatory for long-term operations. This point of view sheds light on whether the company is in alignment with what the customers expect and desire.

The financial and customer frames of mind of the balanced score card allows an organization to have approaches with which to meet the demands appertaining to owners, founders and customers. As highlighted by Kaplan et al. (2010), the financial viewpoint

conveys measures commensurate with financial ratios and cash flow whereas the customer viewpoint deliberates satisfying customer's needs that are categorized into four factors: performance and service, time, quality, and cost. BSC gives priority to the fact that managers have the ability to translate and interpret the entity's missions into quantifiable assessable customer service statements which can portray factors and issues that matter to their clients, (Kaplan & Norton, 1992). Of necessity, firms need to carry out implementation of outcomes relating to customer satisfaction indices (Tayler, 2010). Kaplan and Norton (1992) posit that being reliant on customers' surveys assists organisations to conduct a quick rundown of its performance captured from customer's point of view.

The Internal Process viewpoint is directed at internalization and operations as the fundamental sources of competitive advantage and ultimately, long-run profits. Aspects such as performance metrics, which include process efficiency, quality, innovation, and cycle time are considered internally (Kaplan & Norton, 2001). Through the process of optimization, businesses can save money and time, as well as raise the quality of their services and products. Besides, the enhancement of internal processes will improve the business's bottom line and customer satisfaction. The internal perspective endeavors to gratify and also satisfy shareholders and clients through a selection of concise business, tactics, strategies, standards and procedures deliberately put in place to give customers unmatched satisfaction (Niven, 2011). The internal business plan of action is either mission or support inclined. The mission inclination entails focus on a firms' overall strategy while the support inclination has its attention drawn to repetitive attributes that

employees execute and perform in within a firm. Additionally, the support inclination computes the period of time spent in the specified job as well as on similar engagements thus amends are minimized, (Hoque, 2014). The proposition given by the standpoint of growth and learning is that companies can reach their goals and have the capability of enduring dynamism (Northcott & Ma'amora, 2012).

Learning and Growth Perspective evaluates an organization cover and its capacity to innovate, develop its workforce, and adapt to the changes in demand, competition, and technologies. Learning and growth Indicators can be such as staff grooming and learning, employee satisfaction, relevance, and innovation, as well as staff behavior (Kaplan & Norton, 2001). On the other hand, learning and growth support the presentation of organizational capabilities improvements, invention of new processes, and staying competitive in a shaft of most innovative companies. All in all, the Balanced Scorecard gives a comprehensive view of an organization's performance by focusing not only on the financial results but also the other non-financial objectives.

The model supports the outcome variable through recommendation that firm performance should be assessed through a mix of indicators and recognizing that a firm's objectives are more than generating profits for the shareholders. The BSC theory is a robust and versatile framework that provides a comprehensive explanation of organizational economic output. Its four key perspectives, financial, customer, internal process and learning and growth, offer a universal prospect of an entity's operations and strategic priorities. By examining these dimensions and their cause-and-effect relationships, organizations can gain valuable insights into their strengths and weaknesses, enabling

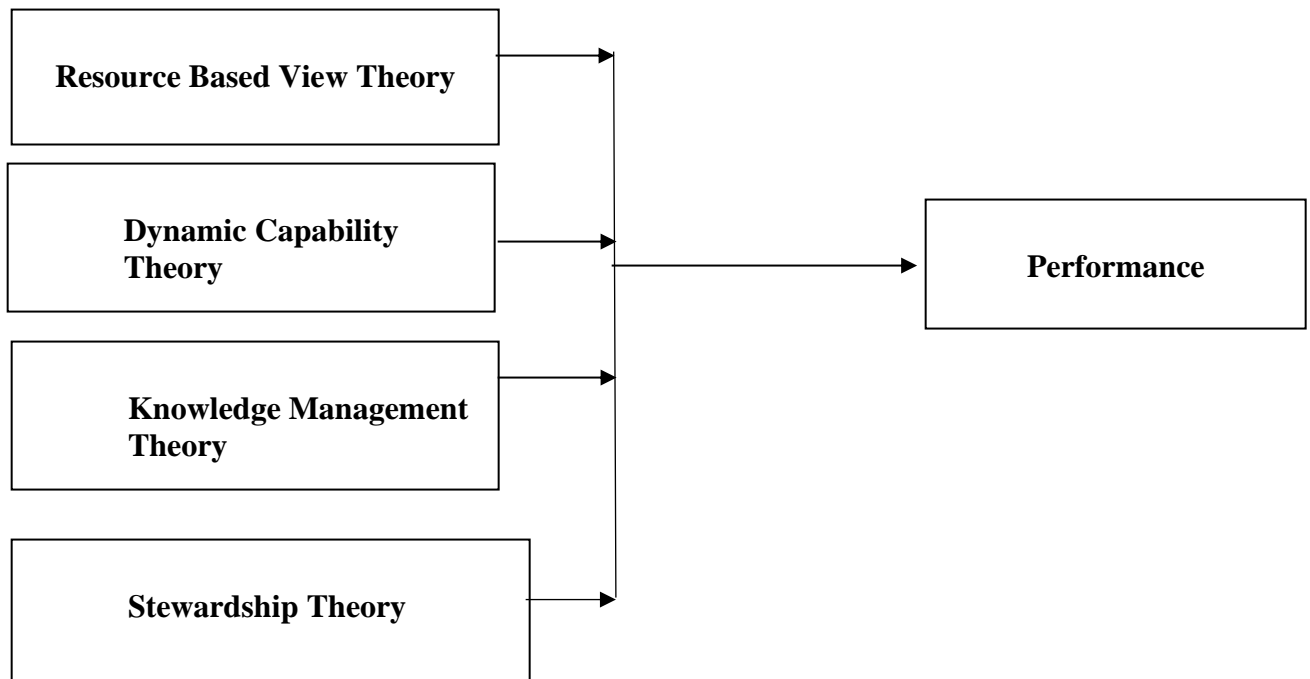
them to make informed decisions and continuously improve their performance. In the current research, BSC model was used to assess and take care of the performance variable.

Theoretical Framework

Based on the reviewed theories, the study adopted the following theoretical framework

Figure 2.1

Theoretical Framework



Source: Author 2024

2.3 Empirical Review

2.3.1 Information Technology Use and Performance

An analysis by Asser et al. (2023) focused on the impression of technology utilization undertakings on economic outcome of selected Commercial Public Corporations in Kenya. The objective was to examine 55 commercial state corporations, out of which forty-eight were involved in the work. The data was acquired using a stratified random sampling technique. The participants in this research comprised chief executive officers (CEOs), finance managers, and human resource (HR) managers from each of the designated commercial state businesses. The research indulged a sample size of 144 participants who were selected through interviews conducted using questionnaires. The researchers employed regression models and conducted hypothesis testing using conventional F and t tests. The evaluation of technology adoption treatments encompassed four distinct sub-variables, specifically the identification of IT infrastructure acquisition, strategic alignment, organizational structure, and staff training. Employer training and performance exhibited a positive correlation. Consequently, this emphasized the significance of obtaining technology and providing training to the individuals participating in the change initiatives.

Seclen-Luna et al. (2022) argue that the adoption and usage of IT enables organizations to achieve strong competitive advantage. They undertook research to fathom the aftermath of using digital technologies on company performance in a developing country. The study was carried out in Peru and it employed the OLS method to sample 2970 organizations.

The findings indicated a direct association between use of information technology and company performance. The study further opines that organizations need to ready information on their websites since a website acts as a channel for interdependent interaction not only amongst clients but also to other stakeholders. Data collection for that research study was done through questionnaires and regression analysis model was developed.

Alam et al. (2022) investigated the manner in which competitiveness, innovation capability and performance of the firm are affected through the application of information technology. The research was carried out on 160 companies in Indonesia. A quantitative approach was employed in conjunction with Pearson's correlation coefficient and product moment. Cronbach alpha was used to test reliability with accepted value being 0.6. Data collection was done through questionnaires and the data obtained was then taken through structural equation modelling analysis where two steps were followed: evaluating model fit and studying the interconnection between variables in the research. Analysis findings disclosed that performance can be improved directly by using information technology and that business activities can be anchored on information technology so as attain efficiency in operations and therefore boost and improve performance.

Sakwa et al. (2018) conducted a study on how the association linking Supply Chain Process Integration Capabilities (SCPIC) and Supply Chain Performance (SCP) in Kenya's state owned universities is affected by the moderating effect due to information technology infrastructure. Theoretical framework had the Resource Dependency Theory anchoring the research. Descriptive survey methodology was adopted. Data was analyzed

descriptively and inferentially through regression and correlation analysis techniques. Results showed that information technology infrastructure had mediated the association between SCPIC and SCP. It was recommended that public owned universities need to invest in technology both in partnership with stakeholders as well as in their institutions in order to rationalize their supply chain operations and attain a competitive edge in the industry.

Lee et al. (2016) opine that organizations are able to strengthen their capabilities by using information technology. Their study on the influence on firm performance due to IT Investment on the basis of Technology IT architecture in Korea was founded on the Resource based view theory argument that performance improves when a given organization embraces technology. The study employed Generalized Least Squares (GLS) panel regression model. In that research, it was affirmed that firms the expectation of business entities was to raise their sales revenue by ameliorating their business processes as well as enhance their business viability through aggressive profit maximization. The use of IT deployment can complement these objectives by optimizing human capital productivity in addition to collaboration among employees, partners, and customers. The study concludes that investing in information technology use leads to business growth.

Stores et al. (2018) researched on how information technology investment impacts performance of firms in Malaysian PLC's. A panel data approach was used whereby information derived from annual reports of companies listed in Bursa Malaysia was relied on. A blend of cross-sectional and time-series information was implemented in the

research. Hausman test was conducted with ROI as the response variable and IT as the predictor. The study was longitudinal covering a period of between 2009-2012. Data was collected and analyzed annually for three (3) consecutive years from 2009 through to 2011 for IT while that on performance measure was analyzed from 2010 through to year 2012. This allowed the researchers to provide for a lagging effect with regard to IT investment in the preceding year on the current financial year during their analysis. Research findings indicated that investing in IT infrastructure occasions a rise not only in return on investment but also in return on assets.

Masyhuri et al. (2021) researched on ICT use and its implication on firm performance in SME's. The study sample was 179 organizations. In their output, they reported that ICT use influenced firm performance significantly. Their research was anchored on the theory of dynamic capabilities while data was obtained via means of a questionnaire using google form and then Partial Least Squares Structural Equation Modeling technique was engaged in the analysis. This was necessitated by the nature of the research which was exploratory. The study thus concluded that ICT use can significantly improve firm performance and that organizations need innovation to improve performance.

Ezuma et al. (2019) carried a study to establish whether network competence was relevant in the association between performance of medium-sized manufacturing firms and technology usage in Lagos State, Nigeria. Their results showed that network competence indeed mediated partially in the studied interconnection.

While studying how a firm's capacity to manage information technology capacity impacts its performance, Mithas et al. (2011) concluded that the capacity to manage information had a direct impact on the firm's management of customers, its processes as well as its overall performance. Similarly, they found that result had a favorable effect on financial, human, customer and organizational capital. In Algeria, a quantitative research was conducted to explore how non-physical IT assets affected viable competitiveness in high-tech industries. In this research, Makhloufi et al. (2018) discovered that infrastructure relating to IT was significant in realizing a livable competitive edge. Similarly, Bhatt et al. (2017) collected data from one hundred and twenty two IT managers and analyzed it to cross-examine the arbitative impact linked to the magnitude of knowledge in organizations on the association between competitive advantage and systems of information of Chinese firms. They arrived at the conclusion that flexible IT infrastructure significantly affects competitive advantage.

Kuźnik et al. (2018) work investigated how information relating to infrastructure affects indicators responsibility for functionality of university libraries. They interrogated how a group of thirty two information infrastructure indicators compared with the summation of functional indicators existing currently and examined the probability of merging or otherwise between them. On account of the output realized upon analysis, they showed that for university libraries, a convergence occurred in the case of indicators responsible for total library functionality and indicators for library information infrastructure with respect to art schools and physical education schools. This implied that information infrastructure had a significant impact on their functioning. Likewise, Widajanti and

Ratnawati (2020) probed the role of optimizing infrastructure within information technology in attaining innovation-based performance in a company. Data Collection techniques for the study was derived from official published data annual report statement from 2014 – 2018. The research method employed was qualitative interpretive research and it concluded that optimizing the use of IT infrastructure can produce innovations to achieve company performance.

Khattak and Jan (2015), while reviewing access to information, focused on how ICT impacts students' performance. They had a sample size of fifty respondents (students), picked from political science department, University of Gomal in Pakistan, Dera Ismail Khan, Khyber Pakhtunkhwa. Primary data combined with secondary data was utilized in the study for analysis. Questionnaires and interviews were the mediums utilized to obtain primary information. In their research findings, they concluded that information and commutation technology registered significant effect on students' performance as well as their ability to access information.

2.3.2 Managerial Capability and Performance

The managerial capability is regarded as a non-imitable organizational capability that can foster a competitive advantage (Srećković, 2018). Dzinekou and Arasa (2018), sought to investigate managerial capacities and privately owned universities performance in Kenya. In that study, a survey research technique was implemented. In the sampling procedure, simple random technique was involved in the selection of 329 respondents classified into two strata: academic and non-academic staff. Results obtained showed that managerial

capabilities had direct influence on private universities performance. The study further recommends that since the university environment is dynamic and gaining competitiveness, universities should rely on their ability to blend in with the changing environment and thrive so as to guarantee their survival. Additionally, it was recommended that universities have the ability to adjust to the dynamic environment only if they acquire some dynamic capabilities that allow them to cope with the changes. Management capacity bears a consequence on gaining of knowhow and innovativeness, resulting to enhanced economic output and productivity of an entity (Duan et al., 2022). This can be attributable to the fact that managers armed with advanced managerial skills and approaches are an inspiration to people, thereby causing a rise to the organization's performance and output.

Kirugumi et al. (2021) conducted a research in Kenya whose focus was how managerial capability influences internationalization status of public universities. Descriptive study methodology was utilized involving a sample of thirty one public chartered universities. Cross-sectional survey technique incorporating descriptive and analytical methods was indulged to address the study goals. In their findings, they established that managerial capability directly and significantly influenced internationalization status. It was then concluded that managerial capability is made up of specific constructs namely; decision making capacity, shared-vision capacity and strategic thinking capacity. In their recommendations, they advised that internationalization processes in institutions ought to be backed up with solid leadership support from management.

Economic output of the insurance companies in Nairobi City County was assessed by Kogo and Kimencu (2018) to find the effect of organizational capabilities. A target audience of 1300 employees from 51 insurance companies in Nairobi City County city was established in the undertaking, which included a sample of 375 participants. Utilizing projective and observational methodologies, qualitative data was examined. Quantitative data analysis used multiple linear regression analyses equally. The study's outcome depicted that while technological, human resource, and marketing capabilities were directly linked to performance, only technological capabilities bore a significant association with the success of insurance companies in Nairobi City County. These outcomes find application within the insurance industry only whereas private universities in Nairobi City County portray different and unique features as this study looks into.

Zulkifli et al. (2022) conducted a research in oil companies in Indonesia to investigate the association between leadership agility and top management. A quantitative approach was used involving a total of 175 respondents drawn from national and international oil companies in the country. Primary and secondary information was obtained and analyzed descriptively and inferentially with the help of structural equation modelling. From the analysis thereof, it was indicated that leadership agility development causes a significant effect on agile leaders and it carries a fundamental function in operational capabilities. Leadership agility is described as the policy or programs involved in developing the leadership agility in a manner that can improve the resilience and agility capacity through programs that address strategic human resource development. It also refers to the creation of core employee competencies consisting of three dimensions, including cognitive,

behavioral and contextual development and further notes that commitment high echelons of corporate management involves providing a pillar for the leader on improvements in incentives from the leadership, stimulation of ideas, putting together suitable choices and carrying out leadership activities (Zulkifil et al., 2021).

According to a study conducted in Taiwan industries about how managerial capacity affects performance of an organization, Ting et al. (2021) opine that managerial capacities target creating and changing operational capacities. The study focused on Taiwans electronic industry while data for the study was secondary that was collected from the Taiwan Economic Journal. The sample size was 456 electronics firms that had been listed in Taiwan from 2015 to 2018. Descriptive measures and a multivariate regression technique were operationalized to analyze inform obtained. The research concluded that managerial ability significantly affects firm performance.

Ahmad and Ahmad (2021) studied the effect of managerial skills in Pakistan. The used made use of the stratified proportionate probability sampling method to identify and select 265 small and medium enterprises (SME's) while structural equation was indulged to assess the research hypothesis. The outcome derived pointed out that there exists a positive effect of managerial skills in the economic output of small and medium enterprises (SME's)

According to Orji et al. (2023) study on the function of managerial skills on the economic output of small and medium enterprises (SME's) in Abuja Nigeria, it was found that insufficient managerial skills affected SME's performance and that managerial skills had

a substantial impression on the economic output of small and medium enterprises (SME's). The research collected data via structured questionnaires and the subsequent information was analysed by using tabulation and tables. The hypotheses were tested by using Kendall coefficient of concordance. The study targeted 240 business,

2.3.3 Knowledge Management Practices and Performance

Cherotich and Senaji (2023) recommended that libraries of public universities ought to improve their knowledge management practices. This was arrived at from their study on the interconnection linking knowledge management practices (KMP) and economic output of public university libraries in Nairobi. Their undertaking established that knowledge acquisition positively and significantly related with performance in public university libraries. Descriptive survey design was employed to establish a target population of 350 respondents whereas purposive sampling design was applied to determine a sample size of 130 participants. Data was analyzed by using the multiple linear regression analysis and data collected by way of questionnaires.

While studying knowledge management practices and skill acquisition among academic staff in selected federal universities in Nigeria Ogunyemi et al. (2023), established that a relationship between knowledge management practices and skill acquisition. The undertaking implemented survey research technique and collected data by using questionnaires from 884 respondents from a target population of 5720 respondents and data was assessed via partial least squares in structural equation modelling. The study thus

recommended that universities needed to improve their knowledge management practices to improve skill acquisition among academic staff.

Wanjiru (2022) carried out research concerning consequences of knowledge stewardship on firm performance and competitiveness of business entities. The findings thereof indicated that practices relating to knowledge management had a positive incidence on firm performance. The work utilized the resource advantage theory. Descriptive research design was adopted. It was revealed that knowledge management was directly interconnected with firm economic output significantly and hence the study concluded that knowledge management practices were essential for the survival of any business in a competitive environment.

Gatuyu and Kinyua (2020) conducted research on role of knowledge acquisition on firm performance with reference to SME's in the County of Meru, Kenya. The research was founded on three hypotheses; enterprise Resource Based View, Knowledge Based View and Organization Learning (OL) postulations. Five hundred SMEs in Meru County made up the target population from which one hundred and fifty SMEs were drawn via stratification to form the sample. Primary sources of information were preferred where questionnaires were filled to obtain the information. Data collection instruments were subjected to face, content and construct validity tests. The researchers tested reliability of their instruments using the Cronbach Alpha Coefficient. Inferential measures were derived via multivariate analysis. Inferences and generalizations were then made at 5% significance level. In their findings, they observed that SMEs in Meru County adopted strategies and practices for knowledge acquisition moderately. Consequently, it was

concluded that strategies for acquisition of knowledge had a direct and significant aftermath on SMEs performance in Meru County.

Knowledge acquisition, as noted by Chiu and Chen (2016.), emanates from employees' involvement and peoples' interaction, technology and resources. This acquisition also includes creation of knowhow or invention through the use present knowledge available in an organization. To this end, Al-Hayaly and Alnajjar (2016) carried out research in Jordan to establish the manner in which acquisition of knowledge influences performance. The research was conducted in thirteen private universities. A sample of three hundred and thirty four faculty members was drawn through stratification technique of sampling. Information was sourced by self-administering questionnaires to participants. Reliability, in the context of data collection instruments, was verified using Cronbach alpha. Study hypotheses were tested using inferential statistics. The association between knowledge acquisition and university performance was modelled via multiple regression. The researchers found that acquisition of knowledge greatly impacted performance of privately owned universities in Jordan and generally contributed to the performance of learning institutions. In the conclusion, it was noted that practices adopted for the acquisition of knowledge such as training and organizing conferences put universities performance in upward trajectory.

In their study on how acquisition of knowhow, transfer and usage impacts Higher Education Institutions' (HEIs) performance, coupled with the mediating duty of culture of an organizational, Djangone and El-Gayar (2021) found that management processes, particularly utilization and knowledge acquisition, impacted organizational performance

significantly. The research used a survey design where two hundred and nineteen employees drawn from twenty six universities in Pakistan were included. To test the hypotheses made, the researchers carried out factor analysis accompanied by multiple regression techniques.

Thumbi et al. (2020) examined the manner in which acquisition of knowledge and information distribution affected performance of employees in classified firms within the hospitality industry in Kenya. With the help of purposive and stratified random sampling techniques, the researchers drew a sample of two hundred and twenty five respondents from seventy five classified hospitality firms. A self-administered questionnaire helped in obtaining information which was analyzed using multiple regression combined with correlation analyses. Descriptive and explanatory research designs were incorporated. Before conducting quantitative analysis, diagnostic tests were done. Multiple regression analysis conducted was necessary so as to establish the empirical model for the association between exogenous and endogenous variables. To examine whether there was any indication statistically for a linear association among the similarly matched research variables, Pearson correlation analysis was conducted. The resulting correlation coefficients were given due consideration as solid if the coefficient $r > 0.5$ at 5% significance level. Results showed that knowledge acquisition and information distribution caused a direct and significant correlation on employee economic output and had an even higher impact on employees' performance perspective relating to efficacy and service delivery.

Knowledge sharing (KS) signifies the process of interchange of knowhow between researchers and academicians among peers within a university with the aim of enhancing the depth of their knowhow as well that of their respective universities (Ramjeawon & Rowley, 2018). Stephen (2022), researched on how SME's performance in Kisumu City County was impacted by knowledge management practices. Descriptive research design was adopted incorporating a universe of five hundred and thirty two SMEs firms from which he picked a sample of 150 SMEs from different sectors. Data collection was facilitated by use of a questionnaire and first and second order statistical measures came in handy to calculate means and standard deviations. He found out that knowledge creation, knowledge acquisition, knowledge sharing and implementation of knowledge had a direct interconnection with performance of SMEs in Kisumu County. He also established that these variables were satisfactory in the context of explaining economic output of SMEs in Kisumu County based on the resulting coefficient of multiple determination which explained 51.2% of the relationship.

Mullei and Misuko (2019) examined how ownership and sharing of knowledge affects organizational performance in specific corporations of the state in Kenya. The researchers used descriptive research design. One hundred and seventy nine state corporations were studied. The resulting quantitative data was put through analysis descriptively by obtaining first and second order measures. To verify the degree of effect that practices of knowledge management had on organizational economic output in the studied state corporations, Pearson's correlations analysis was done at 5% significance level 2-tailed.

The researchers reached a conclusion in which they stated that a significant effect was observed on performance of an organization on account of knowledge sharing.

Muhammed and Zaim (2020) assessed how peer knowledge sharing affect firms' financial and economic output accruing to innovativeness using survey design technique to obtain information and test the theoretical model. Structural equation modeling (SEM) was indulged to assess the hypothesized interconnections using information gathered from 330 knowledge workers in selected Turkish service-based organizations. The findings demonstrated that the level of employees' engagement in knowledge sharing habits with their peers has a positive effect on an organizations' knowledge management success. This would sequentially affect organizational performance positively and ultimately their financial performance. The study further found out the knowledge sharing behavior is greatly impacted by strong leadership and management support and that male and female respondents differed significantly in the way collaborative knowhow sharing's contribution impact on knowledge management triumph.

Ahmad and Karim (2019) study delved into the aftermath of knowledge sharing on firms' economic output. The study work out that knowledge sharing plays a pivotal role in attaining organizational goals in an efficient manner. The work further categorized the impact of knowledge sharing into three components which included the individual, group, and the organization. This demonstrated that knowledge sharing plays an integral role and has potential benefits derived from all levels of interaction, thereby directly enhancing performance. The study further concluded that knowledge sharing can be used to map out gaps in organizational knowledge through knowledge-sharing platforms such as blogs,

wikis, and the Internet. Lastly, sharing knowledge among employees helps the organization to outline relevant knowledge which is scantily shared thus breaking new ground for interrogation especially in cases where it is not available

Evwierhurhoma and Oga (2020) studied the role played by knowledge sharing in an organization on its performance by looking at manufacturing firms in Rivers State, Nigeria. They adopted cross-sectional survey methodology in which questionnaires were distributed to collect data from fifty five manufacturing firms in that state. Pearson product moment coefficient of correlation helped perform analysis of the data obtained in so as to delve into the association linking the variables involved assisted by the Statistical Package for Social Sciences (SPSS). In their outcome, they showed that sharing of knowledge bore a direct and significant aftermath on the performance of a firm against profit margins and market share of the participating manufacturing firms. The study thus made the recommendation that manufacturing firms ought to adopt better ways of sharing knowledge with the help of helpful and interconnected learning environments founded on trust, collective ownership and openness.

The works of Mahfodh et al. (2020) sought to establish the various tools for knowledge sharing and their aftermath on enhancing the firm economic output. The work randomly sampled employees of Jadara University who responded through a questionnaire. Results demonstrated that knowledge sharing tools namely training, organizational culture, best practices and knowledge basis had a statistically significant effect at 95% confidence level in enhancing organizational performance at Jadara university. The study suggested that every organization should create a conducive environment where trust between workers

is enhanced to create an organizational culture that embellishes knowledge sharing among team members and spreading best practices to all employees of Jadara university. By using questionnaire as the main tool of data collection the confidence in the study results may be lowered because questionnaires do not have the ability of probing responses further because most of them are structured instruments. The study would have probably employed interviews and focused discussions to increase confidence in the study outcomes.

Zaky and Soliman (2017) researched on how performance of banks in Egypt were affected by knowledge storage. They had a target population consisting of forty registered banks. However, via simple random technique, they studied a sample size of three banks. They employed a descriptive research approach and obtained data via self-administered questionnaires from fifty employees from the three banks. Data collection instruments' reliability was verified using Cronbach alpha while SPSS ran analysis. It was debunked that knowledge management was fundamentally strengthened by practices adopted to store knowledge such as updating of data bases, topnotch rules for authentication of organization procedures and access of databases by employees and this therefore ultimately influenced the performance of the banks positively.

Gakuo and Rotich (2017) took a case study of Oxfam and studied how to maintain organization competitiveness through effective control of KM practices. Correlation coupled with multivariate regression analytical procedures were engaged for purposes of analyzing the data obtained. A descriptive research technique to describe the impact of the predictors (knowledge conversion, acquisition, application and control) upon the

predicted variable (performance). It was established that the aforementioned exogenous variables significantly impacted performance of Oxfam.

In their study in the United Arab Emirates on Knowledge Management Practices and Universities, Buafra et al. (2021) established that knowledge stewardship practices had substantial and positive effect on the performance of state owned universities. The work went on to deduce that universities need to embrace knowledge Management practices (Knowledge acquisition, sharing, storage and implementation) to improve their performance and innovation.

2.3.4 Organizational Operational Processes and Performance

A firm's set of operational routines is comprised of organizational procedures and routines constituted and modelled by organizational knowledge and learning mechanisms. As such, modernizing and remodeling of operational systems is the aftermath of the direct outcome of the learning emanating from businesses, and is entrenched as a process of transformation of the firm's dynamic capabilities .Operational flexibility is a capability interconnected with the explicit company resources and competences of companies. Generally, operational flexibility diminishes the vulnerability and exposure of companies to the uncertainty of their surrounding both in their near and distant future. This reinforcement of the firm through elevated flexibility over different time-spans and time frames is directly interlinked with its improved performance. Long-term operational flexibility makes the firm to adapt and adjust better to variations and shifts in customer needs or technological dynamics that hasten the obsolescence of its processes. Alterations

in the firm's external environment can create impermanent fluctuations in operational levels of activity. In these cases, flexibility becomes a competitive tool that enables firms to make apt response to variations in external demand (Bustinza et al., 2017).

