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Abstract

Although there has been a consistent increase in private demand for postgraduate studies in Kenyan universities, recent trends indicate a decline in postgraduate enrolment. This decline presents potential challenges in attaining both the objectives of the universities and Kenya's Vision 2030. Existing literature highlights that the decision to pursue postgraduate studies is influenced by various factors, one of which is skills requirements for a knowledge economy. Within this context, the primary aim of this study was to evaluate how skills requirements for a knowledge economy affects private demand for postgraduate studies in selected universities in Kenya. Employing an explanatory sequential mixed methods design, the study combined both quantitative and qualitative approaches to comprehensively examine the effects of skills requirements for a knowledge economy on private demand for postgraduate studies. The target population comprised all 60,515 students enrolled in Master's and PhD programmes in both public and private chartered universities in Kenya during the research period. The study employed a systematic random sampling technique to select 395 Master's and PhD students from four public chartered universities and three private chartered universities, which were purposefully selected. Data collection was done through the use of questionnaires and interviews. Quantitative data was analyzed using descriptive and inferential statistics, while qualitative data underwent thematic and content analysis. The regression model for skills requirements for a knowledge economy and private demand for postgraduate studies, yielded a regression coefficient of $B = .447$, signifying

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significance. However, with a probability level of $p = .099 > .05$ (at a significant level of $p < .05$), skills requirements for a knowledge economy emerged as a non-significant predictor of private demand for postgraduate studies. The study reveals that while pursuing postgraduate studies increases an individual's competitiveness and standing within an organization, it falls short of providing all the crucial skills required by the labour market. To address this, the study advocates for the integration of innovative studies into postgraduate programmes in universities in Kenya, thereby expanding the training institutions' offerings to meet the country's advanced skills needs. The study further recommends enhanced collaboration between universities and employers in both the private and public sectors, as well as relevant industries in the labour market. This partnership would facilitate the provision of accurate information, training opportunities, and employment prospects for postgraduate students, ultimately bridging the gap between their education and the skills demanded by the labour market.

Keywords: *Skills requirements, Knowledge economy, Private demand, Postgraduate studies.*

1.0 Introduction

In the evolving landscape of international higher education, postgraduate degrees are gaining significance, not only for individuals seeking advanced qualifications but also for countries aiming to expand their highly skilled workforce (British Council, 2014). This finding is supported by the Human Capital Theory, which posits that investments in education lead to increased future productivity (Psacharopoulos & Patrinos, 2018). The theory assumes that education and training contribute to enhanced productivity, resulting in economic benefits such as higher wages and increased gross domestic product (Tan, 2014; Netcoh, 2016). This aligns closely with the demands of a knowledge economy, as the theory emphasizes the importance of education, training, and continuous learning in enabling individuals to excel in an economy driven by knowledge and innovation (Stehr & Mast, 2012).

Pursuing higher education is expected to empower individuals to enhance their skills and meet the requirements of a dynamic and sustainable knowledge-driven economy, thus contributing to the formation of a democratic, civilized, and inclusive society (Mulinge & Arasa, 2017). Additionally, increasing the number of students pursuing postgraduate degrees and achieving high rankings in international universities is seen as a strategy for achieving national economic development (Benson, 2015). As a result, there has been a consistent rise in the demand for postgraduate studies worldwide (Sojkin et al., 2011; Altbach et al., 2019).

In addition to governments offering postgraduate education for the betterment of society, individuals also pursue postgraduate education for personal motives. Individuals view postgraduate education as a means to improve overall quality of life, leading to greater happiness, better health, well-paid jobs, influential positions, and increased control over resources (Schuller et al., 2004; Psacharopoulos & Patrinos, 2004; Naidoo, 2007; Baum et al., 2013). Moreover, as technological advancements increase and the knowledge-based economy continues to grow, the labour market is undergoing transformation, resulting in new and future skills demands (Acemoglu and Restrepo, 2016; Đonlagić and Kurtić, 2016). This shift highlights the increasing importance of high-level skills for economic growth.

With employers in the modern job market increasingly valuing research skills, graduates and business professionals are being prompted to pursue postgraduate studies to enhance their

qualifications and career prospects (University of Otago, 2017). This indicates a growing trend among employed individuals seeking further education to stay competitive and advance in their careers.

Theoretical Framework

This study is based on the Human Capital Theory, initially introduced by Schultz (1961) and further developed by Becker (1962, 1964). The theory suggests that education and training provide valuable knowledge and skills to the workforce, leading to increased productivity and higher returns (Becker, 1964). It underscores the significance of education, training, and ongoing learning in preparing individuals to excel in an economy propelled by knowledge and innovation. It is by investing in human capital that societies can foster economic growth, enhance competitiveness, and promote broader social well-being (McCracken et al., 2017).

