

EXPLORING THE ROLE OF PERCEIVED RETURNS IN POSTGRADUATE ENROLLMENT: A COMPARATIVE STUDY ACROSS SELECTED UNIVERSITIES IN KENYA

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Abstract

In the face of a consistent surge in private interest in postgraduate education within Kenyan universities, recent trends indicate a decline in actual postgraduate enrollment. This decline poses potential challenges to the attainment of university objectives and the realization of Kenya's Vision 2030. Extensive literature review highlights various factors influencing the decision to pursue postgraduate studies, with perceived returns being a significant determinant. This study aimed to assess the impact of perceived returns on private demand for postgraduate studies across selected universities in Kenya. Employing an explanatory sequential mixed methods design, the research utilized both quantitative and qualitative approaches to comprehensively explore the effects of perceived returns on private demand for postgraduate studies. The target population encompassed all 60,515 students enrolled in Master's and PhD programs across public and private chartered universities in Kenya during the study period. Through systematic random sampling, 395 Master's and PhD students were selected from a purposefully chosen pool of four public chartered universities and three private chartered universities. Data collection involved questionnaires and interviews, with quantitative data analyzed using descriptive and inferential statistics, and qualitative data subjected to thematic and content analysis. The study revealed that perceived returns, indicated by a regression coefficient of $B = .57$ and a probability level of $p = .004 < .05$ (at a significance level of $p < .05$), emerged as a significant predictor of private demand for postgraduate studies. These findings illuminate the influence of perceived returns on private demand for postgraduate studies, providing valuable insights for policymakers and university institutions to align programs with the evolving needs of prospective postgraduate students and the labor market. The study recommends collaborative efforts between universities and employers, both from the private and

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public sectors, to enhance the provision of accurate information, training, and employment opportunities for postgraduate students.

1.0 Introduction

The pivotal role of postgraduate education in fostering advancements in education, science, and technology has been underscored by scholars such as Garba (2010). Nations with robust postgraduate education systems and contemporary research institutions have witnessed substantial progress in various spheres. This phenomenon has led to a global surge in demand for postgraduate studies over time, as highlighted by Sojkin et al. (2011) and Altbach et al. (2019). Beyond societal benefits, individuals pursue postgraduate studies for diverse personal reasons, ranging from economic growth contributions to the enhancement of overall quality of life (Schuller et al., 2004).

Postgraduate education is associated with increased happiness, improved health, and heightened prospects of securing lucrative employment and influential positions (Psacharopoulos & Patrinos, 2004; Naidoo, 2007; Baum et al., 2013). The decision to embark on postgraduate studies involves a meticulous evaluation of financial costs against expected benefits, framed within the human capital model, which perceives education as an investment (Becker, 1962, 1964). Students undertake a cost-benefit analysis, considering the feasibility of investing in further studies (Evans, 2013). This decision-making process assumes a rational assessment of potential outcomes, ultimately shaping an individual's enrollment choice among various tuition and employment alternatives (Hossler et al., 1999).

While the traditional focus in the literature has been on assessing the returns to education through earnings data, Jensen (2010) and Boneva et al. (2019) emphasize the critical influence of perceived returns assessed by students and/or their parents on enrollment decisions. Wanja (2014) notes that individual students base their choices on the personal benefits they anticipate, and enrollment decisions materialize when expected benefits outweigh costs (Vatta et al., 2016). Therefore, the perceived returns from investing in postgraduate studies play a pivotal role in driving private demand for postgraduate education.

2.0 Literature Review

In developed countries, individuals with postgraduate degrees constitute a significant portion of the workforce, and the returns on investment in postgraduate education are noted to be substantial and on an upward trajectory (Burgess, 2016). Statistics reveal that employees with postgraduate qualifications in the United States and the United Kingdom earn significantly higher salaries than those with only undergraduate degrees (Lindley & Machin, 2016; Boneva et al., 2019). Similar trends are observed in Japan, where individuals with postgraduate degrees earn 15% to 30% more than those with only a bachelor's degree (Morikawa, 2015).