Kibuine et al. (2022), undertook a study on whether operational processes curbed the association linking economic output of chartered Universities in Kenya and organizational agility. A positivism view was adopted in the research. Thirty chartered public and eighteen private universities constituted the unit of analysis. Descriptive analysis and multiple regression methods were employed for the purpose of analyzing data. The researchers observed that operational processes had a mediating effect on the association between publicly owned universities performance and organizational agility. They recommended that stewards of universities should bring about frameworks that make universities gain competitive advantage via their operational processes. This was informed by the fact that universities are contingent and it is very difficult for any other individual within the university spectrum to imitate in a manner that would achieve similar efficiency.

Rintari et al. (2018) carried out research regarding the interconnection between firm performance of referral hospitals in Kenya and internal processes. The research established that processes within a referral hospital had a significant association with the hospital's organizational economic output. The study used a target population of 2961 and used the Yamane formula to put together the sample size. Collection of data from the respondents was done using structured questionnaires. The undertaking was premised on a survey research technique and used descriptive survey design. In the conclusion, it was

noted that a linear significant relation exists between internal processes and organizational performance.

Kering et al. (2020) sought to investigate how operational processes of manufacturing SMEs in affected their performance. In that research, explanatory research design was used. Proportionate stratified random method of sampling was applied to draw a sample size of one hundred and thirty six firms from the target population. The researchers collected primary data using self-administered questionnaires which were validated through scale development, constructs development from pre-existing studies, validation and instrument pre-testing. Prior to carrying out linear regression on the data obtained, diagnostic tests were conducted. It was recommended that the management of manufacturing SMEs ought to come up with better ways of handling processes relating to strategy. Such approaches would incorporate adopting totally different techniques that deviate from the formalized ways of dealing with strategic planning. This recommendation was founded on the finding that operational processes were partly responsible for performance recorded among firms engaged in manufacturing in Kenya's Nairobi City County.

2.3.5 Sponsorship and Performance

In their research targeting the moderating role of corporate patronage or sponsorship on organizational image of some targeted insurance companies in Nigeria, Okeibunor et al. (2022) deduced that corporate patronage had a hold on the organizational image. Survey research design guided that research and it utilized three hundred and eighty five

respondents in the final sample picked through multi-stage random sampling technique. Social exchange premise, which is founded on the principle of give and take, was used in the research. Likert scale questionnaires were distributed for data collection purposes while structural equation modelling was picked as a means for analyzing the resulting data. The research thus concludes that corporate sponsorship significantly influences organizational image.

According to a study carried out by Handoyo et al. (2023) on manufacturing firms in Indonesia ownership structure directly and significantly influenced the economic output of listed forms in Indonesia. The study made use of RBC hypothesis and argued that a firm's structural characteristics that included ownership structure was critical in shaping its performance. The sample size for the study was 135 manufacturing entities listed at the Indonesian stock exchange. The Generalized linear model was applied to analyze the data.

Roslan et al. (2023) sought to investigate the determinants of corporate sponsorship in Malaysian consumer products and services industry. The study utilized five largest listed companies in the consumer products and services industry for the period between 2000-2018. Panel data regression analysis was operationalized to carry out data analysis. The undertaking used financial characteristics that included debt ratio, return on assets and return on equity. The study established a slightly insignificant relationship between all the variables and corporate sponsorship.

In his study Sule et al. (2018) carried out a research on the impact of financing decisions on UK based firms. Data was analyzed using views software whereas least squares

modelling technique of regression analysis implemented. The target of the study was all the UK listed non-financial firms. The interconnection between the variables was determined using correlation method. Resulting outcome painted a scenario where capital structure influenced financial decisions and in turn firm performance. Salehi et al. (2021) conducted a research to investigate how sport financial sponsorship on brand equity impacted performance. Survey research technique was adopted. Data was analyzed descriptively and inferentially and was collected from tile and ceramics companies where the survey link was emailed to 780 managers and employees. Cronbach Alpha coefficient was determined and the structured equation model was applied for analysis. The results depicted a direct and significant effect from sport financial sponsorship on brand equity and brand equity then affects company performance significantly. The study further suggested that managers can enhance their business performance and in turn. In their study on corporate philanthropy Inegbedion et al. (2022) established that corporate philanthropic contribution had a significant impact on performance. Their study adopted the mix of qualitative, case study and exploratory research design. The study only utilized financial reports for data collected from the Dangote Corporation between the periods of 2017 to 2021. The undertaking thus reached the conclusion that there existed a significant relation linking profitability of the organization and corporate philanthropy.

In their study on organizational ownership structure and size, Rasit and Isa (2019), identified that company size could also influence the comprehensiveness of performance measurement. Two phases were involved in data collection: in the first phase, survey questionnaires were administered to one hundred and twenty managers running the

strategic business unit of manufacturing companies who were registered members of a body of manufacturers in Malaysia called the Federation of Malaysian Manufacturers. The next phase was done by carrying out semi-structured interviews specifically for SBU managers selected from ten companies that had foreign and local ownership structures. Boshnak (2023) in his study on ownership structure and firm performance, investigated ownership influence in Saudi Arabian firms. The study was pegged on the agency as well as resource dependence hypotheses. Descriptive analysis coupled with regression analytical techniques were engaged to analyze the information collected from 70 Saudi Arabian firms. Correlation analysis was also used to carry out analysis. The outcome pointed to presence of a significant and positive association linking ownership and firm economic output and therefore the study deduced as a conclusion that ownership significantly influenced firm performance

Haija and Alrabba (2017) examined the association between financial performance and ownership structure. They conducted the study looked at one hundred and fourteen companies that were over a period of seven years (from 2009 to 2015). The researchers analyzed their data using a multivariate regression model. It was established that financial performance was directly interconnected to family, institutional and managerial ownership. Conversely, financial performance of a firm had no significant association with foreign ownership.

Njagi et al. (2018) carried out research assessing the role of financial resources with regard to performance of government health organizations in Embu County, Kenya. Descriptive and explanatory methodologies were used in the research. It was observed that financial

resources had a significantly strong and direct effect on organization economic output. Additionally, it was noted that public hospitals that registered more financial resources would achieve higher performance levels as opposed to those with lesser financial resource endowment since that would make them have the required facilities and at the same time finance varied hospital operations. It was recommended that the Embu County government should make sure that there is sufficient quality medical equipment and medicines so as to provide their customers with proper health care.

Alkurdi et al. (2021) undertook research on the manner in which the structure of ownership impacts performance of firms in the Jordan. They used a multivariate regression analysis together with fixed regression effect for data analysis. The sample constituted all initial market firms in Jordan that were listed on the Amman Stock Exchange (ASE) starting from 2012 through to 2018. The researchers established a direct and significant association linking institutional ownership and economic output. Performance of a firm was evaluated on the basis of market measure Tobin's Q (TQ) and Return on Assets (ROA). The work's foundational theories were agency, stakeholder and resource dependence theories.

Nwokocha (2022) undertook to study the hold that location decision had on the economic output of women owned SME's in Nigeria. In the study a quantitative perspective got utilized where a questionnaire was the research instrument that was used to collect data. Principal component analysis (PCA), simple arithmetic average and standard deviation were adopted to conduct analysis. The results from the data collected showed that businesses experienced a significant increase and relative increase in the performance of

their business due to their location. The work therefore deduced that location had a positive aftermath on organizational performance.

Shamsudin et al. (2018) investigated factors influencing student enrolment in private universities in Malaysia. One thousand students drawn from privately owned universities in Kuala Lumpur and Selangor were involved in the work. Subsequent findings depicted a scenario where a significant link between the ability to make a decision by a student and location was evident. Location indirectly impacts on the cost of living for a student. In this regard, some universities offer accommodation only in the first semester and it is usually highly likely that hostels are situated outside the university grounds thereby incurring additional expenses in terms of transport to a student (Shamsudin et al., 2018).

Lumbwe et al. (2018) posit that the decision on location is informed by the formation of the physical scope in relation to geographical features to put up a firm or a business venture. This has a strategic value and is an endeavor for the distant future. Selecting a convenient location for a facility bears significance not only to existing businesses but also to emerging ones. The purpose of choosing an appropriate location is maximizing the benefits accruing to an enterprise. Meanwhile, decisions regarding location necessitate selecting premises for a business that will minimize operational costs.

Mehboob et al. (2012) examined determinants of students' enrollment decision in universities in Pakistan. Two hundred and fifty one students were involved in the research. In the results obtained, they established that the selection criteria for the students was informed by three major determinants which were further classified into eleven sub-

determinants. These determinants comprised micro factors (career, aptitude and aspiration) and macro determinants (facilities, promotion, courses, location, cost and reputation). There were also social determinants which were teachers, friends and parents.

Festo and Nkote (2013) investigated the interconnection amidst financial performance in privately owned universities in Uganda and corporate governance. They used cross sectional descriptive survey methodology. They collected data from four privately owned universities in Uganda. The results depicted an inverse association linking corporate governance variables and financial economic output. Meanwhile, decision making and policy were observed to be significant exogenous variables determining financial performance. The researchers recommended that universities would require to establish preferable guidelines and set up feasible decisions, constitute university council and senate committees that they can cope with which fathom their responsibilities, manage contingency and enhance steadfast effectiveness so as to realize more sound financial performance.

Buhaisi and Damagh (2021) studied how professional performance in privately owned universities is influenced by corporate governance in Palestine. Descriptive analytical approach was used. A sample of two hundred employees was picked randomly. They demonstrated in their findings that there was a significant interconnection between the use accreditation requirements, quality and corporate governance principles as per Ministry of Higher Education (MOHE) and the performance of privately owned universities. On account of the research findings obtained, they recommended that authorities ought to

establish nationwide standards for university governance that expedite development of guiding principles to the governance of privately owned universities.

To determine the influence of location choice, Salcedo et al. (2022) carried out a study on location's moderating effect on Philippine online business economic output. The work used multinomial logistic regression to get to know the correlation between online business location and overall business performance. The work used cross sectional research design and snow ball sampling method to target business owners in the Philippines. Data was collected using self-administered questionnaires. The study utilized the Cronbach alpha to measure reliability and the minimum acceptable threshold was 0.6. The outcome emanating from the study deduced that location moderated the relationship between performance and online business placement.

2.3.6 Operational Capabilities and Performance

Performance is increased via resources and operational capabilities and operational capabilities work together to achieve superior performance and give an organization the opportunity to earn a living at the current time while allowing the organization to resolve their organizational problems effectively (Khattak & Hassan (2019). Organizational performance may be influenced by many forms of internal capabilities including organizational slack. Organizational performance encompasses carrying out research on performance of a company against the aims of the company. In organizational performance, analysis is done between the intended outputs and those that are actually derived and a comparison is made (Ali et al., 2021). According to Nathania (2022),

operational capabilities look at the maintenance of an activity (for example the production of a particular commodity) using a combination of routines a set of routines whose ultimate goal is to execute and coordinate an array of tasks required to have the activities organized.

Saunila (2020) investigated the connections among operational capabilities, productivity, and economic output related to innovativeness for small and medium sized entities in Finland. They used data obtained from two hundred and three such enterprises. Formulated hypotheses were tested using linear regression analyses. Results obtained depicted a scenario where total productivity as a result of operational capabilities was significantly non-responsive to firm type. Nevertheless, the influence of operational capabilities on total productivity was proportionate to the increase in number of employees. In the recommendations, the researchers suggested that results may differ from country to country and thus the need for country specific features when fronting operational capabilities as preexisting conditions for productivity.

Gholampour and Rajabi (2021) in their work on the influence of marketing and operational capabilities on financial companies' performance, investigated if operational capability had an impact on performance companies in the financial segment listed in the Tehran Securities Exchange market. Twenty-four listed in the TSE from the financial sector from 2009-2013 were used in the research. It was concluded that for the realization of operational capability, it is imperative for companies to facilitate the application of electronic services through the formation of required infrastructural capacity and virtual branches to avail these services. This should be in tandem with timely and precise

forecasting of customer needs. Empirical research has demonstrated that for higher levels of performance to be reached, operations capabilities can be developed. This would also go hand in hand with an array of unique perspectives such as flexibility, cost, time and quality (Sansone et al., 2020).

Kyengo et al. (2019) investigated how performance of food processing firms was affected by their operational capacity within the County of Nairobi, Kenya. The research was on the basis of the resource based hypothesis. The researchers obtained data from 155 respondents and multistage probability sampling was employed. Self-administered structured questionnaires were distributed for purposes of obtaining primary data. To summarize the characteristics of the sample, descriptive statistics were used. A simple linear regression framework was engaged for purposes of testing the formulated research hypotheses. To test for validity the following tests were conducted the face, content, and construct validity. The work established that there existed a direct aftermath on the performance firms processing food in the County of Nairobi on account of their operational capacity. Consequently, capabilities arise through channels regarding collaboration and amalgamation of activities and procedures, and are the end product of the concerted learning emanating from the firm's differentiated individual assets (Bustinza et al., 2018).

A study carried out by Wandiga et al. (2019) enquired the influence of operational master plan on economic output of management consultancy firms in Kenya. The study targeted 227 management consultancy firms and 144 participants were picked via stratified random sampling procedure. The study found that an organizations operational strategy was very

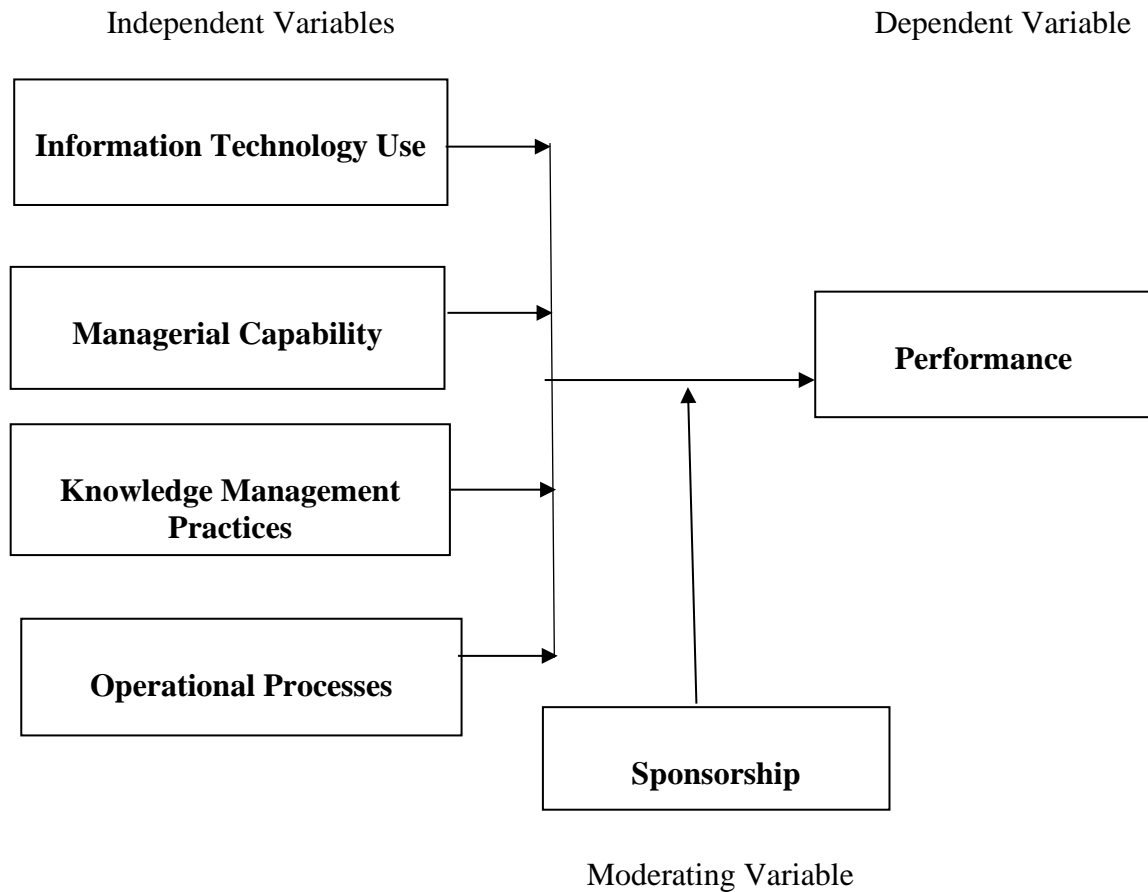
essential in shaping the extended capabilities of business entities and this in turn influenced their role in how they were able to successfully pursue performance. The study used RBV and Social Capital hypotheses.

2.4 Conceptual Framework

A conceptual framework serves as a theoretical foundation that guides the study by providing a structured understanding of the key concepts, variables, and relationships under investigation. It establishes a framework for interpreting how operational capabilities, sponsorship influence Performance of Kenya's private chartered universities. The independent variables were: Information technology use, Managerial capabilities, Knowledge management practices and operational processes. The moderating variable was sponsorship while the endogenous variable was performance. The interconnection linking these variables is shown in figure 2 below.

Figure 2.2

Conceptual framework



Source: Author 2024

Information Technology Use

Rasul and Sahu (2011) stated that information technology has transformed operations in organizations via new ways of collecting, storing, retrieving, processing, and disseminating information electronically. In a world characterized by mass higher

education, scarce resources, and rising competition, technology seems to provide a myriad of ways that assist institutions in managing scarce resources efficiently and enhance effectiveness in the processes involved in learning and teaching (Alderete & Formichella, 2016). Ellore et al. (2014) studied the role played by internet use on academic performance and face to face communication. The study revealed that most students, on account of internet availability, access the internet via their cellphones. This makes them widen their academic information.

Managerial Capability

Any organization's top management seeks to maximize operational efficiency by all means possible so as to guarantee sustainability in their competitive advantage and thrive within the market (Okenda et al., 2017). Kirugumi et al. (2021) conducted research on internationalization status of public universities in Kenya how this affects managerial capability. A descriptive research design was employed among thirty-one public chartered universities in Kenya. A cross-sectional survey containing descriptive and analytical techniques to address the objectives was employed. The research was able to establish that there existed a significantly direct aftermath between managerial capability and internationalization status. Based on the study outcomes, the deduction made was that managerial capability can be broken down into three different capacities; decision making capacity, shared vision capacity and strategic thinking capacity. It was recommended that internationalization processes in institutions ought to be backed up with solid leadership support from management.

Knowledge Management

Iqbal et al. (2019) investigated how knowledge management enablers affects KM processes in research universities. The output derived showed that KM processes portray direct and indirect ramifications on organizational performance (OP) through innovation. Choi et al. (2013) highlighted that management of knowledge involves procedures responsible for managing knowhow and facilitators (or capacities) to uphold these procedures. They also state that knowledge management facilitators are made up of the culture of an organization, its information technology support, the people and its structure.

Organizational Operational Processes and Routines

Feldman et al. (2019) underpin that organizational processes as well as routines form the basis of elementary units of organizations and organizing. In recent years, empirical research has demonstrated the manner in which tendency of routines inform organizational solidness and change. Routines are reservoirs of tacit knowledge, skills and organizational memory. They are also operationalized as processes pertaining to an organization in conjunction with its resources so as to attain specific objectives.

Operational routines for a firm is a matrix consisting organizational processes and routines made up and modelled on the basis of organizational learning mechanisms. Bustinza et al. (2018), in their survey of one hundred and ninety eight deans of all faculties across the entire thirty nine publicly owned universities in Australian, Bobe & Kober (2020) found that official, information-based processes and routines practiced by managers so as to uphold or change trends in the activities of an organization influence performance in

public universities. The research was premised on the upper echelon theory. To collect data, questionnaires were used and subsequently data was analyzed.

Sponsorship

Organizational sponsorship has a mediatory role in the interconnection between new organizations and their surrounding by coming up with a setting characterized by resources that are meant to raise the rates of survival among the emerging organizations (Amezcuca et al., 2013). Sponsorship has the potential to lower or accelerate survival rates among new organizations. One definition of corporate sponsorship is that corporations regularly provide financial and non monetary support to organisations to achieve their goals. The organisation in return acknowledges that the company has funded their activities, processes, programmes and or their major events. Another definition is that, as compared to corporate donations, corporate sponsorship comprises of money and in-kind gifts in response for recognition and appreciation with a certain cause or event (Ali, 2017). The key difference is that sponsorships always include some kind of material benefit for the sponsor in terms of marketing communication rights and recognition, whereas corporate donations are altruistic activities with the primary goal of knowing that good is being done (Ali et al., 2017).

Organizational Performance

Organization performance has been the most imperative consideration for every organization, be it profit or non-profit organization. (Akpa et al., 2021). All interested parties of any university dream of achieving satisfactory performance and it is also a

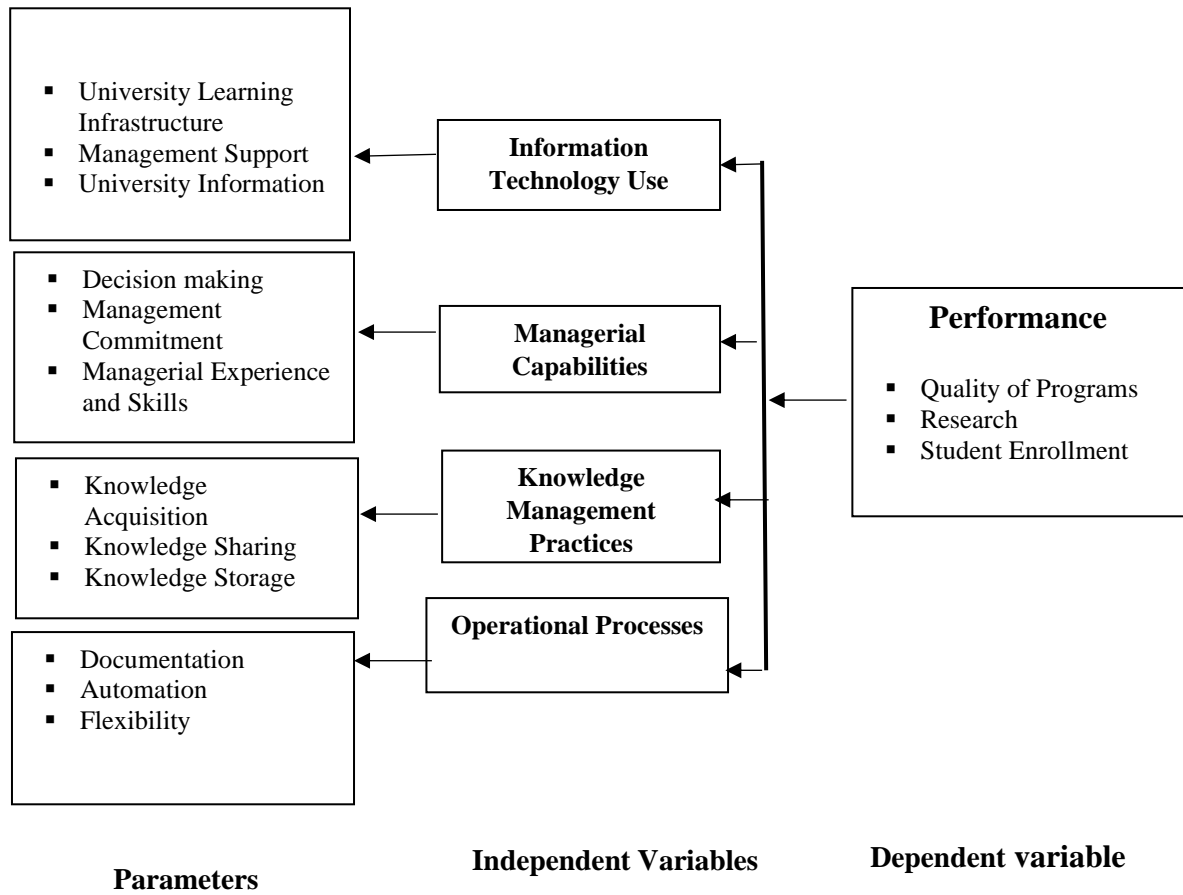
defining factor with respect to where students and staff would wish to be associated with. University growth as signaled by students' enrollment and the number of courses offered by the university determines the level of expansion for that university. Feedback obtained from the university's clientele also informs its performance in comparison to others because it will be a measure of the degree of satisfaction derived from the services rendered by the institution (Koskei, 2017). Ameri and Ghonim (2022) argue that capabilities can be used as a baseline for excellence and enable higher education institutions measure their performance.

2.5 Operational Framework

According to Tobi and Kampen (2018), operational framework refers to the various variables used in research to achieve objectives. The column of indicators shows how the variables will be measured. Each variable will be measured with pointers as presented in figure 2.3

Figure 2.3

Operational framework



Source: Author 2024

2.6 Summary of Literature Review

This chapter covered the theories that underpinned the study which were RBV, dynamic capabilities postulation, knowledge based hypothesis, stewardship premise and the balanced score card. The undertaking used a conceptual and operational framework to demonstrate the linkage connecting the variables under study. From the gaps, there was evidence that past researchers had used different study variables of operational capabilities as those utilized in this study. Most of the literature reviewed did not use sponsorship as a moderating variable. In the methodology most of the studies had adopted different research designs, study populations and different scopes. Additionally, the literature reviewed covered constructs of information technology use, managerial capabilities, knowledge management practices, operational processes, sponsorship and economic output of private chartered universities in Kenya. The literature was instrumental in bringing out the relationship between the study variables. An abridgement of the scrutinized literature is summarized in table 1 below:

Table 2.1
Summary of Literature Review Table

Researcher	Area of Focus	Key Findings	Approaches	Knowledge Gaps	Focus of Current study
Asser et al. (2023)	Adoption of technology interventions on performance of a selection of Commercial Public Corporations	IT infrastructure acquisition exhibited a positive correlation. The findings indicated a direct association between use of information technology and company performance	F and t tests and regression analysis	Contextual gap - Study was conducted in commercial state corporations	Present research took place in Kenya. Cross section survey plan was utilized coupled with logit regression
Seclen-Luna et al. (2022)	effects of using digital technologies on company performance in a developing country	use of information technology and company performance	regression analysis model	Contextual gap-Research done in Peru hence contextual gap. Methodological gap-Regression Analysis was used	Present research took place in Kenya. Cross section survey plan was utilized coupled with logit regression
Alam et al. (2019)	competitiveness, innovation capability and performance	Performance can be improved directly by using information technology	quantitative approach	contextual Gap – Research done in Indonesia. Methodological gap-quantitative research used	Present research took place in Kenya. Cross section survey plan was utilized coupled with logit regression
Sakwa et al. (2018)	How information technology infrastructure influences Public universities’ supply chain	Infrastructure related to technology information had a mediating aftermath	Descriptive survey	contextual Gap – Study focused on Supply Chain Performance	Current study focused on Private Chartered Universities

		on the interconnection between SCPIC and SCP			Methodological gap- descriptive survey used Conceptual gap- information technology used as a mediator	Information technology infrastructure used as parameter in the independent variable
Lee et al. (2016)	How IT Investment influences firm performance	The work concludes that investing in information technology use leads to business growth. Findings indicated that investing in IT infrastructure occasioned a rise not only in return on investment but also in return on assets.	Generalized Least Squares (GLS) panel regression model		Theoretical gap -The research was premised on only one postulation: RBV. Methodological gap – the study used the generalized least square regression model	The current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory. Logit regression analysis was applied.
Stores et al. (2018)	Aftermath of Information Technology on Firm economic output	The study thus concluded that ICT use can significantly improve firm performance and that organizations need innovation to improve performance.	Panel data approach		Methodological gap -The study was longitudinal in nature Contextual gap –the study was conducted in Malaysia	Current study used the mixed approach design The current was descriptive in nature and was conducted in Kenya
Masyhuri et al. (2021)	Implication of ICT utilization on SME's performance		Partial Least Squares Structural Equation Modeling method		Methodological gap – the study used partial least squares equation model Contextual gap-The study was carried out on SMEs	Current study used the mixed approach design and was carried out in private chartered universities

Mithas et al. (2011)	information capacity and performance	Findings showed that firms capacity had a direct impact on performance	Quantitative research	Contextual gap - Study conducted in Singapore Methodological gap – Study utilized quantitative research	Present research was carried out on Kenya’s private chartered universities Mixed approach design adopted
Makhloufi et al. (2018)	IT infrastructure and Performance	IT infrastructure significantly affects competitive advantage.	quantitative research	Contextual gap – based in Algeria in high tech industries Methodological gap – Study utilized quantitative research	Present research took place in Kenya. Cross section survey plan was utilized
Bhatt et al. (2017)	Competitive advantage and information systems	Key findings indicate that information technology influences performance Findings showed that information technology	cross sectional study	The study was conducted on IT firms in China hence contextual gap Conceptual gap – the study used competitive advantage as a variable	Present research targeted Kenya’s Private Chartered Universities. Performance used as a variable
Kuźnik et al. (2018)	Information Technology Infrastructure and performance	infrastructure affected performance of libraries	quantitative research	The study was conducted on Libraries in Poland hence contextual gap	Present research took place in Kenya Present research targeted Kenya’s Private Chartered Universities.
Khattak and Jan (2015),	Access to information technology and student performance	information and commutation technology access significant affect students’ performance	quantitative research	Contextual Gap – work based in Pakistan Methodological gap – done on political science students	Research done on Middle level managers who comprised of principals, directors, deans of faculties, registrars and departmental chairs

Widajanti and Ratnawati (2020)	information technology in attaining innovation-based performance in a company	Optimizing the use of IT infrastructure can produce innovations to achieve company performance.	qualitative interpretive research	Methodological gap - Study focused on a case study of one organisation	The current study used a census study to survey all the private chartered universities in Kenya
Dzinekou and Arasa (2018)	managerial capacities and privately owned universities performance	Managerial capabilities had direct influence on private universities performance. managerial capability directly and	survey research design	Research targeted privately owned universities hence contextual gap	Present research targeted Kenya's Private Chartered Universities.
Kirugumi et al. (2021)	managerial capability and internationalization status of public universities	significantly influenced internationalization status	Cross-sectional survey	Study focused on public chartered universities hence contextual gap	Present research targeted Kenya's Private Chartered Universities.
Kogo and Kimencu (2018)	Organizational capabilities and performance of insurance companies	Capability with regard to technology was significantly linked with insurance companies' success	multiple linear regression analyses	Contextual Gap – work targeted insurance companies	Present research targeted Kenya's Private Chartered Universities.