Human capital theory asserts that skills acquired through education and experience in an individual's lifetime is what creates an intuition for successful business performance emanating from a broad set of skills that are transmissible between vocations (Brixy & Hessels, 2010). The human capital theory focuses on education and training as a medium for investing in human productive capacity. Education and training impart knowledge and skills which can be productively employed on the labour market in future (McCracken et al., 2017). Hence, assurance of employment after engaging in an educational investment is likely to attract demand for postgraduate studies.

2.1 Literature Review

2.1.1 Private Demand for Postgraduate Studies in Universities in Kenya

According to Psacharopoulos (2014), the overall enrolment of students within an educational system is influenced by a series of individual investment choices. These individual decisions collectively contribute to what is known as social demand (Mueller & Rockerbie, 2005). Essentially, this implies that the demand for education within society is the result of independent decisions made at the household level, which later converge in the education market to form the overall social demand for education. One method to gauge private demand is by tallying the number of applications (Psacharopoulos, 2014). Another approach to assess private demand for education is by examining enrolment rates (Conlon et al., 2017).

Private demand for postgraduate studies in Kenya has shown a consistent increase over the years. The number of Master's and PhD students has risen from 6,789 in 2007 to 24,417 in 2013 (KNBS, 2013), and further to 67,798 in 2017 (CUE, 2018). This indicates a notable upward trend in private demand for postgraduate studies. However, a closer look at the enrolment data reveals some fluctuations. While PhD enrolment experienced a slight increase of 7.6% from 9,577 to 10,309 in the 2017/18 academic year, Master's level enrolment decreased from 58,221 to 51,399 (CUE, 2019). This fluctuation in demand for postgraduate studies raises concerns about the country's ability to produce a sufficient number of highly trained professionals to drive the economy. This declining trend in postgraduate enrolment could potentially hinder Kenya's goal of achieving middle-income status by 2030, as the current and future demands of the nation may not be met (Mukhwana et al., 2016). Challenges that the country may face include staffing issues, replacing the aging at the higher institutions of learning, as well as in government and the private sector (Mukhwana et al., 2016). Moreover, the fluctuating trend in postgraduate enrolment could impede progress in the national research agenda (Mukhwana et al., 2016; Barasa & Omulando, 2018).

2.1.2 Skills Requirements for a Knowledge Economy and Private Demand for Postgraduate Studies

In a knowledge-based economy, the emphasis is on harnessing ideas over physical abilities and prioritizing technology over relying solely on low-cost labour for processing raw materials (Powell & Snellman, 2004). In this type of economy, knowledge is not only created and developed but also shared and utilized more efficiently by individuals and societies to drive socio-economic advancement (Sanitiso, 2001). This evolving pattern is expected to disrupt the conventional functioning of many industries.

Moreover, with the advancement of artificial intelligence, automation is anticipated to significantly impact employment by reducing job opportunities (Bridgstock, 2009; Đonlagić & Kurtić 2016; Acemoglu & Restrepo 2016). According to a Manpower Group report (2016), as much as 47 percent of U.S. jobs in 2010 were deemed highly likely to become automated by 2030. Carnevale et al. (2010) project that the creation of new businesses and opportunities is expected to ultimately outweigh the losses, and technology is facilitating the emergence of fresh work models that could address some of the current challenges in the labour market.

As highlighted by Wang (2012), the processes of globalization, the introduction of new technologies, and the information revolution have significantly reshaped the global economy, resulting in shorter production cycles and heightened productivity. These shifts and advancements can have significant implications for the types and nature of jobs that education should equip individuals for. According to OECD (2017), higher-level education is well-positioned to meet the demand for advanced skills in an economy. The report also emphasizes that routine manual jobs and certain cognitive tasks are being phased out due to technological progress, giving rise to new roles that require proficiency in digital skills. Additionally, Arntz et al. (2016) indicate that around 9% of jobs are at risk of full automation due to these developments, while approximately 30 to 35% of jobs could potentially see significant transformations in how tasks are carried out.

Wang (2012) advocates that in order to maximize on human resources, there is need to develop and update needed skills that will ensure active participation in the economy, enhance employability through relating education to the labour market and build a flexible education system that not only caters for school-age students but also covers adults who are in need of updating their skills and knowledge. Postgraduate programmes are examples of such openings where adults may go back to school to update their skills. This is likely to increase the demand for postgraduate studies.

