EFFECT OF KNOWLEDGE MANAGEMENT PRACTICES ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS IN KENYA: A SURVEY OF PRIVATE CHARTERED UNIVERSITIES

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DECLARATION

I declare that this research proposal is my original work and has not been presented in any other university.

Signed…… Date…….

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

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DEDICATION

I dedicate this research work and findings to my immediate members of family for their continued moral support and endless prayers along this journey. Were it not for them, I would not have come this far.

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May God bless all of you and remind you that the sacrifices were not in vain.

ABSTRACT

The concept of Knowledge Management has recently been applied as a practice for measuring or gauging performance. However, the effect of these practices on academic performance of university students is yet to be analyzed and contextualized in a university setup. The research purposed to analyze the effect of knowledge management practices on academic performance of private universities in Kenya. Four sets of knowledge management practices were identified and conceptualized to guide this study: knowledge acquisition, knowledge transfer, knowledge retention and knowledge sharing. Private chartered universities in Kenya were used as the case with primary data collected through questionnaires. The target population comprised of 2,653 postgraduate students and faculty/department heads. A sample size of 370 respondents was determined using a sample size table from the Commission for University Education. Respondents were selected through stratified random sampling while data collected analyzed using descriptive and inferential methods. This finding established that 27.8% variation in postgraduate academic performance in private universities was attributable to knowledge management practices in use in private universities in Kenya; Knowledge acquisition had very weak positive and insignificant correlation ($r=0.044$) and insignificant partial factor effect ($\beta = 0.040$, $p=0.526$); Knowledge transfer had strong positive and significant correlation ($r=0.252^{**}$) and significant partial factor effect ($\beta = 0.014$, $p=0.03$); Knowledge retention had very weak negative and insignificant correlation ($r=-0.034$) and an insignificant negative partial factor change ($\beta = -0.124$, $p=0.064$); and finally Knowledge sharing had strong positive and significant correlation ($r=0.485^{**}$) and a significant partial factor change ($\beta = 0.455$, $p=<0.001$), all on postgraduate academic performance. The study drew the conclusion that Knowledge transfers and Knowledge sharing significantly affected postgraduate academic performance, while knowledge acquisition and Knowledge retention do not have significant effects. Lastly, the study strongly recommends further analysis on the following (i) explain the observed negative effect of knowledge retention on academic performance, (ii) an analysis to explore other factors accounting for 72.2% variation on academic performance not addressed, and (iii) a similar study be extended to public universities for comparison and complementarity of findings.

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ABBREVIATION AND ACRONYMS

AC	Absorption Capacity
CoP	Communities of Practice
CUE	Commission for University Education
ECSU	Ethiopian Civil Service University
FMRI	Functional Magnetic Resonance Imaging
GoK	Government of Kenya
HCT	Human Capital Theory
IBM	Social Science Statistical Package
ICT	Information Communication Technology
KB	Knowledge-based
KCT	Knowledge Conversion Theory
KEMU	Kenya Methodist University
KM	Knowledge Management
KMPs	Knowledge Management Practices
NACOSTI	National Commission for Science, Technology and Innovation
RBV	Resource-based View
SECI	Externalization, Combination, and Internationalization
UK	United Kingdom
UNDP	United Nation Development Fund
USA	United States of America
VRIO	Valuable, Rare, Inimitable and Organization
WPM	Weighted Proportionate Method

CHAPTER ONE
INTRODUCTION

The study investigated the effect of knowledge management practices on academic performance of university students in Kenya. It presents the discussions about the study, knowledge management practices concepts from a global, regional and local perspectives, statement of the problem, research objectives. and the significance of the study. It also highlights the scope and limitations in the findings.

1.1 Background of the Study

Knowledge Management (KM) has been defined as the process that captures, distributes, and effectively consume knowledge, while knowledge management practices (KMPs) are the approaches which can be used to identify, capture, assess, retrieve, and share information assets of an organization (Girard & Girard, 2020).

Knowledge which was being generated within the learning institutions including universities had become resourcefully utilized in gaining and sustaining competitive advantage over other institutions outside the learning environment. Therefore, these learning institutions needed to impose practices of knowledge management such as the acquisition, retention, transfer, sharing and their equal management in order to aid in their transformation journey into global centers of academic excellence. Further, KM should be allowed and used as a fundamental and institutional strategy in university education for purposes of yielding significant benefits. These may include, but not limited to the intended high learning quality, innovation, improved decision making and productivity among scholars, learners included (Amayah, 2013).

Universities across the globe have in the past generated knowledge through research, and scholarly work that have crucial role in any country's economy. However, these scholarly findings have not been entirely transformed into key knowledge areas using appropriate KM practices for dissemination to students and other scholars who have had no option, but to review various literature from where the results of such findings have been documented within specific knowledge. The aim is to allow use and practical application including in professional work and for further research.

According to Pircher and Pausits (2019), research in KM was therefore required for enhanced contribution to sustained economic and social development. Thus, key roles in knowledge driven economy suggests that KM practices should be intensified as drivers of institutional strategies. This has placed pressure of being agile, emerging player and source of competing markets for knowledge production, requiring sound management practices for sustained linkages to academic performance. Pircher and Pausits (2019) argued that while KM plays the role of assisting universities in addressing the demands of productivity and competitiveness, little evidence exists to demonstrate how this ultimately leads to the desired role of academic prowess. Overall, by integrating KM and the learning activities and process, the institutions were bound to attain the greatest degree of quality of learning achievements.

Ghaffari et al. (2020) asserts that KM has become a vital part of quality learning assessment, leading to collaboration and scaled-up efforts among learning institutions with the desire to adapt and implement creation, sharing practices and the re-use. He further observed that with the adoption and application KM, management and operational functions of universities as learning institution have since changed for the better in improved decision-making, operational costs, both academic and administrative services quality structures put in place.

In the past, universities have had to use different learning approaches and models for enhancing students' academic experiences. Learning methods such as teams, work group presentations, in-class and online discussions, as well collective problem solving have been some of the well-established, most popular and effective collaborative knowledge management practices adopted across these institutions for improved and effectiveness in the learning. The success of these however, depended largely on attitude and behavior the individual student towards acquisition, retention, transfer and equal peer sharing of knowledge. Integrating knowledge management (KM) practices into teaching clearly aim to make learning interactive and interesting for productive academic performance. Past studies have suggested that learning practices involving active sharing brought benefits to students including better academic achievements, appreciation of diverse ideas, as well as

positive inter-dependence (Zhou & Li, 2012). University students are therefore continuously spending time trying to acquire new ideas quickly so as to respond to the unpredictable changes in the academic, social and economic environment.

The learning needs though different, the thirst for new knowledge is similar both in form and content. Universities driven by the need to create new knowledge therefore leverage on their students celebrated scientific and technological innovations to capitalize on emerging KM practices beneficial to learning. The university's intellectual capital resources are viewed as a synergic mix conducive for enhanced students' academic performance (Oakley, 2019). According to Oakley, KM practice is the method leading to knowledge acquisition, retention, transfers and sharing through systems beneficial to students, thus guaranteeing improved learning processes.

On equal note, Metcalfe (2016) defined the university as an institution of the highest learning level and constitutes programs both at undergraduate and postgraduate graduate studies, for example bachelors, masters, doctorate, and to some extent diploma and professional programmes. According to Abagi (2001), the university are institutions of research and education at highest level mandated by the university statutes and regulations to awards and confer academic degrees in nature from a variety of disciplines and subject areas. Further, (Commission for University Education [CUE], 2019) viewed the universities as institution guided by statutes and regulations to awards and confer academic degrees from a variety of discipline and subject areas.

In academic contexts, university whether public or private are viewed as sources of both academic and non-academic knowledge generated from human efforts, developed from research materials and activities created, retained, transferred and shared for consumption by faculty members, students, and the general public. According to Rowley (2020), to ensure universities succeeded in their academic performance, knowledge acquired, retained, transferred and shared should by all mean lead to the effectiveness of the entire learning system. Application of knowledge management and related practices should therefore be continuously considered as urgent strategies required by these institutions to remain competitive, attractive in the market, and sustainable in pursuit of desired goals.

However, not all universities have viewed successes as gained from the application of KM as a priority and urgent areas in pursuit of global excellence. These has hampered further innovation and research progress in the discipline for use and advancement of learning achievements (Poonkothai, 2016).

According to Webster et al. (2014) and from a systemic perspective, KM practices and application in the universities appears to be divided into internal and external sources. This he noted has been to serve the purpose of education standardization. Furthermore, they reported in this study that KM practices ought to focus more on market orientated in order to realize benefits to the fullest. These has been lacking in many public and private universities. This has supported the needs for continuously considering students, regardless of current or prospective. This has been the perceived understanding of the conditions for being off-campus, and the urgency to creating a balance in the values of learning and experiences.

While Knowledge management practices and their application may differ from one university to the other, be it public or private, these differences should not lead to variation in the actual learning performance by students. With the rise of global education sector, knowledge acquisition, retention, transfer and sharing are considered practical and ideal practices towards influencing academic performance and contribution to the overall learning outcomes. However, these practices have been providing challenges to the universities, such as on how to mobilize learners, respective research resources and academicians to the understanding of what KM practices was lacking, on demand, and how they could utilize these resources as power to acquire and share more innovative and new academic materials or products that are efficiently marketable and adaptive to the learners' demand (Amayah, 2020).

Previously, gaps have been reported on lack or inadequacy of favorable learning policies within the universities that could facilitate knowledge acquisition, retention, transfers and sharing through social interaction in academics for efficient learning performance. Furthermore, tacit knowledge has remained codified into documents, so complete scholarly learning has been weakened by the processes involved (Egbu et al., 2015). This has

hampered effectiveness of knowledge management practices and implementation towards the realization of desired university academics goal and successes. A further, challenge to universities in implementation of KM in respective institution has been how to innovate better ways for knowledge re-use and transformation into real action for effective management decision-making processes (Bosua & Venkitachalam, 2018).

Some universities have reported knowledge management challenging situations in the past with use of Information Technology (IT) as an ideal tool for teaching and aid to students learning. This has been compounded by minimal levels of utilization and familiarity on the best ICT tools by lecturers and students. For example, tools that could facilitate or enhance knowledge acquisition, retention, transfers and sharing (Majewski, 2021), was a burden that was noted to compromise implementation of quality learning processes. In emerging economies, these trends have continued to widen the gap in the use and applicability of KM in university education successes. Further, it is not clarified how these KM practices and related initiatives have been applied in the universities for competitive advantage nor how these practices have influenced overall academic performance, specifically among private universities (Metcalfe, 2016). There has been lack of clear indicator (s) on how much knowledge management (KM) practices have been implemented for better learning performance tracking, measurements and reporting (Kinyua et al., 2015).

Past studies have explored knowledge management practices and how it affected effective learning (Pike, 2012) or learning patterns (Pascarella, 2013). Few of these reported on exploring knowledge-processing power from the input-process-output stance regarding academic excellence (Baek & Cho, 2018). Some scholars have further argued that academic performance was the result of individual students needs desire to continuously acquire, retain and share knowledge as the means to demonstrating appropriate competence in the learning achievements, besides accomplishing tasks and adapting changes in the learning environment (Shahzad et al., 2020).

According to Stallman et al. (2018), while students attained valuable knowledge and information from lecturers' other sources, they were hardly certain in the application and employability values for maintaining academic performance. This could be attributable to

weaker systems and practices in place for knowledge archiving in a way that they could grant ease of access and promote sharing among peers. Market placement research suggested how acquisition and analysis of knowledge contributed to increased performance. This argument seemed to have ignored how students use the acquired and valuable knowledge. Baek and Cho (2018) emphasized the connectedness the students should have to learning, digest, transfer and apply KM. Therefore, regardless of the abundance of valuable knowledge, acquisition capacity of students remains to be of crucial importance as the initial stage of KM practice in education.

According to Zhou and Li, (2012), knowledge and capability-based views assert that KM was the key source of innovation, value creation and means achieve to academic excellence among universities globally. However, the importance of KM practices in these institutions always appeared last in priority setting. How students used knowledge management systems and tools to enhance their academic performance is therefore an important issue worth discussion and exploring in multiple research studies, at least to get some solution if not solving all problems at one go.

Global Perspective of KM in University Academic Performance

In the global scene, universities have strategically embraced knowledge management practices and these have been undertaken through faculty development programs, both internal and external to the sponsoring organization (Ramakrishnan & Yasin, 2018). According to Kimiz (2015), knowledge management practices have been implemented through teachers to learners (students) exchanging experiences through events, and thoughts. This has been with the sole intention to understanding for temporary curiosity or advancement of insights and academic achievements. The usages of social networks have further expanded the space of lecturers to student interactions in universities learning spheres, thus creating an enabling environment for enhancing knowledge acquisition, transfers, retention, sharing and adaptation of the preferred learning culture. According to Rowley (2020), universities as institutions of higher learning going forward, must and should change their thinking, role and innovativeness using KM initiatives that could help respond and adapt to these dynamics of a knowledge demanding communities and ever-growing global economy.

In countries such the United Kingdom (UK) and the United States of America (USA), effective implementation of academic performance has focused more on how best it should be used to enhance learners' skills, and learning quality as a way of coping with labor trends and the would-be market demands. For instance, in today's global economy, work environment dictates the required 21st century skills requirements to adequately cope with work related challenges and demands. KM is therefore the perceived strategic management tool for institutional innovativeness since it is through this that new ideas have been generated and shared, making existing universities boasts of producing top notch and quality graduates who can satisfy employers' demand (Ramakrishnan & Yasin, 2018). This knowledge has previously been collected, conserved, and shared with students in and outside the universities during internships and other mentorship programmes required of each academic level (Gururajan & Fink, 2020).

According to Lu et al. (2018), in Asian universities, the belief among scholars was that cross-country comparison of KM added more insights into academic performance. They were used to compare research variations for specified KM. Al-Jubari et al. (2019) in their report noted that, while China and Taiwan had differences in cultural distance, language and education policies, had greatest teaching similarities. Therefore, the experience from student perspective to cultivate and establish their ability towards employability, could help verify relevance of the KM practices such as acquisition, absorptive and retention capacities, as the means for quick measurements of academic success. Therefore, knowledge acquisition, retention, transfers and sharing innovations were reported as rapidly expanding universities learning space in which global competitive benefits were demonstrated both in industries, governments and academic environment.

For instance, in achieving its Vision 2020, Higher Education's performance in Malaysian has been measured by the extent to which it had contributed in the production of human power and productive knowledge workforce, matching with the country's development agenda and related demands. Private learning universities in these countries have therefore been forced to take leadership in the implementation of KM as a challenge to non-governmental organizations (Ahmadi et al., 2021). Thus, Malaysian universities have

transformed learning focus into individual knowledge for re-use and means of achieving goals.

In pursuit of realizing purpose and goals of education, research, and societal role, universities globally are compelled to manage processes involved in KM initiative such as creation, retention, and innovating use of these KM practices for improvement of shared experiences and ideas (Dan & Sunesson, 2021). According to Migdadi (2021), National University of Singapore in Asian continent through a survey noted the application of KM and criticality of information sharing. Therefore, these learning institutions have put supportive and functional KM structures and indeed others are on trajectory path in realization of KM dreams, and as such, avenues for shared information acquired amongst agents continues.

The universities known to have succeeded in the past, have previously viewed knowledge as an asset that could be used to develop organizational norms and thus valued support for acquisition, retention, transfers and sharing of knowledge. Therefore, knowledge management from a global perspective can be viewed as part of the university capital resource aimed at achieving institutional goal and service to the society. Thus, the compelling call to manage the processes involved in the acquisition, retention, transfer. sharing for re-use in effective learning processes.

Rowley (2020) study conducted among universities in the United Kingdom noted institutional involvement in knowledge creation, acquisition, sharing, retention, dissemination for innovation, making them knowledge business part of the society. According to this study, it is important that higher learning institutions practiced and implemented KM on what they know while alienating some kind of knowledge they lacked. The sole aim was to promote retention, sharing, and delivery of learning products. This addressed the question of value addition to learning products and services delivered from application of knowledge capital. KM also involved the discovery and use of knowledge for improved academic performance within institution of higher learning across the globe. For example, Harvard university in the US entrenched KM practices across all

its academic programmes making effective use of information derived from the learning products in streamlining academic prowess.