Studies in South Africa show that each additional year of schooling leads to an increase in earnings ranging from 18 to 20 percent, highlighting the rising benefits of higher education (Nikolov et al., 2020; Salisbury, 2016; Horn, 2018). In Kenya, Rugar et al. (2010) demonstrated a 47.8% rate of return on investing in further university education, with a Doctorate degree emerging as the most financially rewarding level. Despite these insights, studies globally emphasize the lack of accurate information on the benefits of education, leading to investigations based on expectations about future earnings (Jensen, 2010; Wiswall & Zafar, 2015).

Perceived returns on education, encompassing both economic and non-economic aspects, significantly influence decisions regarding postgraduate education enrollment (Machin & McNally, 2007; Schendel & Oketch, 2014). Economic benefits include increased salary and improved job prospects, while non-economic benefits encompass enhanced well-being, extended lifespan, elevated social standing, and job satisfaction (Machin & McNally, 2007;

Schendel & Oketch, 2014). Gölpek (2012) posits that anticipating greater returns upon investing in education increases the demand for educational opportunities, thereby influencing the decision to pursue postgraduate studies.

Studies in the U.S., India, and England emphasize the critical role of perceived returns, surpassing other traditional educational factors in influencing schooling choices (Jacob & Wilder, 2011; Beaman et al., 2012; Boneva et al., 2019). However, Delavande and Zafar (2014) argue that, within the context of Pakistan, future returns play a relatively minor role compared to factors such as financial constraints and non-economic benefits. In Ghana, Kwakwa et al. (2012) observe that anticipated returns significantly influence decisions in higher education choice. Given these diverse findings, this study aims to explore how perceived returns affect postgraduate studies enrollment in the Kenyan context, building upon the unique educational landscape and socio-economic factors prevalent in the country.

Moraa (2014) underscores the high private returns of obtaining education at the university level in Kenya, with the study concluding that progressing to university offers significantly greater returns compared to lower levels of education. However, the motivation behind the private demand for postgraduate studies in Kenya remains unexplored. This current study seeks to address this gap by investigating whether the expectation of higher returns serves as a motivator for postgraduate studies enrollment in Kenya.

3.0 Research methodology

The study was carried out in seven purposively selected universities in Kenya and involved Master's and PhD students. An Explanatory Sequential Mixed Methods design consisting of two distinct phases, namely the quantitative phase and the qualitative phase (Creswell, 2014), was employed. Specifically, the follow-up explanations model (Creswell and Plano Clark, 2011), was used where a secondary qualitative phase was used to explain the quantitative results (which were given primacy in the study). The purpose of employing a Mixed Methods research approach was to gain a more comprehensive understanding of the research problem (Creswell, 2014). In addition, by using the Mixed Methods approach, the researchers were able to tap the strengths and minimize the limitations of both quantitative and qualitative approaches, thus enhancing the overall validity and scope of the study (Creswell, 2014). The study adhered to Kumar's (2019) recommendation by selecting 15% of the total 49 public and private chartered universities, resulting in a sample size of 7 institutions. Using Kothari's (2004) proportional allocation formula, the research ensured proportionality in the sample, leading to the selection of four public and three private chartered universities. Purposive sampling was chosen to guarantee diversity in terms of postgraduate programme offerings, as it allows for the selection of specific items that meet defined criteria, as outlined by Alvi (2016). The target population for this study comprised all the 60,515 students pursuing Master's and PhD (Doctor of Philosophy) degrees in both public and private chartered universities in Kenya during the study period. Slovin's formula was employed to determine the sample size of 395 students. Utilizing Kothari's (2004) proportional allocation formula, 343 questionnaires were assigned 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. This sampling method ensured that the population was evenly represented, with sample elements spaced at equal intervals within the population (Castillo, 2009). The selection of participants for the second (qualitative) phase was determined by the findings obtained from the quantitative phase (Creswell and Plano Clark, 2011). The selection process focused on identifying extreme or outlier cases that emerged from the quantitative analysis in the first phase (Creswell, 2014). Out of the initial sample of 395 Master's and PhD students selected for the study, a total of 345 postgraduate students successfully completed the questionnaires during the quantitative phase. The study sampled 10% (Sekaran & Bougie, 2016) of the

respondents to participate in the second phase of the study. Subsequently, 35 participants, comprising 30 Master's and 5 PhD students, were selected for the qualitative phase using the proportionate allocation formula recommended by Kothari (2004). Since the idea was to select participants who would best answer the research questions (Patton, 2015) and who were "information rich" persons on the effects of perceived returns on private demand for postgraduate studies, the sample was purposefully selected. Quantitative data from the postgraduate students were gathered using questionnaires, whereas qualitative data were obtained through interviews. The quantitative data was analyzed using descriptive and inferential statistics, while qualitative data were analyzed through thematic and content analysis techniques.