To fully utilize human potential, Wang (2012) argues that, it is crucial to cultivate and continuously refine essential skills that facilitate active engagement in the economy. This can be achieved by aligning education with the demands of the labour market, thereby enhancing employability. Moreover, there is a necessity to establish an adaptable education system that caters not only to school-aged individuals but also accommodates adults seeking to update their skill set and knowledge. Shemshack and Spector (2020) postulate that this will allow students to learn at their own pace and convenience, which is especially beneficial for working adults who may not have the time or resources to attend traditional classes. Postgraduate programmes represent one avenue through which adults can return to education to enhance their capabilities. This is anticipated to lead to a surge in the demand for postgraduate studies.

It has been demonstrated that skills and education promote productivity. According to Holland et al. (2013), a 1% rise in the proportion of the workforce holding university degrees leads to a long-

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term productivity increase ranging from 0.2% to 0.5%. Moreover, the proliferation of information and communication technologies highlights the necessity for vocational skills to ensure their effective utilization (Mason et al., 2014). This could potentially motivate individuals to pursue postgraduate studies in order to enhance their skill set.

Walker (2012), in a study on postgraduate students at a government university in Cambodia, found that many postgraduate students invested a substantial portion of their earnings in their studies. They also held the view that a postgraduate degree had a substantial positive impact on their professional paths and stressed the importance of universities tailoring their programmes to meet future labour market needs. In a study conducted in Malaysia, Othman et al. (2012) investigated how the demand for advanced educational opportunities changed in the wake of globalization. Their analysis of pre- and post-globalization trends revealed that the surge in demand, particularly for private higher education institutions and technical and vocational education, was a direct response to the growing requirement for skilled labour in the workforce.

Amimo (2012) underscores the significance of comprehending the evolving needs of Kenya's contemporary workforce. This understanding is vital for educators to formulate curricula that effectively equip students to meet the demands of the labour market. Riechi (2008), in his study assessing the capacity of Kenya's public universities to meet the demand for academic programs, as well as their relevance to both labour market necessities and national development goals, made some observations. He found that courses offering skills highly sought after in the labour market experienced a surplus of demand, indicating the universities' responsiveness to labour market cues. Remarkably, some universities had excess capacity to offer programs relevant to Kenya's social and economic challenges, like crime, hunger, and inadequate infrastructure. Riechi (2008) further advocates for the establishment of robust mechanisms for continuous monitoring of labour market signals and the allocation of appropriate value weights to academic programs addressing labour market shortages. Additionally, the author recommends consistent assessments by stakeholders to inform and guide students in making well-informed career choices, thereby enhancing their placement prospects. Another suggestion made by the study is that regular surveys should be conducted to capture university students' perspectives on various job opportunities and industries.

The mentioned studies focus on the job-skill mismatch, but they do not delve into how skills requirements for a knowledge economy affects an individual's decision to pursue postgraduate studies. The present study seeks to establish, based on students' perceptions, how the demand for skills in a knowledge-driven economy affects private demand for postgraduate studies in selected universities in Kenya.

3.0 Research Methodology

This study was conducted across seven purposely selected universities in Kenya and involved Master's and PhD students. The research design adopted was an Explanatory Sequential Mixed Methods approach, consisting of two distinct phases – the quantitative phase and the qualitative phase, following Creswell's model (2014). Aligning with the follow-up explanations model (Creswell and Plano Clark, 2011), this design utilized a secondary qualitative phase to expound the findings from the primary quantitative phase, which was given precedence in the study. Employing a Mixed Methods research approach aimed to offer a more comprehensive understanding of the research problem, capitalizing on the strengths and mitigating the limitations of both quantitative and qualitative methodologies, ultimately strengthening the overall validity and depth of the findings (Creswell, 2014).

The study's sample selection process followed Kumar's recommendation (2019) of choosing 15% of the total 49 public and private chartered universities in Kenya. This yielded a sample of 7 institutions. The selection was done using Kothari's proportional allocation formula to ensure proportional representation. This led to the selection of four public and three private chartered universities. To ensure diversity in terms of postgraduate programme offerings, purposive sampling of the universities was used, as it allows for the selection of specific items meeting defined criteria, as outlined by Alvi (2016). The target population encompassed all 60,515 students pursuing Master's and PhD degrees in both public and private chartered universities in Kenya during the study period. To determine the sample size of 395 postgraduate students, Slovin's formula (Ellen, 2017) was applied.