According to Abbas and Sağsan (2019) Harvard university applied cognitive learning abilities and resources to build core competencies, and shape future academic performance. Whether through the practices of acquisition, creation and sharing of knowledge, each student was certainly affected by knowledge transfer practices as means to effectively create value for the individual learner. Therefore, in students learning processes, Knowledge existing in mind and experience, involved personal beliefs, judgments, and value perceptions,

Ramakrishnan and Yasin (2018) argued that universities globally now have the opportunity to apply KM in supporting own goals. This was believed to have been achieved through knowledge repositories which have contributed to improved access and use of learning materials among lecturers and student. Thus, creating conducive learning culture with better impact on the learning achievements. For example, as a result of the increased external pressure from competitors and emerging economies including learning institutions, universities are taking advantage of ICT tools and platforms to manage and share knowledge effectively, and not limiting themselves to virtualization of teaching and learning respectively. According to Laal (2021), universities shall always remain creators of knowledge targeting the learning generation for new skills, scientific literacy, and capacity for critical inquiry. KM will therefore continue its dominance of strategic management discussions and development agenda for decades and will determine student performance among top world ranked universities.

Regional Perspective of Knowledge Management in University Academic Performance

For African universities to become competitive advantage, they had the greatest choice of deciding to attracting and retain high quality scholars needed for research and innovation, and those who should support in them in the development standard programs demanded by the market (Kidwell et al., 2020). These universities are required to strategically continue acquainting themselves with KM initiatives implementation for improved academic

excellence. According to a study by Kidwell et al. (2020), he observed KM as a strategic tool leading African universities to promising better decision-making capabilities arising from improved academic success and reduced operational costs. These universities are reported to be implementing knowledge management practices that tackle overall student's learning outcomes (Ramanigopal, 2012).

According to Maqsood et al. (2017) study conducted in South Africa, he acknowledged that knowledge management initiatives have influenced all higher learning institutions. This he noted is particularly through knowledge-based libraries and repositories which underscored the value of KM practices for hastened adoption. Academic libraries roles have since changed into that of providing an enabling environment, but with broadened scope to serve the society better.

Further study by Maponya (2014) conducted among South African universities such as the University of KwaZulu-Natal, observed that Communities of Practice (CoP) had facilitated social interaction and knowledge sharing amongst students, lecturers and the community. However, policies on CoP were lacking, but required for enhanced efficiency and performance as a learning tool. In this study, Maponya observed that in implementing knowledge management, both explicit and tacit knowledge captured was codified into documents, providing complete learning cycle and resource-base for use by scholars and the society being served by the learning institutions.

Wang and Ahmed (2016) reported that despite the absence of defining policies, university students with strong absorption capacity (AC) could still have chances to acquire, retain, generate and share new ideas as a product of their learning process. These Wang noted not only served to enhance the efficiency of teamwork, but also facilitated in completing the tasks assigned by lecturers. AC could propel the ability of university ability to identify, acquire new values, and apply this for academic progress. The maintenance of students' capability databases helped to demonstrated how they applied, integrated, and even fundamentally developed core competencies as a result of KM resources. Further, student with no ability to absorb knowledge were on receiving end, even if the knowledge shared by the teacher or school avenue was enriched, they could not be able to use this knowledge

effectively. These included the ability to communicate this value openly and exchange the contents in demonstration of the learning capabilities and achievement (Nor et al., 2012).

In Nigerian universities, KM related gaps and challenges were reported in the use of ICT as a tool for aided learning. For example, Web 2.0 technologies acceptance and familiarity in utilization of ICT tool by part of lecturers and students was reported as low in the University of Lagos, thus limiting facilitative hopes for transfer and enhanced sharing of knowledge (Ekeke, 2018). Ekeke (2018) noted this as a burden (2which compromised implementation of quality of learning in the long run. Other challenges were also noted among the world renown publications such as World University Ranking for 2016/2017 academic year revealing no university in Nigeria to have ranked among the top 500 in global scene nor among top 100 in the emerging economies. These contributed to a widening gap in the application and use of KM initiatives among Nigerian Universities forcing the leadership to the drawing board in attempts to find a lasting solution for the drop.

Contrary to the Nigerian case above, universities in Ghana however, were perceived to have recognized knowledge management practices as valued assets, hence continued pursuit of coping and adaptive strategies with the existing market space and learners' demand. Makore (2016) studies on role of knowledge management on the University of Ghana asserts that, knowledge transfers from the teacher (TKT) helped in learning and acquisition of more knowledge rich information contents. However, he observed that in addition to the teaching experiences acquired, knowledge transferred required the learning environment to be conducive and receptive to the intended learning purpose. Makore (2016) reported in his study that teachers used various teaching methods to assist students in acquiring knowledge, however measurements and reporting on how these learning patterns contributed to their general and professional work abilities in the future was yet to be realized. This he noted was useful for the university leadership in promoting and improving on the learning effectiveness, work attitude and self-confidence of the student (Astorga-Vargas et al., 2017). In Morocco, ZOHRU University had started ensuring they managed right knowledge, got the right scholars and non-academic staff at the right time.

They leant to perfected the art of using appropriate KM systems in decision making processes (Godswill et al., 2022)

According to Bekele and Abebe (2021) study in Ethiopian Civil Service University (ECSU) and public universities in general, there had been continuing investment on KM such as including ICT infrastructures such and database systems. However, lack of policies guidelines for providing utilization of available knowledge and intellectual capital and human knowledge-power remained elusive, thus limiting the competitive advantage that ought to have been realized from both public and private universities. Ethiopian universities therefore have been for a long time working in collaboration to increase and foster innovation.

Most scholarly work reported that academic staff and teams were established to help assess KM system and structure in attempt to build knowledge management hub or center for sustained gains in academic. This approach was adopted after irreversible losses of knowledgeable and retiring of exiting staff. These Bekele and Abebe (2021) noted contributed to the reduction of the universities abilities to initiates and improves innovations in the collection and reuse of critical knowledge. Further, lack of innovative organizational culture and norms had become a challenge for the development of the KM system. These universities were limited in their ability to efficiently acquire, share, and apply appropriate technologies for the development of community ‘s of practices (CoPs) creatively (Bayu, 2018). As a manifestation of these problems, most researcher reported awareness gaps to KM, and lack of motivation to creativity.

These was alongside leadership challenges and their inability to create suitable environment for engagement in knowledge creation and sharing activities among scholars. This was further hindered by low concerns for staffs who were the source and users of knowledge (Chahal & Baksh, 2015).

According to Wanderage et al. (2021), Ugandans and Tanzania universities have had many good knowledge management practices that supported critical thinking. In Makerere University of Uganda and Mwalimu Nyerere university of Tanzania for examples,

knowledge management initiatives have been developed and used to retain, transfer and share thoughts widely, forming a strong source of value creation for learners. These created a strong belief of KM as a strategic resource and critical tool for quality learning. Therefore, the culture of creativity and innovation within these universities have been nurtured, where knowledge sharing was devised and practiced for teaching and learning (T&L). This provided an environment in which learners developed skills, understanding, and common values used for improvement in academic excellence.

According to Mazhar and Akhtar (2016) the concerns of these universities now will be to develop and produce graduates and, academicians who possess analytical, quality problem solving skills, demonstrating understanding and effectiveness of the knowledge acquired, retained and transferred. The same universities have contributed to the regional goals of building a knowledge-based (KB) society, which would not have been possible without knowledge management playing central role in the entire learning system (AL-Hakim et al,, 2012). Further, Kampala and Dar es Salaam universities have endeavor to competence by assisting leaners in the attainment of skills required to performed tasks assigned and to the expected global standards.

Overall, KM is reported as critical resource required for advancing the development of Africa region academic hub, especially focusing of emerging needs in 21st century. This requires African universities remain innovative and productive comparable to higher education in developed economies around the globe. Further, it remains valuable to establish if KM practiced at the universities had any strategic importance that can drive both institutional value and student performance (Mchombu, 2017).

Local Perspective of KM in University Academic Performance

Kenyan education sector stands not as business of disseminating information only, but also a business driven by demand and sustained knowledge base. Over the last decades, universities have recognized knowledge as a beneficial asset, hence the emergence of knowledge management practices for enhanced academic performance. Several universities, both private and public are now in great pursuit of KM strategies and practices which aim to guarantee excellence among academics and non-academic staffs. This is

perceived as the option for sustaining the required market supply and trends in coping with ever existing and growing demands for knowledge from institutional customers who are the broader Kenyan scholars (Karani, 2015).

As external environment continues with pressure on local education institutions to become more business-like, KM initiatives should be promoted and used the vehicles for driving the envisioned changes. Furthermore, KM practices we still valuable initiatives with universities, and thus the art of combining knowledge acquisition, retention, transfer and sharing using technology have provided added opportunities for virtual and other technology-based learning platforms such as learning via the internet remote among others. Virtual learning incentives such as web-based portals, collaborative learning management systems (LMS), media linking academic units and students through shared academic databases and related research materials had become common with significant reduced learning costs (Nawaz, 2015).

In this regard, courses undertaken through distance learning mode continue being hosted on various e-learning platforms to allow exchange in thoughts among scholars with passion for enriching ideas within specified knowledge areas. These have been aided along with the advent of learning platforms of paramount importance in knowledge exploration and diffusion. However, the extent to which these technologies and others tools can be used to develop new knowledge areas and ideas heavily depends on the collective willingness of the university management to remain supportive and adaptive in providing structures required for enhanced application of such tools altogether.

University education in Kenya has been public since independence, but due to liberalized economy and competition, several transformations have been witnessed in the education sector most recently. This has promoted the growth and continuous rise in the number of private universities offering courses in focused on specific disciplines. Like other parts of the world, Kenyan private universities have applied KM practices of acquisition, retention, transfer and sharing. There are a number of strategies, ways and forms in which they have been put to use KM initiative including in human mind, books and other academic repositories among other academic strategies (Ngah & Razak, 2020).

Knowledge for a long time has been acquired, retained, transferred and shared between lecturers to students through several Information Technology channels like internet and social media. KM practices have been applied manually and although they are still being applied today, the emergence of ICT has not only complemented the manual and traditional ways of acquisition, retention, transfers and sharing, but has also improved effective delivery and sustainability on the overall academic performance of learners. Further, these approaches have made learning more attractive and convenient due to the prevailing competencies and learning aids employed like student portals, zoom and google drive share capabilities which have enhanced the application of these practices.

University education in Kenya though remains a knowledge –intensive organization which involves exchange of knowledge asset and services, implementation while managing through innovative KM practices have become paramount in learning environment compared to other organizations. Rono (2017), observed KM as an unavoidable strategy in the education sector and to the greatest extent the space for competitiveness resides in KM initiatives and the ability for enhancing quality learning. Academic labor and KM products from these local universities have traditionally been shaped by cultural, but a shift toward professionalism has persisted in the environment. Further, the knowledge that was previously considered a private good is now a public asset that has shown the growing potentials for increasing institutional legitimacy while providing new era of scholarly work for sharing and chat path for future engagements.

According to (Rono, 2017) most universities have limited or no government incentives nor motivating KM policies that guarantee acquisition, retention and sharing of knowledge from experienced personnel, into a way that when they depart the institutions for better opportunities or due to natural attritions such as deaths, such knowledge can be repacked for future re-use. Therefore, such knowledge has often been lost and limited quantification can be employed to assess and ascertain the extent to which they contributed or at least helped promote student academic performance. Kenyan universities have therefore re-invented themselves to capitalize on the KM market space and ensure that they tap into

these knowledge management initiatives for continued realization of university overall goals including students' academic performance.

Private Universities in Kenya

Knowledge management practices and its importance as a strategy for learning advantage has been increasing among Kenyan universities, specifically within private universities which have to compete in the crowded market niche. Such a growth complements the recognition that competition may be the only avenue to take advantage of for institutional survival given the limited support from government funds, United Nation Development Fund. Therefore, private universities in Kenya are mounting knowledge management practices that tackle improved student academic performance towards desired learning outcomes for relevance and market space dominance. The capability to produce and consume knowledge products gives emphasis to the field of knowledge management into a capitalist cycle. The dimensions of power and inequality therefore becomes so inherent in the application of KM for management decisions.

The production of human capital was one of the most important functions of university education in the modern society. Information and knowledge are considered commodities exchanged for free in the gift economy market or for a price in the consumer market. This describes the market-like behaviors of higher education and the organizations. Therefore, even in non-profit settings, the capture and sharing of knowledge is embedded in best-practices and technical infrastructures created to serve that business context, private universities included. On a similar note, as universities move closer to private-sector behaviors and values described by academic capitalism theory, opportunities for the influx of KM strategies into higher education institutions increases. The reasons it becomes important to understand how market principles affect the implementation of KM in the private organization.

According to Marwick (2021), university education and training has the goal of realizing students are assisted and taught to desired level of performing specific industrial tasks and in accordance with laid down academic standards. Kenyan private universities as education and training firms, however varies in degree of academic excellence, quality of learning and decision-making. These variabilities also exist in both private and public institutions

compared. Although effective and strategic knowledge management practices have typically been applied, the required combination of organizational, social, and managerial initiatives are yet to be realized. Additionally, deployment of appropriate technologies for facilitated knowledge sharing, retention, transfers and acquisition of learning products in a friendly, but innovative approaches are lacking among the private universities.

This phenomenon if not checked could have adverse effect on learner's performance, since success of student learning has been gauged by the ability for share knowledge both in academic and outside academic environment, make the knowledge useful, and use competently gained human capital while capitalizing on advancing ICT to acquire more, store, and distribute that specialized knowledge for sustained learning quality among scholars.

Owino et al. (2012) pointed out that that private universities are placed with greatest roles to play in modern economy since knowledge generated from within was perceived to have surpassed wealth creation, making them become dominant driver in pursuit of economic recovery. KM therefore presents no barriers to agile service provision, thus placing pressure on the traditional education's centers of this highest level to remain optimistic and relevant to existing markets. Globalization and quest for academic excellence coupled with the changing needs in the learning environment are even forcing private universities in Kenya to rethink on the best strategies and practices to apply internally for realistic KM approaches and application. These should not be limited deliveries of teaching and research only, but provide room for road service base that served the clients who are the students and by extension the society as a whole. This suggestion plays an increasingly important and critical role for KM and places its strategic value in the academic learning processes.

Knowledge management has been reported by past research findings as being fundamentally and strategically important in yielding significant benefits such as increased levels of quality, innovation, decision making and productivity among past and present student. However, sufficient evidence was lacking to back this claim as to whether such benefits such are attributable to KM initiatives within private universities. So, whether private universities have utilized KM in a strategic way to enhance value and quality of academic performance remains unknown. Private university education standards should be

aligned with the market systems demand. Therefore, academic quests for universities should continuously focus on student needs in a way that aim to being them to the understanding on the advantages and conditions of off-campus. This should create and aid in communicate values and balance of students and the would external stakeholders (Webster et al., 2014).

1.2 Statement of the Problem

The exchange of thoughts and ideas from teachers to learners has always taken place, however, this has happened unsystematically within universities across the globe. Knowledge creation, acquisition, transfers and sharing has occurred through teaching, conferences, research work and publication all the way to work experiences, however, use and re-use of knowledge for improved learning performance, practice and economic growth has been on the decline trends especially among universities in developing nations (Rooney, 2020). While knowledge management have attracted scholarly attention demystifying its effect on academic performance, mixed findings have emerged in past studies. Jenkins (2020), Jenkins and Zetter (2013) and Wamundila (2018) have shown knowledge management to have significant effect on academic performance and reported that universities where studies were undertaken have not been clear about the gains from knowledge management and this was noted to be as a result of low infrastructure for KM effective implementation.

Amayah (2020) argued that while KM played key role of assisting universities in addressing the demand of knowledge productivity, however, he further observed that this role to quality learning assessment lacked significant scaled-up efforts among these learning institutions in creation, sharing and re-use of knowledge towards improved students' academic performance. Similarly, Leedy and Ormrod (2020) stressed that failure by institutions of higher learning to deliver learning benefits to students was due to inadequacy of KM practices integration into the learning processes and systems. Leedy and Ormrod (2020) observed that effectively adopted and fully integrated in higher learning system, knowledge management practices could help support acquisition, retention, transfers, sharing and re-use of knowledge for improved student academic performance,

work practice and economic growth. As evident that re-use of knowledge has been missing within institutions of higher learning, both at institutional level or external sources, knowledge management practice effects on private university performance in Kenya have attracted little scholarly attention. Principally, past studies undertaken on KM have focused more on organization performance, and have not given attention to assessing the effect of knowledge acquisition, retention, transfers and sharing with focus on students' academic performance in Kenyan universities, as such complete lack of research done in this field. Therefore, this study filled these existing gaps.

1.3 Purpose of the Study

The research study purposed to investigate the effect of KM practices on postgraduate academic performance of private chartered university students in Kenya.