Zulkifli et al. (2022)	leadership agility and top management	Leadership agility influences operational capabilities	quantitative approach	Contextual gap – based on Indonesian oil companies Methodical gap – work used leadership agility as a parameter	Current study focused on Private Chartered Universities The current study used managerial skills as a parameter in Kenya
Ting et al. (2021)	Managerial Capacity and Performance	managerial ability significantly affects firm performance	Descriptive and multivariate regression model, Secondary data used	Contextual gap - Study was conducted on Taiwan Industries Methodological gap – The study used multivariate regression analysis	Present research targeted Kenya’s Private Chartered Universities and primary data used
Ahmad and Ahmad (2021)	Managerial ability’s aftermath on economic output	Work portrayed managerial skills’ direct impact on economic output of (SME’s)	stratified proportionate probability sampling	Contextual gap - Study focused on SME's in Pakistan hence contextual gap Methodological gap – the study made use of stratified sampling	Present research targeted Kenya’s Private Chartered Universities. Census method applied
Orji et al. (2023)	Managerial Skills and performance	Managerial skills had a substantial effect on the performance of SME's	Kendall coefficient of concordance	Study was based on SMES in Nigeria bringing the contextual gap and used RBV theory only thus presenting a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.

Wanjiru (2022)		How stewardship of knowledge impacts economic output	Management had a significant and direct aftermath on a firm's economic output	descriptive research design	study was anchored on resource advantage theory thus presenting a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.
Gatuyu and (2020)	Kinyua	knowledge acquisition on firm performance	Knowledge had a direct and significant impact on SMEs performance in Meru County.	descriptive research design	The research was anchored on three hypotheses; Knowledge Based, Organization Learning, and Enterprise Resource Based View hypothesis, thus presenting a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.
Al-Hayaly and (2016)	Alnajjar	knowledge acquisition and firm performance	acquisition of knowledge greatly impacted performance of privately owned universities in Jordan	multiple regression analysis	Study was conducted in private universities in Jordan hence contextual gap	Current study focused on Private Chartered Universities in Kenya
Djangone and (2021)	El-Gayar	knowledge acquisition, transfer and usage and performance of Higher Education institutions	knowledge acquisition, impacted organizational performance significantly	Factor Analysis	Study was conducted in 26 universities in Pakistan hence contextual gap- Methodological gap- factor analysis was used in data analysis	Current study focused on Private Chartered Universities in Kenya Ordinal logistic regression was used to analyse data

Thumbi et al. (2020)	acquisition of knowledge and information distribution on performance	Results showed that knowledge acquisition and information distribution caused a direct and significant correlation on employee performance	Descriptive and explanatory research design	Study was conducted in the hospitality Industry hence contextual gap – Methodological gap – explanatory research design used	Present undertaking targeted higher education sector and used a mixed approach research design.
Stephen (2022)	Practices of knowledge stewardship and performance	Creation, sharing, acquisition, and implementation of knowledge had a direct relationship with performance of SMEs in Kisumu County	descriptive research design	Study carried out on SMES in Kisumu County hence contextual gap	Current undertaking targeted Kenya's Private Chartered Universities
Mullei and Misuko (2019)	Knowledge stewardship and economic output	Sharing of knowledge impacted economic output significantly	descriptive research design	Study focused on state corporations in Kenya thus a contextual gap	Current undertaking targeted Kenya's Private Chartered Universities
Muhammed and Zaim (2020)	Knowledge sharing and financial performance	Customs affiliated to sharing of knowledge impacted directly on organizations financial output	Structural equation modeling	Study was based on service based organisations in Turkey hence contextual gap – the study used structural modelling equation	Present research targeted Kenya's Private Chartered Universities. Ordinal logistic regression analysis utilized
Ahmad and Karim (2019)	Aftermath of knowledge sharing on firms economic output	Sharing of knowledge impacted economic output of a firm	systematic literature review	Study was empirical literature review	Study conducted using primary data and empirical literature review

Evwierhurhoma and Oga (2020)	Knowledge sharing and organizational performance	Sharing of knowledge did resulted in direct and significant aftermath on economic output	cross-sectional survey	Work was conducted on manufacturing firms in Nigeria hence contextual gap	Current undertaking targeted Kenya's Private Chartered Universities
Mahfodh et al. (2020)	Knowledge sharing and firm economic output.	Work established a statistically significant aftermath of knowledge sharing on firm economic output	Multiple regression analysis	Work was conducted in Jordan hence a contextual gap	Current study was carried out in Kenyan Private chartered universities
Zaky and Soliman (2017)	Knowledge storage and firm performance	access to database influenced bank performance positively	descriptive research	study was conducted in banks in Egypt hence contextual gap	Current undertaking targeted Kenya's Private Chartered Universities
Gakuo and Rotich (2017)	Knowledge stewardship Practices on performance	The work portrayed a substantially direct aftermath of knowledge stewardship routines on economic output	Correlation analysis coupled with multivariate regression analysis	Methodological gap - Study carried out in one organization	This research employed census of Kenya's private chartered universities
Buafra et al. (2021)	Aftermath of knowledge stewardship routines on economic output of Universities	The work portrayed presence of influence on economic output	descriptive research design	Study carried out on public universities in the united Arab emirates hence contextual gap	Current study focused on Private Chartered Universities in Kenya

Kibuine et al. (2022)	Moderating aftermath of operational processes on economic output of public chartered universities	Mediating aftermath was seen in the interconnection between operational processes and publicly owned universities' economic output	Positivist research design	Study used operational processes as a moderating variable on public chartered universities thus presenting a conceptual gap	study used operational process as an independent variable in private chartered universities
Rintari et al. (2018)	between firm performance of referral hospitals in Kenya and internal processes	a linear significant relation exists between internal processes and organizational performance.	descriptive survey design	Study was conducted on referral hospitals in Kenya	study used operational process as an independent variable in private chartered universities
Kering et al. (2020)	operational processes and firm performance	that operational processes were partly responsible for performance	explanatory research design was used	Study was conducted on SME's hence presenting a contextual gap By utilizing the explanatory research design this brings out the methodological gap	Present research targeted Kenya's private chartered universities. Cross section survey plan was utilized
Okeibunor et al. (2022)	Corporate Sponsorship and Organizational Image	Corporate sponsorship significantly influences organizational image.	Survey research design	Study used social exchange theory and was based on insurance companies in Nigeria thus presenting a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.

Roslan et al. (2023)	determinants of corporate sponsorship on economic output	Work portrayed a slightly insignificant interconnection among all the variables and corporate sponsorship	Panel data regression analysis	Contextual Gap – the study focused on Malaysian consumer products and services industry Methodological gap – The study used panel data regression analysis	Present research targeted Kenya’s Private Chartered Universities. Ordinal logistic regression analysis utilized
Sule et al. (2018)	impact of financing decisions on UK based firms	Output depicted that composition of capital influenced financial decisions and in turn firm performance.	ordinary least squares method	Contextual Gap – the study focused on UK based firms Methodological gap – The study used ordinary least squares method	Present research targeted Kenya’s Private Chartered Universities. Ordinal logistic regression analysis utilized
Salehi et al. (2021)	Financial sponsorship and brand equity	results depicted a direct and significant effect from sport financial sponsorship on brand equity	Survey research design	Study focused on brand equity as a variable hence bringing out the conceptual gap	study focused on organizational performance of private chartered universities
Inegbedion et al. (2022)	Corporate philanthropic contribution aftermath on economic output was significant.	A significant relation exists between the profitability of the organization and corporate philanthropy	Qualitative, case study and exploratory research design.	The study focused on one organisation hence a contextual gap and utilized the exploratory research design hence a methodological gap	Present research targeted Kenya’s Private Chartered Universities. Ordinal logistic regression analysis utilized
Rasit and Isa (2019)	ownership structure and firm performance	the research identified that size of the companies may also influence the performance	descriptive research design	Study was conducted on manufacturing firms hence contextual gap	Current study focused on Private Chartered Universities in Kenya

Boshnak (2023)	Composition of ownership versus firm economic output	Output depicted a significant and direct association between ownership and firm economic output.	descriptive research design	Study focused on agency theory and resource dependency theory thus presenting a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.
Haija and Alrabba (2017)	financial performance and ownership structure.	It was established that financial performance was directly interconnected to family, institutional and managerial ownership	longitudinal research	Study used a longitudinal approach bringing out the methodological gap	the current study used a positivist approach
Njagi et al. (2018)	Financail resources and firm performance	financial resources had a significantly strong and direct effect on organization performance.	Descriptive and explanatory methodologies	Study was conducted on government health organizations hence contextual gap The study made use of the explanatory methodology thus presenting a methodological gap	Present research targeted Kenya's Private Chartered Universities. Mixed approach design applied.
Alkurdi et al. (2021)	Composition of ownership versus firm economic output	A direct and significant association between institutional ownership and firm economic output identified.	Descriptive technique	Work founded on agency, stakeholder and resource dependence postulations thereby portraying a theoretical gap	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory.

Nwokocha (2022)	influence of location decision on economic output	Deduction made pertains to a direct aftermath on firm economic output on account of location.	Principal component analysis	Study focused on women owned SME's hence contextual gap	Current study focused on Private Chartered Universities in Kenya
Shamsudin et al. (2018)	factors influencing student enrolment in private universities	The findings show that location influenced student decision	descriptive research design	Study was based on privately owned universities in Malaysia hence contextual gap	Current undertaking targeted Kenya's Private Chartered Universities
Mehboob et al. (2012)	determinants of students' enrollment decision	The findings show that location influenced student decision	descriptive research design	Study was based on universities in Pakistan hence contextual gap	Current study focused on Private Chartered Universities in Kenya
Festo and Nkote (2013)	Financial Performance and Corporate governance	The results depicted an inverse association between corporate governance variables and financial performance.	cross sectional descriptive survey methodology	Contextual gap - Study in Ugandan universities	Current undertaking targeted Kenya's Private Chartered Universities
Buhaisi and Damagh (2021)	Professional performance and corporate governance	Corporate governance influenced performance	Descriptive analytical approach	Study focused on Private universities in Palestine hence a contextual gap	Current study focused on Private Chartered Universities in Kenya
Salcedo et al. (2022)	Location's moderating aftermath on economic out of Philippine online business.	Study outcome showed that location moderated the relationship between performance	cross sectional research design	Study focused on Online businesses in Philippines hence a contextual gap	Current study focused on Private Chartered Universities in Kenya

Saunila (2020)	operational capabilities, productivity, and innovation performance for SMEs	Output depicted a scenario where operational capability had an impact on firm performance	descriptive research design	Study was conducted on SME's in Finland hence contextual gap	Current study focused on Private Chartered Universities in Kenya
Gholampour and Rajabi (2021)	marketing and operational capabilities on financial companies' performance	The findings indicate that operational capability bore an aftermath on firm economic output.	longitudinal research	Work utilized a longitudinal approach thereby portraying a deficiency in techniques.	Present research utilized a positivist approach.
Kyengo et al. (2019)	Operational capability and Firm performance	Presence of a direct aftermath was established on economic output of firms processing food in the County of Nairobi	multistage probability sampling and descriptive design	Study was conducted in food processing firms hence contextual gap The study also used multi stage probability sampling bringing out the methodological gap	Present research targeted Kenya's Private Chartered Universities. Census method applied.
Wandiga et al. (2019)	operational strategy and performance	The findings showed that operational strategy was essential for firm performance	stratified random sampling	The study used RBV and Social Capital postulations thereby portraying a deficiency in theory. Methodological gap – work used stratified random sampling	Current research was founded on four theories: Dynamic Capabilities, Agency, Resource Based View as well as Knowledge Based theory. Census technique applied in the current work.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the study methodology systematically. It covers the study design that were employed, the target population for the study, sampling technique, data collection tools and procedures for data analysis.

3.2 Research Methodology

3.2.1 Research Philosophy

Philosophy in research points to an assurance concerning the manner in which information associated with a particular phenomenon ought to be collected, analyzed and used. It encompasses the growth of knowhow plus the essence of that knowhow (Saunders et al., 2015). This research took a positivist approach. The approach is used when making an attempt to unravel the truth regarding the actual perspective of things, or at least, how one can focus on them. Positivists hypothesize that reality is well anchored and it can be looked at and recounted from an objective point of view while not interfering with the phenomena under study (Mkansi & Acheampong, 2012). The approach is a well-designed technique that brings together logical deductions with very accurate experimental or first-hand observations on how individuals behave when opening up. It also confirms causal associations which are valid with a known probability and can, therefore, be applied when

forecasting. Positivist philosophy is therefore viewed as the most appropriate quantitative designs (Steen & Roberts, 2011).

Through the positivist approach, the researcher can use an extant postulation to formulate hypotheses that will be used in the development of a theory and come up with inferential analysis that tests the hypothesis. This study thus investigated operational capabilities, sponsorship as well as performance of Kenya's chartered private universities by applying theories to develop hypotheses that will be used to test the existing theories and develop theories.

3.2.2 Research Design

Kothari (2014) explains that design in the context of research is the structural concept in which a study is carried out. In other words, it comprises the blueprint within which collection, measurement and analysis of data will be accomplished. This research made use of mixed methods research which were anchored on cross-sectional survey design. Research design directs the researcher so as to pay attention to the study objectives in the realization of reality (Donald & Delno, 2006). To attain this, the study made use of qualitative and quantitative study designs. The mixed methods technique was presumed appropriate for this study since it allows for the exploration of a variation of elements via and qualitative approaches. In order to guarantee a vivid link, caution was taken when considering the interconnection between both approaches (Mitchell & Education, 2018).

Cross sectional survey research design refers to a procedure through which information is gathered via interviews or questionnaire administration to a sample of respondents.

Cross-sectional survey plan was useful in the formulation of hypotheses for the research as well as in verifying the probe of the association connecting research variables (Kothari, 2014). As such, this methodology was best suited for this research since it sought to test the evaluation of the link between variables. Kamaamia (2017) in his undertaking on the hold that company culture has on economic output at Kenya School of Monetary Studies operationalized descriptive survey procedure. Nonetheless, carrying out research using mixed methods technique is not without difficulties since the technique is complex in nature, thereby calling for researchers to get acquainted with a variety of methodology techniques. Ascertaining the most concise timing for engaging sequential techniques may also present some limitations (Mitchell & Education, 2018).

3.3 Target Population

In the works of Cooper and Schindler (2008), a population refers to the aggregate of constituents or features an investigator sets out to draw inferences from. Gall et al. (2007) point out two distinct population types: target and accessible. Target population is made up of the summation of features essential to an actual or theoretical set of objects, events or people from which an investigator will make generalizations on the basis of the outcome of their research. Conversely, accessible population comprises of an aggregate of all components or individuals who practically could be picked for inclusion in the sample. A study population thus implies an amalgamation of items, objects or individuals from which samples for measurement are derived. Therefore, a population refers to a researcher's 'universe'.

This research targeted a population of twenty five chartered private universities in Kenya (CUE, 2022). A census for the privately owned chartered universities in Kenya was done. Oakes (2017) defines of a census as a coalescence of data obtained from the population that is under focus in a research. Cohen et al. (2017) state that a census is applicable when precise detail for many sub-categories of the population is preferred and also when the population is not that enormous to be prohibited by costs.

In addition, Marshall and Rossman (2014) stated that sample surveys are applicable in situations where it is impossible or impractical to do a census within the population on each and every element. In this research, all privately owned Kenyan universities constituted the unit of analysis while unit of observation encompassed principals, directors, deans of faculties, registrars as well as departmental chairs in a total of 25 Kenya’s chartered private universities.

Table 3.1

Distribution of Target Respondents

Category	Size
Campus directors	24
Directorate Directors	48
Registrars	103
Head of Departments	256
Deans	112
Total	543

Source: CUE (2023)

3.4 Sampling Procedure

Sample design refers to the architecture or the strategy through which respondents will be selected (Kothari, 2014). Sampling in other words denotes the structured choice specific for a finite amount of objects or subjects from components or subjects of a population that are theoretically specified. The principle is to make generalizations about the whole population.

Babbie (2010) posits that a sampling technique (alternatively named sampling design) is a procedure through which an investigator will get to select the most appropriate participants with the desired qualities to address the research questions. Additionally, it helps a researcher pick a sample that will certainly be adopted to amass the required information. This study's sampling frame was comprised of all chartered private universities from which a representative selection was made. Bailey (2008) clarifies that the sampling frame enables establishment of a sampling unit which points to a particular member of a set of entities to be researched thereby making it the material source of the random variable.

According to Bell (2018), a sample is a set of not very many individuals or items that share indistinguishable features with the entire population.

The requisite sample size should be representative and economical to amass information from. Stratified sampling procedure was adopted for the research throughout the strata along with the application of the Taro Yamane probabilistic formula where the researcher obtained a representative sample that was also economic to obtain.

$n = N / [1 + N(e^2)]$, whereby n represents final sample for the staff respondents, N constituted the population of the staff, and e was the margin of error for the research, which was given at a margin of error of 5%. Therefore, the sample size was mathematically computed as: $n=543 / [1+543(0.05*0.05)] = 230.329$ which represents 230 respondents to the nearest figure.

Table 3.2

Sample Distribution

Department	Population	Ratio	Sample size
Campus directors	24	0.04	9
Directors of Directorates	48	0.09	21
Registrars	103	0.19	44
Head of Departments	256	0.47	108
Deans	112	0.21	48
Total	543	1.0	230

Source: Researcher (2024)

3.5 Data Collection Instruments

Primary data combined with secondary information was used for this research. Primary data was amassed via questionnaires and an interview guide. Questionnaire refers to a data collection technique where selected participants give written down responses to written questions (Gillham, 2008). Solans-Domènech et al. (2019) posited that a questionnaire refers an assessment mechanism whose purpose is to relay information to

the researcher pertaining what is necessary. Its usage is in gathering information from targeted participants so as to attain the objective of the study. In addressing their suitability for a descriptive study, Kothari (2019) noted that structured questionnaires are easy to use and do not asked for advanced skills.

A standardized questionnaire was developed in a manner that allowed inclusivity of all variables in the research. A questionnaire refers to an instrument for research that helps in collecting information from a large sample and its main goal is to convert study aims into particular questions. The close-ended questions were put in the form of a 5-point Likert scale to estimate the predetermined research aims. Likert scale was delineated to a facilitate assessment of how strongly participants concurred or were in contention with a relayed aspect. Kothari et al. (2009) elucidated that 5-Likert scales are more definitive and they possess the ability to avail much more data. Consequently, a 5- Likert scale spanning from “Strongly disagree” to “Strongly agree” was utilized. Alipour et al. (2019) studied the concept of sustainability within the hotel industry where they made use of a 5-Likert scale. The Likert scale is appropriate when the worth of concern at hand connotes a belief or perspective, and it is impossible to provide the aftermath or worth sought with a summarized preciseness or arouses sensitivity (Miriti, 2021).

Majority of research in business in addition to affiliated courses in social science literature largely use Likert-scales (Zikmund et al., 2010). To avoid response bias, the sequence of words in a number of questions was reversed. Response bias arises in the event a participant provides responses that are alike owing to boredom or deficiency in attentiveness. However, reversal of words for a few questions can be a hindrance to a

participant in terms of mechanically marking on the items on the appropriate end of the scale. Therefore, by amalgamating positively and negatively worded questions, there was an anticipation that a participant would be attentive. Responses for every question give data necessary for verifying the hypotheses. A questionnaire has merits that make it superior to other instruments. These include: ease of gathering information from large samples, no chance for partiality because it appears in paper form and confidentiality is strictly guaranteed. To generate thorough information from the respondents, the research used self-administered semi-structured questionnaires and a google form on account of ease of administration and a guarantee of privacy (Sekaran & Bougie, 2014). Gupta et al. (2002), suggest that enough time line should be given to respondents. The questions in the questionnaires were organized in sections on the basis of the order of objectives in chapter one and chapter two of the research for consistency purposes. The literature scrutinized and the conceptual framework in chapter two gave direction on the development of the sentiments concerning all the constructs of the undertaking. The questionnaire was organized into sections that is Section A and Section B. Questionnaires were administered to the participants who were given a week to fill them. After one week they were picked and an additional week was given as an extension. The questionnaire that were preferred had both open questions and Likert-type questions. The questionnaire had Likert-type questions to collect data on the perception through a range spanning from one through to five, whereby 1 referred to strongly disagree whereas 5 was strongly agree. On the other hand, secondary data comprised of relevant and dated information emanating from published journals and research papers. The data was crucial in aiding the researcher to deduce the critical relationship and association between the study constructs.

3.6 Data Collection Procedures

Data was collected in two stages. Firstly, an introductory letter from the University was obtained, vividly stipulating the intention to conduct a study and making a formal request from the authorities to carry out the authorized study. A license and approval to execute the empirical study was also sought and acquired from the National Council for Science, Technology and Innovation (NACOSTI).

In the second stage, research assistants were engaged for purposes of data collection. These assistants were trained on the basic interview skills and how to fill the questionnaires with the responses from participants, selection and sampling of study participants and their prescribed functions and duties during the field process and period of gathering information. The research assistants also participated in pre-testing of the study instruments so as to identify any difficulties that maybe encountered and to also determine the level of success of the training given.

All participants playing the role of respondents in the research were requested to affirm their consent. This was after explaining the purpose of the research to them in detail. Potential benefits of the research that would accrue to the respondents were also elucidated to them. It was also clarified that participation was fully on voluntary basis and that there would be no harm in participating. The right to anonymity and confidentiality was guaranteed and the study respondents and Participant were not required to put down their names in the questionnaire and they were free to leave some questions unattended to. Participants were also told that participating in interviews was upon one's free will and

they were at liberty to stop the interview. The researcher made certain that the interview was non-intrusive and friendly just as was the case with the in-depth qualitative investigation. To enhance confidentiality, data collected was securely locked in a cabinet dedicated for the work. In the process of data analysis and interpretations, participants' identity was safeguarded and kept entirely anonymous. Data obtained was coded for anonymity and confidentiality maintained. Data was analyzed and the outcome reported void of any falsification or alterations. Therefore, research results were generalized and dissociated from the original participant to protect their privacy (Creswell, 2015). A comprehensive list of references for all citations was availed using the American Psychological Association (APA). Dissemination of the study outcome to the pertinent authorities for any actions was given priority and publication in peer referred journals followed.

3.7 Pilot Testing

To enable pre-testing and validation of the questionnaire, a pilot study was conducted. Cronbach's alpha coefficient, which assesses internal consistency, was utilized. Cronbach's alpha determines the average of the measures of measurable items and their correlations. This matched the research design that was adopted. The goal of the pilot test was to assess the reliability and validity of the research devices. Marczyk et al. (2005) state that a pilot test portrays a beginning point in data collection in the course of a research undertaking. It is carried out with the aim of pinpointing deficiencies in design and research devices and further to offer different data for picking a probability sample. According to Mugenda (2008), the sample ought to be minimal, about 1% to 10% of the

specified target population. Kothari et al. (2017) posited that between 1% and 10% of the target population is ideal for a pilot test. Pilot testing is effected prior the actual data collection date to check whether the research devices are reliable and valid (Dikko, 2016).

Hu (2014) elucidate that a pre-test is a stage during the study process where the survey questions and questionnaires are tested on a section of the target population or other similar or associated elements from outside of the target population. The intention of pre-testing is to examine the reliability and validity of the survey instruments prior to its final administration. It is a crucial process meant to improve data collection size, according to Perneger et al. (2014), it makes it possible to verify whether the target audience comprehends the questions and proposed response options as conceptualized by the researcher and if they are able to answer meaningfully.

The formula that was used to develop the pilot size was: $np = e(N-n)$, where np became pilot size sample, N referred to the research population, whereas n was the sample size for the study. e represented the margin of error of pilot size sampling. With a 10% margin of error, the pilot size was 10% $(543-230) = 31$ respondents were randomly selected. The findings from pilot testing are not incorporated in the ultimate report but were taken into consideration to improve the reliability and validity of the data collection devices.

3.7.1 Reliability of Research Instruments

In the context of a research instrument, reliability is the degree of uniformity or dependability of a measure pertaining to a concept (Bryman & Bell, 2011). A reliable instrument is termed as consistent and it shows measurement stability over an array of

circumstances where similar results are derived (Abbott & McKinney, 2013). Bryman & Bell (2011) identify two major considerations pertaining to quantitative research when assessing whether or not a study device is reliable. The first consideration has to do with stability level of the measure, which refers to the measure's consistency in due course. The second consideration was checking out internal reliability. To facilitate this, Cronbach alpha coefficient was determined. When an instrument measures and tests a variable uniformly and avails the same outcome under similar conditions, it is said to be trustworthy (Heath, 2023).

Internal consistency was used in the current undertaking as each of the questionnaire item was assessed by applying the Cronbach alpha statistic. So as to have an acceptable internal reliability, Cronbach alpha coefficient has of necessity to be preferably 0.6 or higher (Zikmund et al., 2010). Higher scores indicate stronger reliability for the measurement. The lowest acceptable Cronbach alpha value for this study was 0.7. Kabir (2022) showed that, an alpha value of 0.70 is adequate, 0.80 is good while 0.90 or greater is excellent.