Using Kothari's proportional allocation formula, 343 questionnaires were allocated to Master's students and 52 to PhD students from the participating universities. Systematic sampling was employed to select Master's and PhD degree students from the selected universities, ensuring even representation across the population (Castillo, 2009). The second phase of the study, involving qualitative data collection, was determined by the findings from the quantitative phase. It focused on identifying extreme or outlier cases that emerged from the initial quantitative analysis. Out of the initial sample of 395 Master's and PhD students, 345 students completed the questionnaires during the quantitative phase.

In the qualitative phase, 10% of the respondents were sampled, resulting in 35 participants that consisted of 30 Master's and 5 PhD students. These were selected using the proportionate allocation formula suggested by Kothari (2004). This sample selection aimed to include participants who could best address the research questions and were considered "information-rich" regarding the effects of skills requirements for a knowledge economy on private demand for postgraduate studies. Hence, the sample was purposefully selected. Data collection involved the use of questionnaires for the quantitative data and interviews for the qualitative data. The collected quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were subjected to thematic and content analysis techniques.

4.0 Findings and Discussion

The research aimed to determine how skills requirements for a knowledge economy affects private demand for postgraduate studies. In the initial quantitative phase of the study, descriptive statistics were used to examine how skills requirements for a knowledge economy affect private demand for postgraduate studies at the selected universities. In addition, regression analysis, specifically focusing on the coefficient of determination (R^2), was applied to make inferences and draw conclusions about the relationship between skill requirements for a knowledge economy and private demand for postgraduate studies. In the subsequent qualitative phase, content and thematic analyses were employed to provide additional explanations and insights into the findings obtained through the quantitative analysis.

4.1 Descriptive Statistics

Effect of Skills Requirement for a Knowledge Economy on Private Demand for Postgraduate Studies in Selected Universities in Kenya-Quantitative Findings

Respondents were asked to select specific factors within skill requirements for a knowledge economy that affect private demand for postgraduate studies. They were then asked to give their

opinions on how various aspects of these skill requirements for a knowledge economy affect private demand for postgraduate studies.

Perceived Skills Requirement Aspects Affecting Private Demand for Postgraduate Studies in Selected Universities in Kenya.

The postgraduate students were asked to select the factors affecting private demand for postgraduate studies within the given skills requirement aspects. Data obtained were summarized in Figure 1.

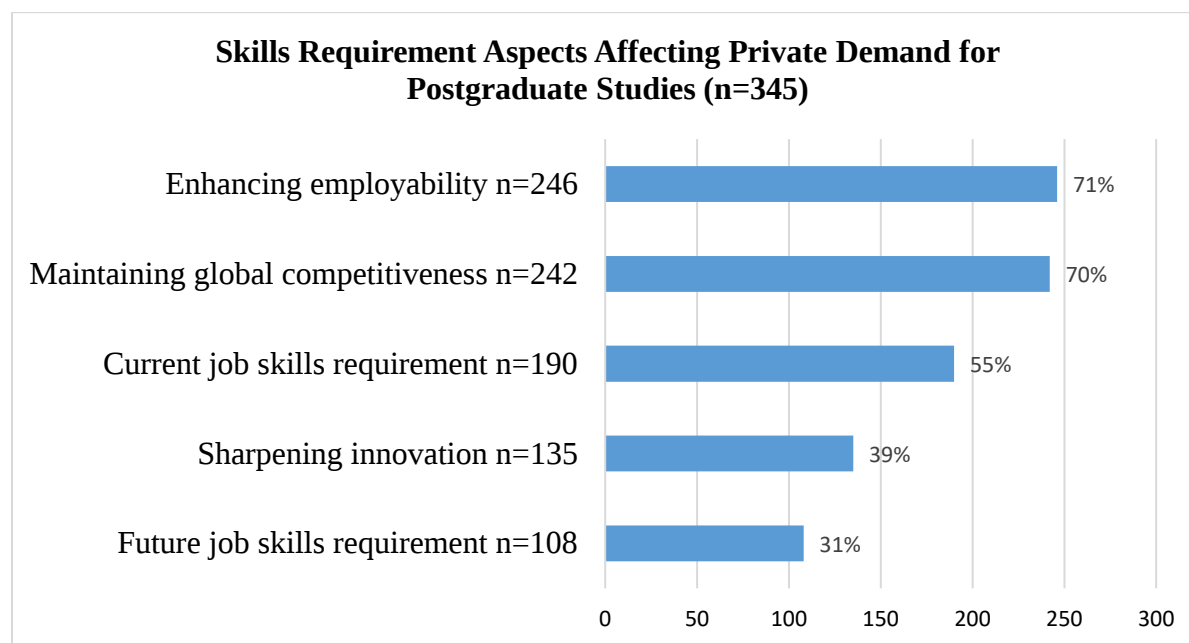


Figure 1: Skills Requirements Aspects Affecting Private Demand for Postgraduate Studies (n=345)

Source: Field data, 2022

As per the data presented in Figure 1, postgraduate students in the selected universities pointed out two key factors in skills requirements that affected private demand for postgraduate studies. These were increasing employability, cited by 71% of the respondents, and sustaining global competitiveness, mentioned by 70% of respondents. Future job skills requirements was indicated least terms of affecting private demand for postgraduate studies.