1.4 Objectives of the Study

The specific objectives of the study were:

i. To establish the effect of knowledge acquisition on postgraduate academic performance of private university students in Kenya.
ii. To ascertain the influence of knowledge, transfer on postgraduate academic performance of private university students in Kenya.
iii. To determine the influence of knowledge retention on postgraduate academic performance of private university students in Kenya.
iv. To establish the effect of knowledge sharing on postgraduate academic performance of private university students in Kenya.

1.5 Hypothesis

The following null hypotheses will guide the study;

$H0_1$: Knowledge acquisition has no significant influence on postgraduate academic performance of private universities in Kenya.

$H0_2$: Knowledge transfer has no significant influence on postgraduate academic performance of private universities in Kenya.

$H0_3$: Knowledge retention has no significant influence on postgraduate academic performance of private universities in Kenya.

$H0_4$: Knowledge sharing has no significant influence on postgraduate academic performance of private universities in Kenya.

1.6 Justification of the Study

The highlighted findings from this study should support education sector decision and policymakers and senior management, broader education institutions and organizations that apply the practice of KM internally and externally created for improved student quality learning. Specifically, to management, the study would provide how various knowledge management practices affects postgraduate academic performance. This finding would aid management in developing/designing postgraduate learning models for enhancing knowledge management. The study findings are believed provided valuable information and insights to the policy makers in higher education. For instance, finding would aid commission of university education (CUE) in formulating policies geared towards improving research-practice linkages between higher learning centres and corporate world. Last but not least, the study finding would form basis of future academic reviews for scholars and academician in the field of knowledge management. The study also highlighted postgraduate education.

1.7 Limitations of the Study

It is believed the study achieved its objectives. However, this was realized against several challenges encountered during data collection stage. Most of the universities targeted for the study requested for ethical clearance as a requirement to participate. Although the researcher produced research permit from the National Commission for Science, Technology and Innovation (NACOSTI) and KEMU University clearance letter justifying approval to proceed to data collection stage, some universities were reluctant to participate within the timelines provided, contributing slow responses and ultimately low response rate. To overcome these challenges, the researcher emphasized to the respondence the nature of study and the circumstance under which it was being conducted for which data was being collected, the objectives, methodology. Again, the researcher re-affirmed commitments to the respective targeted institutions for the study to uphold ethical

requirement during data collection activity period. This yielded good rapport with most respondents raising response rate to 50% of the target population. The researcher presented this challenge to the university and upon deliberation and time constraints, the study progressed, as this were noted to have no adverse effect on the overall objectives.

1.8 Delimitation of the Study

Delimitations sets the study boundary according for the purpose of interpretation and application of its finding. Knowledge management was noted as a vast subject with many components and practices, relative to university application context, and difficult to study in depth on how they were applied in each organization. This study, therefore, confined to knowledge management practices of sharing, retention, transfer, and acquisition as defined in the body of knowledge. The study was conducted within chartered private universities in Kenya which has attracted little research attention as shown in the reviewed literature. The targeted population was delimited to postgraduate students and faculty and departmental heads only. The adopted cross-sectional panel data covering the period of five last years to the year 2022.

1.9 Significance of the Study

It was significance since it would help raise awareness among university education stakeholders and actors in the sector including the government of Kenya (GoK), civil societies and all institutions and agencies who were part of policy making processes, planners and implementers supportive of Kenyan education sector, on the main factors influencing implementation of knowledge management practices on learning outcomes, specifically with focus on private universities.

The knowledge generated from this study would contribute to the development of fresh and additional knowledge areas which business organizations, universities included could adopt or use to deal with the emerging global competition and develop new innovative learning products. The study could also prompt researchers to undertake similar future studies with additional variables from those already considered towards filling any existing research gaps in the same subject domain or different organizations, more so in institutions of higher learning. This is as explained below-

To the private university management- the study could act as a self-assessment tool on knowledge management practices implementation level and strategies required to implementing them for improved learning outcomes. The university management stand a chance of benefitting by implementing KM practices that should provide on appropriate skills for dealing with challenges experienced at work environment and while focusing on gaining competitive advantage.

Government of Kenya and other Policy Makers - The study was also significant as it looked into KM practices and how it was being applied, the innovation, and the level of impact it created within the study topics. These strategies can significantly help improve understanding of the real scope and impact of KM on a Kenyan education sector for enhancing learning outcomes towards sustainable development. In addition, it should aid point out on some of the challenges and suggest useful tools for shaping education policies and university management practices that will help create favourable learning conditions for real change while minimizing the negative impacts of globalization in the long run.

University Regulators - The study is significant in that it could give insights and inform the regulator, who is the Commission for University Education (CUE) through the line Ministry, the Ministry of Education (MoE) in fulfilling its core mandate on Regulatory and Quality Assurance.

1.10 Assumptions of the Study

According to Leedy and Ormrod (2020), assumption in a study are things out of Researcher's control, but should not disappear, otherwise the study stands to become irrelevant. Therefore, research study was guided by the assumption that private chartered universities embraced and adopted knowledge management practices in their service provision of creating new knowledge products, opening new markets, and being innovative towards enhancing learning outcomes.

1.11 Operational Definition of Terms

Knowledge Management - Methods which adds or create value by leveraging the knowledge, and the experience resident within and outside

organization environment (Flick, 2021) and assessed in the study by academic research, lectures and books.

Knowledge Acquisition - refer to the process for identification, generation, and creation of knowledge. In this study, academic research, academic lecture and academic books were used as the metric of measurement (Egbu et al., 2015),

Knowledge Transfer - refer to the process for transferring knowledge from university staff to students and amongst students themselves, within and external to the university system. In this study, three (3) metrics of measurements were applied including mentorship program, academic forum and academic literature on academic performance (Nguyen & Burgess, 2014).

Knowledge Retention - refers to all activities that preserve and enable retention of knowledge for use. Three (3) metrics of measurements such as academic publication, learning assessment and learning culture were applied to gauge the extent of students' academic performance (Girard & Girard, 2020).

Knowledge Sharing - is the process through which personal and knowledge residence in ICT databases, study groups, learning repository is shared among students. Three metrics of measurement on academic performance were applied such as ICT, study groups and learning repository (Wang & Ahmed, 2016)

Academic Performance –The achieved learning excellence demonstrated by the learner at the end of academic program (Jenkins & Zetter, 2013).

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter has six main sections, theoretical review, conceptual framework and empirical review as guided by the study specified objectives. The chapter also give highlights of the critiques of the reviewed literature, summaries of literature reviewed and presents the gaps in the research study.

2.2 Theoretical Review

This is a postulate or explanation about a phenomenon. According to Lincoln and Lynham (2011), theories are classified in view of scope, functions, structures and levels. It was paramount and essential that KM procedures and strategies were developed considering theoretical foundation, since they have profound effect on the successes or failures of knowledge management practices and their performance on students learning (Bosse & Phillips, 2016). Scholars have put forward several models and theories explaining the four (4) independent variables such as knowledge acquisition, transfer, retention and knowledge sharing. Equally, scholars have researched on theories that explained the dependent variable of academic performance. Therefore, this section of the study critically reviewed relevant theories relating to knowledge management practices as guided by the study objectives.

Resource-Based View (RBV) Theory on Knowledge Acquisition

Penrose (1959) first proposed the resource-based approach of university growth and this which was further explored by Barney et al. (2011) among other scholars. This evolved to be known as the resource-based view (RBV), emerging as the most popular economic rent yielding frameworks in management literature. The Resource-based View (RBV) is a strategic management theory that is widely used in higher learning institutions towards enhancing the application of knowledge management practices. It examined how the independent variables of knowledge acquisition could be transformed into critical resources for driving postgraduate academic performance of private university students. The theory has acquired great relevance and diffusion in recent decades in the field of strategic management and aided in explaining other theories that sought to achieve superior

and sustainable academic performance. RBV theory conceived the university as an organization of productive academic documents existing in various forms and defined knowledge acquisition as a strategic assets that was rare, valuable, imperfectly imitable and non-substitutable. The theory was also viewed as an enabler to knowledge management practices with the potential of being a source of competitive advantage to the university learning environment.

The theory explained the physical and the human resources required to provide learning services to postgraduate students with added value. It focused specifically on the issues internal to the university in explaining the profit value gained from acquiring and sharing new knowledge. RBV theory postulates that the differences in university academic performance happened when they possess valuable resources absent in other universities, thus allowing such universities to retain their quasi-monopolist form.

RBV theory was further developed by Penrose and Pitelis (2009) as a contemporary approach to the analysis of knowledge practices for sustained advantage in the market space. The two argued that organization and companies compete based on their resource level availability and capabilities, thus allowing them to create a niche for a particular market. Accordingly, the practices of knowledge acquisition and sharing of new knowledge resources gained as source of competitive advantage could still be improved by changes in ICT, competitor behaviors, or buyers tastes which were viewed as more inward focused. A major premise of the resource-based theory was that knowledge management practices as function of the university resources offered capabilities for enhancing academic performance. Therefore, Barney et al. (2011) listed four attributes of knowledge management practices and resources that gave rise to the university competitive advantage including value, rarity, imperfect imitability, and lack of substitutability. Barney observed that knowledge acquisition helped the university exploit opportunity and or avoid threats in their environment (Barney et al., 2011), thus, enabling them to develop and implement practices and strategies aimed at improved efficiency and effectiveness required for learning performance.

RBV theory has been explored and extensively used for social science research and some of the theory proponents were Barney et al. (2011) who had applied the same to explain the structures and determinants of a firm's performance on its overall structure. Barney et al. (2011) in their impulse and optics made this theory to be considered one of the most robust and most accepted perspectives in the field of university academic performance. This evolution was highlighted by barney as the new promise of the industrial organization, where he emphasized that the new paradigm gave an important place to the effect of knowledge management practices.

The theory has been extensively criticized by Brahma and Chakraborty (2011) for lacking substantial operational validity and managerial implication. Brahma and Chakraborty hold the argument that the theory advised managers to develop and apply knowledge management resources which were observed appropriate for the organization, but was silent on how this could happen or what could be done to have them realized with efficiency. Therefore, in enriching RBV, the resource orchestration framework described managerial actions that used such resources to realize performance gains. RBV suffers from tension between descriptive and prescriptive theories. This was viewed an exaggeration of the extent and powers managers had in control of knowledge management practices as resources and how this happened or how it was used as an approach to predict their value.

RBV viewed firms as entities aimed to gain above profit margins in a non-controlled, but shared market competition with other firms. Further, RBV theory assumed organization to be profit making entities directing and controlling managers operating in such markets, in ways that that were predictable in moving to a point of being in equilibrium. Grant (2017) further observed this theory to be focused more on knowledge resource as the organization's significant assets, and thus viewed critical, and was against holistic prospects perceived as complex in nature.

Overall, critiques have faulted the RBV theory to be static in nature and lacking in empirical scrutiny (Barney et al., 2011). They argued that a firm might achieve rents not because it had better resources, but rather the distinctive competence involved in making

better use of its KM resources. Thus, two additional theoretical approaches have been brought forth to compliment RBV. The first was Valuable, Rare, Inimitable and Organization (VRIO) framework, which postulates that in addition to simply possessing valuable, rare and inimitable and non-substitutable resources, the universities also needed to be organized in such a manner that they could fully exploit the full potential of those KM resources to attain a competitive advantage (Barney et al., 2011).

RBV was perceived important in this research study since it assisted in the analysis and interpreting knowledge practices of acquisition as university internal and critical resources, emphasizing on their capabilities of being used in formulating strategies for the achievements of academic performance in a sustainable manner. The theory was further applied in enhancing the understanding of the outsourcing decisions, in particular, the resource-based view assisted in the analysis of knowledge management capabilities of the university linked to academic performance and in turn competitive advantage. It was also possible to relate the resource-based view theory to analyzing the capabilities of the university relative to competitors and examined how and why knowledge management (KM) could be used to create competitive advantage from the RBV of the university. Lastly, the development of the RBV was linked to research objectives on knowledge acquisition and effect on postgraduate students' academic performance in private chartered universities.

Knowledge Conversion Theory on knowledge Transfer

Knowledge Conversion Theory (KCT) was proposed by Nonaka in 1974 and quoted by Nonaka and Takeuchi (2011). The theory reviewed the internal and external knowledge processes as useful for academic performance. KCT viewed interaction process of tacit and explicit knowledge as key in addressing knowledge management. The theory was based on the assumptions that Knowledge is transferred by the senior workers and the experts to the junior workers, new candidates and upon conversion of tacit know-how to unambiguous knowledge (externalization); the university learning system captured the knowledge and retained it in documents and databases within including in books and libraries among others; Transfer of knowledge generally involves all the ways through which knowledge was preserved and retained in the system. According to the theory, there

needed to be in place framework processes that helped in maintaining knowledge management viability while still within the learning system.

Key proponent of Knowledge Conversion Theory was Nonaka and Takeuchi (2011) who developed the Socialization, Externalization, Combination, and Internationalization (SECI) model for assessing organization's knowledge creation and transfer using the theory. The model dynamism in creation and transfer of knowledge that organizations were able to capture and retain. Therefore, knowledge conversion resulted from social interaction of both individuals and organizations as a result of creation and expansion of this interaction which allowed people gain knowledge as they socialize or interact directly.

The externalization or articulation of the tacit knowledge occurs by way of dialogue, as well as reflection. As people communicate with each other, tacit knowledge was comprehended. In this case, tacit knowledge got transformed into what was regarded as explicit or unambiguous knowledge. Other proponents of Knowledge Conversion Theory whose study advanced knowledge transfer included identifying of tacit from explicit one and vice versa based on this theory; Brahma and Chakraborty (2011) and Earl (2011) created four modes of knowledge conversion required for academic excellence such as socialization, externalization, combination and internalization; they viewed the theory as being the engine for creation and transfer processes required in a learning environment.

The theory appears to have attracted little systematic criticism, at least not in management and organizational studied literature. Brahma and Chakraborty (2011) recognized the advancement of this theory that capacity for corporate action depends on ideas and beliefs as much as on scientific knowledge. However, they criticized the theory's subjectivism as it tended towards a dangerous relativism because it justification a matter of managerial authority, and neglected the consideration on how scientific criteria related to corporate knowledge. Second, the theory was criticized to have failed to recognize the commitment of different groups to their ideas and the resulting need to resolve this conflict by managerial authority cannot bode good for creativity and innovation.

The theory bears importance in this study since it informed on how universities created, converted and transferred knowledge to students who were the most essential asset for higher learning academics. Furthermore, the theory emphasized the need for development of a country human capital as directly linked to academic resources of scholarly citizens.

Apprehension Evaluation Theory on Knowledge Retention

The apprehension evaluation theory was proposed by Nickolas and Cottrell in the year 1972. The theory advanced a way of consolidating lessons learnt from various practices as ways of synthesizing prior experiences. According to the theory, it was important to evaluate past and present learning performance as a way to satisfy stakeholders' quest for creating impact. The theory holds the view that evaluative learning assessment and practical performance had been at the top of universities agenda, specifically where state resources were invested, such as in projects and programs supported governments and development partners targeting improved academic excellence. The theory rests on the postulates that apprehension evaluation affects knowledge retention behavior of learners and leads to invalid casual interference; when learners were supposed to make choices, they were anxious about presenting themselves in a favorable light; and having a confident presentation comprised the willingness of presenting the preferred and well-adjusted responses on the social basis which referred to the social desirability concept.

Some of the proponents of the theory were Hatch and Dyer,(2014) who in their study aimed at exploring the main sources of fear and anxiety regarding negative evaluation in universities found that teachers' questions and corrections, fear of tests, and communication apprehension towards native speakers and peers were among major stressors which reduced learners overall academic performance. Gururajan and Fink (2020) who investigated the effects of exposure to others' ideas on the originality of generated ideas using functional magnetic resonance imaging (FMRI) and the results suggested that being exposed to common or moderately creative ideas was effective in improving individual creativity so was the learning innovation. Hatch and Dyer (2014) also applied the theory in assessing how members' ideas in a group would prevent individuals from contributing their own ideas, and being inspired individuals.

The theory was important in this study as it advanced the value of knowledge retention practices within the university for value creation. The theory emphasized on how the practice of knowledge retention from one individual or a firm increased reuse and creation of additional new knowledge areas or ideas suitable towards the achievements of academic excellence. Further the theory enables learner to know that rewards and punishments received were based on overall achievements of their academic evaluations.

Human Capital Theory on Knowledge Sharing

Human Capital Theory on knowledge sharing was proposed by Hatch and Dyer (2014) in his seminal paper called investment in human capital. In the knowledge-based economy, the theory viewed human resource as an invaluable asset capital that organizations including universities invested for growth. The theory sought to asserts that to invest in human capital, a competitive advantage and sustainability in the complex business world will be gained. According to the author, the theory rest on the postulates that education and training should impart skills required for learners increased productive growth as the overall assessment of academic excellent in return; and that students were considered a form of capital development.