3.7.2 Validity of Research Instruments

Validity signifies the extent to which a measure indeed establishes the postulation it is linked with (Bryman & Bell, 2011). Dikko (2016) refers to the validity of an instrument as its ability to capture data that is useful for the research. Mugenda (2008) indicates that there exists varied kinds of validity. However, the most appropriate kinds concerning social sciences are construct, content and criterion validity. Content validity generally encompasses using experts or panel judges (Bryman & Bell 2011).

Gupta et al. (2002) elucidate validity of research data collection instruments as the extent to which the tool measures that which it was fashioned to measure. In this regard, the instrument is considered valid if the extent to which the outcome derived represents the occurrence under study. In line with Middleton and Bolderston (2023) assertion, if the instrument comprehensively and satisfactorily tackled the intended coverage, then it qualifies for content validity. In this undertaking, content validity was assured via the use of expert judgement by the supervisors. Construct validity is defined as the extent to which a measure item indeed signifies the construct it is supposed to assess (Saunders et al., 2003). Mugenda (2008) posited that construct validity makes reference to an assessment of the level by which data from an instrument significantly and precisely delineates a theoretical perspective. Expert prospects concerning the content and face validity of the research device were derived from lecturers in the field of strategic management for utilization in this study. The researcher was also accorded direction, guidance by supervisors who gave their prospects on exhaustive coverage and treatment of the particulars that needed to be assessed and investigated. By doing this, an opportune chance was availed for correction, amendment, rectification, improvement and restructuring of the instruments' components by encompassing the supervisors' expertise and counsel. The meticulous organization of questions and views with clear guidance improved face validity. Face validity points to a possibility of items in the research instruments being unfathomable or misconstrued by the participants. Face validity is the extent to which questions asked portray the ability to measure that which they were purposed to measure (Middleton & Bolderston, 2023). Moreover, the font sizes and font types were contemplated, and at the same time the language utilized in all data collection instruments

was simple and explicit. The intention behind this was have fool proof data collection instruments that have the semblance of measuring what they were targeted to assess; thereby, augmenting face validity. Additionally, the tools used in similar undertakings conducted earlier were reviewed and consulted, while the final instruments of data collection were pre-tested accordingly. This was vital in guaranteeing construct validity.

3.8 Data Analysis and Presentation

Following fieldwork, the obtained information firstly got subjected to checks to ensure its completeness and validity then encoded and entered for analysis.

3.8.1 Quantitative Data

Quantitative data derived from structured questions were arranged, classified, coded (assigning numeric or other notational symbols or signs of varied data categories) using IBM SPSS software version 22.0. Data analysis was run on the Statistical Package for Social Scientists (SPSS). SPSS, as observed by Leyla et al. (2018), offers a substantive capacity for handling data and multitudinous statistical analysis procedures applicable in the analysis of data of any magnitude. Two approaches are adopted to analyze the information amassed via questionnaires. The first approach encompassed computation of descriptive statistics in form of percentages and frequency distributions for purposes of analyzing the general essentials of the population. Inferential statistics then was used as the second approach. Since the data collected from Likert scale questions, the SPSS software was utilized to transpose the data. Statements worded negatively were stated in reverse before data analysis as directed (Kusumawardhani, 2014). To induce cooperation

of the participants, the nature and purpose of the study was vividly elucidated to them and confidentiality affirmed to. Data coding was then done followed by analysis. Analysis was conducted both descriptively and inferentially. Bivariate regression analysis and multivariate logistic regression analysis were carried.

3.8.1.1 Bivariate Regression Analysis

Bivariate regression models were fitted to determine the association connecting each of the independent variable and the dependent variable. Bivariate models consider the relationship between two variables at a time without considering the combined joint relationships (Zhou et al., 2021). The study used the following models to get the measure of influence of each exogenous variable on the response variable.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon$$

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon$$

$$Y = \beta_0 + \beta_4 X_4 + \varepsilon$$

$$Y = \beta_0 + \beta_m X_m + \varepsilon$$

Where;

Y- Performance of Private Chartered Universities

β_0 - Constant

X_1 - Information Technology Use

X_2 - Managerial Capabilities

X_3 - Knowledge Management

X_4 – Operational Processes

X_M – Sponsorship

ε –Error Term

3.8.1.2 Multivariate Logistic Regression

The multi variate logistic regression was fitted as follows:

$$Li = \ell(P1 - P) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 - \text{First Model}$$

Where;

$P_i / (1 - P_i)$ - the odds ratio (the ratio of the probable likelihood that operational capabilities occasion a hold on University performance)

β_0 - Constant

X_1 - Information Technology Use

X_2 - Managerial Capabilities

X_3 - Knowledge Management

X_4 – Operational Processes

P probability that the university records good performance

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 point to a single unit change in the log of odds ratio on account of a unit change in the corresponding predictor variable and it is the share of direct effect.

The above equation was utilized to model and measure direct effect as well as the moderated effect.

To assess the direct effect in the model specified in first model, all four exogenous variables were regressed on the dependent variable;

The procedure followed is outlined below

1. The first step was to compute the variable via the compute function. The likert scaled items consistent to each variable were condensed into the binary responses to generate the respective variables.
2. Feeding data into binary logistic regression model.
3. Specification of reference categories
4. Generation of the output. Results apposite to this study from the logistic regression comprised of:
 - a. Hosmer and Lemeshow statistic
 - b. Nagel Kerke R- Square
 - c. Odds ratios

Decision Criteria

$p < 0.05$ – Operational capabilities influence University Performance

$p > 0.05$ – Operational capabilities does not influence University Performance

To evaluate the moderator influence of sponsorship, the logistic regression was run with all the exogenous variables plus the moderator. Organizational Performance was the dependent variable while sponsorship was taken as the moderator.

The following equation was used for the moderator

$$Li = \ell(P1 - P) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_m - \text{Second Model}$$

Where

$P_i / (1 - P_i)$ denoted the odds ratio - the ratio of the probability that operational capabilities ($i = 1, 2, 3, 4,$) would influence University performance

β_0 - Constant

X_1 - Information Technology Use

X_2 - Managerial Capabilities

X_3 - Knowledge Management

X_4 – Operational Processes

X_M - Sponsorship

P probability that the university records good performance

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 denoted a single unit change in the log of odds ratio on account of a unit change in the corresponding predictor variable and it is the proportion of positive or direct effect.

The variances in the - 2loglikelihood statistics and the odds ratios was applied to gauge which model was stronger. The steps that were followed were:

- i. Computation of the variables via the compute function. The likert scaled items consistent to each variable were condensed into the binary responses to come up with the corresponding variables.
- ii. Feeding data into the binary logistic regression model.

- iii. Specification of reference categories
- iv. Generation of the output. Outcome apposite to this study from the logistic regression comprised of:
 - a. Hosmer and Lemeshow statistic
 - b. Nagel Kerke R- Square
 - c. Odds ratios.

3.8.2 Qualitative Data

Quantitative information emanating from interview guides was inquired into via content analysis in the subject areas. Interviews were conducted on campus directors. Content analysis is a systematic, repetitive technique of summarizing multiple text words into short content categories on the basis of clear coding rules (Gall et al., 2007). It implies the computation of ideas that assist in comprehending community events in the setting of the environment (rather than experiments), while putting more emphasis on the correct descriptions, experiences, and ideas of those from whom information is obtained. The content analysis technique allowed the researcher to incorporate an array of textual information and systematically single out its components. Techniques involved in content analysis were identification of the segments and the solidness of codes using the syntactical coding advanced by Sreejesh et al. (2014). This technique of coding was due to its ability to foster development of coding units to portray perspectives of the research. Coding was done to amalgamate the many themes created so as to have a summary representative information that made the analysis much easier. Content analysis was used in the current undertaking since it allows the investigator to fathom social reality in a

subjective but scientific manner as it addressed some of the deficiencies of the quantitative analysis which may be limited in unearthing the feelings, emotions and the subjective feedback evidenced in social studies (Schreier et al., 2019).

3.8.3 Diagnostic Tests

This research tested for auto correlation, normality and multicollinearity. According to Pedace (2013) going against statistical assumptions would invalidate statistical results since most statistical tests a subject to an array of assumptions to make inferences regarding a sample. Where these assumptions are not fulfilled, there may exist Type I or Type II error(s) thereby invalidating analysis results.

Auto correlation

Auto-correlation becomes a problem where residuals for previous time series data affect the current measurement residuals. The residuals of past measurements should not have a relationship with the errors of the current residuals otherwise there will be a problem in the prediction of the dependent variables (Wang & Chow, 2018). To ascertain whether the no-auto-correlation assumption was violated the study applied the Durbin-Watson scale, a Durbin-Watson scale that runs between 0 and 4, data that dose does not suffer auto-correlation has a Durbin-Watson score of 2, whereas positive auto-correlation is revealed by a Durbin Watson score of more than 2 reveals a negative auto-correlation.

Multicollinearity

Multicollinearity is the presence of correlation among predictors. Multicollinearity is said to occur when multiple variables are included in a model and the variables are associated not only with the endogenous variable, but also with each other. Multicollinearity Test is utilized to examine presence of high association among variables in a multiple regression model (Bougie & Sekaran, 2019). The consequence of multicollinearity is coefficient standard errors (SE) that are elevated beyond normal margins (significantly different from 0). To assess presence of multicollinearity, the study used Variance Inflation Factor (VIF). VIFs of 10 or a tolerance of 0.1 to indicate multicollinearity. The decision criteria here states that should the VIF for any specific variable exceed 5, then Multicollinearity is present and so a variable ought to be dropped from the adopted regression model (Martz, 2013). VIFs exceeding five are indicative of censorious levels of multicollinearity where the coefficients are poorly roughly calculated, and the p-values are highly contentious (Kumar et al., 2019). If the association between the exogenous variables is above 0.8, then an adjustment should be done to correct such a scenario (Schindler & Cooper, 2008).

Normality

Normality assists in establishing the shape of the distribution and it makes it easier to forecast response variable's scores (Paul & Zhang, 2010). Normally distributed variables ought to have a mean of zero. The implication of this is that there should be a zero or close to zero variance between the actual observed data and the model as posited by Jones et al. (2017). To assess normal distribution, Q-Q plot is used. A Q-Q plot, which in full stands

for quantile-quantile plot, is an example of plot that can be applied to establish whether residuals of a model are consistent with normal distribution or otherwise. Further, statistical tests of normality such as Kolmogorov-Smirnov test, Shapiro-Wilk, Jarque-Barre, or D Agostino-Pearson test can be applied. Nevertheless, these tests are sensitive to sample sizes categorized as large, that is, more often than not they deduce that the residuals are not normal when the sample size is large (Mutuku et al., 2021).

Analysis of normality aids in checking that data has normal distribution. There are two tests of normality that are widely used. These are Shapiro-Wilk and Kolmogorov-Smirnov test. The first test is mostly applied when dealing with small sample sizes (< 50 samples). However, it is also applicable in large samples. As guided by the Shapiro-Wilk values with a standard threshold of 0.05, adopted research hypotheses are deemed acceptable for a p-value of exceeding 0.05 or rejected otherwise. Non-adherence to the tenets of normality can lessen the study's statistical soundness via introduction of distortions and bias in the outcome derived. Normal distribution plots were utilized to facilitate a graphical assessment of the distributions. The rule is should the significance value of the Kolmogorov-Smirnov Test or Shapiro-Wilk Test be beyond 0.05, then the data is normally distributed. Otherwise, the requisite data deviates significantly from a normal distribution (Cohen, 1992). The study made use of the Shapiro-Wilk and Kolmogorov-Smirnov tests where the P –Value was less than 0.05 the data was not normally distributed and if the P value was higher than 0.05 the data was assumed to have the traits of a normal distribution. The study also used Q-Q plots to check the assumption of linear regression that residuals are normally distributed. The normal distribution indicates that data is thereby spread

evenly and hence it can represent the population (Mutuku et al., 2021). Data that is not normally distributed is set apart by its level of skewness. Data that is skewed to the left is said to have positive skewness while data skewed to the right is said to have negative skewness.

3.9 Research Ethics

In research, ethics is a form of contract that an investigator signs with the people who are going to be a part of his or her research (Fouka & Mantzourou, 2016). It entails the application of right, wrong, good, evil, transparency, accountability, confidentiality, and responsibility applied in conducting research (Bryman, 2011). The confidentiality of the responses acquired from the participants was maintained, and they were only used for academic purposes. The participants in the undertaking would not suffer any cognitive, mental, or bodily impairment as a result of the investigation in any way. The researcher ascertained that the participants were aware of the purpose of the enquiry, and they gave them the option to join the study voluntarily.

The researcher in this provided a clear explanation and a clarification of the study's objective to all participants and then went ahead assured them of the utmost confidentiality, discretion and integrity in managing the entire research process. Each participant was asked to fill in a consent form (see appendix III) before they participated in the study. The consent form assured confidentiality, discretion and privacy and the respondents were informed that they had the right to withdraw from the research and or withhold information where they felt that they were uneasy. The consent form also

described and defined the purpose, research outcomes, reason for conducting the research and the absence of physical and psychological harm, the involvement terms, and the data comprehensive collection exercise.

Lastly, all the sources that provided insights and or were used for the research were appropriately and properly acknowledged and then referenced following the guidelines outlined in the APA 7th edition referencing style manual. The researcher also made certain that works that had been cited from different sources were summarized, abridged and paraphrased in order to avoid plagiarism. The findings of the study were also shared and presented in conferences having observed all research publication ethics. The research findings were also published in peer reviewed journals in accordance with the university's publication guidelines.

3.10 Test hypotheses

The hypothesis decision was illustrated in the table 4 shown below;

Table 3.3

Hypothesis Testing

No	Null Hypothesis	Decision Criteria
1	H ₀₁ : Information technology use has no significant effect on performance of private chartered universities	Reject the null hypothesis if $p < 0.05$
2	H ₀₂ : Managerial capability has no significant effect on performance of private chartered universities in Kenya	Reject the null hypothesis if $p < 0.05$
3	H ₀₃ : Knowledge management has no significant influence on performance of Kenya's private chartered universities	Reject the null hypothesis if $p < 0.05$
4	H ₀₄ : Organizational operational processes have no significant effect on performance of private chartered universities in Kenya	Reject the null hypothesis if $p < 0.05$
5	H ₀₅ : Sponsorship does not influence the association between operational capabilities and performance of Kenya's private universities.	Reject the null hypothesis if $p < 0.05$
6	H ₀₆ : the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes bears no significant effect on performance of private chartered universities in Kenya.	Reject the null hypothesis if $p < 0.05$

3.11 Operationalization of Variables

The summary of the study variables is described in the below table

Table 3.4

Operationalization of Variables

Operationalization of Variables				
Variable	Variable Type	Indicators	Measure / Level of Scale	Method of Analysis
Performance	Dependent	<ul style="list-style-type: none"> • Quality of Programs • Research • Student Enrollment 	Ordinal	Descriptive Inferential Thematic Content
Information Technology Use	Independent	<ul style="list-style-type: none"> • University Learning Infrastructure • Management Support • University Information 	ordinal	Descriptive Inferential Thematic Content
Managerial Capabilities	Independent	<ul style="list-style-type: none"> • Decision making • Management Commitment • Managerial Experience and Skills 	ordinal	Descriptive Inferential Thematic Content
Knowledge Management Practices	Independent	<ul style="list-style-type: none"> • Knowledge Acquisition • Knowledge Sharing • Knowledge Storage 	ordinal	Descriptive Inferential Thematic Content
Operational Process	Independent	<ul style="list-style-type: none"> • Documentation • Automation • Flexibility 	ordinal	Descriptive Inferential Thematic Content
Sponsorship	Moderating	<ul style="list-style-type: none"> • Ownership • Funding • Location 	ordinal	Descriptive Inferential Thematic Content

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter covers the outcome of the research undertaking that was conducted namely Operational capabilities, sponsorship and Performance of Private Chartered Universities in Kenya. The specific objectives of the study were to establish the effect of information technology use on performance of private chartered universities in Kenya, to determine if managerial capability affects performance of private chartered universities in Kenya, to determine the influence of knowledge management practices on performance of private chartered universities in Kenya, to examine if organizational operational processes and routines affect performance of private chartered universities in Kenya, to establish whether sponsorship moderates the association between operational capabilities and performance of private chartered universities in Kenya and to verify whether the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes have a hold on the performance of Kenya's private chartered universities. This chapter begins by providing results for response rates, reliability statistics, and factor analysis. Second, it provides insight into the demographic information of the respondents. The findings of diagnostic tests, correlation tests, and subsequently the outcomes of regression analysis are presented after the descriptive statistical results are given for each variable. Both Descriptive and inferential analysis are

presented in chapter four. Findings were presented on both descriptive and inferential analysis

4.2 Response Rate

When using the survey methods, the response rate is considered as one of the most important criteria for assessing the quality of the study. However, there are no distinct and clear rules, fixed formulae and or boundaries of what is acceptable and not acceptable (Mellahi & Harris, 2016). The undertaking was a survey of all the private chartered Universities in Kenya. 230 questionnaires were distributed while 205 questionnaires were collected thus representing a response rate of 89.1% return rate. According to Goldfarb and King (2016), an outcome rate of 60% is effective to represent the study population and make conclusion and recommendations in a research study. Table 4.1 summarizes the response rate of the study.

Table 4.1

Response Rate

Response Attained	Frequency	Percentage (%)
Responded	205	89.1%
No-response	25	10.9%
Total	230	100%

Source: Researcher (2024)

4.3 Validity and Reliability

The study carried a pilot study to ascertain the reliability if the research instruments. The pilot testing yielded the outcome depicted in the Table 4.2 below:

Table 4.2

Pilot Study Results

Variables	Cronbach's Alpha	Total Items	Decision
Information Technology Use	0.702	9	Accepted
Managerial Capabilities	0.760	11	Accepted
Knowledge Management	0.749	10	Accepted
Operational Processes	0.700	12	Accepted
Sponsorship	0.712	10	Accepted
Organizational Performance	0.730	12	Accepted
Overall Score	0.726		Accepted

Source: Researcher (2024)

The results indicated that, information technology use got a coefficient of Cronbach's Alpha value of 0.702; managerial capabilities 0.760, knowledge management 0.749, operational processes 0.700, sponsorship 0.712 and organizational performance had 0.730. Nunnally (1978) commends that reliability of 0.70 and above is a sufficient measure of reliability thus the instruments were considered reliable for data collection since they met the 0.7 minimum threshold. According to Griethuijsen and Trimmer (2010), Cronbach's alpha values of 0.7 or 0.6" are acceptable. Kothari et al. (2017)

commends that a scale of 0.70 or above is adequate. Cronbach’s Alpha coefficients for the constructs adopted depicted higher scores than the recommended acceptable value of 0.60 thus affirming the research devices were reliable.

4.3.1 Reliability

Another test conducted to ascertain the adequacy of the research instrument was a reliability test through Cronbach alpha tests. Findings are presented in Table 4.3 below

Table 4.3

Reliability of Research Instruments

Variables	Cronbach’s Alpha	Total Items
Information Technology Use	0.710	9
Managerial Capabilities	0.792	11
Knowledge Management	0.757	10
Operational Processes	0.707	11
Sponsorship	0.724	10
Organizational Performance	0.760	12

Source: Survey Data (2024)

From the results, information technology use got a coefficient of Cronbach’s Alpha value of 0.710; managerial capabilities 0.792, knowledge management 0.757, operational processes 0.707, sponsorship 0.724 and organizational performance had 0.760. Nunnally (1978) commends that reliability of 0.70 and above is a sufficient measure of reliability

thus the instruments were considered reliable for data collection since they met the 0.7 minimum threshold. In Griethuijsen and Trimmer's (2010) point of view, Cronbach's alpha values of '0.7 or 0.6' are acceptable. Kothari et al. (2010) commends and recommends that a scale of 0.70 or above is adequate. The findings of the study implied that all the observed Cronbach alpha scores associated with all the variables were higher than 0.7 and therefore the instrument was considered internally consistent (reliable) for further analysis. In social sciences the cron bach alpha coefficient does not go below 0.70 (Frost et al., 2023). In this study, this was achieved and hence the instruments were found to be reliable and useful for the research. A study by Kabir (2022) demonstrated that, a Cronbach alpha value of 0.70 and above is adequate, 0.80 is good while 0.90 and above is excellent. Other studies by Orina (2022) and Isaboke (2021) also adopted and used a similar measure to ascertain their data reliability. This gave the impression that the research devices were dependable, uniform, and proficient in assessing the variables of the undertaking.

4.3.2 Validity

To determine the validity, instrument the study applied KMO and the Bartlett tests. Expert viewpoints regarding content and face validity of the research instrument were obtained from lecturers in the field of strategic management. In SPSS the interconnection can be verified via Bartlett's test of sphericity that 'tests the null hypothesis that the original correlation matrix is an identity matrix' (Field, 2003). Significance has to be attained in this test: when the correlation matrix conforms to an identity matrix, it means that there is no correlation between the variables. KMO value approaching 1 (≤ 1) points to the fact

that the information thereof would be comprehensively handled via factor analysis; a favorable indicator that the factors adopted in the undertaking were suitable (Pallant, 2017). Conversely, Bartlett's Test of Sphericity is a reference of whether variables used in the study were related/unrelated positing desirability of structure detection. Findings of the undertaking on the validity analysis are displayed in Table 4.4 as shown below.

Table 4.4

Validity of Research Instruments

Variable	KMO Measure of Sampling Adequacy	Bartlett's Sphericity Approx. Chi-Square Test	df	Sig	Comment
Information Technology Use	.626	543.071	36	.000	Adequate
Managerial Capabilities	.780	630.656	55	.000	Adequate
Knowledge Management Practices	.739	792.940	45	.000	Adequate
Operational Processes	.680	499.671	55	.000	Adequate
Sponsorship	.623	728.676	45	.000	Adequate
Organizational Performance	.751	701.913	66	.000	Adequate

Source: Survey Data (2024)

The findings show that the KMO value concerning all variables (constructs) went beyond a minimum threshold of 0.5. Information Technology Use =0.626, Managerial Capabilities = 0.780, Knowledge Management = 0.739, Operational Processes=0.680, Sponsorship = 0.623, Organizational Performance= 0.751. This pointed to the fact that the total sum of items for each variable (construct) was sufficient to measure each of the respective variable. Chi-square test results for Bartlett's Sphericity test were cumulatively ascertained to be significant; [χ^2 (36) =543.071, $p=0.000 < 0.05$] for Information Technology Use, [χ^2 (55) =630.656, $p=0.000 < 0.05$] for Managerial Capabilities, [χ^2 (45) =792.940, $p=0.000 < 0.05$] for Knowledge Management, [χ^2 (55) =499.671, $p=0.000 < 0.05$] for Operational Processes, [χ^2 (45) =728.676, $p=0.000 < 0.05$] for Sponsorship and [χ^2 (66) =701.913, $p=0.000 < 0.05$] for Organizational Performance.

4.4 Demographic Statistics

Descriptive statistics conducted included analysis of gender, age of respondents, experience, and education level of the respondents. Demographic statistics are conducted to ensure inclusivity and diversity, which is a requirement of ethical considerations. The use of diversified respondents (respondents with different demographic characteristics) ensures that there is no biasness, fairness, and equity. According to Toor (2020), the demographic data helps the researcher confirm that the target audience selected was the right audience for the study. Table 10 presents the findings.

4.4.1 Gender of the Respondents

The undertaking endeavored to assess the gender composition of the participants in the study. Outcome presented in Table 4.5 showed that most respondents were male as given by 52.9% whereas only 47.1% of the respondents were female. Results further pointed to the fact that a good number of managerial positions were still a preserve of males as shown in Table 10. This was in agreement with Abdou et al. (2020), whose work portrayed that a sizeable number of management posts were being held by males. This is a clear demonstration that the study tried to achieve almost an equal representation of both genders in its respondent's participation. The result implied that more men are working in the private chartered universities in Kenya.

Table 4.5

Gender of Respondents

Gender	Frequency	Percent
Male	108	52.9
Female	97	47.1
Total	205	100.0

Source: Primary Data (2024)

4.4.2 Age of Respondents

The undertaking also sought on demographics the age composition of its participants, table 4.6 expressed that a sizeable number of the participants in the study fell between 35 and 45 years as shown by 46.8%, followed by 40% of the participants who were above 45

years; 13.2% of the respondents featured in the bracket between 25 and 35 years. This therefore portrayed that majority of the participants were mature respondents and capable of making the right decision regarding performance of private chartered universities. Matenda (2020) also pointed out command of male personnel among higher Education institutions in South Africa. Both genders were involved in the study which reflects no gender bias and also indicates that both genders were given equal opportunity inclusion to participate in the study without any discrimination.

Table 4.6

Age of Respondents

Age of Respondents	Frequency	Percent
25-35	27	13.2
35-45	96	46.8
Above 45	85	40.0
Total	205	100.0

Source: Primary Data (2024)

4.4.3 Education Level

The research also analyzed the education level. Majority of the participants had a master’s degree which represented 58.8% of the population while 26.5% of the participants had earned a doctorate degree with 14.7% of the participants having an undergraduate degree as shown in table 4.7 below.

The implications of these findings suggest that majority of the participants had obtained at least a Master’s Degree. This showed a convergence with Wanjiru’s (2018) work that

linked education achievement with more superior understanding. Participants possessing technical knowhow can help in consolidating well founded and precise information on the phenomena under research. Consequently, the individuals were able to comprehend the specific variables and factors that the research aimed to examine which helped to achieve the study objectives.

Table 4.7

Education Level Table

Education Qualifications	Frequency	Percent
Bachelor degree	30	14.7
Masters	121	58.8
PhD	54	26.5
Total	205	100.0

Source: Primary Data (2024)

4.4.4 University Affiliation

The study also assessed the affiliation of the private chartered universities, 58% of the respondents were from Faith based Universities while 42% were from non-faith Universities. This implies that a good number private universities are faith based. And that majority of private chartered universities in Kenya were largely sponsored by faith based institutions.

Table 4.8

University Affiliation

University Affiliation	Frequency	Percent
Faith Based	119	58
Non Faith Based	86	42
Total	205	100.0

Source: Primary Data (2024)

4.4.5 Position Held

The research proceeded to determine the position that the respondents held in their places of work. From the table 12 below, 30.7% of the respondents were coordinators in their universities, 23.9% Registrars, 18.5% heads of department, 14.1% deans and 12.7% were directors. The outcome depicted that a sizeable number of participants were coordinators who were directly taking part in the day to day activities of private universities. Daniel (2019) posited that varied responses are derived when participants with diversified essentials and experiences are incorporated in a study.