4.0 Discussion of findings

The study aimed at establishing the extent to which perceived returns affects private demand for postgraduate studies. During the initial quantitative phase of the study, the effect of perceived returns on private demand for postgraduate was analysed through descriptive statistics. Additionally, regression analysis was employed, specifically utilizing the coefficient of determination (R^2), to infer and draw conclusions regarding the effect of perceived returns on private demand for postgraduate studies.

In the subsequent qualitative phase, content and thematic analyses were employed to provide further insights and explanations regarding the quantitative findings.

4.1 Postgraduate Students' Perceptions on the Effect of Perceived Returns on Private Demand for Postgraduate Studies-Quantitative Findings

The postgraduate students were asked to select perceived return factors that they believed affected private demand for postgraduate studies and share their perceptions on how perceived returns affected private demand for postgraduate studies. Subsequently, a regression analysis was conducted to show the extent to which perceived returns predicts demand for postgraduate studies.

4.1.1 Perceived Return Factors affecting Private Demand for Postgraduate Studies

A survey was conducted among the postgraduate students to find out the factors they perceived as affecting postgraduate studies. The results indicated that three primary perceived return factors affected private demand for postgraduate studies, with 59% citing increased employment opportunities, 57% mentioning salary increments, and 50% noting job promotions as significant factors. Additionally, 19% of the respondents identified various other perceived return factors, including qualification requirements set by employers, enhanced capacity to pursue international opportunities, the acquisition of advanced knowledge and skills in their respective fields of study, non-economic advantages, global competitiveness, and meeting the evolving demands of the labour market.

4.1.2 Postgraduate Students' Perceptions on the Effect of Perceived Returns on Private Demand for Postgraduate Studies

The respondents views on the extent to which they agreed or disagreed with the effect of perceived returns on private demand for postgraduate studies were captured using a five-point Likert scale, which offered response choices ranging from 1=Strongly Disagree to 5=Strongly Agree.

To aid in interpretation and facilitate inferential analysis, respondent answers were transformed into a continuous scale ranging from 1 to 5. This conversion, as well as allowing for more straightforward statistical examination, increased the utility of the data for drawing significant conclusions. Higher scores denoted a very strong agreement, and vice versa. The mean response was computed for individual items within the construct variables, as well as an aggregate mean for each construct variable. These mean values were subsequently interpreted using the scale ranges recommended by Sözen and Güven (2019), as presented 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 scale provided in Table 1, any score of 3.41 or higher indicates that the respondents expressed agreement with the statement. Conversely, a score of 2.60 or lower signifies disagreement with the statement. Standard deviation was employed to illustrate the degree of data clustering around the average, with a lower standard deviation suggesting a greater concentration of data near the mean (Rumsey, 2019). A low standard deviation was defined as ranging from one (1) downwards towards zero, indicating that the majority of respondents were clustered around the mean. On the other hand, a standard deviation of 1.8 or higher suggested that respondents were spread out from the mean, signifying diverse opinions.

The perceptions of the postgraduate students on perceived returns effects on private demand for postgraduate studies was as shown in Table 2. **Table 2**

Postgraduate Students' Perceptions on the Effect of Perceived Returns on Private Demand for Postgraduate Studies (n=345)

Statements for SD Returns	Perceived Disagree	Strongly agree	n	%	Disagree n	%	Neutral n	%	Agree n	Strongly %	MN n	
<hr/>												
- Attaining postgraduate education enables individuals to earn more than undergraduate degree holders	6	1.7	8	2.3	62	18	162	47	107	31	4.0	.86
- There are a lot of monetary benefits accrued after attaining postgraduate education	12	3.5	46	13.3	67	19.4	128	37.1	92	26.7	3.7	1.10
- Students enrol for postgraduate studies to increase their future earnings	10	2.9	32	9.3	79	22.9	101	29.3	123	35.6	3.9	1.10
- Individuals with higher financial ability are more likely to enrol for postgraduate studies	98	28.4	104	30.1	79	22.9	50	14.5	14	4.1	2.4	1.16
Grand mean										3.5		