Postgraduate Students Perceptions on the Effect of Skills Requirement for a Knowledge Economy on Private Demand for Postgraduate Studies in Selected Universities in Kenya

The respondents' views on the extent to which skills requirements for a knowledge economy affect private demand for postgraduate studies were documented using a five-point Likert scale. This scale provided response options ranging from 1, indicating Strong Disagreement, to 5, indicating Strong Agreement.

To enable interpretation and facilitate inferential analysis, the respondents' responses were transformed into a continuous scale ranging from 1 to 5. This conversion enabled a more straightforward statistical examination and enhanced the applicability of the data for drawing meaningful conclusions. Higher scores denoted a significantly high level of agreement, and vise-

versa. For every element within the construct variables, as well as the overall construct variable, the mean response was computed. These average values were subsequently interpreted according to the scale ranges advocated by Sözen and Güven (2019), as detailed in Table 1.

Table 1:
Likert Scale Scoring Range for the Level of Agreement

Numerical Value	Level of Agreement	Mean Scale
1	Strongly Disagree	1.00-1.80
2	Disagree	1.81-2.60
3	Neutral	2.61-3.40
4	Agree	3.41-4.20
5	Strongly Agree	4.21-5.00

Source: Sözen and Güven, (2019)

According to the guidelines provided in Table 1, any score equal to or greater than 3.41 indicates agreement with the statement, whereas a score of 2.60 or lower indicates disagreement.

To depict the degree of data dispersion around the average, standard deviation was employed. A lower standard deviation indicates a greater concentration of data around the mean (Rumsey, 2019). A low standard deviation is defined as ranging from one (1) downward to zero, signifying that most respondents were clustered around the mean. Conversely, a standard deviation of 1.8 or higher suggests that respondents' opinions were more spread out from the mean, reflecting a wider range of viewpoints. The collected data were summarized as presented in Table 2.

Table 2

Postgraduate Students' Perceptions on the Effect of Skills Requirement for a Knowledge Economy on Private Demand for Postgraduate Studies (n=345)

Statements for Skills Requirements for a Knowledge Economy	Strongly Disagree		Disagree		Neutral		Agree		Strongly agree		MN	SD
	n	%	n	%	n	%	n	%	n	%		
The demand for highly skilled workers increases demand for postgraduate degree holders	16	4.6	16	4.6	19	5.5	194	56.2	100	29.1	4.0	.98
Many working students aim at improving their skills	31	9.0	75	21.7	135	39.2	67	19.4	37	10.7	3.0	1.097
Students are acquiring human skills as a form of investment	9	2.6	25	7.2	75	21.7	162	47.1	74	21.4	3.8	.86
Increased education is likely to make the skills of a worker more valuable to production	53	15.4	110	31.9	129	37.4	37	10.7	16	4.6	2.6	1.024
Individuals pursue postgraduate degrees to remain competitive in the labour market	14	4.1	6	1.7	43	12.5	98	28.4	184	53.3	4.2	1.02
Employers requirement for enhanced skills to operate new technology increases demand for postgraduate studies	32	9.3	54	15.7	98	28.4	96	27.8	65	18.8	3.3	1.097
Employers mainly prefer more skilled workers to less skilled ones	15	4.3	13	3.8	51	14.8	135	39.1	131	38.0	4.0	1.04
Grand mean											3.6	

Source: Field data, 2022

As indicated in Table 2, postgraduate students agreed on the following areas regarding the effect of skills requirements for a knowledge economy on private demand for postgraduate studies: that the demand for highly skilled workers leads to an increased demand for postgraduate degree holders (85.3%) mean = 4.0, standard deviation = 0.98), that individuals pursue postgraduate degrees to maintain competitiveness in the labour market (81.7 % with mean = 4.2, standard deviation = 1.02), that employers generally prefer more skilled workers over less skilled ones (77.1% with mean = 4.0, standard deviation = 1.04) and that students view acquiring human skills as a form of investment (68.5% with mean = 3.8, standard deviation = 0.86).