Table 4.9

Position Held Table

Position Held	Frequency	Percent
Dean	29	14.1
Head of Department	38	18.5
Registrar	49	23.9
coordinator	63	30.7
Director	26	12.7
Total	205	100.0

Source: Primary Data (2024)

4.5 Descriptive Analysis of Results of the Study Variables

4.5.1 Descriptive Analysis of Results

The precision of any research outcome is generally established via data interpretation by the use of likert scale. The current research used self-administered questionnaires that were made up of six portions which incorporated items presented in a likert type scale format. The study was premised on four explainer variables which were; information technology use, managerial capabilities, knowledge management practices and operational processes. The moderator variable was sponsorship while the response variable was organizational performance in Kenya's private chartered universities. The participants were queried to provide information on the account of measures of these variables as captured in the conceptual framework. The components within the Likert

scale were devised affirmatively. Lantz (2013), while studying equidistance of Likert-type scales and validation of inferential techniques using experiments and simulations, portrayed that Likert-type information is more often than not presumed to be equidistant by applied researchers so as to enable use of parametric modalities to analyze the data. Owing to the fact that the equidistance assumption is seldom tested, Lantz (2013) posits that the validity of parametric analyses of Likert-type data is frequently vague and that the recommended statistical method to analyze Likert-type information is dependent upon the structure of their non-equidistance coupled with their skewness. Carifio and Perla (2007) portrays Strongly Disagree (SD) $1 < SD < 1.8$; Disagree (D) $1.8 < D < 2.6$; Neutral (N) $2.6 < N < 3.4$; Agree (A) $3.4 < A < 4.2$; and Strongly Agree (SA) $4.2 < SA < 5.0$. This scale avails an equidistance of 0.8. The weighting yardstick of responses of Likert-type data discussed by Carifio and Perla (2007) were applied in the data analysis of this research in the elucidation of the outcomes using Likert scale. Conversely, a standard deviation (SD) value exceeding two implies that the participants had varying perspectives while a figure of less than 2 is low and portrays convergence in the opinions of the participants.

Descriptive statistics are the type of summarised information presented to report the main characteristics of the data in a study such as percentage, frequency, mean, and standard deviation, (Mishra et al., 2019). The assessment of outcome is displayed hereunder systematically in accordance with the objectives of the research.

4.5.2 Descriptive Results on Information Technology Use

The first objective of the undertaking endeavored to assess the association linking Information technology use and performance of private chartered Kenyan universities. To attain this, the participants were requested to give their rating on a five-point Likert scale. The ensuing outcomes were encapsulated as shown in Table 4.10.

Table 4.10

Descriptive Statistics on Information Technology Use

Statement	N	Min	Max	Mean	Std. dev
We have extensively adopted digital learning	205	1	5	3.96	0.824
Our learning material is available online	205	1	5	4.11	0.836
Our university has invested in state of the art IT infrastructure	205	1	5	2.67	0.661
All university departments are interconnected through computer networks	205	1	5	2.71	0.706
Students and staff utilize our well-equipped laboratories	205	1	5	2.56	1.042
Our IT personnel are well-trained to support other IT services outside their domain	205	1	5	3.77	1.091
Members of staff and can access information and services through the university staff systems	205	1	5	4.05	0.89
Our digital platforms are regularly updated	205	1	5	2.37	0.996
The university has invested in cloud technology	205	1	5	3.91	1.041
Composite Mean				3.35	

Source: Survey Data (2024)

Overall when the responses were computed, a sizeable number of participants disagreed on the statements on information technology use as shown by the composite mean of 3.35.

Having an arithmetic average of 3.96, the results indicated that most of the private chartered universities had extensively adopted digital learning and that these institutions had made their learning materials online (mean score 4.11 and standard deviation 0.836). The outcome further established that majority of these universities had not invested in state of the art information technology infrastructure as expressed by a simple average score of 2.67 and standard deviation of 0.661. Additionally, the findings indicated that most private chartered universities did not have their university departments interconnected through their computer networks. The respondents further disagreed that students and staff did not utilize their well-equipped laboratories with mean score of 2.71 and 2.56 respectively. The findings also established that the IT personnel in the majority of the private universities were well trained and they supported other IT services outside their domain. This is shown by the statement's mean score of 3.77. However the findings show that majority of private chartered universities did not regularly update their digital platform (mean score 2.37) but they agreed that their universities had invested in cloud technology. The findings of the study are collaborated by Škrlec and Čančarević (2023) who agree that technology use in higher academic institutions has been aided to bridge the gap between technology and learning because technology use has enabled students utilize online learning platforms and E-learning via the application of network technology. The research further agrees that technology use in learning has been made possible due to availability of computer equipment and access to the internet. Further, Saha (2023) agree that technical support is essential to enhance the use of Information Technology Use and that there is need to have skilled personnel in educational institutions to offer support. In agreement with the study findings Saha (2023) states that information technology use

facilitated a shift in student learning by well utilization of information technology in order to reproduce knowledge and as a result of utilization of information technology equipment students and staff have become more engaged in class and staff have been able to integrate ICT in the classroom.

From the descriptive statistics the study thus concluded the following that the use of information technology was crucial in helping private universities adopt digital learning and eased the access to information and services within the universities. Additionally, information technology use required universities to invest in qualified IT personnel in order to support members of the universities when need arose.

The findings agree with Masyhuri et al. (2021) whose findings concluded that information technology use significantly improves performance. Similarly, the research findings agree with Makhloufi et al. (2018) whose study found that information technology infrastructure significantly influenced performance and also affected competitive advantage and therefore private chartered universities should invest in information technology infrastructure to boost information technology use within the universities.

4.5.3 Descriptive Statistics on Managerial Capabilities

The second objective of the undertaking was about examining the linkage connecting managerial capabilities and performance of Kenya's private chartered universities. To meet this, the participants needed to accord their rating on a five point Likert scale. The outcome thereof was as captured in Table 4.11 below.

Table 4.11***Descriptive Statistics on Managerial Capabilities***

Statement	N	Min	Max	Mean	Std. dev
Management is proactive in decision making	205	1	5	3.72	1.008
The Management benefits from past experience to make decisions	205	1	5	3.01	0.917
Management involves employees in decision making	205	1	5	2.78	1.106
Management considers the external environment in during decision making	205	1	5	3.81	1.093
Decisions in the University take a lot of time to be made	205	1	5	3.58	0.975
The management exhibit a lot of commitment	205	1	5	3.76	1.066
Management motivates members of the University towards achievement of change	205	1	5	4.03	1.045
Management is committed to reduce risk	205	1	5	3.5	1.003
Management is trained on a regularly basis on the current market developments	205	1	5	3.64	1.094
The University hires highly qualified managers	205	1	5	2.39	0.779
Management performance is reviewed periodically	205	1	5	4.05	0.797
Overall Mean				3.48	

Source: Survey Data (2024)

Overall when the responses were computed majority of the participants disagreed on the statements on managerial capabilities as shown by the overall mean of 3.35. Scoring a simple mean of 3.72, the results show that management in private chartered universities are proactive in decision making. However, the findings indicate that management in private chartered universities did not benefit from past experience to make decisions and that employees in private chartered universities were not involved in decision making.

This is captured by the arithmetic average score of 3.01 and 2.78 respectively. The statement ‘Management considers the external environment during decision making’ had an arithmetic average of 3.81 which implied that a sizeable number of the participants agreed that stewardship in the private chartered universities did actually consider the external environment when making decisions. The findings also revealed that decisions took a lot of time to be made and this was collaborated by a score of 3.58 as the simple average. The findings also show that most of the participants agreed that management in the private chartered universities exhibited a lot of commitment and that they motivated members of the university towards achievement of change and that they were also committed to reduce risk within the universities. The study findings also revealed that managers in private universities were regularly trained on the current market developments which was crucial since the environment in which they operate in was dynamic and ever changing (mean score 3.64). However, majority of the respondents felt that universities did not hire qualified managers and thus they disagreed with the statement ‘The University hires highly qualified managers’. This is clearly established by the statement having a mean score of 2.39. The respondents agreed that management performance is periodically reviewed (mean score 4.05 and standard deviation 0.797).

Kirugumi et al. (2021) agree with the study findings in that management decision making abilities was significant to higher education institutions. Management should be able to make and control decisions and have to be able to communicate effectively within organizations. Dzinekou and Arasa (2018) study findings agree that universities need to adjust and align themselves to the adjustments within the macro environment and that

managers must have the ability to understand the trends in the external environment and this aids managers to be proactive to make decisions in order to realize growth and survival of universities.

The findings by Avedi (2023) agree with the study findings that senior managers need to show commitment to the organisation and foster teamwork to inspire and motivate the employees to better performance. The study therefore concluded that Managerial capability was necessary when managers needed to make decisions and that they needed to be proactive in making decisions while at the same time they needed to consider the external environment in making decisions and also work towards inspiring members of the organization towards change

4.5.4 Descriptive Statistics on Knowledge Management Practices

The third objective of the research sought to assess whether knowledge management practices affected the performance of Kenya's private chartered universities. To facilitate realization of this goal, participants were to provide their score on a five point Likert scale. Ensuing descriptive statistics were tabulated in table 4.12 as seen below.

Table 4.12***Descriptive Statistics on Knowledge Management Practices***

Statement	N	Min	Max	Mean	Std. dev
Our university supports, encourages staff to acquire and share knowledge	205	1	5	3.59	0.862
Our library is opened for longer hours to allow our students and staff to research	205	1	5	3.93	0.831
The university values research as a source of acquiring Knowledge	205	1	5	4.02	0.792
The university possesses a policy on information and Knowledge sharing	205	1	5	4.06	0.906
The university offers adequate platforms to permit information and knowledge sharing	205	1	5	3.84	1.064
Our University has processes for exchanging knowledge between individuals	205	1	5	3.61	1.16
The University provides information technology for saving knowledge	205	1	5	3.4	0.808
We engage state of the art systems in storing our created Knowledge	205	1	5	3.38	0.931
The knowledge generated at the University is reserved in diversified locations to avail back up	205	1	5	4.18	0.729
Our system has a trail to monitor access to knowledge Stored	205	1	5	4.77	0.458
Composite Mean				3.88	

Source: Survey Data (2024)

The third objective sought to test knowledge management practices. When the responses were computed in overall, the mean registered a score of 3.88 which implied that a sizeable number of the participants agreed with the statements on knowledge management practices. The first statement asked the respondents if the university bolsters and

invigorates its staff to gain and share knowledge. The arithmetic average of 3.59 and standard deviation of 0.862 portrays that participants concurred with the notion that their university supported and encouraged its staff to gain and share knowledge.

The second item was on whether the library was open for an extended time duration to facilitate students and staff research. As per the outcome, most of the participants agreed that the library was open for long hours which is also illustrated via a simple average score of 3.93 and standard deviation of 0.831. The next indicator ‘The university values research as a source of acquiring Knowledge’ has an arithmetic average figure of 4.02 and a standard deviation of 0.792 that implied that most of the participants solidly supported the opinion that the university valued research as a source of knowledge. Table 4.12 shows that majority of the participants could not agree more strongly that the university had a policy on information sharing. This was captured by an arithmetic mean of 4.06 and standard deviation of 0.906 that expressed that a sizeable number of the private chartered universities had developed policies on information and knowledge sharing. The study outcome further depicted that most of the participants were in agreement with the assertion ‘The University provides platforms to enable information and knowledge sharing. This is indicated by the mean score of 3.84 and a standard deviation of 1.064.

The table also revealed a mean score of 3.61 and standard deviation of 1.160 associated with the statement ‘Our University has processes for exchanging knowledge between individuals’. This implied that majority of the private chartered Universities had put in place mechanisms that enabled and allowed the exchange of knowledge between individuals. However majority of the respondents disagreed with the statements ‘The

University provides information technology for saving knowledge' and 'We use advanced systems in storing our created Knowledge' This is indicated by the mean score of 3.4 standard deviation of 0.808 and 3.38 standard deviation 0.931 respectively. This indicates that in majority of the private chartered universities there was no information technology provided by the universities for saving knowledge and that the universities did not use advanced systems to store the knowledge created. On the indicator 'The knowledge created at the University is stored in diverse locations for back up purposes' majority of the respondents agreed that majority of the private universities had developed diverse storage locations in order to store the knowledge created within the university as indicated by the mean score of 4.18 and a standard deviation of 0.729. The respondents also agreed that majority of the private chartered universities had a system which was able to monitor access to the knowledge stored within the University (Mean score = 4.77 and standard deviation = 0.458)

The study findings concur with those of Wanjiru (2022) whose study established that knowledge management was positively and significantly associated with firm performance. Organizations managing knowledge more effectively will gain a competitive position in the turbulent and dynamic business environment. The study findings are in agreement

with the study of Buafra et al. (2021) whose findings concur that universities must be invested in their practices of acquiring, sharing and storing on information as this influenced their overall performance . The findings further agree with Al-Hayaly and Alnajjar (2016) whose study established that knowledge acquisition in private universities

greatly impacted performance similarly the study also agreed with the findings of Stephen (2022) who established that knowledge acquisition and knowledge sharing had a direct relationship with performance. This therefore means that private chartered universities should have proper techniques and procedures for acquiring, sharing and conserving knowledge in the universities .

4.5.5 Descriptive Statistics on Operational Processes

The fourth objective of the study sought to determine the influence of operational processes on the performance of private chartered universities in Kenya. To achieve this, the respondents were required to give their rating on a five point Likert scale. The descriptive statistics are discussed in table 4.13 as seen below.

Table 4.13***Descriptive Statistics on Operational Processes***

Statement	N	Min	Max	Mean	Std. dev
Management has invested in automation of university operations and activities	205	1	5	3.32	1.029
Each work process has well defined inputs and outputs	205	1	5	4.00	.937
All work processes are integrated in the University ERP system	205	1	5	2.53	.952
Registration of exams is done online without hiccups	205	1	5	2.83	.907
Students can access learning resources out of campus	205	1	5	4.08	.959
The University has different modes of fees payment	205	1	5	3.96	.917
E- documents are available for use	205	1	5	3.90	.982
The University has an elaborate Strategic Plan	205	1	5	3.91	.808
The University has a well-defined catalogue of programs	205	1	5	4.07	.869
The University has updated database of learning resources	205	1	5	4.01	.849
The University has well-kept financial records for easy referencing	205	1	5	3.91	.800
Overall Mean				3.68	

Source: **Survey Data (2024)**

The fourth objective investigated operational processes, overall when the responses were computed majority of the respondents agreed on the statements on operational processes as shown by the composite mean of 3.68. The respondents agreed that the university had invested in automation of university operations and activities. The statement had a mean of 3.86 and standard deviation of 1.029 which implies that majority of the private chartered universities had automated university operations and activities. The statements

‘All work processes are integrated in the University ERP system’ and ‘Registration of exams is done online without hiccups’ had mean scores of 2.53 and 2.83 respectively which indicated the respondents disagreed with these statements which implies that majority of the private universities had not fully integrated all university work processes in the university ERP systems and that registration of exams online was sometimes faced with some hiccups.

The results further indicate majority of the respondents agreed that the university had different modes of fees payment. The statement had a mean score of 3.96 and a standard deviation of 0.917 that implied majority of the respondents agreed with the statement. In addition majority of the respondents agreed that the university has an elaborate plan (Mean score = 3.91 and standard deviation = 0.808) and that the university has well defined catalogue of programs (mean score= 4.07 and Standard deviation = 0.869). The respondents further agreed that the university has an updated database of learning resources and that the university had well-kept financial record for easy of referencing as shown by the mean score 4.07 and 3.91 respectively. The study results concur with Singer-Freeman et al. (2021) who reported that institutions of higher learning that invested in university systems and allowed online examinations helped universities in recording better performance. The study also concurred that e-learning and e-documents use helped students to achieve their academic journey. The study findings further agree with Kering et al. (2020) whose study established that operational processes were partly responsible for performance. The study also agreed with Rehman et al. (2019) who conducted research in Pakistan on the function of organizational capabilities as a mediator

between organizational performance and its drivers. The study was descriptive and relied on primary data, and it was informed by resource-based view and resource orchestration theories.

4.5.6 Descriptive Statistics on Sponsorship

The fourth objective investigated whether sponsorship moderates the association between operational capabilities and performance of private chartered universities in Kenya. The respondents were asked to indicate the level in which they agreed with specific statements on Sponsorship. The study used the five point likert scale where 1 was strongly disagree, 2 Disagree, 3 Neutral, 4 agree and 5 strongly agree. Table 4.14 summarizes the findings.

Table 4.14***Descriptive Statistics on Sponsorship***

Statement	N	Min	Max	Mean	Std. dev
The University operates as a separate entity from its sponsors	205	1	5	1.99	.837
There is a clear structure of the University governance issues	205	1	5	3.33	.828
University decisions are influenced by external parties	205	1	5	4.14	.744
The governance organs interfere with the internal affairs of the university	205	1	5	4.09	.861
The University has secure and uninterrupted funding options	205	1	5	2.71	1.024
Inadequacy of financial resources within the University is supplemented through borrowing so as to attain University Objectives.	205	1	5	3.63	1.119
There is capacity for the revenue sources to generate sufficient revenue	205	1	5	4.14	.793
Lack of resources affects employees performance in carrying out their day to day activities	205	1	5	3.99	.897
Our campuses are strategically located to attract students	205	1	5	4.09	.946
Our campuses are easily accessible	205	1	5	4.39	.757
Overall Mean				3.65	

Source: Survey Data (2024)

The next objective tested sponsorship. Overall when the responses were computed majority of the respondents agreed on the statements on sponsorship as shown by the composite mean of 3.65. From the findings majority of the respondents disagreed with the statements ‘The University operates as a separate entity from its sponsors ‘ and ‘There is a clear structure of the University governance issues’. This is shown by the mean score of 1.99, standard deviation = 0.837 and mean score of 3.33 and standard deviation = 0.828.

This indicated that the universities were not able to fully operate as separate entities from its sponsors and that there were governance issues since there was no clear structure of university governance organs. The statement 'University decisions are influenced by external parties' has a mean score of 4.14 and standard deviation of 0.744 implying majority of the respondents agreed that university decisions were influenced by external parties. The findings further indicate that majority of the respondents agreed that governance organs interfered with the internal affairs of the university. The statement has a mean score of 4.09 and a standard deviation of 0.861. The respondents also disagreed that private universities had secure and an interrupted funding options as indicated by the statement having a mean score of 2.71 and standard deviation of 1.024 while the statement 'Inadequacy of financial resources within the University is supplemented through borrowing so as to attain University Objectives' has a mean score of 3.62 and standard deviation of 1.119 that implies that majority of the respondents agreed that the university supplements its financial resources through borrowing. Majority of the responded agreed that the university has capacity for revenue sources to generate sufficient revenue. This is shown by the mean of 4.14 and standard deviation of 0.793. The respondents further agreed that the lack of resources affected employee performance. This is shown by the mean score of 3.99. The study further revealed that majority of the respondents agreed that the university campuses were strategically locate to attract students. The statement has a mean score of 4.09 and standard deviation of 0.946. In addition, the respondents strongly agreed that their campuses were easily accessible. This is shown the mean score of 4.39 and standard deviation on 0.757 implying that majority of the respondents agreed with the statement. The study findings concur with those of Wandiga et al. (2019) who

reported that the choice of location was important as it needed to fully support the goals and objectives of the organisation and it needed to be accessible to the firm's clients. Further the study results also agree with the findings of Okeibunor et al. (2022) whose study established that corporate sponsorship influences the performance of the organisation. Therefore, the sponsors of private universities indeed influence the performance of the private universities through financial support and interference with its day to day operations.

4.5.7 Descriptive Statistics on Performance

The last objective tested organizational performance. The respondents were asked to indicate the level in which they agreed with specific statements on Performance. The study used the five point likert scale where 1 was strongly disagree, 2 Disagree, 3 Neutral, 4 agree and 5 strongly agree. Table 4.15 summarizes the findings.

Table 4.15***Descriptive Statistics on Performance***

Statement	N	Min	Max	Mean	Std. dev
Our university employs lecturers and other staff based on their level of experience	205	1	5	3.95	1.016
Our University Has adopted a learner centered methodology of syllabus coverage	205	1	5	3.77	.910
Employees experience is highly rated during promotion	205	1	5	3.84	.933
Our university programmes are developed in line with the current emerging trends	205	1	5	3.83	.899
We have adequate number of lecturers	205	1	5	2.80	.927
All our curricula are approved by the Commission for University Education	205	1	5	3.79	.930
The University management places a high value and allocates funds for research	205	1	5	3.79	.941
The university always publish research works done by the students and staff	205	1	5	3.80	.945
The University participates in writing marketable grant proposals	205	1	5	3.73	1.015
The University collaborates with other institutions for research	205	1	5	3.75	.788
In the last 5 years our student enrollment has increased	205	1	5	3.90	.657
The University has attracted a good number of students in postgraduate studies	205	1	5	3.77	.908
Overall Mean				3.72	

Source: Survey Data (2024)

The last objective tested organizational performance. Overall when the responses were computed majority of the respondents agreed on the statements on performance as shown by the composite mean of 3.35. The study findings revealed that most of the universities employed lecturers and other staff based on their level of experience as shown by the mean score of 3.95 and standard deviation of 1. 016. The study also revealed that majority of the respondents agree that employee experience was highly rated during promotions. (

mean score = 3.77 and standard deviation = 0.910)The respondents were also asked whether the university had adequate number of lecturers whereby the statement had a mean score of 3.78 and a standard deviation id 0.927 which implies that majority of the respondents agreed with the statement. On the statement ‘Our university programmes are developed in line with the current emerging trends’ majority of the responded agreed that the programmes were developed in line with current emerging trends. In addition, majority of the respondents agreed that all university curricula were approved by CUE as indicated by the mean score of 3.79. The statements ‘The university always publish research works done by the students and staff’ and ‘The University participates in writing marketable grant proposals’ had a mean score of 3.79 and 3.80 respectively indicating that majority of the respondents agreed with the statement. The findings also showed that majority if the respondents agreed that the university collaborated with other institutions for research. The other indicator ‘In the last 5 years our student enrollment has increased’ has a mean score of 3.90 and standard deviation of 0.657. The findings revealed that majority of the respondents agreed with the statement. The mean of 3.9 indicated that majority of the respondents agreed that student enrollment had increased in the last five years. The findings also revealed that majority of the respondents agreed that the university had attracted a good number of students in post graduate studies as indicated by the statement’s mean score of 3.71 and standard deviation of 0.908.

4.6 Diagnostic Tests

Diagnostic tests must be carried out to tests assumptions and consequently check and establish the quality and quantity of the data collected. The aim is to determine whether

the data is suitable for statistical modelling. For purposes of this study the diagnostic tests carried out included the tests for normality, test for multicollinearity, and the test for Autocorrelation. According to Bell et al. (2022), regression analysis proceeds only when the assumptions tested are within the established thresholds. Every diagnostic test must clearly establish threshold that helps in making the decision.

4.6.1 Multicollinearity

The variance factor Indicator was used to determine multicollinearity. Waithima (2020) describes multicollinearity on predictor variables as a severe issue that complicates regression coefficient calculation. Multicollinearity is said to occur when multiple variables are included in a model and the variables are associated not only with the endogenous variable, but also with each other. (Martz, 2013). The findings of multicollinearity are shown below in table 4.16.

Table 4.16

Multicollinearity Test Results

Variable	Tolerance	VIF
Information Technology Use	.976	1.025
Managerial Capabilities	.875	1.142
Knowledge Management	.872	1.146
Operational Processes	.951	1.052

Source: Survey Data (2024)

To check for multicollinearity the study used Variance Inflation Factor (VIF). VIFs of 10 or a tolerance of 0.1 to indicate multicollinearity. The decision criteria here states that should the VIF for any specific variable exceed 5, then Multicollinearity is present and so a variable should be dropped from the adopted regression model (Martz, 2013). As shown in the table 20 the test for multi collinearity indicated that there was very low levels of Multicollinearity in the study data VIF for Information Technology Use = 1.025, VIF for Managerial Capabilities = 1.142, VIF for Knowledge Management = 1.146 and VIF for Operational Processes = 1.052. Wanjiku (2019) advised that for a data set to free from collinearity the tolerance value ought to be above 0.2 and VIF value below 5. Therefore, based on this guideline, the four variables of the study did not have multi collinearity issue.

4.6.2 Auto Correlation

Serial correlation was tested using the Durbin–Watson statistic. The Durbin–Watson statistic is a statistical approach for evaluating the degree of autocorrelation among residuals in a particular regression study. a Durbin-Watson scale that runs between 0 and 4, data that does not suffer auto-correlation has a Durbin-Watson score of 2, whereas positive auto-correlation is revealed by a Durbin Watson score of more than 2 reveals a negative auto-correlation.

The normal rule of thumb in the Durbin–Watson statistic is that values between 1.5 and 2.5 imply that there is no autocorrelation in the data. When The Durbin Watson value was 2, it showed there was not auto-correlation and when above 2, it indicated that there was

a negative effect of the independent variables. The model summary is shown below in Table 4.17.

Table 4.17

Autocorrelation Model Summary Table

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.139 ^a	.019	.000	.47602	1.993

From the study the Durbin-Watson statistic was 1.993 which is between the range 1.5 and 2.5 indicating that there was slightly auto correlation in the study data and as a remedy the data was centered.

4.6.3 Normality Tests

A variable is considered to have a normal distribution if it has a skewness of zero and a kurtosis of three. The Shapiro-Wilk test of normalcy was used to examine and confirm normality. The study made use of the Shapiro-Wilk and Kolmogorov-Smirnov tests where the P –Value was less than 0.05 the data was not normally distributed and if the P value was higher than 0.05 the data was assumed to have the traits of a normal distribution. Ghasemi and Zahediasl (2012) agree that the Kolmogorov-Smirnov (K-S) test appears to be the most popular test for normality, but cautions that due to its low power, it should no longer be used and recommends that normality be assessed both visually and through normality-ty tests, of which the Shapiro-Wilk test is highly recommended.

The study also used Q-Q plots to check the assumption of linear regression that residuals are normally distributed. The normal distribution indicates that data is thereby spread equally and hence it can represent the population (Mutuku et al., 2021). Data that is not normally distributed is set apart by its level of skewness. Data that is skewed to the left is said to have positive skewness while data skewed to the right is said to have negative skewness. The Shapiro-Wilk statistic was calculated for the dependent variable and for the regression model residuals as shown in Table 4.18. Normality is confirmed through p-value greater than 0.05 which was not the case. As show in the table 4.18 below data was skewed to the right defying the normality test.

Table 4.18

Tests of Normality

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Performance	.111	205	.000	.915	205	.000
Information Technology Use	.092	205	.000	.960	205	.000
Managerial Capability	.091	205	.000	.966	205	.000
Knowledge Management	.153	205	.000	.938	205	.000
Operational Processes	.094	205	.000	.952	205	.000

Ghasemi and Zahediasl (2012) agree that the Kolmogorov-Smirnov (K-S) test appears to be the most popular test for normality, but cautions that due to its low power, it should no longer be used and recommends that normality be assessed both visually and through normality-ty tests, of which the Shapiro-Wilk test is highly recommended. Such that given H_0 and H_1 , set $\alpha = 0.05$, the rule is that reject H_0 if P- value is less than α else fail to reject H_0 : where: H_0 : The data is normally distributed H_1 : The data is not normally distributed.

As table4.18 indicates both the the Kolmogorov-Smirnov and Shapiro-Wilk test had test statistics. $P(0.915) > 0.05$, $P(0.960) > 0.05$, $P(0.966) > 0.05$, $P(0.938) > 0.05$, and $P(0.952) > 0.05$. The rule is that reject H_0 if P- value is less than α else fail to reject H_0 : where: H_0 : The data is normally distributed H_1 : According to Field (2003), if the test is non-significant ($p > 0.05$), the data is not significantly different from normal distribution (in other words, it is not normal). The data is not normally distributed. From the findings the P values were greater than 0.05 and therefore the data was not normally distributed. As a result, this study fails to reject the respective null hypotheses and concludes that the particular data set is not normally distributed.

4.6.4 Q-Q Plots

The study also analysed the Q-Q plots for the variables. The Q-Q plots revealed that the study data was skewed to the right. Data that is not normally distributed is set apart by its level of skewness. Data that is skewed to the left is said to have positive skewness while data skewed to the right is said to have negative skewness.