Source: Field Data (2022)

As per the data presented in Table 2, the postgraduate students expressed agreement on certain aspects regarding the effect of perceived returns on private demand for postgraduate studies. These include the belief that acquiring

postgraduate education leads to individuals earning more highly than those individuals with only undergraduate degrees (78% with a mean of 4.0 and a standard deviation of .86). Additionally, a significant proportion of students indicated that they pursue postgraduate studies with the aim of enhancing their future income (64.9% with a mean of 3.9 and standard deviation of 1.10). Moreover, a considerable percentage agreed that substantial financial gains result from obtaining postgraduate education (63.8% with a mean of 3.7 and standard deviation of 1.1).

However, as outlined in Table 4.5, postgraduate students did not agree with the statement that individuals with greater financial means are more inclined to pursue postgraduate studies (58.5% with a mean of 2.4 and a standard deviation of 1.16). The collective average for postgraduates' perception of the effects of perceived returns on private demand for postgraduate studies was 3.5, indicating a general agreement among respondents that perceived returns do have an effect on private demand for postgraduate studies.

4.1.3 Regression Analysis on the Effect of Perceived Returns on Private Demand for Postgraduate Studies

A bivariate regression analysis was performed to demonstrate the extent to which a one-unit change in perceived returns can predict the shift in private demand for postgraduate studies. The four Likert scale items employed to assess postgraduate students' perceptions of perceived returns were converted into continuous data. These scores were subsequently regressed against the dependent variable, demand for postgraduate studies, which was measured based on the enrolment figures of postgraduate students and their perceptions regarding postgraduate enrolment.

Tables 3 and 4 present the findings of the analysis, showing the magnitude, direction, and statistical significance of the relationship between perceived returns and private demand for postgraduate studies. **Table 3**

Model Summary for Perceived Returns and Private Demand for Postgraduate Studies

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	.755 ^a	.57	.47	.352

a. Predictors: (Constant), perceived returns

As depicted in Table 3, the coefficient of determination (R^2) is .57. This value signifies that 57.0% of the variation in private demand for postgraduate studies is accounted for by perceived returns, while the remaining 43.0% is explained by factors not addressed by this study. This represents a substantial effect by one predictor on the dependent variable, suggesting that perceived returns have a significant effect on private demand for postgraduate studies in universities in Kenya.

The study subsequently carried out an analysis to determine the coefficients for the effect of perceived returns on private demand for postgraduate studies. The results are as shown in Table 4, which shows the specific coefficients associated with the effect of perceived returns on private demand for postgraduate studies.

Table 4

Coefficients Table for Effect of Perceived Returns on Private Demand for Postgraduate Studies

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.879	.094		9.307	.000
1					
Perceived returns	.57	.007	.755	2.907	.004

a. Dependent Variable: private demand for postgraduate studies

According to Table 4, the "Constant," which signifies the predicted value of private demand for postgraduate studies when perceived returns is zero, is .879. Additionally, the analysis in Table 4 shows a regression coefficient

(B) of .57. According to Hanneman et al. (2012), this unstandardized regression coefficient, also known as the slope, represents the substantial effect of the independent variable on the dependent variable. It quantifies the amount of change attributable to a one-unit alteration in the independent variable, without any standardization or adjustment. Therefore, the regression coefficient of .57 implies that for each one-unit increase in perceived returns, the private demand for postgraduate studies is projected to rise by .57 units. This indicates that the regression model for perceived returns and private demand for postgraduate studies has statistical significance. As shown in Table 4, the p-value is .004, which is less than the commonly accepted significance level of .05. According to Hanneman et al. (2012), when the p-value is less than .05, it is considered statistically significant, indicating that the variable in question, perceived returns in this case, is a significant predictor of private demand for postgraduate studies.

To provide further insight into these findings, the research undertook the collection and analysis of qualitative data during the second phase of the study.