Key proponents of the human capital theory included Hatch and Dyer (2014) who employed the HCT to advance the use of KM assets such as knowledge sharing and use in facilitating organizational innovation and better exchanges; Ramsey and Amenta (2019) also employed the HCT while explaining its effects on shairing and exploitation by IT firms; Anan et al. *(*2011) explored the use of this theory to examine its effects and the motivation of knowledge sharing practice using electronic virtual environment, proposition that students were considered a form of capital development. From this perspective, knowledge sharing between learners themselves and lecturers in a university system was deliberate towards realizing learning outcomes aimed at preparing them for future labor force, while increasing learning productivity, as well as encouraging growth and development of knowledge sharing practices.

Some of the scholars who have criticized this theory were Brahma and Chakraborty (2011), who observed that the payoffs from increased education has been an overestimated economics, as there were other social scientists and complimentary inputs seen to contribute to improved productivity and ignored research.

Earl (2011) critiqued the theory practical implications in four different perspectives of (1) methodological, (2) empirical, (3) practical and (4) moral criticisms. Other critique was the view of human beings as subjects – enterprises rather than objects aimed at maximizing utility. This argument suggests connotations of slavery as pointed out in Earl (2011). Although, moral criticisms have traditionally been a major factor in human capital, it was fast diminishing as a criticism.

The Human Capital Theory implication to the study was further emphasized on how knowledge sharing from lecturer to students and amongst students themselves increased reuse and creation of additional knowledge, and ideas required in the realization of university goal. Overall, the theory was important in this study as it advanced the value of social capital, mostly on knowledge sharing on academic excellence at higher learning institutions. It emphasized on how knowledge sharing from lecturer to students and amongst students themselves contributed to increased reuse and creation of knowledge ideas required for the realization of academic achievements.

2.3 Empirical Review

This sub-section reviewed scholarly articles in view of the study objectives. It critically examined what other scholars have written on knowledge management practices regarding knowledge acquisition, transfer, retention and knowledge sharing and their effects on academic performance among higher learning institutions.

Knowledge Acquisition (KA) Practice on Students' Academic Performance

Paulin and Suneson (2012) observed that knowledge acquisition is the processes of gaining experiences and expertise to a particular problem, more so from a subject expert to get the problem solved. In their study which assessed the effect of knowledge acquisition on performance. The study used descriptive research design and 120 sample size drawn from

university academic staff. The correlation results revealed significance and positive relationship between knowledge acquisition and operational performance. The research further acknowledged that this process of knowledge acquisition was not specific to the problem domain of the proposed problem and this was due to the facts that it was acquired from archived academic repositories such as books and human experts among others.

Maqsood et al. (2017) assessed managing knowledge and organization performance in Malaysia. They reported that bringing knowledge into the organization, either through the generation of new knowledge or re-use of those already in existence significantly influenced learners and the faculty staff ability to obtaining knowledge which could aid and support learning survival. Their study further observed that mere existence of knowledge acquisition as a management practice in the university does not automatically translate into learning success, neither did it guarantee improved overall student's academic performance.

Amayah (2020) assessed the effect of competitive advantage dependent on the knowledge creation, acquisition and exploitation among higher learning institutions. They reported that only source of sustainability among organizations was important in availing the right knowledge at the right time and place coupled with the ability for its creation, acquisition and protection, making it difficult to imitate. Similar findings were also reported by Nguyen and Burgess (2014) who observed that creation and acquisition for use was important in every organization, universities included. Therefore, the attractiveness of a higher learning institution in the level of university was largely dependent not only on the mere existence of knowledge in the system, but also on the effectiveness on how knowledge acquired is market driven.

Knowledge Transfer (KT) Practice on Students Academic Performance

In a university environment, knowledge required to improve learning amongst students can be transferred, both from faculty levels to students and amongst students themselves using various transfer techniques including lecturing sessions. Nguyen and Burgess (2014). Conducted a study to assess the internal transferring of knowledge acquired to other

external organization. According to the study, the practice enabled transmission of experiences and lessons learnt from the learners in the achievement of university overall mission and goal. The study reported that goal may not only be for the acquisition of new knowledge, but should also be aimed at providing the ability to retrieve and apply it to new situations. Thus, the study reported significant effect of assessing academic performance on academic performance in emerging market needs.

Earl (2011) assessed the university application of Knowledge transfers on academic performance at undergraduate study level. The objective of the study was the understanding and visualizing how academic performance from instructors and the learners occurs or take place. The study adopted descriptive research design with target population drawn from undergraduate students form social science faculties. The study reported significant relationship between Knowledge transfers and academic performance with understanding and visualizing showing significant contribution to academic performance.

A study to assess the different level of knowledge acquisitions and academic performance was conducted (Amaya , 2020). The study objective was to assess how learning from the experiences of lecturers and existing academic documents can improve on academic successes for undergraduate students. The study adopted cross-sectional research design, and sample size of 325 undergraduate students from public universities in Israel. The study reported significant relationship learning from the experiences of lecturers and existing academic documents on improved academic successes for undergraduate students.

Knowledge transfer (KT) involves networking and encourages close ties between lecturers and student in sharing academic knowledge. It is therefore confirmed as an act of communication between individuals in the transfer of knowledge and can be mediated by ICT in the translation of information (Frost, 2012). According to Martinkenaite (2012), knowledge transfers guarantee future success. This was so particularly in the 21st century where KT plays an important role amongst learners in competing with other life changing events ahead.

Knowledge Retention (KR) Practice on Students Academic Performance

Universities that have realized the role of knowledge retention (KR) and performance and have institutionalized processes to aid retention (Girard & Girard, 2020). According to Amayah, (2020) to guarantee KR, university lecturers make use of various teaching aid and tools such as videotaping, subject matter experts, and apprenticeship programmes, training, and stories among others. A study to assess the methods and ways of Knowledge retention was done by Wamundila (2018). They reported knowledge retention strategies involves educational aids and materials such communities of practice (CoP), network of professionals, documentations, and use of ICT has high effect on academic performance.

Egbu et al. (2015) assessed the influence of human memory ability to imperfect and forgetting on learners and teachers knowledge retention. The study argued that regardless of the nature of the materials used in deliveries and subject being taught, students are always up to these challenges and the amount of material required for mastering new knowledge areas. The study reported that while academic staffs and lecturers focus on helping students acquire new knowledge and skills, vulnerability of these knowledge was high and tend to slip away from the memory and get lost from the organization set up.

Majewski (2021) analyzed good managerial practice to establish a mechanism for capturing and retention from losses either by experts walking out or through natural attritions such as death. The study reported that knowledge retention ensures continuity, guaranteeing improved success at the same time. Study further reported that top management however, must provide incentives for shared knowledge with the society for sound innovation while filling the knowledge gaps with opportunities for staff to take advantage and learn from the experienced.

Waswa and Katana (2018) observed that competent academic staff resigns from university in large numbers for better paying jobs abroad or locally. Accordingly, the need to retain knowledge has become apparent with the understanding that it involved preservation of relevant operational knowledge. This learning emanated from the identified drivers of KR including the ever-changing workforce, demographics, employees' profile and turnover,

mobility and the need to document knowledge from within the organization, whether through learners or faculty members.

Knowledge retention involves the capture and retaining as much from expertise assets who are the students or both the teaching and nonteaching staff when they leave on successful completion of their course in case of students or for other reasons in case of staff (Dan & Sunesson, 2021). It therefore involves practices and strategies used by managers for continued availability and retention before the experts departs from the organizations for good reasons or natural attritions such as death occurs. It is the most appropriate and ideal strategy, and approaches learning institutions must develop to capture the expertise and for enhanced student academics.

Knowledge Sharing (KS) on Student's Academic Performance

While Knowledge sharing is important component of KM strategy, its management can be a challenge among practitioners. Wang and Ahmed (2016) observed that Knowldge sharing occurs when technical know-how is transferred to help others solve pertinent problems and generate new knowledge areas. Newman and Conrad (2019) analysed the daoption of technologies on university knowledge sharing and academic performnce. The study finiding showed that analysed technologies reported (that is web) offers opportunities for creating collaborative learning environments, thereby significantly enhancing learning, collaboration, and support in making correct decisions.

Nonaka and Takeuch (2011) analysed Knowledge transfer on valuable facts and concepts learned through various studies as well personal experience. The founded on the notion that sharing often happens through face-to-face or written correspondence and networks with other experts, or documentation capturing individual experiences. The study reported that education model has been arranged with teachers always acting as repository and channels for transmission of knowledge to students in classroom environment using state-of-the-art technology for ensuring that learning is practice-based and interactive-based.

The use of ICT technologies in helping students learn interractively and stimulates brainstorming and extensitve knowledge sharing was assessed by Biloslavo and

Trnavčevič (2017). Adopting Learning Management System (LMS) as management practice support sharing of knowledge among students and lecturer, the styd reported that blended learning by all means extends the learning continuum beyond classroom activities for scaled up the sharing and was observed an appropriate mix for e-learning and traditional classroom learning. Specifically, the styd found significant effect in web 2.0 technologies and other appropriate strategies of knowledge sharing, collaboration beyond the classroom setting, learning is better supported and enhanced as a consequence.

2.4 Critiques of Literature

The concepts of knowledge management have been widely studied by scholars across the globe and while there appears to be general consensus that knowledge management practices are critical to academic performance (Biloslavo & Trnavčevič, 2017) critical examination of the reviewed literature reveals the following flaws: First, researchers have embraced KM practices in building team creativity toward enhanced organization performance, ignoring knowledge acquisition techniques for student and faculty performance or roles of lecturer-students exchange. Second, reviewed literature reviewed suffered from data critiques for instance, studies by McManus and Loughridge (2020) obtained data from organization performance as opposed to academic performance. This might lead have led to drawing inappropriate conclusion, thus implementing wrong recommendations since influence of KM practices could not be evaluated basing on general view, but rather specific and independent circumstance for adequacy and appropriateness of any credible test.

The third critique is with regard to sample size. Some studies were found to be based on a smaller-scale research work, for example Newman and Conrad (2019) sample size of eight respondents, Egbu et al. (2015) sample size of 15. This might have led to wrong interpretation of data due to inadequacy in required sample size from which conclusion could be drawn. According to Ngah and Razak (2020) study, convenience sampling technique was used to collect data. This method was used but was deemed inadequate as the researchers was assumed to have been biased in selecting the sample required. Forth is that questionnaire and interviews have been used as survey tools for qualitative measurements of organization performance in the past. Therefore, performance of KM

practices has largely been evaluated based on respondent's perceptions and opinions on KM influence on institutions. According to Majewski (2021), qualitative methods have been associated with the dangers of being subjective, deceptive with biased conclusion since they depend on individual judgement which may not give the true position.

Fifth is several past studies have highlighted the disagreements of KM concepts. They have sighted failures by KM management community to agree on core issues and norms that could further future scholarly work in this subject domain. Scholars have also nor harmonized their thoughts on knowledge management terminologies and main elements. Fundamental knowledge management issues have also hampered research progress in this field due to these continuous conflicts.

Past scholarly works have reported challenges in the processes used for the identification and measurement of knowledge management as well as its application. A methodology performing evaluative role on both practice and theories of KM practices, and effects in organizations have failed to build up. Several factors were considered to have contributing effects to these failures. Firstly, was due to lacking consistency and attitude on what amounts to key performance indicators. Secondly, was the fact that KM effects were perceived to be multidimensional, a factor that inhibited identification and measurements. Reviewed literature also confirmed that different indicators were previously used to analyze KM effects on organization changes. For example, Biloslavo and Trnavčevič (2017) analyzed the KM effects on organizational learning while Tiyan (2013) study determined the extent of KM application and competitiveness in the business strategy. On contrary, most scholars anchored their research on theories such as RBV, Knowledge Conversion Theory, Adaptive Structuration Theory and Dynamic Capabilities (Kinyua, et al., 2015).

2.5 Summary of Literature Review

Lots of empirical literatures have been reviewed on KM, however, only a few can demonstrate academic performance, specifically focusing on private universities such as Metcalfe (2016). Other empirical studies hold a different view and conclusion from the past such as (Ahmadi et al., 2021). The observed correlation and regression analysis for

knowledge application positively influenced performance. Thus the creation of relevant knowledge becomes a must element for any organization which desired to remain afloat in this era of global competition. Summary of each variable is provided as follows:

Knowledge Acquisition (KA) Practice on Students' Academic Performance

Paulin and Suneson (2012) observed that knowledge acquisition is the processes of gaining experiences and expertise to a particular problem, more so from a subject expert to get the problem solved, however this is specific to the problem domain. Maqsood et al. (2017) observed that mere existence of knowledge acquisition as a management practice in the university does not automatically translate into learning success, neither did it guarantee improved overall student's academic performance. Similarly, Amayah (2020) reported source of sustainability among organizations was important in availing the right knowledge at the right time and place coupled with the ability for its creation, acquisition and protection, making it difficult to imitate.

Knowledge Transfer (KT) Practice on Students Academic Performance

In a university environment, knowledge required to improve learning amongst students can be transferred, both from faculty levels to students and amongst students themselves using various transfer techniques including lecturing sessions. Nguyen and Burgess (2014) found that goal, apart from acquisition of new knowledge, also aimed at providing the ability to retrieve and apply it to new situations. Frost (2012) reported significant relationship between Knowledge transfers and academic performance with understanding and visualizing showing significant contribution to academic performance. Similarly, to Earl (2011) who also reported significant relationship learning from the experiences of lecturers and existing academic documents on improved academic successes for undergraduate students.

Knowledge Retention (KR) Practice on Students Academic Performance

Universities that have realized the role of knowledge retention (KR) and performance and have institutionalized processes to aid retention (Girard & Girard, 2020). Amayah (2020) observed knowledge retention strategies involves educational aids and materials such communities of practice (CoP), network of professionals, documentations, and use of ICT

has high effect on academic performance. In addition, Egbu et al. (2015) observed while academic staffs and lecturers focus on helping students acquire new knowledge and skills, vulnerability of these knowledge was high and tend to slip away from the memory and get lost from the organization set up.

Knowledge Sharing (KS) on Student's Academic Performance

While Knowledge sharing is important component of KM strategy, its management can be a challenge among practitioners. Wang and Ahmed (2016) observed that Knowldge sharing occurs when technical know-how is transferred to help others solve pertinent problems and generate new knowledge areas. Newman and Conrad (2019) observed there is significant effect in use of technologies and other appropriate strategies of knowledge sharing, collaboration beyond the classroom setting and learning.

2.6 Research Gaps

Based on the reviewed scholarly work, it can be argued that KM is a critical success factor and plays key role towards academic success. However, the specific role of KM strategies and support has been largely examined from corporate perspective, concentrating mainly on corporate organization performance. Few studies and analysis appear to have been conducted on university education performance. Specifically, little evidence exists on role of knowledge management practices on academic performance targeting private universities. This was the gap that motivated the researcher in conducting this study that aimed to explain the effect of knowledge management practices on academic performance in private Universities in Kenya.

Secondly, despite the theoretical reviews, research evidences on KM practices influence on student academic performance remains scarce or completely lacking. Disseminated knowledge however, remain cited as the most effective way to innovative global competition. Their management are still ongoing proceeses for exploration as well as measurement of its effect on academic performance. According to Oakley (2019), industrial intended and unintended changes continue to take place for improved strategic innovation and the education sector is not left behind since these changes are relevant and continiously pose challenges to the whole education system transformation journey. These

development however relevant, have come with challenges which fight the struggle to transforming the whole education system and processes, including curricula, learning materials,instructional practices and stakeholders' involvements (Psarras, 2016). Therefore, it is of key importance for the learning institution such as universities to take advantage of these emerging know how in advancing the management of own information and knowledge to achieve desired mission,deliver services and cope with changes required to realize goal (Rowley, 2020).

Well managed knowledge can enhance and be re-used for improved quality learning as well as products innovation within and outside the academic environment. However, the learning institutions are still in the mode of coping with adoption and use of these KM initiatives of which most have not been fully conceptualized for productive learning quality. As such, reviewed literature suffered from conceptualization gaps, an indication resulting from limited studies in this subject domain to the extent that it could be applied to provide insights to scholarly work and contribution to academic performance. (Webster et al., 2014).