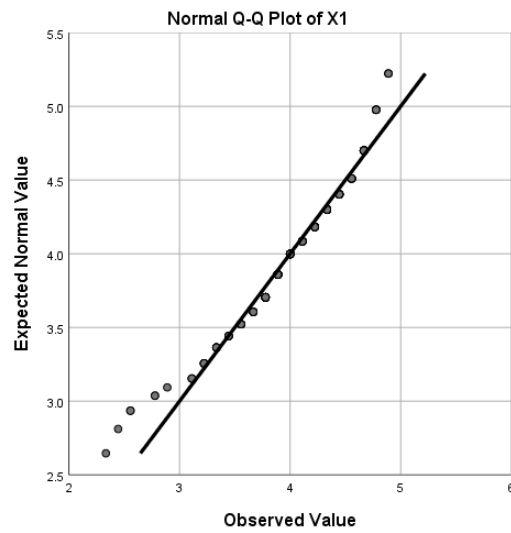
The Q-Q plots for each of the independent variable is shown below:

Information Technology Use Distribution

Figure 4.1 presents the Q-Q plot for Information Technology Use Distribution

Figure 4.1

Q-Q plot for Information Technology Use Distribution

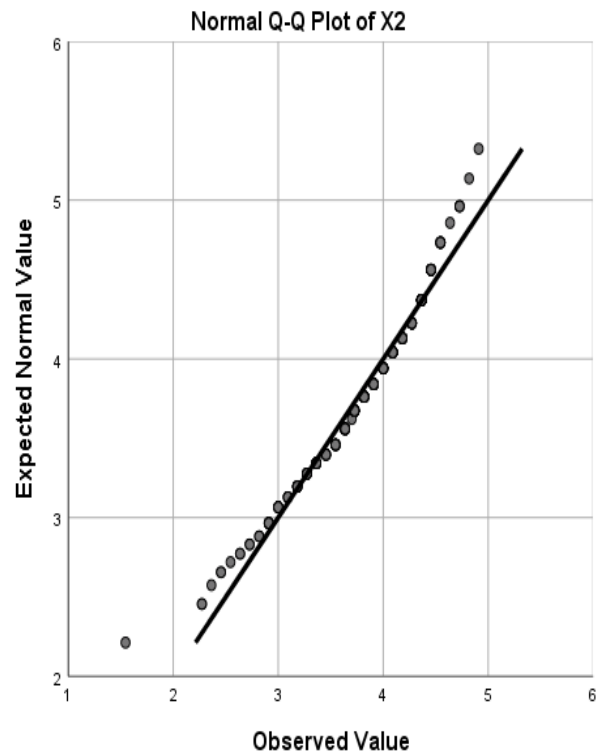


Managerial Capability distribution

Figure 4.2 shows the managerial capability distribution

Figure 4.2

Managerial Capabilities Q-Q Plot

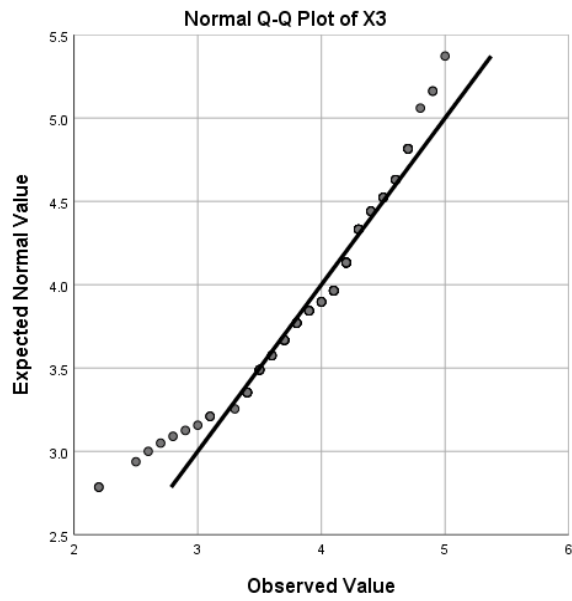


Knowledge Management practices distribution

Figure 4.3 shows the Knowledge Management practices distribution

Figure 4.3

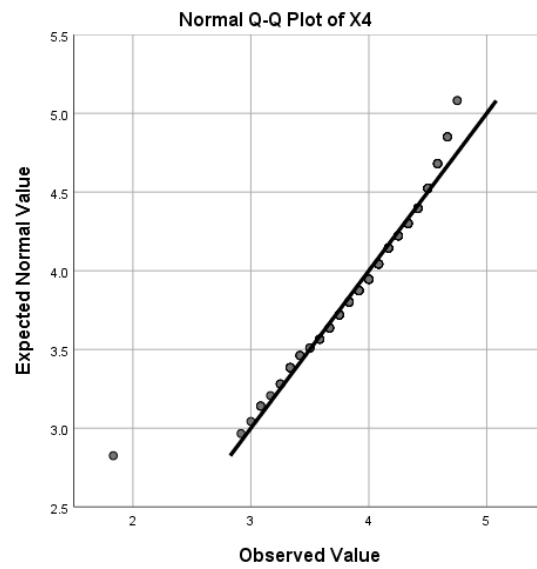
Knowledge Management Practices Q-Q Plot



Operational Processes distribution

Figure 4.4 shows the Operational processes distribution

Figure 4.4
Q-Q plot for Operational Processes

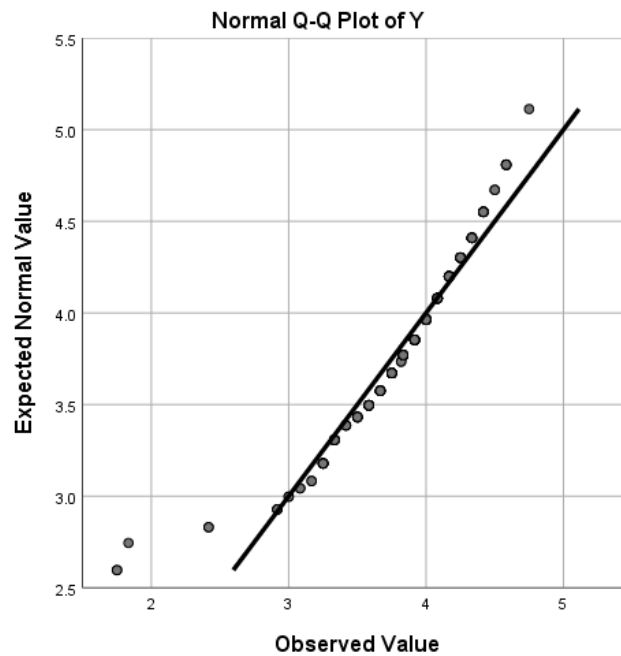


Performance distribution

Q-Q plot for Organizational Performance is shown below

Figure 4.5

Q-Q plot for Organizational Performance



The Q-Q plots shows data points that closely coincide with the line of best fit. Several points, however, stray from this line, suggesting a violation of the normal distribution assumption. Furthermore, the data points along the line of best fit show a linear relationship, indicating that the independent variables (information technology use, Managerial Capabilities, Knowledge Management Practices, operational processes) have a straight-line relationship with the response variable (performance). Nonetheless, that several points do not adhere to the line of best fit, indicating that the data lacks linearity.

From the Q-Q plots the data defied the linearity assumption and therefore the study used binary logistic regression.

Model 1

$$Li = \ell(P 1-P) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Where

$P_i / (1 - P_i)$ is simply the odds ratio -the ratio of the probability that operational capabilities ($i = 1, 2, 3, 4,5$) will influence University performance

β_0 - Constant

X_1 - Information Technology Use

X_2 - Managerial Capabilities

X_3 - Knowledge Management

X_4 – Operational Processes

P probability that the university records good performance

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 represent units change in the log of odds ratio as a result of a unit change in the respective independent variable and it is the proportion of positive effect.

Model Two (With Moderator)

$$Li = \ell(P 1-P) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_m$$

Where

$P_i / (1 - P_i)$ is simply the odds ratio -the ratio of the probability that operational capabilities ($i = 1, 2, 3, 4,$) will influence University performance

β_0 - Constant

X_1 - Information Technology Use

X_2 - Managerial Capabilities

X_3 - Knowledge Management

X_4 – Operational Processes

X_M - Sponsorship

P probability that the university records good performance

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 represent units change in the log of odds ratio as a result of a unit change in the respective independent variable and it is the proportion of positive effect.

4.7. Bivariate Logistic Regression Analysis

The analysis proceeded in three steps as demonstrated below:

The first step comprised of determining the contribution of each independent variable and the moderator on the independent variable which was then followed by determining the contribution of all the independent variables on the dependent variable controlling the influence of the moderator. The last step was determining the moderating role of sponsorship on the relationship between operational capabilities and performance of private chartered universities in Kenya. The results are shown below:

4.7.1 Relationship between information technology use and performance of Private Chartered Universities in Kenya

To determine the association between information technology, use and performance of private chartered universities in Kenya bi variate logistic regression analysis was conducted. The results are as shown below:

4.7.1.1 Omnibus Test of Model of Co-efficient

The omnibus test of model coefficients is a key indicator of the variables predictive ability. As shown in Table 4.19 below the p – value of the model as a block was $p < 0.047$ which indicated that the model had great predictive ability and that the model was significant.

Table 4.19

Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	3.951	1	0.047
	Block	3.951	1	0.047
	Model	3.951	1	0.047

4.7.1.2 Hosmer and Lemeshow Test

The Hosmer and Lemeshow Test which helps to establish whether the model is fit for prediction. The null hypothesis tested is that the model is appropriate against the alternative that the model is not fit. As per the results presented in Table 4.20, the chi-

square results, were $\chi^2 = 12.621$, $p=0.164$. Thus, we failed to reject the null hypothesis. This implies that the study variable is fit for this study and possess significant predictive ability. It was concluded that the variable was appropriate for this study.

Table 4.20

Hosmer and Lemeshow Test Table

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	12.621	1	0.271

4.7.1.3 Model Summary

From table 4.21 below, Converting Nagelkerke R-square to a percentage, $R=0.291$ gives 29.1%. This implies that Information technology use contributed 29.1% to performance of private chartered universities in Kenya.

Table 4.21

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	216.789 ^a	0.192	0.291

4.7.1.4 Variables in the Equation

The variables in the equation was also computed to establish the odds ratio as indicated in table 4.22 below:

Table 4.22

Variables in the Equation Table

Variable	B	S.E	P Value	odds ratio
Information Technology Use				
not using (RC)				1.000
Using	0.495	0.213	0.002	1.640

From the table 4.22 above, universities that were using information technology were 1.640 times more likely to record improved performance. The findings of the study correspond to the findings of Haidabrus (2022) who on their study in Latvia on the use of information technology established a positive aspect on the use of information technology in higher education does exist. The study findings also collaborated the findings of Kiche (2023) who established a positive association between information technology use and performance of education in universities in Kenya exists

4.7.2 1 Relationship between Managerial Capabilities and Performance of Private Chartered Universities in Kenya

To determine the relationship between managerial capabilities and performance of private chartered universities was also established. The analysis is also important as it indicates the percentage that managerial capabilities accounts for in the variation of performance. The results were indicated in tables below as follows:

4.7.2.1 Omnibus Test of Model of Co-efficients

The omnibus test of model coefficients is a key indicator of the variables predictive ability. As shown in Table 4.23 the p – value of the model as a block was $p < 0.028$ which indicated that the model had great predictive ability and that the model was significant.

Table 4.23

Omnibus Test of Model Coefficients Table

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	3.398	1	0.028
	Block	3.398	1	0.028
	Model	3.398	1	0.028

4.7.2.2 Hosmer and Lemeshow Test

The Hosmer and Lemeshow test was carried out to determine whether the model is fit for prediction. The results are indicated in the table below. The findings were $\chi^2 = 18.359$, $p = 0.172$. Thus, we failed to reject the null hypothesis and concluded that study variable is fit for this study and possess significant predictive ability.

Table 4.24

Hosmer and Lemeshow Test Table

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	18.359	1	0.172

4.7.2.3 Model Summary

From table 4.25 below, Converting Nagelkerke R-square to a percentage, $R=0.304$ gives 30.4%. This implies that managerial capabilities contributed 30.4% to performance of private chartered universities in Kenya.

Table 4.25

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	220.342 ^a	0.224	0.304

4.7.2.4 Variables in the Equation

The variables in the equation were also computed as shown in the below table

Table 4.26

Variables in the Equation Table

Variable	B	S.E	P Value	odds ratio
Managerial Capabilities				
Not Capable (RC)				1.000
Capable	0.899	0.613	0.017	2.457

From the above table 4.26 above, Universities that had capable managers were 2.457 times more likely to report increased performance. The study findings are in agreement with Sebhatu (2021) who posits that organisations must improve their application of managerial capabilities in order to transform and boost performance. Similarly, the findings agree with Nyukuri and Nambuswa (2022) who concluded that leadership capability was necessary to improve performance of organisations by enabling organisations survive in the ever changing global business

4.7.3 Relationship of Knowledge Management Practices and Performance of Private Chartered Universities in Kenya.

Knowledge management practices and performance association was also examined using the bivariate logistic regression analysis was carried out. This is crucial to determine the percentage knowledge management practices account for in performance of private chartered universities in Kenya. The results are shown in the tables below:

4.7.3.1 Omnibus Tests of Model of Co-efficients

The omnibus test of model coefficients is a key indicator of the variables predictive ability. As shown in Table 4.27 below, the p – value of the model as a block was $p < 0.038$ which indicated that the model had great predictive ability and that the model was significant.

Table 4.27

Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	4.398	1	0.038
	Block	4.398	1	0.038
	Model	4.398	1	0.038

4.7.3.2 Hosmer and Lemeshow Test

The Hosmer and Lemeshow Test which helps to establish whether the model is fit for prediction. As per the results presented in Table 4.28 below, the chi-square results, were $\chi^2 = 20.321$, $p = 0.573$. Thus, we failed to reject the null hypothesis. This implies that the study variable is fit for this study and possess significant predictive ability. It was concluded that the variable was appropriate for this study.

Table 4.28

Hosmer and Lemeshow Test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	20.321	1	0.573

4.7.3.3 Model Summary

The model summary was computed as below to indicate the percentage the variable contributed in the variations in performance.

Table 4.29

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	219.164 ^a	0.185	0.256

From table 4.29 Converting Nagelkerke R-square to a percentage, $R=0.256$ gives 25.6%.

This implies that knowledge management practices contributed 30.4% to performance of private chartered universities in Kenya.

4.7.3.4 Variables in the Equation

From the findings it was established that there was a significant association between knowledge management practices and performance of private chartered universities.

Similarly, as shown in table 4.30 below, universities that had robust knowledge management practices were 2.230 times more likely to record increased performance.

Table 4.30

Variables in the Equation Table

Variable	B	S.E	P Value	odds ratio
Knowledge Management Practices				
Not Robust (RC)				1.000
Robust	0.802	0.559	0.014	2.230

From table 4.30 above, the findings concurred with those of Andrea and Wanyoike (2024) who determined that Knowledge management practices improved organisation performance and recommended that management needed to view knowledge management as a resource for competitive advantage. In addition, the findings are in line with Cherotich and Senaji (2023) who established that a positive and significant relationship existed between knowledge management practices and performance and therefore recommended that public universities needed to improve their knowledge management practices.

4.7.4 Regression Analysis between Operational Processes and Performance of Private Chartered in Kenya

To determine the relationship between operational processes and performance of private chartered universities in Kenya bi variate logistic regression analysis was conducted. The results are as shown below:

4.7.4.1 Omnibus Test of Model of Co-efficients

The omnibus test of model coefficients is a key indicator of the variables predictive ability. As shown in Table 31 the p – value of the model as a block was $p < 0.037$ which indicated that the model had great predictive ability and that the model was significant.

Table 4.31

Omnibus Tests of Model Coefficients

		Omnibus Tests of Model Coefficients		
		Chi-square	df	Sig.
Step 1	Step	4.809	1	0.037
	Block	4.809	1	0.037
	Model	4.809	1	0.037

4.7.4.2 Hosmer and Lemeshow Test

The Hosmer and Lemeshow test was carried out to determine whether the model is fit for prediction. The results are indicated in the table 37 below. The findings were $\chi^2 = 13.124$, $p = 0.112$. Thus, we failed to reject the null hypothesis and concluded that study variable is fit for this study and possess significant predictive ability.

Table 4.32

Hosmer and Lemeshow Test Table

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	13.124	1	0.112

4.7.4.3 Model Summary

From table 4.33 below Converting Nagelkerke R-square to a percentage, $R=0.294$ gives 29.4%. This implies that operational capabilities contributed 29.4% to performance of private chartered universities in Kenya.

Table 4.33

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	220.720 ^a	0.279	0.294

4.7.4.4 Variables in the Equation

The odds ratios were computed as indicated in the table below:

Table 4.34

Variables in the Equation Table

Variable	B	S.E	P Value	odds ratio
Operational Processes				
Not Strong (RC)				1.000
Strong	0.711	0.436	0.024	2.036

The study showed that universities that had strong operational processes were 2.036 times more likely to increase the odds likelihood of performance than those that had weak processes, The findings agree with those of Kering et al. (2020) who posits that operational processes were partly responsible for performance recorded among firms engaged in manufacturing in Nairobi City County, Kenya. Consequently the study findings collaborate with the findings of Handoyo et al. (2023) who linked operational efficiency to significantly and positively influencing performance.

4.7.5 Sponsorship

To determine the relationship between sponsorship and performance of private chartered universities in Kenya bivariate logistic regression analysis was conducted. The results are as shown below:

4.7.5.1 Omnibus Test of Model of Co-efficients

The omnibus test of model coefficients is a key indicator of the variables predictive ability. As shown in table 4.35 below the p – value of the model as a block was $p < 0.028$ which indicated that the model had great predictive ability and that the model was significant.

Table 4.35

Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	4.809	1	0.028
	Block	4.809	1	0.028
	Model	4.809	1	0.028

4.7.5.2 Hosmer and Lemeshow Test

The Hosmer and Lemeshow test was carried out to determine whether the model is fit for prediction. The results are indicated in the table below. The findings were $\chi^2 = 12.645$, $p = 0.314$. Thus, we failed to reject the null hypothesis and concluded that study variable is fit for this study and possess significant predictive ability.

Table 4.36

Hosmer and Lemeshow Test Table

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	12.645	1	0.314

4.7.5.3 Model Summary

From table 4.37 Converting Nagelkerke R-square to a percentage, $R=0.350$ gives 35%. This implies that sponsorship contributed 35% to performance of private chartered universities in Kenya.

Table 4.37

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	215.931 ^a	0.231	0.350

4.7.5.4 Variables in the equation

The odds ratio was computed as indicated in the below table

Table 4.38

Variables in the Equation Table

Variable	B	S.E	P Value	odds ratio
Sponsorship				
Not Sponsored (RC)				1.000
Sponsored	0.985	0.597	0.001	2.677

From the findings a significant association between sponsorship and performance of private chartered universities in Kenya exists. From table 4.38 above private universities

that were sponsored increased their odds likelihood of performance by 2.677 times. The study outcome agree with Handoyo et al. (2023) whose collaborated the findings that firm ownership significantly and statistically influence firm performance.

4.8 Binary Logistic Analysis

Binary logistic model was fitted so as to establish the cause-and-effect relationship existing among the study variables. Binary logistic model is utilized when the response variable is dichotomous in nature. Besides, the testing of assumptions of the classical linear regression model showed that the data violated one of the model assumptions (normality tests). Since the data defied the normality assumption the use of non-parametric tests and binary logistic regression analysis was used to determine the relationship between the dependent and independent variables for this study. Binary regression is a method to determine the reason-result relationship of independent variables with dependent variable. In binary logistic regression chi-square is used. Logistic regression also facilitated in ascertaining the influence of each explanatory variable on the response variable. The chi-square goodness of fit were carried out to check whether the model was fit against the model and the significant value was expected to be less than 0.05 $P < 0.05$ whereas the Pearson goodness of fit was expected to be greater than 0.05 ($P > 0.05$). The omnibus test of model coefficients was also conducted to determine models predictive ability. To assess the magnitude of the impact of the independent variable on the dependent variable the pseudo R-Square and specifically the Nagel Kerke value was used to indicate the proportion of the variance that was explained by the independent variable on the dependent variable in the regression model.

4.8.1 Model Fitting

The model fit of the model was captured in the following table. The p Value indicated that the study model variables used in establishing the performance of private Chartered universities were a perfect fit. For the model to be fit the P value has to be less than 0.05 $P < 0.05$. If the significance is less than 0.05 we reject the null hypothesis. Based on the results presented in Table, the obtained P-value is 0.001, which is lower than the predetermined significance level (alpha) of 0.05. As a result, the null hypothesis, which suggests no significant difference between the baseline model and the final model, is rejected.

The findings indicated that when all four constructs (X1, X2, X3, and X4) are included in the regression analysis, they collectively form a model with statistically significant predictive capability for the outcome variable (Y, performance of private chartered universities). This meant that the combined variables on factors (information technology use, managerial capabilities, Knowledge management practices and operational capabilities) statistically and significantly explain the variations in Performance of private chartered universities in Kenya.

Table 4.39

Model Fitting

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1204.022			
Final	1011.979	19.956	6	.001

Results in Table 4.39 show a P value of 0.01, which is less than alpha value, $P < 0.05$; hence, rejection of the underlying null hypothesis that there is no significant difference between the baseline model and the final model. The results show that the combined model has a statistically significant predictive capacity, which means that the combined antecedents statistically and significantly explain the variations in the performance of Private Chartered Universities in Kenya.

4.8.2 Goodness of Fit

The study further sought to establish the goodness-of-fit with the fitted model. In binary logistic regression, the Pearson Chi-square goodness-of-fit test was used in determining whether a model exhibited a good fit of the data; that is, it tests whether the observed data has goodness-of-fit with the fitted model. The decision rule is to reject the underlying null hypothesis if the P value is less than 0.05. The null hypothesis state that the observed data is having goodness-of-fit with the fitted model as shown in Table 4.40

Table 4.40

Goodness of Fit Table

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	5282.947	5095	.058
Deviance	1194.011	5095	1.000

Link function: Logit.

The decision rule is to reject the underlying null hypothesis if P value is less than 0.05. The null hypothesis state that the observed data is having goodness of fit with the fitted model. The second model that was used was the goodness of fit model that indicated that there was slightly low association of the variables

The findings in Table 4.39 show χ^2 (df 5095) = 5282.947; p= 0.058 In this case, therefore, the study failed to reject the null hypothesis and concluded that the observed data had goodness-of-fit with the fitted model; meaning the model fits the data very well. This implied that the data on the identified study variables were reliable and fit for predicting the performance of private chartered universities in Kenya. As a result of the reliability of the model the study further calculated the pseudo R-squared.

4.8.3 Omnibus Test of the model Coefficient

The omnibus test of model coefficients was tested and the results are indicated in the table 4.41 below:

Table 4.41

Omnibus Test of model Coefficient

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	1.694	4	0.002
	Block	1.694	4	0.002
	Model	1.694	4	0.002

The omnibus test of model coefficients is a key indicator of the models predictive ability all the study variables are considered as a block. As shown in Table 4.39 above the p – value of the model as a block was $p < 0.002$ which indicated that the model had great predictive ability.

4.8.4 Pseudo R-Squared

The degree of prediction is further elaborated by computing the pseudo R-Squared as shown in table 4.42 below.

Table 4.42

Pseudo R-Square Table

Pseudo R-Square	
Cox and Snell	.525
Nagelkerke	.526

The results presented in Table 4.42 above demonstrate the predictive ability of the factors in accounting for the variations in performance of private chartered universities, as indicated by the Nagelkerke R-square values. The Pseudo R-Square shows that these factors have a prediction capacity of 52.6%. The Nagelkerke Pseudo R squared indicated that there was 52.6% improvement in the prediction of outcome based on the prediction in comparison to the null model. This implied that there was a 52.6% improvement in the performance of private chartered universities in Kenya and that the factors accounted for 52.6% of the prediction capacity.

4.8.5 Model Summary

Table 4.43

Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	72.170 ^a	0.525	0.526

As shown in Table 4.43 above the independent variables account for about **52.6%** percent of the variations in the performance of private chartered universities in Kenya. Therefore about 47.4% of the variations in university performance has not been accounted for in this study. Hence his calls for more studies in this area to unearth all the factors influencing organizational performance in Private Chartered Universities in Kenya.

4.8.6 Test of Parallel lines

The study also went ahead to examine the values in the test of parallel lines. The findings are shown in table 4.44 below.

Table 4.44
Test of Parallel Lines Table

Test of Parallel Lines ^a				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	1011.979			
General	.000 ^b	1011.979	2904	1.000

From the above table 4.44 the P-Value is 1.000 which is greater than 0.005 $P > 0.005$. This led to the rejection of the underlying null hypothesis. The test of parallel lines was important in confirming the assumptions on proportional odds. Consequently, the study concluded that the predictive capacity of operational capabilities on performance of private chartered universities in Kenya was valid and reliable. The results of the overall model were considered correct in the study and they were in tandem with the literature

reviewed in chapter two where all the predictors (Information Technology Use, Managerial Capabilities, Knowledge Management Practices and Operational Process) were found to be jointly significant in influencing the performance of private chartered universities in Kenya.

4.8.7 Hosmer and Lemeshow Test

The Hosmer and Lemeshow Test is another measure of binary logistic model which help to establish whether the model is fit for prediction. The null hypothesis tested is that the model is appropriate against the alternative that the model is not fit. As per the results presented in Table 30, the chi-square results, were $\chi^2 = 12.062$, $p=0.164$. Thus, we failed to reject the null hypothesis. This implies that the model is fit for this study and possess significant predictive ability. It was concluded that the model is appropriate for this study. The findings are indicated in the below table:

Table 4.45

Hosmer and Lemeshow Test Table

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	12.062	1	0.164

4.9 Multivariate Logistic Regression without Moderator

Due to reliability of the model, the research went ahead to interpret the values in the parameter estimates table regarding the performance of private chartered universities in Kenya. The parameter estimates show how each predictor variable is influencing the dependent variable in the combined model. The parameter estimates of the model based on data is displayed in Table 4.46. The odds ratio was computed as shown in the following table

Table 4.46

Odds Ratio Table

Variable	B	S.E	Wald	P Value	odds ratio
Information Technology Use					
not using (RC)					1.000
Using	0.491	0.246	3.995	0.014	1.634
Managerial Capabilities					
Not Capable (RC)					1.000
Capable	0.330	0.228	2.093	0.013	1.391
Knowledge Management Practices					
Not Robust					1.000
Robust	0.443	0.265	2.783	0.015	1.557
Operational Processes					
Not Strong (RC)					1.000
Strong	-0.393	0.274	2.056	0.024	0.675

Source: Author 2024

As shown in table 4.46 above all the study variables (Information Technology use, Managerial Capabilities, Knowledge Management Practices and Operational Processes) were statistically significant when all the constructs were combined in one model.

Information Technology use turned out to be a significant predictor of performance in Private Chartered Universities in Kenya. Universities that embraced information technology use were 1.634 times likely to register improved performance when compared to those that had weak information technology use and structures. The results were significant at 95% level of confidence. The findings agree with those of Greve and Aaron (2021) who found that technology use was important in higher education and that access to existing online resources was important to transform the higher education sector.

The findings also showed that a marginal increase in (X2) – managerial capabilities increases the logit of performance of private chartered universities in Kenya by 1.391 while keeping all the other variables constant. This implied that universities that had capable managers were 1.391 times more likely to register improved performance in comparison to those whose managers lacked some capabilities. The results were statistically significant at 95% confidence level. The study results concur with those of Susanti et al. (2020) whose findings agree that managerial competence and capabilities were important for leaders in higher education as they were crucial for the development of universities while Ogola et al. (2022) findings agree that managerial capabilities were important and they have a positive and significant relationship to the success of an organisation.

The study results further revealed that a unit increase in (X3) knowledge management practices increases the odds (likelihood) of performance of private universities by 1.557 while controlling other factors which implied that universities that had put in robust knowledge management practices were 1.557 times more to report improved performance than those that did not have solid knowledge management practices. The findings of this study are in agreement with those of Buafra et al. (2021) whose study explored knowledge management practices and performance of public universities in the United Arab Emirates and found that knowledge management practices had a substantial and positive direct on universities performance.