4.2 Effect of Perceived Returns on Private Demand for Postgraduate Studies in Selected Universities in Kenya-Qualitative Findings

The research aimed to gather comprehensive information to provide a deeper understanding and explanation of the quantitative results concerning the perceptions of postgraduate students on the effect of perceived returns on private demand for postgraduate studies. In the qualitative phase of the study, a follow-up was conducted with 28 participants who were identified as most capable of providing in-depth explanations of the quantitative results. The selection criteria was determined by factors such as gender, age and discipline enrolled in. The selection criteria also took into account individuals who exhibited particularly high or low scores in their perceptions regarding the effect of perceived returns on the private demand for postgraduate studies. The qualitative data pertaining to postgraduate students' perceptions regarding the effect of perceived returns on private demand for postgraduate studies revealed a diverse range of opinions.

Some participants believed that perceived returns did indeed affect private demand for postgraduate studies, while others held the contrary view. Those who believed that perceived returns had a positive effect on private demand for postgraduate studies cited expectations of higher salaries, opportunities for workplace advancement, and improved access to other employment prospects, including better job positions. They explained perceived returns in terms of attaining better pay, securing improved employment prospects, and enhancing their competitiveness for part-time job opportunities. One participant explained that;

“...No one would want to waste their money in school if there are no better jobs or better pay. Although most institutions have stopped rewarding graduates, there are other opportunities that people expect to present themselves and this makes them go back for postgraduate studies.”

Participants who expressed lower ratings for the effect of perceived returns on private demand for postgraduate studies explained that individuals engage in postgraduate studies either due to workplace directives or for personal fulfillment. Additional qualitative findings indicated a notable level of uncertainty in employment prospects, with no assurance that possessing a postgraduate degree would necessarily lead to securing a job or attaining a higher salary. A participant expressed his view as follows;

“...Most people who have pursued postgraduate studies with this mind-set (that perceived gains determines the pursuit of postgraduate studies) have ended up being frustrated because what they thought would be did not happen because of increasing unemployment and lack of employer's recognition of postgraduate employees. For me it is more of achieving my life goal of attaining all levels of education..

Some participants provided additional insights based on social motives. The desire to establish a reputable standing in society was emphasized. They believed that obtaining the title of "Doctor" held a certain level of prestige. These sentiments highlight that, for these individuals, the pursuit of postgraduate studies is primarily driven by personal aspirations to accomplish their life goals, rather than solely for economic benefits. These statements also underscore the existence of non-economic factors perceived as valuable gains in the pursuit of postgraduate studies.

The qualitative data additionally highlighted variations in perceived returns based on the chosen field of study and age group. It was observed that the minimum educational requirement for entry into the job market varied depending on the specific career path. Participants pointed out that individuals in middle age brackets tended to place a greater emphasis on the perceived returns derived from pursuing postgraduate studies compared to their younger counterparts. The analysis also yielded additional themes, such as gaining a competitive edge, attaining economic advantages, securing social recognition, and fulfilling career objectives, all of which were identified as perceived returns stemming from postgraduate education.

Overall qualitative results showed that many participants pursued postgraduate studies primarily because of the perceived returns associated with advanced level of education.

4.3 Integration of Qualitative and Quantitative Findings on Perceived Returns as a Determinant of Private Demand for Postgraduate Studies in Selected Universities in Kenya

The quantitative findings suggest that the most significant factors affecting private demand for postgraduate studies are increased job opportunities, higher salaries, and career advancement. Further, the study revealed that economic considerations played a predominant role in shaping the perceived returns associated with postgraduate studies.

These findings highlight that perceived economic benefits play a pivotal role in driving the private demand for postgraduate studies within Kenyan universities. This aligns with the observations made by Nikolov et al. (2020), who found that pursuing further education led to an increase in earnings by 18-20% in South Africa. Similarly, Netcoh (2016) advanced that education and training contribute to economic gains such as raised wages and an increase in domestic product. This perspective is also upheld by British Council (2014), which advocates for nations to strengthen their GDP by expanding the pool of highly skilled professionals through postgraduate studies offering. Additionally, research by Boneva et al. (2019) established that individuals with postgraduate qualifications in the UK and US tend to earn higher incomes compared to those with lower educational credentials. Consequently, this has prompted a heightened demand for postgraduate studies, as many employees believe that obtaining such qualifications will lead to an increase in their earnings. Findings by Gunderson and Oreopolous (2020) also underscore that in developing nations, the average annual returns on education range from 5-15%, with notable variations based on gender, educational level, and the type of course pursued.