While application of knowledge management has been considered resourceful for attractiveness and competitiveness of an organization. In university education however, and more specifically the private universities, little has been reported on KM initiatives as urgent strategy in the fight to remain competitive. Scanty information existed to demonstrate private universities perception of KM successes and as priority subject. Reviewed literature have failed entirely in demonstrating KM appropriateness in transformation journey to sustained economic growth, an indication of application and strategic gap. This has affected scholarly studies and scholars have had no access to literature pool for reference where such findings have been documented, not only for professional work, but also for use in furthering future research. Further, evidence on cultural changes to learning environment due to KM integration has remained scanty (Pircher & Pausits, 2019), thus were the gaps that this study sought to fill by making further contribution to the study area

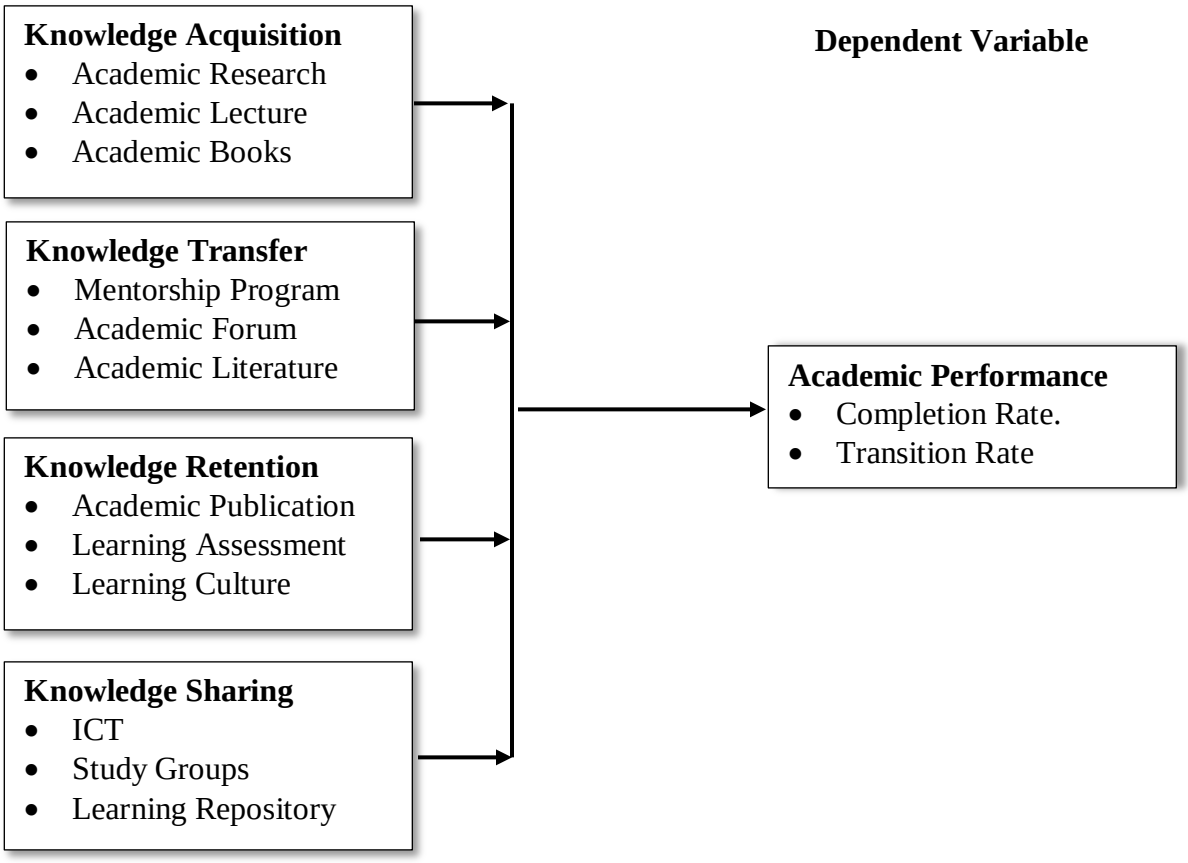
Although universities are the centers of knowledge creation by design, past studies revealed that significant proportions of these institutions have not utilized knowledge created to the fullest. This is reported as being due to poor management in data and information available from within and outside, either because they were not being efficiently collected, packaged and shared for re-use to generate new knowledge areas, thus creating management and utilization gaps that this study sought to fill. Again, universities are the repositories for valuable human capital required for KM adoption and application. These are essential to for successfully competition. While this knowledge asset resides in academic staff and student, scanty or little information existed on how it has helped improve learning environment, thus an indication of an application and engagement gap. This is a step to say that even though faculty acquire, collects and share thought on implementation of KM initiatives, it lacked clarity of the engagement and how these was used for strengthening knowledge management required for university academic performance.

In summary, KM have not been applied productively for scholarly work in effective delivering on academic excellence. It is also not clear how they helped yield benefits to the society they were meant to serve. Similarly, uuniversities across the globe continue with the basic role of generating useful knowledge which can resourcefully be utilized towards sustaining competitive advantage beyond the learning environment. Furthermore, the success of KM practices has largely depended on discipline and desire to learn without regard to integration into instructional learning design and lacked policy guidelines on the nature of interactions and the levels of engagements required towards productive scholarly work. Thus, policy gap that this study sought to fill.

Figure 2.1

Conceptual Framework

Independent Variables



The framework illustrates the existing linkages between elements of the study. The most powerful aspects of the framework were in giving detailed explanation of the influence of variables (independent and dependent variable) on each other. The framework sets out components than was used to assess the relationship between KM practices effect on academic performance. The independent are acquisition, transfer, retention and knowledge sharing while the variable providing the linkage was (dependent variable) academic performance of university students. The study causal-effect relationship is visualized as illustrated in figure 2.1.

Knowledge Acquisition (KA) and Academic Performance

KA refer to the process of identification, generation, and creation of knowledge. The acqisition of knowledge is premised on the ability of any institution to recruit human capital that can effectively impart new ideas that ecourage schorlarly discourse among students. It is also these cadre of academic intelectuals that form the basis of reference for students in their endevour to create new knowledge. In this study knowledge acqusition is conceptualized to mean the knowledge students acquire from regular class lectures, research, journals and books and how it may influence the academic performance of university students.

Knowledge Transfer (KT) and Academic Performance

KT refer to the process for transferring knowledge from university staff to students and amongst students themselves, within and external to the university system**.** Hooff and de Ridder (2011) observed knowledge transfer as conceptualized to mean the knowledge that is transferred to students in mentorship programs, academic forums and academic literature to the extent that it influences the academic performance of university students.

Knowledge Retention (KR) and Academic Performance

KR refers to all activities that preserve and enable retention of knowledge for use (Nonaka & Takeuchi, 2011). KR is conceptualized to mean that knowledge which is retained by students when publishing their academic theses, during assessments and learning culture to the extent that it influences the academic performance of university students

Knowledge Sharing (KS) and Academic Performance

KS is the process through which personal and knowledge residence in ICT data base, study groups, learning repository is shared among students. KS was conceptualized to mean knowledge that is shared by students through ICT data base, study groups, and learning repositories to the extent that it influences the academic performance of university students.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

Chapter three provides an overview of the paradigm, design, target population, sample size, sampling methods, method of data collection, and data analysis method used in the study in the sections.

3.2 Research Design

The study objective was to understand knowledge management practices effect on student's academic performance. According to Kothari (2019), these are roadmaps for the measurements, collection and data analysis. Descriptive cross-sectional survey design was used in attempt to achieve these objectives. This was appropriate in collecting data used to make deductions and conclusions about study population of interest over periodicity of occurrence. Accordingly, this answers the what, how and why about the phenomena (Sekaran & Bougie, 2013). This design will enable assessing KM effects and student academic performance. In addition, qualitative and quantitative research approaches were applied to assess perception or opinions on issues of research concerns and explain the association between variables respectively.

3.3 Target Population

According to Kothari (2019), target population is the subset of elements about which the study is designed to make inferences. A study population is a units or items that research is all about (Mugenda & Mugenda, 2003). The population target comprised postgraduate students, faculty or department heads of private chartered universities in Kenyan. According to Commission for University Education (CUE), university statistic report of 2018/2019 (See Annex V), there were 18 private chartered universities as at the end 2019, with 2,653 doctoral students and 9,966 master's students totalling to 12,919 graduate students for both masters and doctoral as at end of 2019 (CUE, 2019). Table 3.1 show the study target population of 12,919 distributed by the university.

Table 3.1:

Target Population

S/No.	University	Students		Total
		Doctorate	Masters	
1	Adventist University of Africa	123	527	650
2	Africa International University	50	239	289
3	Africa Nazarene University	20	453	473
4	Catholic University of Eastern Africa	180	749	929
5	Daystar University	69	688	757
6	Great Lake University of Kisumu	4	91	95
7	Kabarak University	130	91	221
8	KAG University	0	53	53
9	KCA University	0	661	661
10	Kenya Highlands Evangelical	0	14	14
11	Kenya Methodist University	1697	2706	4403
12	Mount Kenya University	21	828	849
13	Pan Africa Christian University	95	152	247
14	Scott Christian University	0	43	43
15	St Pauls University	42	149	191
16	Strathmore University	59	903	962
17	United States International University	124	1547	1671
18	University of Eastern Africa, Baraton	39	72	111
	Grand Total	**2,653**	**9,966**	**12,619**

Source: Commission of University Education University Statistics 2018/2019 Report (CUE, 2019)

3.4 Sample Size and Sampling Technique

Sample Size

Represents proportion of a population carefully selected including all attributes of that population. Krejcie and Morgan (1970) sample size determination table was used to determine sample size. Using the table, population size of 12,619 at 95% confidence level was 370 as the most appropriate sample size. The method minimized errors that could occur

during sampling, making it advantageous for increased accuracy. This sample size represents approximately 3% of the target population. This sample size was above the minimum 30 sample unit required for qualitative analysis (Mugenda & Mugenda, 2003).

Sampling Techniques

According to Kothari (2019), it is the identification of the specified processes by which the respondents of the sample have been selected for the purpose of a study. Stratified sampling method was used for creating strata based on universities and levels of student academics. Stratification method was used to aid in providing variance control since they are known to reduce standard errors (Sekaran & Bougie, 2013). Students were then stratified according to the university they were enrolled in to guarantee fair distribution of the sample. Weighted Proportionate Method (WPM) was then used to draw sample representative based on the weight of each stratum. Kothari define WPM as fraction of the sub-population expressed on sample size. Respondents were selected from each stratum, using simple random sampling. Responses on academic performance was obtained from the selected universities faculty/departmental heads. Respondent distribution is shown on Table 3.2.

Table 3.2:

Sampling

S/No.	University	Pop.	Weight	Total	Students	Faculty and Department heads
1	Adventist University of Africa	650	0.052	19	18	1
2	Africa International University	289	0.023	9	8	1
3	Africa Nazarene University	473	0.037	14	13	1
4	Catholic University of Eastern Africa	929	0.074	27	26	1
5	Daystar University	757	0.06	22	21	1
6	Great Lake University of Kisumu	95	0.008	3	2	1
7	Kabarak University	221	0.018	6	5	1
8	KAG University	53	0.004	1	1	1
9	KCA University	661	0.052	19	18	1
10	Kenya Highlands Evangelical	14	0.001	1	1	1
11	Kenya Methodist University	4403	0.349	129	126	1
12	Mount Kenya University	849	0.067	25	24	1
13	Pan Africa Christian University	247	0.02	7	6	1
14	Scott Christian University	43	0.003	2	1	1
15	St Pauls University	191	0.015	6	5	1
16	Strathmore University	962	0.076	28	27	1
17	United States International University	1671	0.132	49	48	1
18	University of Eastern Africa, Baraton	111	0.009	3	2	1
	Grand Total	**12,619**	**1.000**	**370**	**352**	**18**

Source: Researcher (2022)

3.5 Data Collection Methods

The study questionnaire was designed using goggle survey form. This was designed using goggle survey form and a link to the same created to serve as the data collection method to be used respondent from the respective universities spread across Kenya. The use was upon researchers' request to the Academic Registrars of selected and participating universities

to assist in availing email contacts of respondents for facilitated sharing and linkages. The created goggle survey link was then shared with respondents for filling in. Respondents were required to access the questionnaire through the link, fill in and submit on-line. This choice of the data collection method was informed by the prevailing covid-19 pandemic and Ministry of Health protocol on containment measures. In addition, most universities at the time were conducting online classes and thus accessing student physically would have been a great challenge for data collection activities.

3.6 Reliability of Data Collection

The validity and reliability of the instrument was conducted by the researcher during the pilot study test. Pilot study was conducted to allow the researcher to identify errors and make necessary modifications on the tool where necessary for enhanced accuracy, clarity and consistency of the research instruments (Mugenda & Mugenda, 2003). This was undertaken at the University of Nairobi, Main Campus because of its classification as being a chartered university, thus subscribed to the same standard as the study target population. This pilot study was conducted two weeks prior to actual data collection using sample size of 9 respondents. The aim was to give ample and required time for cleaning and possible review of the data collection instrument. Cochran reliability test in table 3.3 showed all variables scored an alpha value greater than 0.7., thus the study considered all tested questions in the final research instrument.

Table 3.3:

Reliability Test Result

Variable	Cronbach Alpha value	Verdict/Remarks
Knowledge acquisition	0.769	Reliable
Knowledge transfer	0.826	Reliable
Knowledge retention	0.702	Reliable
Knowledge sharing	0.827	Reliable
Postgraduate student academic performance.	0.826	Reliable

Source: Researcher (2022)

The instrument validity was assessed based on construct and face validity methods. The construct validity was ensured through linking the research instrument to conceptual framework constructs and the study objectives. Instrument was further subjected to expert judgement to realize the face validity. All experts favourably rated and agreed with the instrument questions as relevant and tied to research objectives.

3.7 Data Analysis Methods

In analysis, collected and gathered data was reduced to a more controllable size and analysed using statistical techniques and software to identify trends and patterns for summarized findings and reporting (Cooper & Schindler, 2014). The data was cleaned, ordered and encoded. The descriptive and inferential analysis was performed using the IBM Social Science Statistical Package (SPSS) version 27 as the analysis program. The study adopted graphical data presentation method using tables and figures/charts with brief highlights and detailed discussion of findings. Multiple regression model below was adopted for this study:

$$Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon$$

Where Y- Academic Performance

X_1 - Knowledge Acquisition

X_2 - Knowledge Transfer

X_3 - Knowledge Retention

X_4 - Knowledge Sharing

ε - Error Term

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

This is the data analysis, results presentation, and chapter for discussion on study findings. It is organized into three key sections of response rate, demographic findings, descriptive and inferential analysis results of research objectives.

4.1 Response Rate

The researchers shared the online survey questionnaires to all the 370 sampled respondents. Out of the 370 respondents, 184 expected responses were dully filled, 23 partly filled and 163 not returned. This corresponded to 49.729%, 6.2162% and 44.05% responses respectively as indicated in Table 4.1 below. Only questionnaires which were dully filled were considered for analysis, and that was a response rate of approximately 50% and within the response rate threshold of {50%} (Kothari, 2019).

Table 4.1:

Response Rate

Questionnaires	**Response**	**Percent (%)**
Returned dully filled	184	49.73
Returned partly filled	23	6.22
Not returned	163	44.05
Total	**370**	**100.00**

Source: Researcher (2022)

4.2 General Information Results

Respondents demographic variables namely gender and age, and general academic information on mode of study, study status and program enrolled in were analyzed and result of findings demonstrated as indicated below.

Demographic results

Table 4.2 illustrates result of demographic variable gender and age.