However, as Table 2 illustrates, there was a disagreement among the postgraduate students that increased education makes skills of a worker more valuable to production (47.3% with mean = 2.6, standard deviation = 1.024).

The overall mean for postgraduate students' perceptions of the effect of skills requirements for a knowledge economy on private demand for postgraduate studies at universities in Kenya was 3.6. This suggests that postgraduate students moderately agreed that skills requirements for a knowledge economy affect private demand for postgraduate studies.

4.2 Inferential Statistics

The study conducted a bivariate regression analysis to show the amount of change in private demand for postgraduate studies that can be predicted from one-unit change in skills requirements for a knowledge economy. The seven Likert-scale items used to gauge respondents' perceptions of the effect of skills requirements for a knowledge economy on private demand for postgraduate studies were transformed into continuous data. These scores were subsequently regressed against the dependent variable (demand for postgraduate studies) that was measured by the number of postgraduate students enrolled and the postgraduate student's perceptions on postgraduate enrolment.

The linear regression formula, $Y = \beta_0 + \beta_1 X_1 + e$, was used where;

- Y = a predicted value of Y (the dependent variable- private demand for postgraduate studies).
- X = the independent variable (perceived skills requirements for a knowledge economy-the variable expected to be influencing Y).
- β_0 = the intercept (the predicted value of Y when the X is 0).
- β_1 = the regression coefficient- the change in Y associated with one-unit increment change in X
- e = the error of the estimate (how much variation there is in the researcher's estimate of the regression coefficient).

Tables 3 and 4 present details regarding the strength, direction, and significance of the association between skills requirement for a knowledge economy and private demand for postgraduate studies.

Table 3

Model summary for skills requirement for a knowledge economy and private demand for postgraduate studies

Model	<i>R</i>	<i>R</i> - Square	Adjusted <i>R</i> - Square	Std. Error of the Estimate
1	.689 ^a	.475	.435	.455

a. Predictors: (Constant), skills requirements for a knowledge economy

The model summary presented in Table 3 shows a correlation coefficient (r) of .689, and a coefficient of determination (R^2) of .475. This R^2 value signifies the extent to which the variability in private demand for postgraduate studies is accounted for by skills requirements for a knowledge economy. Specifically, the R -squared value of .475 indicates that 47.5% of the variation in private demand for postgraduate studies is explained by skills requirements for a knowledge economy, while the remaining 52.5% is explained by other factors that this study did not address.

This substantial effect of one predictor on the dependent variable suggests that skills requirements for a knowledge economy does has some effect on private demand for postgraduate studies.

The study subsequently performed an analysis to determine the coefficients for the effect of skills requirements for a knowledge economy on private demand for postgraduate studies. The outcomes of this analysis are displayed in Table 4, which shows the specific coefficients associated with the effect of skills requirements for a knowledge economy on private demand for postgraduate studies.

Table 4
Coefficients Table for Effect of Skills Requirement of a Knowledge Economy on Private Demand for Postgraduate Studies

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
	<i>B</i>	Std. Error	Beta		
(Constant)	.982	.102		9.651	.000
1 Skills Requirement for a Knowledge Economy	.447	.328	.689	1.655	.099

a. Dependent Variable: Private demand for postgraduate studies

As Table 4 indicates, the "Constant," which signifies the estimated value of private demand for postgraduate studies when skills requirements for a knowledge economy is zero, is given as .982. The analysis in Table 4 also reveals a regression coefficient of .447. According to Hanneman et al. (2012), this coefficient, often referred to as the unstandardized regression coefficient or slope, signifies the substantive effect of the independent variable on the dependent variable. It quantifies the amount of change in the dependent variable that can be attributed to a one-unit change in the independent variable, without any standardization or adjustment.

Hence, the regression coefficient of .447 suggests that with every one-unit increase in skills requirements for a knowledge economy, private demand for postgraduate studies is predicted to rise by .447 units. This shows that the regression model for skills requirement for a knowledge economy and private demand for postgraduate studies is significant.

Table 4 also reveals that the *p*-value is .099, which is greater than the conventional significance threshold of .05. According to Hanneman et al. (2012), when the *p*-value is less than .05, it indicates statistical significance, while a *p*-value greater than .05 suggests lack of statistical significance. In this case, the *p*-value of .099 for skills requirements for a knowledge economy indicates that it is not a significant predictor of private demand for postgraduate studies at a significance level of $p < .05$.

To explain why skills requirement for a knowledge economy is not a significant predictor of private demand for postgraduate studies, the study sought additional information through qualitative data.