The table also shows the odds ratio that show a marginal increase in (X4) operational processes increases the logit of performance of private universities by 0.675 while maintain the other factors constant. This shows that universities that had good operational processes were 0.675 times likely to report increased performance than those had weak processes. The findings of the study are in agreement with the findings of Kibuine et al. (2022) who conducted a study on operational processes as moderating the association between performances of chartered Universities in Kenya. The study used Descriptive analysis and multiple regression and found that operational positively influenced performance of chartered universities.

4.10 Results on Moderation

As indicated in the document the document the fifth objectives was to determine the moderating effect of sponsorship on performance of private chartered universities in

Kenya. To assess this the study had a null hypothesis H_{05} : Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya. To test this multivariate ordinal logistics regression was use. The model fitting information which utilizes chi-square likelihood ratio and the goodness of fit were computed by using SPSS as shown below

4.10.1 Model Fitting

Table 4.47

Model Fitting

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1213.961			
Final	1011.979	201.983	121	.003

In moderated multivariate binary logistic regression model the significant value in the model fitting was anticipated to be less than 0.005 ($P < 0.005$) whereas the decision criteria to assess the goodness of fit was that the P-Value to be greater than 0.005 $P > 0.005$. From table 4.47 above, for the model to be fit the P value has to be less than 0.05 $P < 0.05$. If the significance is less than 0.05 we reject the null hypothesis. Based on the results presented in Table, the obtained P-value is 0.003, which is lower than the predetermined significance level (alpha) of 0.05. As a result, the null hypothesis, which suggests no significant difference between the baseline model and the final model, is rejected. The model fitting information shows the significance of the predictive capacity of the overall model which included the moderator interaction term. This indicated that

sponsorship has predictive capacity on performance of private chartered universities in Kenya. The study further checked the goodness of fit as shown below in table 4.47.

4.10.2 Goodness of Fit

The Pearson Chi-square goodness-of-fit test was used in determining whether a model exhibited a good fit of the data; that is, it tests whether the observed data has goodness-of-fit with the fitted model. The decision rule is to reject the underlying null hypothesis if the P value is less than 0.05. The null hypothesis state that the observed data is having goodness-of-fit with the fitted model as shown below:

Table 4.48

Goodness of Fit Table

Goodness-of-Fit			
	Chi-Square	df	Sig.
Pearson	5282.947	5095	.032
Deviance	1194.011	5095	1.000

Link function: Logit.

In binary logistic regression, The decision rule is to reject the underlying null hypothesis if the P value is less than 0.05. The null hypothesis state that the observed data is having goodness-of-fit with the fitted model as shown in Table 4.48. In this case, therefore, the study failed to reject the null hypothesis and concluded that the observed data had goodness-of-fit with the fitted model.

The results of the study helped to conclude whether sponsorship moderated the relationship between operational capabilities and performance of private chartered universities in Kenya. The study also calculated the parameter estimates to show how each of the predictor variables which included the moderator interaction term based on sponsorship influenced the dependent variable.

4.10.3 Summary of the Model

This section examines sponsorship moderates the relationship between operational capabilities and performance of private chartered universities in Kenya. The analysis indicates the magnitude of changes in the organizational performance of private chartered universities that can be accounted for by introducing sponsorship in the relationship between operation capabilities and organizational performance of private chartered universities.

Table 4.49

Model Summary Table

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	72.170 ^a	.008	0.271

As shown in table 4.49 above, Nagel kerke R=0.271. Converting the r square into percentage gives 27.1%. This implies that sponsorship accounts for about 27.1 % of the variation in organizational performance. Other variables not included in this research

explain 72.9 percent of the variance in the dependent variable which can be analysed by other studies.

4.10.4 Multivariate Logistic Regression with the moderator

Due to reliability of the model, the research went ahead to interpret the interaction of the moderator with the study variables regarding the performance of private chartered universities in Kenya. The parameter estimates shows how each predictor variable is influencing the dependent variable in the combined model when the moderator is introduced. The parameter estimates of the model based on data is displayed in Table 4.49 below. The odds ratio was computed as shown in the following table;

Table 4.50

Parameter Estimates with Moderator

Variable	B	S.E	Wald	P Value	odds ratio
Information Technology Use					
not using(RC)					1
Using	0.433	0.246	3.096	0.011	1.742
Managerial Capabilities					
Not Influencing(RC)					1
Influencing	0.395	0.231	2.927	0.010	1.371
Knowledge Management Practices					
Not Influencing(RC)					1
Influencing	0.574	0.394	2.124	0.003	1.776
Operational Processes					
Not Influencing(RC)					1
Influencing	0.472	0.276	2.919	0.027	0.624
Sponsorship					
Not Sponsored(RC)					1
Sponsored	0.350	0.164	4.541	0.001	0.704

As shown in table 4.50 above sponsorship plays a Moderating role in the association between operational capabilities and organizational performance of private chartered universities in Kenya. For private chartered universities that had good sponsorship they were 0.704 times more likely to record improved performance. From the above table 4.50 above the odds ratio which indicate the multiplicative effect in the odds. An odds ratio that is >1 suggests an increasing probability of being in a higher level on the dependent variable as values on the independent variable increase. When the moderator interaction term was added the P-Values changed. X1(Information Technology Use) P-value became stronger from 0.014 to 0.011, X2(Managerial Capabilities) P-Value became stronger from 0.013 to 0.010, X3 (Knowledge Management Practices) P value changed from 0.015 to 0.003 while X4 (Operational Process) P-Value increased from 0.027 to 0.024. This further means that when the moderator was introduced; A unit increase in information Technology Use there is a predicted significant increase of 1.742 in the log odds likelihood of falling at a higher level on performance of private chartered universities in Kenya. The results further show that with the introduction of the moderator a marginal increase in X2 (Managerial Capabilities) increases the logit of performance of private chartered universities by 1.371. A unit increase in X3 (Knowledge Management Practices) increases the odds (likelihood) of performance of private chartered universities in Kenya by 1.776. Lastly a marginal increase in X4 (Operational Processes) increases the logit of performance of private chartered universities in Kenya by 0.624.

From the research findings sponsorship positively influenced information technology use and knowledge management practices while on the other hand sponsorship negatively

influenced managerial capabilities and operational processes. The study therefore concluded that sponsorship moderated the relation between operational capabilities and performance of private chartered universities in Kenya.

The comparison between the direct model and the moderated model is also shown below:

Table 4.51

Multivariate logistic regression with and without the moderator

	Variable	B	S.E	Wald	P Value	odds ratio
Model 1- Without interaction terms	Information Technology Use					
	not using (RC)					1.000
	Using	0.491	0.246	3.995	0.014	1.634
	Managerial Capabilities					
	Not capable (RC)					1.000
	Capable	0.330	0.228	2.093	0.013	1.391
	Knowledge Management Practices					
	Not Robust					1.000
	Robust	0.443	0.265	2.783	0.015	1.557
	Operational Processes					
Not Strong (RC)					1.000	
Strong	0.393	0.274	2.056	0.027	0.675	
Model 2-With interaction terms	Information Technology Use					
	not using (RC)					1.000
	Using	0.433	0.246	3.096	0.011	1.742
	Managerial Capabilities					
	Not capable (RC)					1.000
	Capable	0.395	0.231	2.927	0.010	1.371
	Knowledge Management Practices					
	Not Having (RC)					1.000
	Having	0.574	0.394	2.124	0.003	1.776
	Operational Processes					
Not Strong (RC)					1.000	
Strong	0.472	0.276	2.919	0.024	0.624	
Sponsorship						
Not Sponsored(RC)					1.000	
Sponsored	0.350	0.164	4.541	0.001	0.704	

4.10.5 Deviate Score

Nagelkerke R Square indicates the contribution of each predictor variable to the response variable. From the findings the variables without the moderator accounted for 52.6% prediction capacity in the performance of private chartered universities in Kenya. When the moderator was introduced the model improved and accounted for 62.8% of the variation in performance. The deviate scores as improved when the moderator was introduced implying that sponsorship improved the model. The deviate scores are shown on the below table:

Table 4.52

Deviate Score Table

Item	Deviate Score	Cox & Snell R Square	Nagelkerke R Square
Model without Moderator	1204.022	0.525	0.526
Model with Moderator	1213.961	0.627	0.628

4.11 Chi Square Tests

The study carried out hypothesis testing by conducting cross tabulations in SPSS version 26 in order to determine the chi square statistics. The chi square statistic is utilized to establish if two categorical variables are related or not. The study variables in this study are categorical. It is crucial to remember that correlation does not necessarily indicate the existence of causality hence the study used binary logistic regression to test the existence

of a cause and effect relationship. The tests we conducted a 5% degree of significance. The decision criteria was set at $p < 0.05$ rejection of null hypothesis.

Hypothesis One: Information technology use has no significant effect on performance of private chartered universities

The research carried a cross tabulation of the responses received on information technology use and performance. The finding indicated robust association existed between information technology used and performance of private chartered universities in Kenya.

The Pearson's chi-square test outcome was: $\chi^2 = 18.359$, $n = 205$, and $p = 0.010$. This point to a relationship is statistically significant. As a result, given that the p-value decision criteria for rejection of the null hypothesis was just 0.05, the research came to the conclusion that a substantial association between Information Technology use and performance of private chartered universities in Kenya does exist. The outcome of the study concur with the study of Masyhuri et al. (2021) whose study established that information communication technology use significantly influenced performance.

Hypothesis Two: Managerial capability has no significant effect on performance of private chartered universities in Kenya.

To test the second hypothesis, the study chi square tests were conducted. Results of the analysis were: The Pearson's chi-square, $\chi^2 = 26.704$, $n = 205$, $p = 0.000$. This implied that managerial capabilities are significantly associated with the performance of private chartered universities in Kenya and hence the rejection of the study's null hypothesis. The

study concluded that managerial capabilities have a significant relationship with performance in private chartered universities in Kenya. The study findings are in line with those of Kirugumi et al. (2021) whose study investigated managerial capability and internalization status of private chartered universities. The study thus established that performance of private universities was considerably influenced by managerial capabilities.

Hypothesis Three

The third hypothesis of the study sought to test knowledge management practices and performance of private chartered universities in Kenya. The study was guided by the null hypothesis:

H₀₃: Knowledge management practices have no significant influence on performance of private chartered universities in Kenya

The outcome of the test was as follows $\chi^2 = 46.673$, $n = 205$, $p = 0.000$. These results indicated that knowledge management practices in private chartered universities in Kenya had a significant association with performance. This led to the rejection of the null hypothesis at 5% confidence level and the study concluded that a strong association was present between knowledge management practices and performance of private chartered universities in Kenya. The finding relates with those of Wanjiru (2022) whose study established that knowledge management practices were positively and significantly associated with firm performance.

Hypothesis Four

This study was guided by the fourth objectives which was to determine whether Organizational operational processes influence performance of private chartered universities in Kenya. The null hypothesis was: H₀₄: Organizational operational processes have no significant effect on performance of private chartered universities in Kenya. Cross tabulation was carried out and the chi square results were as follows $\chi^2 = 17.707$, $n = 205$, $p = 0.003$. The outcome illustrate that a meaningful association exists between operational processes and the performance of private chartered universities in Kenya and therefore the null hypothesis was rejected. The study findings agree with those of Kering et al. (2020) who sought to investigate operational processes and form performance and the study thus established that a significant relation does in deed exist between operational processes and organizational performance.

Hypothesis Five

The study in hypothesis five sought to establish that sponsorship in private chartered universities did not influence association between operational capabilities and performance. The null hypothesis stated as follows: H₀₅: Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya. The results of the tabulation was as indicated $\chi^2 = 23.321$, $n = 205$, $p = 0.017$. The study results indicated the P-Value at 0.017 which was less than 0.05 and the null hypothesis was rejected and the study concluded that there was a robust association between sponsorship as a moderator on operational capabilities and performance of

private chartered universities in Kenya. The findings of the study collaborate those of Boshnak (2023) whose study findings indicated that there existed a significant and positive association between ownership structure and firm performance. The Pearson chi-square table is summarized in table 4.52 below:

Table 4.53

Pearson Chi-Square Table Summary

Hypothesis	Pearson Chi-square	n	P-value	Decision
H ₀₁ : Information technology use has no significant effect on performance of private chartered universities	18.359	205	0.010	Null hypothesis rejected p<0.010
H ₀₂ : Managerial capability has no significant effect on performance of private chartered universities in Kenya	26.704	205	0.000	Null hypothesis rejected p<0.000
H ₀₃ : Knowledge management practices have no significant influence on performance of private chartered universities in Kenya	46.673	205	0.000	Null hypothesis rejected p<0.000
H ₀₄ : Organizational operational processes have no significant effect on performance of private chartered universities in Kenya	17.707	205	0.003	Null hypothesis rejected p<0.003
H ₀₅ : Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya.	23.321	205	0.017	Null hypothesis rejected p<0.017

4.12 Hypothesis Testing without moderator

Since the data did not meet the assumptions of linear regression the study used binary logistic regression analysis to determine the relationship between the study variables. The usual linear relationship assumptions were not met as the data did not satisfy the test for normality. The decision criteria was that the null hypothesis should be rejected if the P-Value were less than 0.05 and be accepted if it was greater than 0.05. The summary of the hypothesis testing without the moderator is show in the below table 4.54.

Table 4.54

Hypothesis Testing without moderator Table

No	Null Hypothesis	Decision Criteria	Decision
1	H ₀₁ : Information technology use has no significant effect on performance of private chartered universities	Reject H ₀₁ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.014$
2	H ₀₂ : Managerial capability has no significant effect on performance of private chartered universities in Kenya	Reject H ₀₂ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.013$
3	H ₀₃ : Knowledge management has no significant influence on performance of private chartered universities in Kenya	Reject H ₀₃ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.015$
4	H ₀₄ : Organizational operational processes have no significant effect on performance of private chartered universities in Kenya	Reject H ₀₄ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.027$
5	H ₀₅ : Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya.	Reject H ₀₅ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.001$
6	H ₀₆ : the combined effect of information technology use, managerial capability, knowledge management and operational processes bears no significant effect on performance of private chartered universities in Kenya.		Null hypothesis rejected

4.12.1 Hypothesis testing one

H₀₁: Information technology use has no significant effect on performance of private chartered universities

The first objective of the study sought to examine the relationship between Information technology use and performance of private chartered universities in Kenya. The findings of the study indicated that Universities that embraced information technology use were 1.634 times likely to register improved performance when compared to those that had weak information technology use and structures. The findings of the study agree with The findings agree with those of Greve and Aaron (2021) who found that technology use was important in higher education and that access to existing online resources was important to transform the higher education sector.

The conclusions reached in this study were also in line with the Resource based view theory that resources are essential and needed in an organisation to enable the organisation achieve its objectives and therefore private chartered universities need to invest and embrace information technology use in order to improve their performance. The findings support those of López-Cabarcos et al. (2015) whose study was founded on resource-based view theory. Study findings showed strong link between organizational competencies and profitability. In this regard, private universities are able to exploit IT use to gain competitive advantage and improve performance by investing in information technology infrastructure, ensuring that they have competent staff with the required IT

skill and ensuring that capacity building is given to both the employees and the students. The study therefore rejected the null hypothesis.

4.12.2 Hypothesis testing Two

H₀₂: Managerial capability has no significant effect on performance of private chartered universities in Kenya

The second objective of the study sought to examine the relationship between managerial capabilities and performance of private chartered universities in Kenya. From the research findings universities that had capable managers were 1.391 times more likely to register improved performance in comparison to those whose managers lacked some capabilities. The findings of this study are in agreement with those of Dzinekou and Arasa (2018) who found that managerial capabilities had direct influence on private universities performance. The study findings are also in line with those of Ting et al. (2021) who established that managerial capabilities are able to create operational capabilities that the organisation can use to create superior performance. The conclusions reached in this study are in line with the dynamics capabilities theory that where managers capabilities are crucial for creating competencies within the organisation and in the utilization of organizational resources. Therefore, private universities need to hire managers with the right skills and therefore utilize the managers capabilities to create unique competencies within the organisation that will enable the universities to compete and register superior performance in their industry. The study therefore rejected the null hypothesis.

4.12.3 Hypothesis testing Three

H₀₃: Knowledge management has no significant influence on performance of private chartered universities in Kenya.

The third objective of the study sought to determine whether knowledge management practices affected the performance of private chartered universities in Kenya. The findings of the study showed that that universities that had put in robust knowledge management practices were 1.557 times more to report improved performance than those that did not have solid knowledge management practices. The study findings agree with those of with those of Wanjiru (2022) whose study established that knowledge management was positively and significantly associated with firm performance. Organizations managing knowledge more effective will gain a competitive position in the turbulent and dynamic business environment. The research findings are also supported by the Knowledge Based theory where since universities are known as the hubs of knowledge it is paramount that private universities put systems in place to help. The study therefore rejected the null hypothesis.

4.12.4 Hypothesis testing Four

H₀₄: Organizational operational processes have no significant effect on performance of private chartered universities in Kenya.

The fourth objective of the study sought to determine the influence of operational processes on the performance of private chartered universities in Kenya. The findings

showed that This shows that universities that had good operational processes were 0.675 times likely to report increased performance than those had weak processes. The findings of the study are in agreement with the findings of Kibuine et al. (2022) who conducted a study on operational processes as moderating the association between performance of chartered Universities in Kenya. The study also agreed with Rehman et al. (2019) who conducted research in Pakistan on the function of organizational capabilities as a mediator between organizational performance and its drivers. The study was descriptive and relied on primary data, and it was informed by resource-based view and resource orchestration theories. The finding supported López-Cabarcos et al. (2015) who studied firm capabilities and performance in Portugal, emphasizing on the function of business strategy as a mediator. The study was founded on resource-based view theory. Study finds showed strong link between organizational competencies and profitability. The study therefore rejected the null hypothesis.

4.12.5 Hypothesis testing Five

H₀₅: Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya.

The fifth objective investigated whether sponsorship moderates the association between operational capabilities and performance of private chartered universities in Kenya. The study concluded that sponsorship moderated the relation between operational capabilities and performance of private chartered universities in Kenya. The study findings concur with those of Wandiga et al. (2019) who reported that the choice of location was important

as it needed to fully support the goals and objectives of the organisation and it needed to be accessible to the firm's clients. Further the study results also agree with the findings of Okeibunor et al. (2022) whose study established that corporate sponsorship influences the performance of the organisation. Therefore, the sponsors of private universities indeed influence the performance of the private universities through financial support and interference with its day to day operations. The study agrees with the agency theory where postulates that it is necessary to have appropriate synergy between the management and its stakeholders so as to work towards an attainable mutual interest. Therefore, there must be separation of powers between the university sponsors and the running affairs of the university. The study therefore rejected the null hypothesis.

4.13 Hypothesis Testing with the moderator

The decision criteria was that the null hypothesis should be rejected if the P-Value were less than 0.05 and be accepted if it was greater than 0.05. The summary of the hypothesis testing is shown in table 4.55 below:

Table 4.55

Hypothesis Testing with the moderator Table

No	Null Hypothesis	Decision Rule	Decision Criteria
1	H ₀₁ : Sponsorship does not moderate relationship between information Technology use and performance of private chartered universities in Kenya	Reject H ₀₁ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.011$
2	H ₀₂ : Sponsorship does not moderate relationship between Managerial capability and performance of private chartered universities in Kenya	Reject H ₀₂ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.010$
3	H ₀₃ : Sponsorship does not moderate relationship between Knowledge management practices and performance of private chartered universities in Kenya	Reject H ₀₃ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.015$
4	H ₀₄ : Sponsorship does not moderate relationship between Organizational operational processes and performance of private chartered universities in Kenya	Reject H ₀₄ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.024$
5	H ₀₅ : Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya.	Reject H ₀₅ if $p > \chi^2 \leq 0.05$ (otherwise fail to reject)	Null hypothesis rejected $p < 0.001$

H₀₁: Sponsorship does not moderate relationship between information Technology use and performance of private chartered universities in Kenya

The moderating effect of sponsorship on information technology use and performance of private chartered universities in Kenta was tested to establish whether it was a significant factor. The chi-square statistics for this hypothesis was $p < 0.011$ based on the decision rule at 5% significance level we reject the null hypothesis and conclude that sponsorship moderates the relationship between information technology use and performance of private chartered universities in Kenya. The output was stronger than the original model which has a p-value of 0.014. This implies that sponsorship positively and significantly influenced the relationship between information technology use and the performance of private chartered universities in Kenya.

H₀₂: Sponsorship does not moderate relationship between Managerial capability and performance of private chartered universities in Kenya.

The second objective of the study was to determine the influence of managerial capability and performance of private chartered universities in Kenya. The multivariate logistic regression model results showered that managerial capability had a significant positive influence on performance of private chartered universities in Kenya. However, when moderation was incorporated to the analysis the odds ration reduced from 1.391 to 1.371 based on the result findings sponsorship negatively and statistically moderated the association between managerial capability and performance of private chartered universities in Kenya. Therefore, we reject the null hypothesis and conclude that sponsorship influenced the association between managerial capability and performance of private chartered universities in Kenya

H₀₃: Sponsorship does not moderate relationship between Knowledge management practices and performance of private chartered universities in Kenya

The study's third objective sought to determine the influence of knowledge management practices on performance of private chartered universities in Kenya. The first model indicated that universities that had robust knowledge management practices were 1.557 times more likely to record improved performance. When the moderation effect was introduced into the equation the odds ratio improved to 1.776 and the P-value changed from 0.015 to 0.03. Based on the decision rule at 5% level of significance the study rejected the null hypothesis and concluded that sponsorship positively and significantly

moderated the relationship between knowledge management practices and performance of private chartered universities in Kenya.

The fourth objective investigated whether organizational operational processes affected the performance of private chartered universities in Kenya. The moderation effect was introduced to the equation to determine whether it influenced the relationship between operational processes and performance of private chartered universities in Kenya. The odds ratio before the moderator indicated that universities that had strong operational process were 0.675 times more likely to register improved performance. When the moderator was intruded the odds ratio reduced to 0.624 whereas the P-Value changed from 0.027 to 0.024 while the odds ratio reduced from 0.675 to 0.624. This implies that when the moderator was introduced the log likelihood of falling at a higher level in performance reduced. The study therefore based on the decision rule at 5% level of significance the study rejected the null hypothesis and concluded that sponsorship rejected the null hypothesis and concluded that sponsorship negatively and statistically moderated the relationship between operational processes and performance of private chartered universities in Kenya.

H₀₅: Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya.

The last objective of the study was to investigate whether the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes influences the performance of private chartered universities in Kenya. The chi square statistics from the Model Fitting Information showed

the p-value at 0.03 when the moderator was introduced while before the moderator was incorporated into the equation the p-value was 0.01 based on the decision rule at 5% level of significance the study rejected the null hypothesis and concluded that sponsorship statistically influenced the relationship between operational capability and performance of private chartered universities in Kenya.

4. 14 Qualitative Data Analysis

The conceptual content analysis was used to analyse the qualitative data collected from the open ended questions in the study questions. The findings of the analysis were organized into thematic areas and inferences which are presented in the sub section below.

The respondents were asked to share their thoughts on ways that the universities could do to enhance information technology use in the universities.

Respondent 01 remarked “*the university has adopted digital learning however they need to upgrade the infrastructure with the university*” Generally, respondents felt that universities could do a lot more to enhance information technology use. They felt that this can be enhanced by universities investing in state of the art equipment and also investing in capacity building for both students and staff, further universities increasing the number of hot spot areas in universities would increase information technology use and positively influence performance of the private chartered universities. Respondent 07 urged that “*universities should increase Wi-Fi spots with the university to boost information technology use with the university.*”

The respondents were asked to express their opinions on how managerial capabilities influenced performance. In general, the respondents felt that the managers' capabilities was essential to positive performance as the managers were able to motivate employees and improve performance through strategic re-alignment and setting achievable targets. On managerial capabilities respondent 02 said "*we have qualified managers but decisions take long to be made because of influence from within and outside the University.*" When asked to explain how the university benefits from having capable managers respondent 15 commented "*having capable managers definitely determines how effective the university is run and management determines the success of the institution and affects employee morale.*" The respondents further admitted that transformation leadership was practiced in the universities which positively influence performance of the private chartered universities.

Respondents were asked to share their opinion on ways to improve knowledge management practices in order to influence performance of private chartered universities. According to the findings the respondent indicated that having documentation of procedure into procedure manuals was necessary to improve performance and that universities should regularly audit tacit and explicit knowledge to ensure that the existing resources were deployed effectively and also encourage more research by faculty and students. On knowledge management practices the study noted that universities need to invest more on their knowledge management practices as was echoed by respondent 22 "*the university needs to fast track inter-university knowledge exchange and benchmark*

with what other universities are doing. They also need to invest in research and technology to simplify common tasks.”

Respondents were asked to express their thoughts on how sufficient the university operational processes were in order to positively influence the performance of private chartered universities. From the findings the performance of the positively influenced by having well developed guidelines and standardization of processes respondent 10 remarked *“the university needs to allow for guided procedures where the outcome is measurable hence this can be used as a yardstick to measure performance in a standardized manner.”* Respondent 15 urged that *“ the university needs to increase quality awareness and operation execution.”*

The respondents were also asked to share their thoughts on how sponsorship influenced the performance of private chartered universities. According to the research findings majority of respondents indicated that universities running independent from their sponsors and having clear governance organs would allow for better and improved performance. As was explained by respondent 01 *“the sponsors influence the university especially in leadership where decisions are made.”* Additionally, respondent 24 noted *“despite the sponsors enhancing financial aid they need to be keen so that they do not interfere with the running of the university.”*

Lastly the respondents were asked to comment on any other information about university performance of private chartered universities. In general, the respondents believed that being proactive, adhering to university service charters and developing more marketable

courses affected performance. They also indicated the need to collaborate and train with the industry for research and benchmarking also positively influenced the performance of private chartered universities. Respondent 14 argued that ‘*for the university to enhance its performance it needs to benchmark with best practices in the industry, have collaborations and retain its qualified staff. The university also needs to support faculty to carry out research and reward experience.*’

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study results, conclusions, and suggestions that are considered to be the most significant. The purpose of this research was to determine the influence of operational capabilities, sponsorship and performance of private chartered Universities in Kenya. The following objectives guided the study: to establish the effect of information technology use on performance of private chartered universities in Kenya, to determine if managerial capability affects performance of private chartered universities in Kenya, to determine the influence of knowledge management on performance of private chartered universities in Kenya, to examine if organizational operational processes and routines affect performance of private chartered universities in Kenya, to establish whether sponsorship moderates the association between operational capabilities and performance of private chartered universities in Kenya and to verify whether the combined effect of information technology use, managerial capability, knowledge management and organizational operational processes influences the performance of private chartered universities in Kenya. The literature reviewed was organized according to study's main objectives. Reviewed literature indicated the knowledge gaps regarding the impact of operational capabilities on the performance of private chartered Universities. The study was guided by the resource based view of the firm, dynamic capabilities, Knowledge based and agency theories. The study employed a cross-sectional survey research design

and primary data was collected by the use of questionnaires. 230 questionnaires were distributed and 205 were returned which was 89.1% response rate which is sufficient for the study.

Quantitative data was analysed using SPSS version 24 and descriptive statistics such as mean, standard deviation and percentages were computed while inferential statistics (chi-square and ordinal logistic regression analysis were used to test the relationship between the variables. Finally, the findings were presented in tables and narration given.