Table 4.2

Result of general information summaries

Demographic Characteristic	Category	Frequency Response	Percent Response
Gender	Female	113	61.4
	Male	71	38.6
	Sub Total	**184**	**100**
Age	Below 25 yrs	0	
	25 - 30 yrs	127	69.0
	31 - 35 yrs	29	15.8
	36 - 40 yrs	23	12.5
	41 - 45 yrs	5	2.7
	Above 45 yrs	0	0
	Sub Total	**184**	**100**

Source: Researcher (2022)

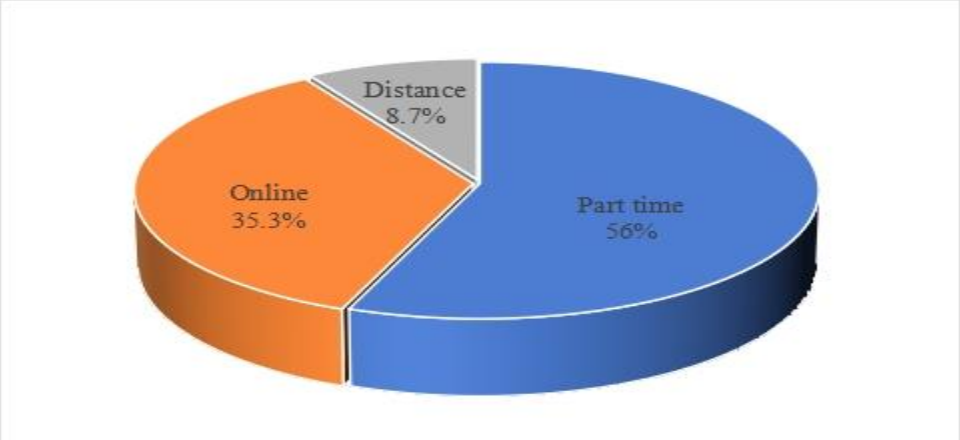
As shown in Table 4.2., majority of study participants were females accounting for 61.4% (N=113) while males accounted for 38.6% (N =71). The result suggests that more females were pursuing postgraduate education in private universities in Kenya as opposed to the males. This result could be attributed to the gender equality campaigns and the affirmative action championing for women and girl child empowerment including in the education sector. This finding contradicted the University Statistics report by CUE (2019) which showed a narrow gap in private university enrolment by gender at 52% males and 48% females. In addition, the finding indicated that Kenya is on the right path towards achieving Sustainable Development Goals (SDG-4) in line of women empowerment. SDG 4 advocates for accessible, affordable quality education regardless of whether at technical, vocational and tertiary education, including Universities (Carron & Chau, 2018).

General academic information

The respondent's mode of study was assessed on part-time, online and distance education modes. Result showed that majority of postgraduate students at 56.0% (N=103) had enrolled for part-time mode of study, followed by online mode of study at 35.3% (N=65) and distance education at 8.7% (N=16). Figure 4.1 is the representation of results.

Figure 4.1:

Result on mode of study

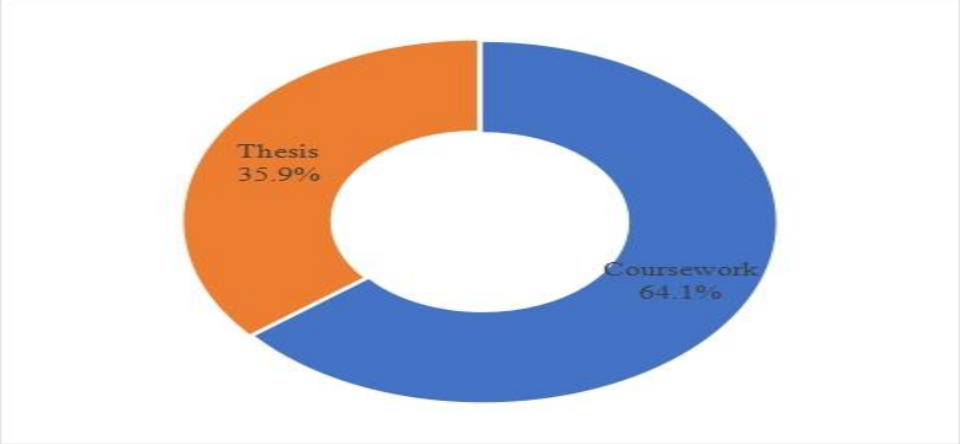


Source: Researcher (2022)

Figure 4.2:

Result on study status

The result of study status is shown in Figure 4.2.



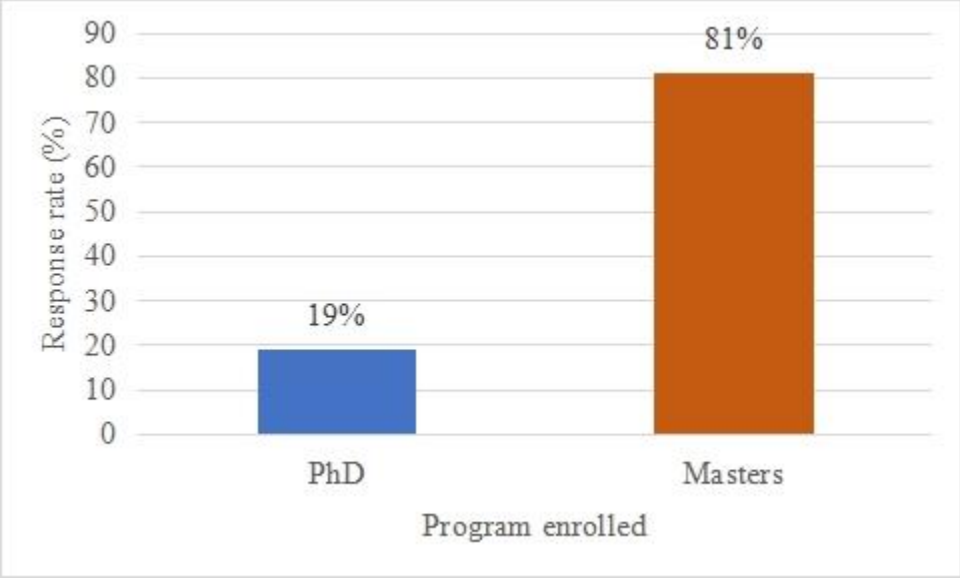
Source: Researcher (2022)

From Figure 4.2, it is clear that majority of participants at 64.1% (N=118) were in the coursework level of study, while those writing thesis or projects were at 35.9% (N=66). Result suggests that significant population of postgraduate students in private universities are at knowledge acquisition stages. This finding could be attributed to increased transition from undergraduate to Masters, and from Masters to PhD programs. The finding is supported by the CUE statistic report of 2019 which highlighted on increased enrollment of students in private universities due to Government Sponsorship.

Result of enrolment in postgraduate studies is shown in Figure 4.3. The findings revealed that 19.0% (N=35) participant were studying PhD, while 81.0% (N=149) were on Master Program. It showed there were four times as many Masters students as compared to PhD student. The finding was in agreement with University Statistics report which reported PhD students in private universities at 2,822 against Masters students at 10,272 (CUE (2019), almost five times as many Masters as PhD students.

Figure 4.3:

Result of Program Enrolled



Source: Researcher (2022)

4.3 Descriptive results

Descriptive results on knowledge management constructs and elements organized by specific objective and themes were captured in these sub chapter.

Knowledge acquisition and academic performance in private universities

The study aimed to establish the effect of knowledge acquisition on postgraduate academic performance of private universities in Kenya. Six item on a scale of 1 to 5 (5 denoted Strongly Agree, 4 denoted Agree, 3 denoted Indifference, 2 denoted Disagree and 1 denoted Strongly Disagree) were posed to the respondents asking them to state the levels in which they agreed or were in disagreement. Descriptive analysis was performed, and results of frequency, mode, mean and standard deviation are shown Table 4.3.

Table 4.3:

Respondents agreement with knowledge acquisition questions

Statement	Majority response		Mean	Mode	Std. Dev
	Category	%			
In my university, we look for research materials from similar earlier projects prior to beginning a new project	Strongly agree	42.4	4.15	5	0.972
In my university, looking for research materials from similar earlier projects is a required part of student projects	Strongly agree	53.3	4.37	5	0.865
In my university, new knowledge and other learning areas are acquired through academic lectures and instructions.	Agree	46.7	3.58	4	1.142
In my university, knowledge and other learning areas are acquired through students assignment and case studies	Strongly agree	55.3	4.77	5	1.238

In my university, we infer knowledge from varied academic source for both existing and new research topics.	Agree	37.0	3.82	4	1.154
In my university, we have repository for academic references which are relevant and updated for learning and research purposes	Agree	38.6	3.43	4	1.304

Source: Researcher (2022)

Table 4.3 results shows majority of respondents being in strong agreement that they conduct review of past research materials prior to beginning a new project (42.4%; μ=4.15, Mo=5); strong agreement that review of past research materials is a required part of student's work (53.3%; μ=4.37, Mo=5); agreement that new knowledge and other learning areas are acquired through academic lectures and instructions (46.7%; μ=3.58, Mo=4); strong agreement that knowledge and other learning areas are acquired through students assignment and case studies (55.3%; μ=4.77, Mo=5); agreement that they (students) infer knowledge from varied academic source for both existing and new research topics (37.0%; μ=3.82, Mo=4); and agreement that their universities have repository for academic references which are relevant and updated for learning and research purposes (38.6%; μ=3.43, Mo=4).

These findings implied that private universities in Kenya, as part of knowledge acquisition, encouraged students to review past research materials from similar studies prior to beginning a new project as an academic requirement. In addition, new knowledge and other learning areas were acquired through academic lectures and instructions, student's assignment and case studies. Students were further encouraged to infer knowledge from varied academic source, including university repository which was relevant and updated - for learning and research purposes. The finding was in agreement with Frost, (2012) study which reported that knowledge acquisition sources included expert's views, books, documents, sensors or computer files and personal experiences. Similarly, Oakley (2019) study supports this finding by observing that knowledge acquisition was achieved either

through the generation of new knowledge or re-use of the existing knowledge, as in the study case being review of past research materials.

Knowledge transfer and academic performance in private universities

The second objective ascertained the influence of knowledge transfer on postgraduate academic performance of private universities in Kenya. Table 4.4 illustrates the descriptive analysis result of respondent's feedback.

Table 4.4:

Respondents agreement with knowledge transfer questions

	Majority response				
Statement	**Category**	**%**	**Mean**	**Mode**	**Std. Dev**
My university we participate in student-to-student and collaboration peer studies for knowledge exchange.	Agree	62.0	3.46	4	0.848
My university we participate in university-industry collaboration programs for student placement and mentorship	Agree	51.1	3.76	4	0.935
My university we participate in student-to-student academic fora for knowledge exchange.	Agree	45.1	3.33	4	0.826
My university we participate in university-industry academic fora for student mentorship	Agree	46.2	3.48	4	1.159
My university has existing academic literature access for enhance knowledge transfers.	Strongly agree	52.2	4.18	5	1.05

My university we contribute to the academic literature through publication of our learning materials in the knowledge repository.	Strongly agree	60.3	4.27	5	1.086

Source: Researcher (2022)

Descriptive result for knowledge transfer shows agreement among majority of respondents that they indeed participated in student-to-student and collaboration peer studies for knowledge exchange (62.0%; μ=3.46, Mo=4); agreement that they participated in university-industry collaboration programs for student placement and mentorship (51.1%; μ=3.76, Mo=4); agreement that they participated in student-to-student academic fora for knowledge exchange (45.1%; μ=33.3, Mo=4); agreement that they participated in university-industry academic fora for student mentorship (46.2%; μ=3.48, Mo=4); strong agreement that their universities have existing academic literature access for knowledge transfers (52.2%; μ=4.18, Mo=5); and strong agreement that they contributed to the academic literature through publication of learning materials in the knowledge repository (60.3%; μ=4.27, Mo=5).

These findings implied that in private universities, knowledge transfer is promoted through participation in student-to-student and collaboration peer studies for knowledge exchange, participation in university-industry collaboration programs for student placement and mentorship, and participation in student-to-student academic fora for knowledge exchange. In addition, participation in university-industry academic fora for student mentorship, access to academic literature and publication of leaning materials are means of enhancing knowledge sharing. The findings were in agreement with Earl (2011) who reported that the is university is not only the business of acquiring of new knowledge, but should have the ability to retrieve and apply the same in problem situations. As such, knowledge transfer involves networking and close ties between lecturers and student on collaborative studies including communication with industries and expert individuals in the transfer that can be mediated by technology.

Knowledge retention and academic performance in private universities

The study third objective for establishing the influence of knowledge retention on postgraduate academic performance of private university students in Kenya. Six item statements were developed and respondents provided their level of agreement or disagreement based on based likert scale (5 denoted Strongly Agree, 4 denoted Agree, 3 denoted Indifference, 2 denoted Disagree and 1 denoted Strongly Disagree). Result of descriptive analysis are shown Table 4.5.

Table 4.5:

Respondents agreement with knowledge retention questions

Statement	Majority response		Mean	Mode	Std.Dev
	Category	%			
My university, academia research document and materials must be published for knowledge retention.	Agree	47.3	3.81	4	1.025
My university, we must published our research project or thesis findings in international peer-reviewed journals as a requirement for degree award.	Agree	54.3	3.49	4	1.14
My university, we participate in faculty organized learning assessments (e.g. seminars, workshops, conferences) both faculty specific and inter-faculties.	Agree	41.3	3.63	4	1.124
My university, learning assessment is a routine practice for my department in gauging our knowledge retention.	Agree	35.9	3.52	4	1.289
My university, publication, conferences, workshops, seminars e.t.c. is a learning culture towards knowledge retention.	Agree	45.7	3.32	4	1.107

My university, we frequently contributes to faculty reviews and magazines as part of university tradition	Strongly agree	57.1	4.2	5	1.053

Source: Researcher (2022)

Table 4.6 results illustrate the respondents agreement that academia research document and materials must be published for knowledge retention (47.3%; μ=3.81, Mo=4); agreement that students must published their research project or thesis findings in international peer-reviewed journals as a requirement for postgraduate degree award (54.3%; μ=3.49, Mo=4); agreement that they (students) participated in faculty organized learning assessments (such as seminars, workshops, conferences e.t.c) both faculty specific and inter-faculties (41.3%; μ=3.63, Mo=4); agreement that learning assessment is a routine practice for gauging department's knowledge retention (35.9%; μ=3.52, Mo=4); agreement that the university learning culture towards knowledge retention is promoted through publication, conferences, workshops, seminars amongst others (45.7%; μ=3.32, Mo=4); and strong agreement that they (students) contributed frequently to faculty reviews and magazines as part of university tradition (57.1%; μ=4.20, Mo=5).

The results suggest that in private universities in Kenya, knowledge retention is promoted through publication of academic research documents and materials, both in university repository and international peer-reviewed journals, participation in faculty organized learning assessments; gauging of departmental learning retention; promotion of culture of publication, seminars, conferences, workshops e.t.c; and contribution to faculty review. These results are in tandem with Oakley (2019) reporting that university lecturers enhanced knowledge retentions through use of various media such as videotaping, use of subject matter experts among others. Additionally, Wamundila (2018) corroborates the finding by reporting strategies of knowledge retentions as involving use of education training and establishing communities among others to capture work processes.

Knowledge sharing and academic performance in private universities

Objective four was to establish the effect of knowledge sharing on postgraduate academic performance of private universities in Kenya. Respondents rated their agreement on six item statements on a likert scale with 5 denoted Strongly Agree and 1 Strongly Disagree. Table 4.6 shown the descriptive analysis and results.

Table 4.6:

Respondents agreement with knowledge sharing questions

Statement	Majority response		Mean	Mode	Std.Dev
	Category	%			
The university has various ICT platform for enhanced internal sharing (e.g. student-to-student and lecturer-to-students and vice versa e.t.c) of academic materials.	Strongly agree	45.7	4.1	5	1.02
The university has ICT platforms for linkages with industry for knowledge sharing and job market orientation.	Strongly agree	58.7	4.25	5	1.083
My university, we participate in peer-to-peer organized learning (e.g. case studies e.t.c) both faculty specific and inter-faculties.	Agree	43.5	3.1	4	1.067
My university, we participate inter-university and industry organized learning (e.g. collaborative research e.t.c) for knowledge sharing.	Agree	50.0	3.28	4	0.877
My university has learning repository archive for knowledge sharing.	Agree	39.1	3.16	4	0.95

The university learning repository archive is accessible, updated for academic learning.	Agree	38.6	3.15	4	1.032

Source: Researcher (2022)

Descriptive results shown in Table 4.6 illustrates that respondents were in agreement that their institutions have various ICT platform for enhanced internal sharing (e.g. student-to-student and lecturer-to-students and vice versa e.t.c) of academic materials (45.7%; μ=4.10, Mo=5); agreement that their institutions ICT platforms had linkages with industry for knowledge sharing and job market orientation (58.7%; μ=4.25, Mo=5); agreement that they (students) participate in peer-to-peer organized learning (e.g. case studies e.t.c) both faculty specific and inter-faculties (43.5%; μ=3.10, Mo=4); agreement that students participate inter-university and industry organized learning (e.g. collaborative research e.t.c) for knowledge sharing (50.0%; μ=3.28, Mo=4); agreement that their universities have learning repository archive for knowledge sharing (39.1%; μ=3.16, Mo=4); and agreement that their institution's learning repository archive are accessible and updated for academic learning (38.6%; μ=3.15, Mo=4).