Effect of Skills Requirement for a Knowledge Economy on Private Demand for Postgraduate Studies in Universities in Kenya-Qualitative Findings

Following the unexpected quantitative findings indicating that skills requirements for a knowledge economy was not a significant predictor of private demand for postgraduate studies, a follow-up qualitative study was conducted. This phase involved 28 participants who could best explain the quantitative results. From the initial quantitative sample, a purposive selection was made, comprising 20 Master's students and 8 PhD students. The selection criteria was based on the type of course, as well as those who had notably high or low scores of various aspects of skills requirements effect on private demand for postgraduate studies.

Explaining the Low Rating of Skills Requirements for a Knowledge Economy as a Factor Affecting Private Demand for Postgraduate Studies

The initial quantitative study did not collect responses regarding the specific skills demanded by the labour market. In order to explain the unexpected quantitative findings that indicated a low rating for skills requirements for a knowledge economy, the study aimed to gather additional information to find out which skills were in demand by the labour market and which skills were being provided at the postgraduate level. The participants were asked to discuss the skills they anticipated to develop through their postgraduate studies. The results revealed that, in addition to research skills, skills related to management, leadership, and presentation were identified as some of the other crucial skills expected to be acquired through the pursuit of postgraduate studies.

While the majority of participants emphasized that skills held greater importance for their sustainability in the job market compared to their educational qualifications, a few pointed out that postgraduate studies did not provide all the necessary skills for a knowledge economy, as articulated by one participant:

.....Due to the surge in technology and globalization, the skill sets demanded in the labour market, particularly for emerging roles, are diverse. Traditional university education alone doesn't cover all the necessary skills. I am currently working towards my doctoral degree because I see it as a means to enhance my prospects in future job opportunities. Nevertheless, I am of the belief that the practical experience gained in the industry is where I truly acquire my skills. ”

Another participant had the following to say:

““As I engage in postgraduate studies, I've developed proficiencies in areas like presentation, leadership, and organizational skills. However, I haven't had the opportunity yet to gain hands-on experience with certain technical skills, such as digital marketing and the utilization of modern technology in procurement. ”

From the above discussions it is revealed that obtaining postgraduate credentials, which can be leveraged to secure employment or advance one's position in the workplace, was seen as a driving factor for private demand for postgraduate studies. Some participants, particularly those from the private universities, clarified that they were engaging in postgraduate studies to acquire specific skills that their employers deemed essential for enhancing productivity. It was noted that some of these participants had their studies financially supported by their employers.

Integration of Quantitative and Qualitative Findings on Skills Requirement for a Knowledge Economy as a Determinant of Private Demand for Postgraduate Studies in Selected Universities in Kenya

The quantitative findings regarding the effect of skills requirement for a knowledge economy indicated that the primary factors affecting private demand for postgraduate studies were enhancing employability (71%) and maintaining global competitiveness (70%).

According to the Likert scale results assessing levels of agreement, the average score for the respondents' views on the effect of skills requirement for a knowledge economy on private demand for postgraduate studies was 3.6. This suggests that respondents were in agreement that skills requirement for a knowledge economy played a role in driving private demand for postgraduate studies. Additionally, the quantitative data revealed that a significant number of postgraduate students did not believe that pursuing further studies led to the acquisition of skills.

The bivariate regression analysis examining the effect of skills requirement for a knowledge economy on private demand for postgraduate studies gave an R^2 (coefficient of determination) of .475. This indicates that 47.5% of the variation in private demand for postgraduate studies can be attributed to skills requirements of a knowledge economy. The regression coefficient (B) of .447 signifies that the regression model for skills requirement for a knowledge economy and private demand for postgraduate studies is statistically significant.

However, the p -value for skills requirement for a knowledge economy was determined to be .099. This suggests that, at a significance level of $p < .05$, skills requirement for a knowledge economy is not a significant predictor of private demand for postgraduate studies. This may imply that postgraduate studies are perceived to have a small effect on the development of skills necessary for a knowledge economy.

These findings are in line with the argument advanced by Mason et al. (2014) who observed that the necessary technologies for the knowledge economy can be obtained through vocational education, rather than university education. Damoah et al. (2021) similarly highlight a gap between the skills employers expect from graduates and what the graduates actually possess. Gube and Lajoie (2020) argue that universities focus more on theoretical knowledge rather than cultivating adaptable skills crucial for creativity and innovation.

While higher education is acknowledged for producing advanced skills and fostering innovation ((OECD, 2012), this study reveals that skills requirements only moderately affects private demand for postgraduate studies. Instead, enhancement of employability and global competitiveness emerge as the primary skills requirement factors affecting private demand for postgraduate studies. Nonetheless, the importance of skills in a knowledge-based economy remains significant.