The desire for job security and an elevated social status were shown to have little effect on the decision to pursue postgraduate studies. Schendel and Oketch (2014) posit that these are non-economic benefits and may encompass factors such as job longevity and overall job satisfaction.

Additional factors contributing to perceived returns encompassed non-economic benefits, global competitiveness, meeting specific labour market demands, fulfilling employer qualification criteria, possessing advanced credentials for potential migration, and gaining expertise and proficiency within the chosen field of study.

According to the Likert scale findings, postgraduate students expressed consensus in several areas. They believed that obtaining postgraduate education leads to higher earnings compared to those with only undergraduate degrees (78% with a mean of 4.0 and a standard deviation of 0.86). Additionally, a significant proportion indicated that

they pursue postgraduate studies with the aim of enhancing their future income (64.9% with a mean of 3.9 and a standard deviation of 1.10). Moreover, a considerable percentage agreed that substantial financial gains result from obtaining postgraduate education (63.8% with a mean of 3.7 and a standard deviation of 1.1). These findings are in line with those of Lindley and Machin (2016) and Boneva et al. (2019), who found that in 2018, approximately 15% and 14% of employees in the US and UK respectively held postgraduate qualifications, and their earnings were significantly higher than of those with only an undergraduate degree.

The average perception score among respondents regarding the effect of perceived returns on private demand for postgraduate studies was 3.5. This suggests a consensus among respondents that perceived returns do have an effect on private demand for postgraduate studies.

Bivariate regression analysis demonstrated that perceived returns explain 57% of the variation in private demand for postgraduate studies, as indicated by an *R*-squared value of .57. The regression coefficient (*B*) of 0.57 and a *p*-value of $.004 < .05$, indicate that at a significance level of $p < .05$ the regression model for perceived returns and private demand for postgraduate studies is significant.

As well as showing that perceived returns propel individuals to pursue postgraduate studies, the qualitative data, in line with the Explanatory Sequential Mixed Methods design used in this study (Creswell, 2014), provided valuable insights that explained more on the quantitative findings. The qualitative data revealed that middle-aged individuals perceived higher returns from postgraduate studies compared to younger individuals. Moreover, the study found that the minimum qualifications required for entry into the job market varied depending on the specific career path, potentially affecting private demand for postgraduate studies.

Overall, this study suggests that whether in the short or long run, perceived returns play a significant role in determining individuals' pursuit of postgraduate studies in Kenyan universities. This finding aligns with the results of Boneva et al. (2019), who observe that perceived returns, be they immediate or long-term, contribute to private demand for postgraduate studies.

5.0 Conclusion

Perceived returns, as a determinant of private demand for postgraduate studies, was found to play a major role on private demand for postgraduate studies as it was found to explain a high percentage of the variation in private demand for postgraduate studies. The regression model for perceived returns and private demand for postgraduate studies was also found to be statistically significant. In addition, perceived returns was found to be a significant predictor of private demand for postgraduate studies. It is therefore logical to conclude that perceived returns is a good predictor of private demand for postgraduate studies in universities in Kenya. The qualitative data offered valuable insights that provided a deeper understanding of the quantitative results.

In evaluating the effect of perceived returns on private demand for postgraduate studies, the study concludes that the qualitative data gathered in the follow-up phase significantly enhance the depth of understanding compared to relying solely on quantitative results

6.0 Recommendations

The study recommends the following:

- i) That universities collaborate with employers from both the private sector and the public sector as well as other areas in the labour market to enhance accurate information, training and employment opportunities for postgraduate students.
- ii) That a tracer study be carried out to assess the extent to which perceived returns from postgraduate studies have been achieved.

- iii) That a comparative study be carried out to compare the expectations from postgraduate studies by the freshly enrolled postgraduate students and those of the ongoing postgraduate students in universities in Kenya.

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