The results suggest that private universities in Kenya promoted knowledge sharing through various ICT platforms for enhancing internal sharing of academic materials; linkages with industry for knowledge sharing and job market orientation; students participation in peer-to-peer organized learning both faculty specific and inter-faculties; students participation in inter-university and industry organized learning for knowledge sharing; and providing accessible and updated academic learning repository archive. These results are in concurrence with Lam et al. (2011) who identified knowledge sharing as occurring through many forms such as communications face-to-face, or documentation among others, organizing and capturing other individual knowledge. This; corroborated with Tarik and Karim (2011) who noted technologies such as web for creating collaborative learning environments and a means for fostering meaningful learning outcome, and allow sharing on a global scale.

Academic performance of postgraduate students in private universities in Kenya

Academic performance of postgraduate students in private universities in Kenya was the dependent variable. This was assessed on six parameters of which faculty and departmental heads rating the agreement level on based on likert scale of 1 - 5. Table 4.7 presents the descriptive analysis and result.

Table 4.7:

Respondents agreement with academic performance questions

Statement	Majority response		Mean	Mode	Std.Dev
	Category	%			
The number of postgraduate students admission in my faculty or department has been rising steadily over the past five years	Strongly agree	38.6	3.91	5	1.044
The postgraduate students completion rate in my faculty or department has been rising steadily over the past five years.	Agree	34.2	3.79	4	1.014
The population of undergraduate students transiting to master program to has been rising in the faculty or department	Agree	40.2	3.79	4	0.953
The population of masters program students transiting to doctorate program to has been rising in the faculty or department.	Agree	35.3	3.46	4	0.98
The population of doctorate students transiting to post-doctoral doctorate	Indifferent	31.0	3.7	3	1.042

fellowship has been rising in the university						

Source: Researcher (2022)

Table 4.7 results indicate that faculty/department respondents' as being in strong concurrence and agreement that postgraduate students admission has been on the rise over the last five years (38.6%; μ=3.91, Mo=5); agreement that postgraduate students completion rate has been on the rise over the last five years (34.2%; μ=3.79, Mo=4); in agreement that population of undergraduate students transiting to master program to has been rising in the faculty or department (40.2%; μ=3.79, Mo=4); agreement that population of master's program students transiting to doctorate program to has been rising in the faculty or department (35.3%; μ=3.46, Mo=4); and neither agreed nor disagreed (indifferent) that that population of doctorate students transiting to post-doctoral doctorate fellowship has been rising in the university (31.0%; μ=3.70, Mo=3).

These results indicate that post graduate student's performance in private universities in Kenya have recorded an increased number of student's admission in the past five years; rise in postgraduate student completion rate, rise in rate of student's transition from undergraduate to master's programs and from masters to doctoral programs. This increase could be due to placement of government-sponsored students by KUCCPS, which started in 2016 as previously observed. The finding is in collaboration with statistical report by Commission for University Education (CUE, 2019) which reported transition of Masters Students to PhD with significant improvement to the ratio of 4:1 as compared to 2016 where the ratio was 6:1.

4.4 Inferential results

Inferential results for correlation and regression are illustrated in this section. Pearson correlation was applied in establishing the strength and nature of relationship between independent variable (KM practices) and dependent constructs. Equally, the researcher applied multiple regression approach to aid in explaining the interdependency in these two variables.

Result of Pearson correlation

The strength and nature of relationship between knowledge management elements with post graduate academic performance was established using Pearson correlation analysis. Table 4.8 presents correlation alongside the level significant.

Table 4.8:

Result of correlation analysis

Parsons Correlation		Academic Performance	Knowledge Acquisition	Knowledge Transfer	Knowledge Retention	Knowledge Sharing
Academic	Correlation	1				
Performance	Sig. (2-tailed)					
Knowledge	Correlation	.044	1			
Acquisition	Sig. (2-tailed)	.553				
Knowledge	Correlation	.252**	-.007	1		
Transfer	Sig. (2-tailed)	.001	.922			
Knowledge	Correlation	-.034	-.045	.297**	1	
Retention	Sig. (2-tailed)	.644	.541	.000		.
Knowledge	Correlation	.485**	-.001	.192**	.070	1
Sharing	Sig. (2-tailed)	.000	.986	.009	.348	

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

Source: Researcher (2022)

From Table 4.8, postgraduate academic performance had very weak positive and insignificant correlation with knowledge acquisition (r=0.044, p=0.553), strong positive and significant correlation with knowledge transfer (r=0.252, p=0.001); very weak negative and insignificant correlation with knowledge retention (r=-0.034, p=0.644); and strong positive and significant correlation with knowledge sharing (r=0.485, p<0.001). In addition, result indicated that there was a positive and significant correlation between knowledge retention with knowledge transfer (r=0.297, p=<0.001) and knowledge sharing with knowledge transfer (r=0.192, p=0.009). All correlations are significant at 95% significant level.

The results further illustrated that knowledge transfer and knowledge sharing significantly vary with postgraduate academic performance in private universities. In addition, knowledge retention negatively affects postgraduate academic performance; however, the effect is insignificant. These results contradict result of a study by Agarwal and Tanniru (2009), which reported significantly strong relationship between knowledge acquisition and operational performance of Canadian universities.

Result of Multiple Regression

The multiple regression was performed to establish the interdependency existing for KM and postgraduate academic performance in private universities. The adopted and analyzed multiple regression model is explained in chapter three para 3.4. The result of model coefficient of determination, ANOVA and coefficients are presented and discussed below.

Result of coefficient of determination (R^2)

Model summary result are provided in Table 4.9 and gives R value of R=0.527, R-square value of R^2=0.278 and adjusted R-square value of AdjR^2=0.262 with Standard Error of Estimates SEE=0.563. The result of R-square, that is, coefficient of determination showed that 27.8% variation in postgraduate academic performance in private universities can be attributed to knowledge management (Knowledge Sharing, Knowledge Acquisition, Knowledge Retention, Knowledge Transfer). Other factors not addressed by the study accounted for 72.2%.

Table 4.9:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527[a]	.278	.262	.563

a. Predictors: (Constant), Knowledge Sharing, Knowledge Acquisition, Knowledge Retention, Knowledge Transfer

Result of Analysis of Variance (ANOVA)

Table 4.10 present result of test for the goodness of fit for the study model adopted using Analysis of Variance (ANOVA). The result showed lower sum of square of regression 21.788 with a mean square of 5.447, compared to sum of square of residual 56.669 with mean square of 0.317. The resultant F-value is 17.205, $p<0.001$. The computed F statistics is therefore noted as greater than critical F-value (df 4,179) = 2.46. The higher F-value implies the model fit or goodness for the study and at least one of the independent variables (Knowledge Sharing, Knowledge Acquisition, Knowledge Retention, Knowledge Transfer) explains the dependent variable (Academic Performance).

Table 4.10

Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.788	4	5.447	17.205	.000b
	Residual	56.669	179	.317		
	Total	78.457	183			

a. Dependent Variable: Academic Performance

b. Predictors: (Constant), Knowledge Sharing, Knowledge Acquisition, Knowledge Retention, Knowledge Transfer

Results of regression coefficients (β)

Results of regression coefficients presented in is Table 4.11 explain the partial effect or change factor on dependent variable attributable to the independent variable.

Table 4.11:

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**T**	**Sig.**
1	(Constant)	1.244	.469		2.651	.009
	Knowledge Acquisition	.043	.067	.040	.636	.526
	Knowledge Transfer	.250	.084	.202	2.982	.003
	Knowledge Retention	-.109	.058	-.124	-1.862	.064
	Knowledge Sharing	.490	.070	.455	7.033	.000

a. Dependent Variable: Academic Performance

The result shows a constant value of 1.244 which denotes the performance level not attributable to any variable analyzed. Additional result shows that knowledge acquisition had a standardized beta value of $\beta = 0.040$ ($p=0.526$), knowledge transfers $\beta = 0.202$ ($p=0.03$), knowledge retention $\beta = -0.124$ ($p=0.064$), and knowledge sharing $\beta = 0.455$ ($p=<0.001$).

The results suggest that knowledge acquisition had an insignificant positive factor change on postgraduate academic performance; knowledge transfer had a significant positive factor change on postgraduate academic performance; knowledge retention had an insignificant negative factor change on postgraduate academic performance; and lastly knowledge sharing had significant factor change on postgraduate academic performance. Therefore, these finding implies that knowledge transfers and knowledge sharing have significant positive influence on postgraduate academic performance, while knowledge acquisition has insignificant contribution. In addition, knowledge retention has insignificant negative contribution on postgraduate academic performance.

Test of Research Hypothesis

The study applied non-parametric t-statistic to test the hypothesis. Table 4.12 provide summary of results and research verdict.

Table 4.12:

Summary of test of hypothesis results

S/No.	Null Hypothesis	Test Result	Verdict
1	**$H0_1$:** Knowledge acquisition has no influence on academic performance of university students in Kenya	t=0.636, P=0.526	Since the t-cal is < t-crit, and p-value > 0.05, **Accept null hypothesis**.
2.	**$H0_2$:** Knowledge transfer has no influence on academic performance of university students in Kenya.	t=2.982, p=.003	Since the t-cal is > t-crit, and p-value < 0.05, **Reject null hypothesis.**
3.	**$H0_3$:** Knowledge retention has no influence on academic performance of university students in Kenya.	t=-1.862, p=.064	Since the t-cal is < t-crit, and p-value > 0.05, **Accept null hypothesis**.
4.	**$H0_4$:** Knowledge sharing has no influence on academic performance of university students in Kenya.	t=7.033, p<.0001	Since the t-cal is > t-crit, and p-value < 0.05, **Reject null hypothesis.**

*Critical t-value at df=4, two tailed at 95% Confidence level is 2.78

The results of analysis and test of hypothesis shows knowledge transfer and Knowledge sharing significantly influenced academic performance of postgraduate students in private university in Kenya. However, the study failed to accept the second and forth null hypotheses. Further results showed knowledge acquisition and retention as having no significant influence on academic performance of postgraduate students in private university in Kenya. As such, the study accepted the first and third null hypotheses. These results therefore, implies there existed significant influence of knowledge transfer and sharing on academic performance of postgraduate students, while knowledge acquisition and knowledge retention do not significantly influence academic performance of postgraduate students in private universities in Kenya

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This wraps-up the study and present summaries of major findings based on objectives, as well as conclusions and recommendations. The chapter also makes recommendation for further studies.

5.1 Summary of Major Findings

Knowledge acquisition and academic performance in private universities

This first objective established the effect of knowledge acquisition on academic performance of postgraduate students in private university in Kenya. Objective findings showed that knowledge acquisition was enhanced in private universities through: encouraging students to conduct research materials from similar studies prior to beginning a new project, which was also required part of student's work; acquires new knowledge and other learning areas through academic lectures and instructions, students assignment and case studies; encouraging students to infer knowledge from varied academic source, including university repository which were relevant and updated for learning and research purposes. In addition, knowledge acquisition had very weak positive and insignificant correlation with postgraduate academic performance, a unit change in knowledge acquisition would cause an insignificant factor change of 0.040 on postgraduate academic performance.

Knowledge transfer and academic performance in private universities

The second objective ascertained the influence of knowledge transfer on academic performance of postgraduate students in private university in Kenya. Key findings showed knowledge sharing was promoted through encouraging participation in student-to-student and collaboration peer studies for knowledge exchange; participation in university-industry collaboration programs for student placement and mentorship; and participation in student-to-student academic fora for knowledge exchange. Others included access to academic literature and publication of leaning materials as means of enhancing knowledge sharing. In addition, knowledge transfer had strong positive and significant correlation with

postgraduate academic performance, a unit change in knowledge transfer would cause a significant factor change of 0.202 on postgraduate academic performance.

Knowledge retention and academic performance in private universities

This study third objective ascertained the influence of knowledge retention on academic performance of postgraduate students in private university in Kenya. Major findings showed knowledge retention was promoted through publication of academic research documents and materials, both in university depository and international peer-reviewed journals; participation in faculty organized learning assessments; gauging of departmental learning retention; promotion of culture of publication, seminars, conferences, workshops; and contribution to faculty review. In addition, knowledge retention had a very weak negative and insignificant correlation with postgraduate academic performance, a unit change in knowledge retention would cause an insignificant negative factor change of -0.124 on postgraduate academic performance.

Knowledge sharing and academic performance in private universities

This fourth objective established the effect of knowledge sharing on academic performance of postgraduate students in private university in Kenya. Findings revealed knowledge sharing was enhanced through various ICT platforms for enhanced internal sharing of academic materials; forming linkages with industry for knowledge sharing and job market orientation; student participation in peer-to-peer organized learning both faculty specific and inter-faculties; student's participation in inter-university and industry organized learning for knowledge sharing; and providing accessible and updated academic learning repository archive. In addition, knowledge sharing had strong positive significant correlation with postgraduate academic performance, a unit change in knowledge sharing would cause a significant factor change of 0.455 on postgraduate academic performance.

Academic performance of postgraduate students in private universities in Kenya

Key results pointed that post graduate student's performance in private universities in Kenya had recorded an upward trend in the number of postgraduate student's admission over the last five years; rise in postgraduate student completion rate, rise in rate of student's transition from undergraduate to masters' programs and from masters to doctoral programs.

In addition, 27.8% variation in postgraduate academic performance in private universities could be attributed to KM practices of sharing, acquisition, retention, and transfer.

5.2 Conclusions

The study formulated four null hypotheses which helped drew this conclusion from the findings: Knowledge transfer and knowledge sharing had significant influence on academic performance of postgraduate students in private university in Kenya; while knowledge acquisition and retention had no significant influence on academic performance of postgraduate students in private university in Kenya. Specific objective conclusions were:

Knowledge acquisition

The study concludes that knowledge acquisition enhanced academic performance of postgraduate students in private university in Kenya through: encouraging students to conduct research, acquires new knowledge and other learning areas, infer knowledge from varied academic source. In general, however, Knowledge acquisition had no significant effect on academic performance of postgraduate students in private university in Kenya.

Knowledge transfer

The study concludes that Knowledge transfer enhanced academic performance of postgraduate students in private university in Kenya through participation in student-to-student and collaboration, university-industry collaboration programs for student placement and mentorship; and participation in student-to-student academic fora for knowledge exchange. In general, this contribution had significant effect on academic performance of postgraduate students in private university in Kenya

Knowledge retention

The study concludes that Knowledge retention was promoted through publication in university repositories and international journals; participation in learning assessments; and promotion of culture. In general, however, this influence did not significantly contribute to academic performance of postgraduate students in private university in Kenya.

Knowledge sharing

The study concludes that knowledge retention was enhanced through various technology adoption, linkages with industry, participation in peer-to-peer organized learning accessible to academic learning repository archive. Overall, knowledge sharing had significant effect of on academic performance of postgraduate students in private university in Kenya.

5.3 Recommendations

Knowledge acquisition

Based on the conclusion that Knowledge acquisition did not have significantly influence on student academic performance, the study recommends that researchers put more emphasis on methodologies and measures of knowledge acquisition as a way of improving knowledge management practices and the resultant effect on academic performance.

Knowledge transfer

Based on the conclusion that knowledge transfer had significant effect on academic performance of postgraduate students in private university in Kenya, the study recommends that management and leadership of private universities continuously strengthen the application and methodologies of knowledge transfer practices. This. Its observed will be the best way forward in enhancing the resultant effect on academic performance. Lastly, the study was conducted in private charted universities in Kenya, therefore similar efforts should be extended to public universities for comprehensive contribution to the desired learning outcomes in Kenyan education sector.

Knowledge retention

Knowledge retention influence did not have significant contribution to academic performance of postgraduate students in private university in Kenya. Therefore, the study recommends that future research put more emphasis on methodologies and measures of knowledge retention as a way of improving students' academic performance.

Knowledge sharing

Based on the conclusion that knowledge sharing had significant effect on academic performance of postgraduate students in private university in Kenya, the study recommends that management and leadership of private universities continuously strengthen the application and methodologies of knowledge sharing. It is observed this will be the best way forward in enhancing the resultant effect of knowledge sharing on academic performance. Lastly, the study was conducted in private charted universities in Kenya, therefore similar efforts should be extended to public universities for comprehensive contribution to the desired learning outcomes in Kenyan education sector.

5.4 Suggestions for further studies

Although the objectives were achieved, a critical finding that emerged regarding the negative insignificant influence of knowledge retentions on academic performance needed to be further interrogated and researched. The study, therefore, recommend further research to explain this negative effect. The findings also established that knowledge management practices only accounts for 27.8% variation in postgraduate academic performance in private universities. This implied that remaining variation of 72.2% could be attributed to other factors external or those not analyzed for this particular study. Further research and analysis were therefore recommended to explore these factors.

Lastly, the study was conducted in private charted universities in Kenya. Equally, similar study should be extended to public universities for comparative and complimentary conclusions.