5.2 Summary of Findings

This section presents the summary of the key findings based on the main constructs of the study

5.2.1 Information Technology Use and Performance of Private Chartered Universities in Kenya

The first objective of the study sought to establish the effect of information technology use on performance of private chartered universities in Kenya. The descriptive statistic results revealed that majority of the respondents were in agreement with the statements regarding the use of information technology in private chartered Universities. The findings revealed that majority of the private universities had adopted digital learning and that the universities had invested in IT infrastructure to enable learners access learning materials online. The study outcome revealed that majority of private universities online platforms were regularly updated and that staff and students were able to utilize the laboratories and

learning materials. The P Value = 0.014 which was less than the alpha value of 0.005 hence the first null hypothesis which stated that 'Information technology use has no significant effect on performance of private chartered universities' was rejected. It was concluded that there was a statistically significant effect of information technology use on the performance of private chartered universities in Kenya

5.2.2 Managerial Capability and Performance of Private Chartered Universities in Kenya

Objective number two sought to determine the impact of managerial capability on performance of private chartered universities in Kenya. Majority of the respondents agreed with the statements regarding managerial capability. The findings revealed that managers in private universities displayed a lot of commitment and that they motivated staff to achieve the goals and objectives of the university. However, the findings revealed that despite universities hiring qualified managers, decisions in the universities took a lot of time to be made. This can be attributed to the fact that before decisions are made the university managers needed to take into account the dynamic external environment. The P value was 0.013 which was less than the alpha value of 0.05, therefore the study rejected the null hypothesis that 'Managerial capability has no significant effect on performance of private chartered universities in Kenya' and concluded that managerial capability statistically influenced the performance of private chartered universities in Kenya.

5.2.3 Knowledge Management Processes and Performance of Private Chartered Universities in Kenya

In responding to the third research objective, the study sought to determine the effect of knowledge management on performance of private chartered universities. Majority of the respondents were in agreement with the statements. From the findings it was clear that majority of universities encouraged knowledge sharing between and among staff. The findings further showed that universities valued research as a source of knowledge and this was clear in the sense that majority of the universities had a policy on managing information and knowledge sharing and that the knowledge created in the universities was well stored for back up purposes and retrieval.

The ordinal logistic regression results indicated that knowledge management was statistically significant and influence performance. The chi-square value was 0.003 which was less than the alpha value of 0.05 and hence the study rejected the null hypothesis that ‘Knowledge management has no significant influence on performance of private chartered universities in Kenya’ and concluded that knowledge management had a statistically significant influence on performance of private chartered universities in Kenya.

5.2.4 Operational Processes and Performance of Private Chartered Universities in Kenya

The next objective sought to examine if operational processes affected the performance of private chartered universities in Kenya. According to the majority of the view collected majority of the respondents agreed with the statements on operational processes. Majority

of the private universities have well defined work processes with clearly defined inputs and outputs. Additionally, university operations and activities were automated and were integrated in the university's ERP systems. The universities had also made accessibility to learning resources out of campus available to students and that students were able to register online exams seamlessly. The chi-square value shows a p Value of 0.027 and this was less than the P-Value of 0.05 therefore the study rejected the null hypothesis and concluded that there was positive and statistically significant effect of operational processes on the performance of private universities in Kenya.

5.2.5 Moderating Effect of Sponsorship and Performance of Private Chartered Universities in Kenya

The fifth objective looked at the moderating effect of sponsorship on performance of private chartered universities in Kenya. The findings of the study revealed that majority of private universities had clear governance structures within the universities. However, the study findings revealed that university decisions were influenced by external parties and that university governance organs interfered with the internal affairs of the University. The study further showed that universities had the capacity to generate sufficient revenue however the lack of resources was noted to affect the day to day activities of the University. The chi-square value was 0.01 which was less than the P value of 0.05 and hence the null hypothesis that stated 'Sponsorship does not influence the association between operational capabilities and performance of private universities in Kenya' was rejected. The study therefore concluded that sponsorship statistically and significantly moderated the relationship between operational capabilities and performance of private chartered universities in Kenya

5.2.6 Overall Model on Operational Capabilities, Sponsorship and Performance of Private Chartered Universities in Kenya

The study was based on four variables to determine their impact on the dependent variable. And as a result the combination of the four variables was shown to be statistically significant in influencing the performance of private chartered universities in Kenya. This was shown by the model fitting information and the goodness of fit model that contained all the constructs was found to be valid and the chi-square value was 0.001. This meant that all the four constructs were jointly significant in influencing the performance

5.3 Conclusion

From the research findings the study concludes that operational capabilities influence the performance of private chartered universities in Kenya. Based on the findings the study concludes as follows

5.3.1 Information Technology Use and Performance of Private Chartered Universities in Kenya

Further the results indicated that information technology use was used to bridge the gap between classroom and technology and that the technology used ensured that learning can virtual with availability of online learning resources available online as a result of the adoption of digital learning. This was attributed to the fact that that most universities had adopted digital learning and information technology use was on the increase in majority of the private chartered universities.

5.3.2 Managerial Capabilities and Performance of Private Chartered Universities in Kenya

The second objective of the study tested managerial capabilities. The study found that despite universities hiring qualified managers who showed a lot of commitment, decisions in the universities took long and external parties influenced the internal affairs of the universities.

5.3.3 Knowledge Management Practices and Performance of Private Chartered Universities in Kenya

Objective three was on knowledge management practices. The Findings showed that universities that had robust knowledge management practices were 1.577 times more likely to report improved performance. Additionally, the findings indicated that majority of the private chartered universities valued research as a source of knowledge creation and they encouraged knowledge sharing among its members.

5.3.4 Operational Processes and Performance of Private Chartered Universities in Kenya

From the study findings a marginal increase in operational processes increased the logit of performance of private universities by 0.675 indicating that universities that had good operational processes were 0.675 times more likely to record increased performance. The study findings indicated that respondents agreed that the university had invested in automation of university operations and activities. The findings also revealed that there

was need to develop documentation of procedure into procedure manuals within the universities.

5.3.5 Sponsorship and Performance of Private Chartered Universities in Kenya

The last objective of the study tested the whether sponsorship moderated the relationship between operational capabilities and performance of private chartered universities in Kenya.

From the research findings sponsorship positively influenced information technology use and knowledge management practices while on the other hand sponsorship negatively influenced managerial capabilities and operational processes. The findings showed that there was need to develop policy frameworks on the relationship and interaction between the sponsors and universities

5.4 Recommendations

The study came up with the following recommendations based on the findings and conclusions:

5.4.1 Information Technology use and Performance of Private Chartered Universities in Kenya

The study recommends that universities need to have technical support staff to offer technical support to staff and students in order to address any barriers that they may face

and also to take care of any emerging issues for example artificial intelligence in order to ensure seamless learning.

5.4.2 Managerial Capabilities and Performance of Private Chartered Universities in Kenya

Secondly the study found that despite the fact that managers hired qualified managers who were committed to performance improvement and risk management they still failed when decision making was involved since decisions took a lot of time to be made. The study recommends having policies that deter external parties from interfering with decision making in the universities.

5.4.3 Knowledge Management Practices and Performance of Private Chartered Universities in Kenya

The findings of the third objective noted that knowledge management processes statistically influence performance. The findings indicated that universities encouraged knowledge sharing among staff. The study recommended strengthening of policies on knowledge sharing and storage and increase funding to research as research was the major source of knowledge for universities.

5.4.4 Operational Processes and Performance of Private Chartered Universities in Kenya

The Study further recommends that there should be a separate and distinct pathway between university sponsors and the internal governance organs to ensure that the universities are allowed to operate as a separate entity without interference. Universities should also strengthen their capacity to generate revenue and attract funding through grant and proposal writing to avoid lack of resources which were found to affect the day to day activities of the universities. Additionally, universities need to develop guidelines and standardization of processes and documentation of procedures within the universities

5.4.5 Sponsorship and Performance of Private Chartered Universities in Kenya

From the study it was established that sponsorship moderates the relationship between operational capabilities and performance of private chartered universities. The research recommends that governance policies should be established to monitor the extent to which sponsors influence the affairs of private chartered organisations in Kenya. This can be enhanced by having elaborate policies and regulations by the Commission of University Education which is the main overseer of universities in the country.

5.5 Implication of the Findings on Theory and Practice

Based on the study findings, the following model is proposed to link sponsorship to organizational performance. The model shows that organizational performance can be influenced by a number of factors namely: information technology use, Managerial

capabilities, knowledge management practices and operational processes. The model is shown below:

Figure 5.1

Proposed Performance Model

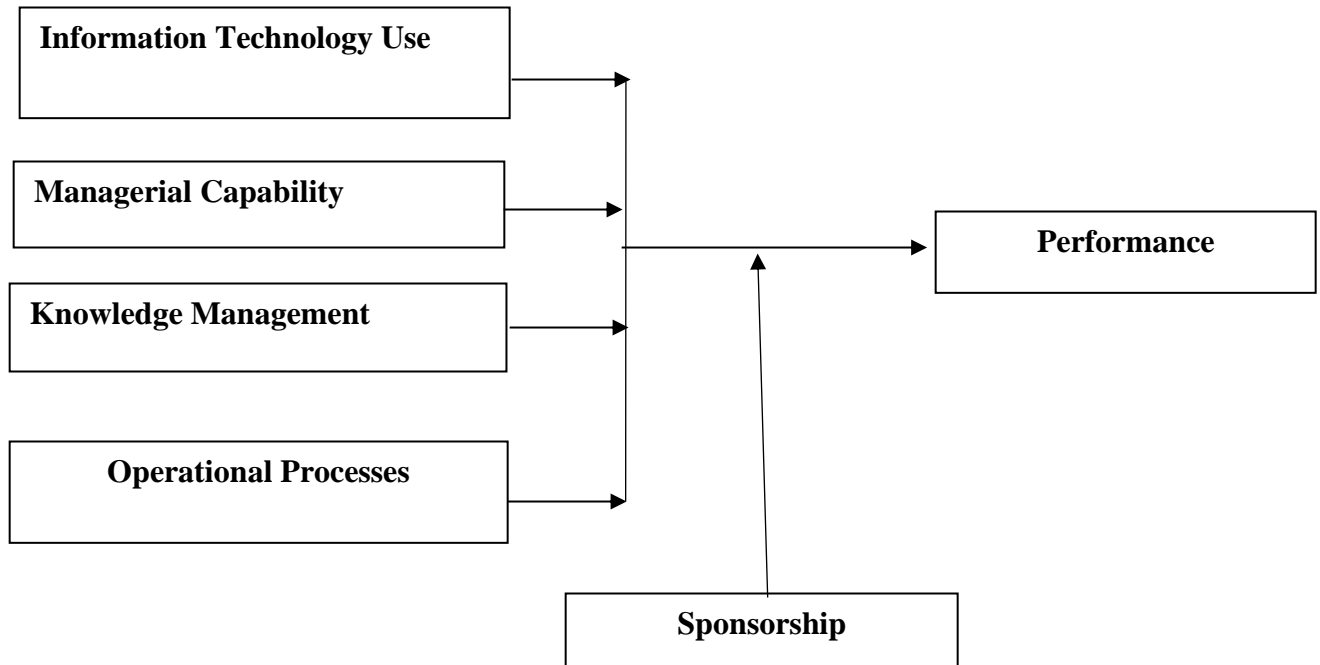


Figure 5.1 shows an empirical model that was proposed and developed. The model links operational capabilities with sponsorship mediating the relationship between the operational capabilities and university performance. The findings from the research show that managerial capabilities and operational processes are suppressed by sponsorship. This indicates that sponsorship has the ability to influence managerial capabilities and operational processes in a negative manner. The study therefore recommends that private universities should have clear governance structures that limit the level of influence and interference from sponsors. However, the findings show that sponsorship had a positive

and significant effect on information technology use and knowledge management practices hence the input from the sponsors in universities boost information technology use within the universities and also promote good knowledge management practices.

The study contributes to the literature on operational capabilities where organisations can utilize their different capabilities to improve performance. The study further enhances literature by outlining the influence sponsorship has on operational capabilities and on performance of organisations

5.6 Policy Recommendation

From the study it was established that information technology use, managerial capabilities, knowledge management practices, operational processes and sponsorship jointly influence the performance of private chartered universities in Kenya. The independent variables positively and significantly influence performance whereas when sponsorship was introduced as a moderator it positively influenced information technology use and knowledge management practices while it negatively influenced managerial capabilities and operational processes. The study recommends to the policy makers to develop separation of powers policies and frameworks to ensure that university sponsors do not interfere with the operations of the universities and do not interfere with managers while undertaking their mandate. The University regulator could also develop frameworks to enable universities offer some of their programs fully online due to the enhanced use of information technology within the universities.

5.7 Recommendation for Further Research

The study focused on a few factors (Information Technology Use, Managerial Capability, Knowledge Management processes, Operational Processes and Sponsorship) influencing performance. From the study these factors have shown to only account for 52.6% variation in performance therefore implying that there are other factors that were not covered by the study and hence this presents an opportunity for further research.

The unit of analysis in this study was private chartered universities in Kenya therefore studies can be conducted private universities that are not chartered and also public universities to ascertain the impact of the study factors.

The study also recommends an investigation on the withdrawal of government sponsorship to private universities and the new funding model and how these would include the performance of private chartered universities in Kenya.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya

Fax: 254-64-30162

Tel: 254-064-30301/31229/30367/31171

Email: deanrd@kemu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

August 10, 2023

Commission Secretary
National Commission for Science, Technology and Innovations
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: MARY NTHENYA MBITHI – (REG. NO. BUS-4-1012-3/2020)

This is to confirm that the above named person is a bona fide student of Kenya Methodist University, in the School of Business and Economics, Department of Business Administration undertaking a Doctoral Degree in Business Administration and Management. She is conducting research on: "Operational Capabilities, Sponsorship and Organizational Performance of Private Chartered Universities in Kenya".

We confirm that her research proposal has been presented and approved by the University.

In this regard, we are requesting your office to issue a research license to enable her collect data.

Any assistance accorded to her will be highly appreciated.

Yours sincerely,



Dr. John M. Muchiri (PhD)
Dean, Postgraduate Studies

Cc: Dean SBUE
CoD, BA
Program Coordinator - SBUE
Student Supervisors

APPENDIX II: ETHICAL REVIEW APPROVAL LETTER



KENYA METHODIST UNIVERSITY

P. O. BOX 267 MERU - 60200, KENYA
TEL: 254-064-30301/31229/30367/31171

FAX: 254-64-30162
EMAIL: INFC@KMU.AC.KE

August 10, 2023

KeMU/ISERC/BU/05/2023

MARY NTHENYA MBITHI
BUS-4-1012-3/2020

Dear Mary,

SUBJECT: OPERATIONAL CAPABILITIES, SPONSORSHIP AND ORGANIZATIONAL PERFORMANCE OF PRIVATE CHARTERED UNIVERSITIES IN KENYA

This is to inform you that Kenya Methodist University Institutional Scientific Ethics and Review Committee has reviewed and approved your research proposal. Your application approval number is KeMU/ISERC/BU/05/2023. The approval period is 10th August, 2023 – 10th August, 2024.

This approval is subject to compliance with the following requirements:-

- I. Only approved documents including (informed consent, study instruments, MTA) will be used.
- II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Institutional Scientific Ethics and Review Committee.
- III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU ISERC within 72 hours of notification.
- IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU ISERC, within 72 hours.

- V. Clearance for export of biological specimens must be obtained from relevant institutions.
- VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Your sincere
KEMU SERC
10 AUG 2023
MR. HERBERT KIBEBE
CHAIR (ISERC)



APPENDIX III: NACOSTI RESEARCH PERMIT


REPUBLIC OF KENYA
National Commission for Science, Technology and Innovation
Ref No: 415885


NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Date of Issue: 23/August/2023

RESEARCH LICENSE




This is to Certify that Ms. Mary Mbithi of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kajiado, Kericho, Kisumu, Machakos, Makeni, Meru, Nairobi, Nakuru on the topic: OPERATIONAL CAPABILITIES, SPONSORSHIP AND ORGANIZATIONAL PERFORMANCE OF PRIVATE CHARTERED UNIVERSITIES IN KENYA for the period ending : 23/August/2024.

License No: NACOSTI/P/23/28764

415885
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) hereinafter 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.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke

APPENDIX IV: INFORMED CONSENT

Please take a moment to read the informed consent before completing the form.

PURPOSE OF THE STUDY

The purpose of this study is to investigate the Influence of operational capabilities, sponsorship and performance of private chartered universities in Kenya.

STUDY PROCEDURE

Should you wish to participate, we will ask you for your personal information and your educational background. This study will take more or less 5-10 minutes per individual consisting of the quick personal interview which takes more or less about 1-2 minutes, and the rest for the answering of the survey questionnaire.

You need not worry about privacy as we will not share the information we have gathered from this study other than statistical and non-identifiable personal information

VOLUNTARY PARTICIPATION

Please understand that your participation is purely voluntary. You will decide whether you will participate or not. In case you decide to participate, you will be required to fill out the fields below for your consent as an affirmation of your participation. Should you decide to withdraw during the study, please do inform us. Your withdrawal will not affect your relationship with us. In case you withdraw from this study before completion of the data collection, all information, including the consent will be deleted.

CONTACT INFORMATION

This study was approved by the Kenya Methodist University Ethical Board and the Directorate of Postgraduate Studies. If you have questions or concerns about this study, you can get in touch with the Dean School of business at the email dean.business@kemu.ac.ke

CONSENT

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been given a copy of this consent form.

Name _____

Signature _____ Date _____

APPENDIX V: QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to study **Operational Capabilities, Sponsorship And Organizational Performance Of Private Chartered Universities In Kenya**. Due to your knowledge and information, you have been selected to participate in the study. The questions are meant for research and academic purposes only and confidentiality of information will be maintained. **Please do not write your name.**

SECTION 1: BACKGROUND INFORMATION

i. How long have you worked in this University?

0-1 1-5 6-10 Over 10 years

ii. How many employees does your organization have?

0-9 10-49 50-250

iii. How long (years) has your University been in operation?

Years	0-1 years	1-5 years	6-10 years	Over 10 years
Tick				

iv. What is your age bracket?

Below 25 years () 25 to 35 years () 35 to 45 years () 45 to 55 years

v. What is your level of education? (Tick where appropriate)

PhD [] Masters [] Bachelors [] Diploma [] Others []

SECTION 2

This section consists of statements regarding information Technology Use, Managerial Capability, Knowledge Management, Organizational Processes, Sponsorship and Performance of Private Chartered Universities in Kenya.

Please respond appropriately by a tick, (✓), using the scale provided.

Scale: 1= strongly disagree 2=disagree 3=neutral 4=agree 5=strongly agree

Part A: INFORMATION TECHNOLOGY USE

To what extent do you agree with the following statements about your institutions information technology use? (SD = Strongly Disagree, D = Disagree, N = Neutral, A= Agree, SA = Strongly

NO	STATEMENT	SD	D	N	A	SA
		1	2	3	4	5
1.	We have extensively adopted digital learning					
2.	Our learning material is available online					
3.	We have a well-equipped computer laboratories					
4.	Our university has invested in state of the art IT infrastructure					
5.	All university departments are interconnected through computer networks					
6.	Students and staff utilize our well-equipped laboratories					
7.	Management invests in the latest technology					
8.	Management has a sizeable budget for upgrade of systems and software					

9.	Our IT personnel are well-trained to support other IT services outside their domain					
10.	University departments make quick and informed decisions because they are interconnected					
11.	Students can access their academic information from the online student portals					
12.	Members of staff can access information and services through the university staff systems					
13.	Our digital platforms are regularly updated					
14.	Data is available to everyone in the Institution in real time					
15.	Students can easily access online learning resources					
16.	The university has invested in cloud technology					

What other way can the University do to enhance information Technology Use in the University

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Part B: Managerial Capability

To what extent do you agree with the following statements about your institutions managerial capability? (SD = Strongly Disagree, D = Disagree, N = Neutral, A= Agree, SA = Strongly

NO	STATEMENT	SD 1	D 2	N 3	A 4	SA 5
1.	Management is proactive in decision making					
2.	The Management benefits from past experience to make decisions					
3.	Management involves employees in decision making					
4.	Management responds to the changing environment					
5.	Management considers the external environment in during decision making					
6.	Decisions in the University take a lot of time to be made					
7.	Commitment of top level management to University performance is a very important factor					
8.	The management exhibit a lot of commitment					
9.	Management motivates members of the University towards achievement of change					
10.	Management is committed to reduce risk					
11.	Management is trained on a regularly basis on the current market developments					
12.	Management has high level of expertise in University management					
13.	The collective experience of management has influences on the Performance of the Institution					
14.	The University hires highly qualified managers					
15.	Management performance is reviewed periodically					

Which style of leadership style is embraced in your organization?

- i. Laissez-faire []
- ii. Autocratic []
- iii. Transformational []
- iv. Other specify.....

How does managerial capability influence performance in your University?

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Part C: Knowledge Management

To what extent do you agree with the following statements about your institutions knowledge management ? (SD = Strongly Disagree, D = Disagree, N = Neutral, A= Agree, SA = Strongly Agree)

NO	STATEMENT	SD	D	N	A	SA
		1	2	3	4	5
1.	Our university has acquired access rights to enable students to access information easily					
2.	Our university supports and encourages its staff to acquire and share knowledge.					
3.	Our library is open for longer hours to allow students and staff to research.					
4.	We encourage our staff to freely share available information with other members of staff.					
5.	The university values research as a source of acquiring knowledge					

6.	The university has a policy on information and Knowledge sharing					
7.	The university provides platforms to enable information and knowledge sharing					
8.	Our University Has processes for distributing knowledge throughout the organization					
9.	Our University has processes for exchanging knowledge between individuals					
10.	The university tries to provide a supportive atmosphere to exchange the knowledge					
11.	The University provides information technology for saving knowledge					
12.	We use advanced systems in storing our created knowledge					
13.	The knowledge created at the University is stored in diverse locations for back up purposes					
14.	Our system has a trail to monitor access to knowledge stored					
15.	Our university has invested in the cloud to store documents and information					

In your opinion, in what other ways can the University use knowledge to improve the ability to deliver on its mandate?.....
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PART D: Organizational Processes

To what extent do you agree with the following statements about your Organizational processes? (SD = Strongly Disagree, D = Disagree, N = Neutral, A= Agree, SA = Strongly Agree)

NO	STATEMENT	SD	D	N	A	SA
		1	2	3	4	5
1.	Our University operations are automated					
2.	Management has invested in automation of university operations and activities					
3.	Each work process has well defined inputs and outputs					
4.	There is a documented framework for work to be done					
5.	All work processes are integrated in the University ERP system					
6.	All university departments are interconnected through computer networks					
7.	Registration of exams is done online without hiccups					
8.	Students can access learning resources out of campus					
9.	The University has different modes of fees payment					
10.	E- documents are available for use					
11.	The University has an elaborate Strategic Plan					
12.	The University has a well-defined catalogue of programs					

13.	The University has well defined course outlines and course descriptions					
14.	The University has updated database of learning resources					
15.	The University has well documented research repository					
16.	The University has well-kept financial records for easy referencing					

Is your university ISO Certified?

If Yes how has ISO influenced processes in the University?

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How does your University's operating Processes influence performance?

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In your opinion is are the operational processes sufficient for University Operations?

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Part E: SPONSORSHIP

To what extent do you agree with the following statements about your Organizational Sponsorship? (SD = Strongly Disagree, D = Disagree, N = Neutral, A= Agree, SA = Strongly Agree)

NO	STATEMENT	SD	D	N	A	SA
		1	2	3	4	5
1.	The University operates as a separate entity from its sponsors					
2.	There is a clear structure of the University Governance organs					
3.	University decisions are influenced by external parties					
4.	The governance organs interfere with the internal affairs of the University					
5.	The university has autonomy to make their own decisions					
6.	The University has secure and uninterrupted funding options					
7.	Inadequacy of financial resources within the University is supplemented through borrowing so as to attain University Objectives.					
8.	Financial resources are very essential for effective service delivery within the University					
9.	There is capacity for the revenue sources to generate sufficient revenue					
10.	Lack of resources affects employees performance in carrying out their day to day activities					
11.	Our campuses are strategically located to attract students					
12.	Our campuses are easily accessible					

13.	Students can easily access our campuses from their hostels					
14.	Our campuses are located in major towns					
15.	Students prefer the location of our campuses					

In your own opinion does sponsorship influence performance in your university?

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Part F: Organizational Performance

Indicate your level of agreement with the following aspects relating to the performance of your institution for the last 5 years. Use a scale of 1-5. Where: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree And 1-Strongly Disagree

NO	STATEMENT	SD	D	N	A	SA
		1	2	3	4	5
1.	Our university employs lecturers and other staff based on their level of experience					
2.	Our University Has adopted a learner centered methodology of syllabus coverage					
3.	Employees experience is highly rated during promotion.					
4.	Our university programmes are developed in line with the current emerging trends.					
5.	We have adequate number of lecturers					
6.	We revise our curriculum in accordance with Commission for University guideline					

7.	All our curricula are approved by the Commission for University Education					
8.	The University management places a high value and allocates funds for research					
9.	The university always publish research works done by the students and staff					
10.	The University recommends journals with high DOI to students for research publication					
11.	Research contributes to promotion of staff					
12.	The University participates in writing marketable grant proposals					
13.	A good number of staff have won grants from local and international reputable organizations					
14.	The University collaborates with other institutions for research					
15.	Our university has always participated in innovative research					
16.	Our university offers support and guidelines to students on how to publish their work					
17.	Our lecturers are encouraged to been publish books					
18.	In the last 5 years our student enrollment has increased					
19.	In the last year the number of our graduates has increased					
20.	Our graduates are preferred more by most employers					
21.	The number of approved programs has increased					
22.	The University has attracted a good number of students in postgraduate studies					
23.	Every semester we recruit a sizeable number of students					

24.	Our student population has a good of international students					
25.	University teaching facilities are adequately utilized throughout the year					
26.	Our Curriculum passes out graduates who meets industry needs in terms of skills and knowledge					

In your own opinion what other ways can the university enhance its performance

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APPENDIX VI: INTERVIEW GUIDE

1. What is your current job position?
2. What is your highest level of education?
3. Does your institution offer some courses through online digital learning mode?
4. Explain how your university has utilized information technology.
5. Highlight what ways your university can enhance information Technology Use.
6. Describe the nature of ICT infrastructure that are available to support online digital learning at your institution.
7. Explain how your university benefits from managerial capabilities.
8. Explain how managerial capabilities influence performance in your university.
9. Explain ways that your university can use to enhance Knowledge Management.
10. In your opinion are the current knowledge management practices sufficient to enhance performance.
11. Describe the mature of operational processes in your university.
12. Explain how operational processes influence university operations in your university.
13. Explain the relationship between the university and its sponsors.
14. Describe how this relationship influences performance.

APPENDIX: VII: LIST OF PRIVATE CHARTERED UNIVERSITIES IN KENYA

No.	NAME OF UNIVERSITY / UNIVERSITY COLLEGE	YEAR OF ESTABLISHMENT/ ACCREDITATION
1.	University of Eastern Africa, Baraton	1991
2.	Catholic University of Eastern Africa (CUEA)	1992
3.	Daystar University	1994
4.	Scott Christian University	1997
5.	United States International University	1999
6.	Africa Nazarene University	2002
7.	Kenya Methodist University	2006
8.	St. Paul's University	2007
9.	Pan Africa Christian University	2008
10.	Strathmore University	2008
11.	Kabarak University	2008
12.	Mount Kenya University	2011
13.	Africa International University	2011
14.	Kenya Highlands Evangelical University	2011
15.	Great Lakes University of Kisumu	2012
16.	KCA University	2013
17.	Adventist University of Africa 3	2013
18.	KAG EAST University Registered	2016
19.	Umma University	2019
20.	Presbyterian University of East Africa	2020
21.	Aga Khan University	2021
22.	Kiriri Women's University of Science and Technology	2022
23.	The East African University	2022
24.	Zetech University	2022
25.	Lukenya University	2022

Source: CUE, 2023