The qualitative results, in addition to detailing the skills gained from postgraduate studies, helped to explain the unexpected quantitative outcomes. The qualitative data showed that postgraduate studies equip graduates with management and leadership skills. However, crucial skills for a knowledge economy like technological proficiency, effective communication and innovativeness, were found not to be acquired through pursuing postgraduate studies.

The results also indicate that while engaging in postgraduate studies enhances an individual's competitive edge and status within an organization, postgraduate studies alone do not encompass all the essential skills demanded by the labour market. This aligns with the observations made by Suarta et al. (2017), who highlight a deficiency in communication, teamwork, and problem-solving

skills within postgraduate studies. Consequently, the skills imparted through postgraduate training have not fully met the current demands of the knowledge economy.

This is a gap that has been pointed out by employers who have raised concerns about a mismatch between the skills possessed by graduates and those required for the workforce. According to a Deloitte (2016) report on Global Human Capital, soft skills like problem-solving, communication, innovation, and critical thinking were identified as crucial for their employees. However, the report noted a deficiency in these skills among graduate employees, necessitating time-consuming and costly on-the-job training for the company.

In line with this, the European Union (EU, 2015) observes that Technical and Vocational Education and Training (TVET) is progressively taking place at higher levels and at the same time there is rising enrolment of students across various programmes. This surge as noted by EU (2015), is attributed to a rising demand from employers for individuals holding post-secondary TVET qualifications. Also, Rein and Majumdar (2018) highlight that certain countries, including China and the UK, are implementing policies to convert conventional universities into vocational institutions and to reintegrate polytechnics back into the university sector, all with the goal of establishing higher vocational colleges.

These findings and discussions emphasize that in the labour market, skills requirements for a knowledge economy is key. However, it's evident that postgraduate training falls short in providing many of these crucial skills, and this could account for the moderate effect of skills requirements for a knowledge economy on private demand for postgraduate studies. This finding suggests a potential decline in postgraduate enrolment, as individuals may turn to Technical and Vocational Education and Training (TVET) institutions to acquire the skills sought after by employers. Thus, the study posits that the inadequate provision of essential skills in postgraduate training programmes is a contributing factor to the decreasing trend in postgraduate enrolment in Kenya. This implies that while skills requirements for a knowledge economy determines educational pursuits, postgraduate studies have yet to fully meet this demand. This agrees with earlier observations by Dickie and Jay (2010) that technical and vocational training places a greater emphasis on innovation compared to postgraduate studies

Upon examining how the skills needed for a knowledge economy affect private demand for postgraduate studies in the selected universities, this study concludes that the additional qualitative data gathered in the follow-up phase provides a more comprehensive understanding of the study's outcomes compared to relying solely on the quantitative findings.

5.0 Conclusions

The effect of skills requirements for a knowledge economy on private demand for postgraduate studies was determined to be moderate. Although the regression model established a statistically significant relationship, skills requirements for a knowledge economy was found to be a non-significant predictor of private demand for postgraduate studies.

The primary factors motivating individuals towards private demand for postgraduate studies in Kenyan universities were identified as increasing employability and maintaining global competitiveness through educational qualifications. Qualitative discussions revealed that most students' demand for postgraduate studies was primarily driven by the desire to gain an edge in the labour market rather than the need to acquire specific skills. Moreover, it was shown that the majority of practical skills were predominantly acquired through on-the-job training and Technical

and Vocational Education and Training (TVET) institutions rather than through postgraduate education. The study concludes that, while skills requirements for a knowledge economy affects private demand for postgraduate studies, it can be inferred that postgraduate programmes have not fully aligned with these demands.

6.0 Recommendations

The study found that while pursuing postgraduate studies enhances an individual's competitiveness and status within an organization, these programmes do not fully provide all the necessary skills required by the labour market. This could be a contributing factor to the decreasing demand for postgraduate studies in Kenya.

The study recommends that universities should forge partnerships with employers in both the private and public sectors, as well as with pertinent industries in the labour market. This would enhance information, training, and employment prospects for postgraduate students. Additionally, in every university, a career department should be established. This department would oversee the coordination of training and labour market initiatives and facilitate connections between students and employers for practical training and employment opportunities.

The study also found that technical and vocational training placed a greater emphasis on innovation compared to postgraduate studies. Consequently, this study advocates for an increased incorporation of innovative studies within postgraduate programmes in Kenyan universities. This would address the country's need for advanced skills by broadening the scope of training institutions.

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