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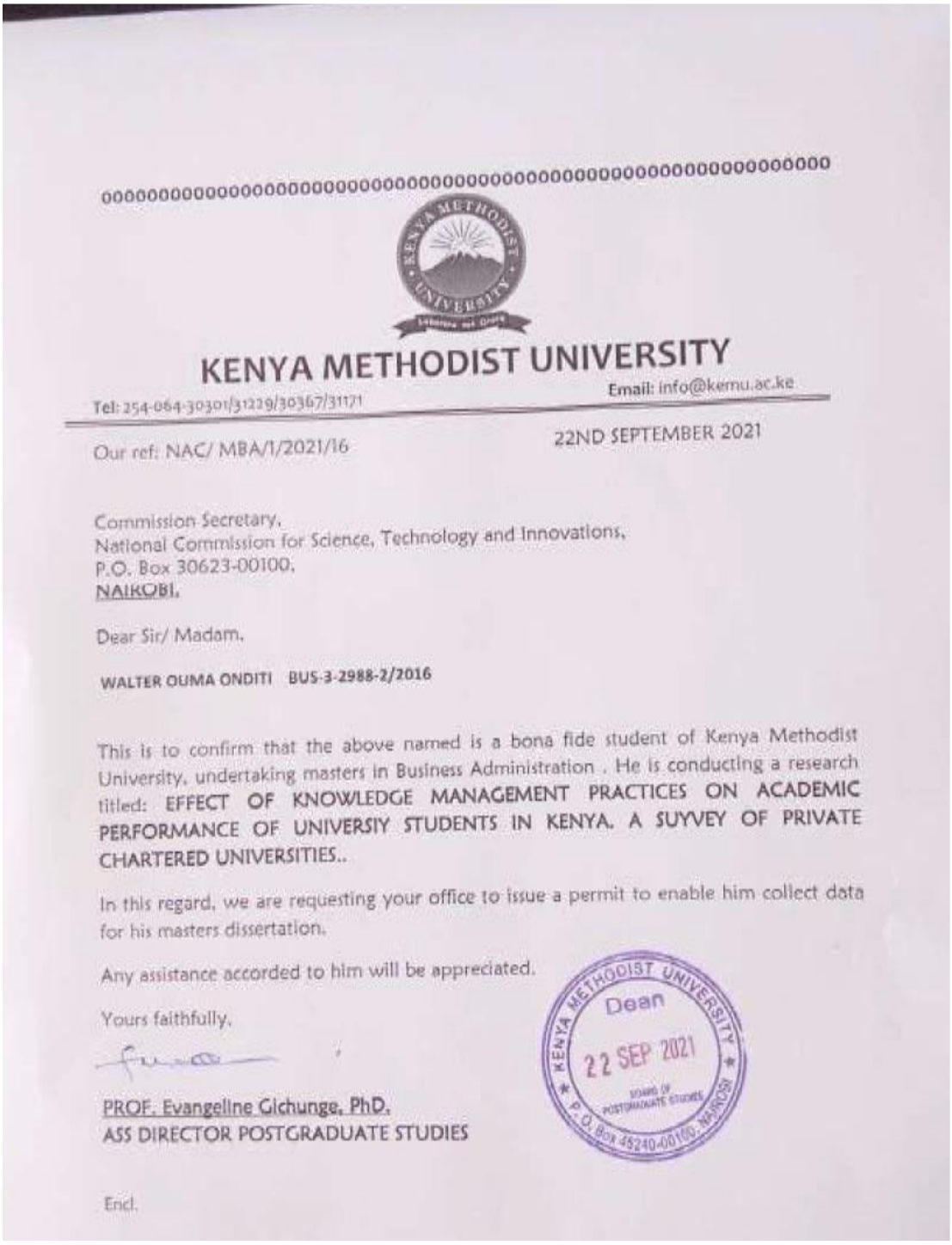
APPENDICES

Appendix 1: Letter of Introduction



KENYA METHODIST UNIVERSITY

Tel: 254-064-30301/31229/30367/31171 Email: info@kemu.ac.ke

Our ref: NAC/ MBA/1/2021/16 22ND SEPTEMBER 2021

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

Dear Sir/ Madam,

WALTER OUMA ONDITI BUS-3-2988-2/2016

This is to confirm that the above named is a bona fide student of Kenya Methodist University, undertaking masters in Business Administration . He is conducting a research titled: **EFFECT OF KNOWLEDGE MANAGEMENT PRACTICES ON ACADEMIC PERFORMANCE OF UNIVERSIY STUDENTS IN KENYA. A SUYVEY OF PRIVATE CHARTERED UNIVERSITIES..**

In this regard, we are requesting your office to issue a permit to enable him collect data for his masters dissertation.

Any assistance accorded to him will be appreciated.

Yours faithfully,

PROF. Evangeline Gichunge, PhD.
ASS DIRECTOR POSTGRADUATE STUDIES

KENYA METHODIST UNIVERSITY Dean 22 SEP 2021 BOARD OF POSTGRADUATE STUDIES P.O. Box 45240-00100, MERU/ROSE

Encl.

Appendix II: Research Questionnaire for Postgraduate Students

Section A: General Information

i.	Age	Under 25 yrs. ( ) 25-30 yrs. ( ) 31-35 yrs ( ) 36-40 yrs ( ) 41-45 yrs. ( ) Above 45 yrs ( )
ii.	Gender	1. Male ( ) 2. Female ( )
iii.	Mode of Study i.e. Students	Part time ( ) Online ( ) Distance (Open) ( )
iv.	Study status	Coursework ( ) Thesis/Project ( )
v.	Program Enrolled	Masters. ( ) PhD. ( )
Vii.	Which faculty are you in (Specify)	……..

SECTION B: KNOWLEDGE MANAGEMENT PRACTICES ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS IN KENYA

Knowledge Acquisition

Using the scale provided indicate the extent to which you agree with the listed questions on knowledge acquisition.

Scale: 5 - Strongly agree; 4 - Agree; 3 - Indifference; 2 - Disagree 1- Strongly disagree A – I do know

Item Questions	1	2	3	4	5	A
In my university, we look for research materials from similar earlier projects prior to beginning a new project						
In my university, looking for research materials from similar earlier projects is a required part of student projects						
In my university, new knowledge and other learning areas are acquired through academic lectures and instructions.						
In my university, knowledge and other learning areas are acquired through students assignment and case studies						

In my university, we infer knowledge from varied academic source for both existing and new research topics.						
In my university, we have repository for academic references which are relevant and updated for learning and research purposes.						

Briefly highlight the means through which you acquire materials for academic research

……

……

…….

Briefly highlight how lectures, instructions, assignments and case studies contributes to how you acquire new knowledge……..

……

……

……

Briefly explain how you ensures the relevancy and currency of academic material you sourced from academic repositories.……

……

……

…….

Knowledge Transfer

Using the scale provided indicate the extent to which you agree with the listed questions on knowledge acquisition.

Scale: 5 - Strongly agree; 4 - Agree; 3 - Indifference; 2 - Disagree 1- Strongly disagree A – I do know

Item Questions	**1**	**2**	**3**	**4**	**5**	**A**
My university we participate in student-to-student and collaboration peer studies for knowledge exchange.						

My university we participate in university-industry collaboration programs for student placement and mentorship.						
My university we participate in student-to-student academic fora for knowledge exchange.						
My university we participate in university-industry academic fora for student mentorship.						
My university has existing academic literature access for enhance knowledge transfers.						
My university we contribute to the academic literature through publication of our learning materials in the knowledge repository.						

Briefly explain how mentorship programs have contributed to your leaning and research experience

……

……

…….

Briefly explain how academic fora attended have contributed to your learning experience

……..

……

……

……

Briefly explain how you academic literature have contribution to knowledge transfer through the university repositories …….

……

……

…….

Knowledge Retention

Using the scale provided indicate the extent to which you agree with the listed questions on knowledge retention.

Scale: 5 - Strongly agree; 4 - Agree; 3 - Indifference; 2 - Disagree 1- Strongly disagree A – I do know.

Item Questions	1	2	3	4	5	A
My university, academia research document and materials must be published for knowledge retention.						
My university, we must published our research project or thesis findings in international peer-reviewed journals as a requirement for degree award.						
My university, we participate in faculty organized learning assessments (e.g. seminars, workshops, conferences) both faculty specific and inter-faculties.						
My university, learning assessment is a routine practice for my department in gauging our knowledge retention.						
My university, publication, conferences, workshops, seminars e.t.c. is a learning culture towards knowledge retention.						
My university, we frequently contributes to faculty reviews and magazines as part of university tradition.						

Briefly explain how academic publication have contributed to your leaning and enriching knowledge retention……..

……

……

……

Briefly explain how learning assessment have contributed to your leaning and enriching knowledge retention……..……..

……
……
……

Briefly explain how learning culture has complimented your leaning and knowledge retention…….
.

……
……
…….

Knowledge Sharing

Using the scale provided indicate the extent to which you agree with the listed questions on knowledge retention.

Scale: 5 - Strongly agree; 4 - Agree; 3 - Indifference; 2 - Disagree 1- Strongly disagree A – I do know.

Item Questions	1	2	3	4	5	A
The university has various ICT platform for enhanced internal sharing (e.g. student-to-student and lecturer-to-students and vice versa e.t.c) of academic materials.						
The university has ICT platforms for linkages with industry for knowledge sharing and job market orientation.						
My university, we participate in peer-to-peer organized learning (e.g. case studies e.t.c) both faculty specific and inter-faculties.						
My university, we participate inter-university and industry organized learning (e.g. collaborative research e.t.c) for knowledge sharing.						

My university has learning repository archive for knowledge sharing.						
The university learning repository archive is accessible, updated for academic learning.						

Briefly explain how ICT have contributed to enrichment of your knowledge sharing…….

……

……

Briefly explain how study groups have contributed to enrichment of your knowledge sharing……..……..

……

……

……

Briefly explain how learning repository has complimented your knowledge sharing……..

……

……

…….

Thank you.

Appendix III: Research Questionnaire for Faculty Heads

Dear Sir/Madam

Re: Request to Participate in Research Project/Data Collection

I am a post graduate student at Kenya Methodist University (KeMu) and currently undertaking a Masters course in Business Administration (Strategic Management Option). I am conducting a research entitled: "**EFFECT OF KNOWLEDGE MANAGEMENT PRACTICES ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS IN KENYA".** l kindly request you to assist in the study by filling in this questionnaire.

Please note that information provided will only be used for the purpose of this research only and will be treated with strict confidentiality.

Kind regards

Onditi,Walter Ouma
BUS-3-2988-2/2016

Research Question on Academic Performance

Using the scale provided indicate the extent to which you agree with the listed questions on your faculty/department students' academic performance.

Scale: 5 - Strongly agree; 4 - Agree; 3 - Indifference; 2 - Disagree 1- Strongly disagree A – I do know.

Item Questions	1	2	3	4	5	A
The number of postgraduate students admission in my faculty or department has been rising steadily over the past five years.						
The postgraduate students completion rate in my faculty or department has been rising steadily over the past five years.						
The population of undergraduate students transiting to master program to has been rising in the faculty or department.						
The population of masters program students transiting to doctorate program to has been rising in the faculty or department.						
The population of doctorate students transiting to post-doctoral doctorate fellowship has been rising in the university.						

Briefly explain how knowledge acquisition in your faculty or department has contributed to knowledge management in the university. ……..…….

……

……

……..

Briefly explain how knowledge transfer in your faculty or department has contributed to knowledge management in the university. ……..…….

……

……

……

Briefly explain how knowledge retention in your faculty or department has contributed to knowledge management in the university. ……..……..

……

……

……

Briefly explain how knowledge sharing in your faculty or department has contributed to knowledge management in the university. ……..……

……

……

……..

Thank you.

.

Appendix IV: Sample Size Table

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380

190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note. —N is population size. S is sample size. Source: Krejcie & Morgan (1970)

Appendix V: Enrolment by Gender and academic levels in Private Chartered Universities in Kenya - 2019

	Doctorate		Masters		Postgradnate Diploma		Bachelors		Diploma		Total	Total	Grand
University	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Adventist University of Africa	110	13	484	43	0	0	0	0	0	0	594	56	**650**
Africa International University	37	13	171	68	5	3	416	259	24	49	653	392	**1045**
Africa Nazarene University	18	2	228	225	9	11	942	1350	199	291	1396	1879	**3275**
Catholic University of Eastern Africa	113	67	353	396	8	12	2339	2516	140	136	2953	3127	**6080**
Daystar University	17	52	208	480	0	0	1469	2231	137	178	1831	2941	**4772**
Great Lake University of Kisumu	1	3	45	46	0	0	527	444	0	0	573	493	**1066**
Kabarak University	77	53	47	44	0	0	3443	2963	343	308	3910	3368	**7278**
KAG University	0	0	40	13	0	0	110	77	0	0	150	90	**240**
KCA University	0	0	399	262	9	1	3727	2789	0	0	4135	3052	**7187**
Kenya Highlands Evangelical	0	0	11	3	0	0	315	242	30	64	356	309	**665**
Kenya Methodist University	903	794	1392	1314	0	0	2283	1739	0	0	4578	3847	**8425**
Mount Kenya University	16	5	530	298	184	97	15513	11292	0	0	16243	11692	**27935**
Pan Africa Christian University	46	49	73	79	2	2	287	241	569	903	977	1274	**2251**
Scott Christian University	0	0	30	13	0	0	282	226	33	18	345	257	**602**
St Pauls University	24	18	78	71	0	0	1574	2016	0	0	1676	2105	**3781**
Strathmore University	34	25	508	395	0	0	2116	2174	0	0	2658	2594	**5252**
United States International University	47	77	611	936	0	0	2803	2837	0	0	3461	3850	**7311**
University of Eastern Africa, Baraton	27	12	38	34	0	0	1337	1297	90	79	1492	1422	**2914**
Grand Total	1470	1183	5246	4720	217	126	39483	34693	1565	2026	47981	42748	90729

Source: Commission of University Education University Statistics 2018/2019 Report (CUE, 2019)

Appendix VI: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 147023

Date of Issue: 10/November/2021

RESEARCH LICENSE

This is to Certify that Mr.. Onditi Walter Ouma of Kenya Methodist University, has been licensed to conduct research in Baringo, Bomet, Bungoma, Busia, Elgeyo-Marakwet, Embu, Garissa, Homabay, Isiolo, Kajiado, Kakamega, Kericho, Kiambu, Kilifi, Kirinyaga, Kisii, Kisumu, Kitui, Kwale, Laikipia, Lamu, Machakos, Makueni, Mandera, Marsabit, Meru, Migori, Mombasa, Muranga, Nairobi, Nakuru, Nandi, Narok, Nyamira, Nyandarua, Nyeri, Samburu, Siaya, Taita-Taveta, Tanariver, Tharaka-Nithi, Trnnzzota, Turkana, Uasin-Gishu, Vihiga, Wajir, Westpokot on the topic: EFFECT OF KNOWLEDGE MANAGEMENT PRACTICES ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS IN KENYA: A SURVEY OF PRIVATE CHARTERED UNIVERSITIES for the period ending : 10/November/2022.

License No: NACOSTI/P/21/14018

147023

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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Appendix VII: Authority to Collect Data Letter

AFRICA NAZARENE UNIVERSITY

12th November 2021

Walter Ouma Onditi
Kenya Methodist University
P.O Box 6895-00100,
Nairobi, Kenya

Dear Water,

Re: Data Collection Authorization

We acknowledge with thanks receipt of your email requesting us to grant you permission to collect data for your Thesis-:

"Effect of knowledge management practices on academic performance of university students in Kenya: A survey of private chartered universities"

We are pleased to inform you that your request has been granted with effect from today the 12th November, 2021. You will therefore be expected to adhere to the following:

1. Conduct your study within the stipulated period by NACOSTI.
2. Produce this letter to the relevant ANU management/participants to enable you collect data.
3. Collect data among PhD/Masters students and academic Registrar. Maintain the privacy, confidentiality and/or anonymity of your respondents in the presentation of your research data and findings.
4. Submit a copy of your report to the office of the Dean of Postgraduate Studies and Director of the Institute of Research after you are through with data collection.
5. Share a brief summary of the major findings with the university.

Please indicate your acceptance of this letter by signing below and return a copy of this letter to the undersigned.

Sincerely,

Rodney T. Reed

Prof. Rodney Reed
Deputy Vice-Chancellor of Academic and Student Affairs

I accept this letter of approval to collect data at ANU and I will adhere to the conditions provided.

Full Names Onditi Walter Ouma

Signature _____ Date: 16-11-2021