

Competitive Characteristics and Master of Education Students' Choice of Public Universities in Kenya

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Abstract: Each year, a large number of undergraduates qualify from public universities in Kenya. At least 10% of these new graduates are expected to enroll into graduate programmes as recommended by CUE. However, less than 10% transit to graduate levels. Further, those enrolled for the graduate programmes either spend a lot of time or do not sometimes complete their courses in scheduled time. CUE has suggested that students who delay in completing their courses in universities be surcharged for the delay. Sometimes these delays have been blamed on the characteristics of the universities themselves. This dilemma has left graduate students with challenges in deciding which university has the ideal characteristics that can help them complete their courses within the stipulated time. This study sought to assess the relationships between selected university characteristics and the students' choice of Master of Education Programmes in public universities in Kenya. The study used Rational Choice Theory to explain the cause of an individual's ultimate behavior as a product of behavior of other individual actors (methodological individualism). The researcher purposively targeted 7 out of the 23 public universities according to their years of establishment. It targeted a population of 383 respondents who included 369 (2015/2016 academic year) Master of Education Students, 7 Academic Registrars and 7 Deans of Schools of Education in the identified 7 public universities. The sample size was 192. Data was collected using Questionnaires, Interview Schedules and a document checklist. Research instruments were validated using face and content validity while reliability was determined by use of split-half test technique. A pilot study was conducted on 10 students' in Masinde Muliro University of Science and Technology and yielded a reliability cronbach's alpha value of 0.85. Data was analyzed using Logistical Regression technique to determine the relationship between the independent variables and the depended variable. The study found out that the relationship the selected university characteristics and the students' choice of Master of Education Programmes in public universities was 30.7%. The study concluded that university characteristics have great statistical significant relationship with students' choice of MED programmes. The researcher recommended that the government, university administrators and policy makers should consider allocating more resources in developing universities' infrastructure to improve the quality and speed of completing their programmes. This will attract and retain more graduate students across local and international markets thus boosting the much needed enrolments that can transform Kenya's universities to remain globally competitive entities.

Key Words: Choice of Public Universities, Competitive Characteristics, Master of Education programmes.

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I. Introduction

Niu [1] notes that university Education continues to undergo a process of change that began with governments' reduced funding of Higher Education globally. Luque Del Barrio [2] adds that Due to strains in budgetary allocations, Public universities are supposed to reorganize themselves to fund their own projects for their sustainability.

Public universities are nowadays required to have strategies for attracting and maintaining more students on the common three-cycle structure of Masters, Doctoral and post Doctoral studies. Scholars in Europe opine that the attractive university characteristics influence choice of universities and differ from one individual to another significantly [3]. In Germany, students identify location of the university, kinds of study programs, reputation of the institutions, existence of quality educational facilities, employment opportunities and possibility of scholarship offer by the university as factors that have significant influence on choice of programmes in the universities [4]. Scholars in India agree that factors such as academic reputation, variety of study programs, quality of education facilities, campus location, costs of courses, as well as the opinion of other persons are the main factors that influence the students' decision to enroll in particular universities in India [5].

In USA, researchers have identified a series of factors which yield a lot of influence on the process of choosing a university. Among them are geographical locations, reputation of the institutions, level of the tuition fees, development of various social programs, the possibility to obtain a scholarship and the recommendations from colleagues or friends [6].

Bonnema & Van Der Waldt [7] report that in Spain, the National Government has ceded greater administrative responsibilities for University Education to the autonomous university management committees. Berman [8] has discovered a series of factors which determine the process of choosing a university. among them are: - scholarship offers, academic reputation, cost of tuition fees, availability of information and technology in the universities, university rankings, institution's cultural diversity, the image of the university, the quality of the teaching learning facilities, the quality of available academic staff, the international partnerships and linkages, the admission requirements, the campus attractiveness and the location of the university.

The government of Germany in an attempt to manage campus security and prevent crime in Germanys' Higher Learning Institutions, it has initiated some guidelines for all campus communities. In the University of Maine at Fort Kent community for example, criminal activities on campus are investigated in collaboration with the Fort Kent Police Department [9]. In South Carolina the North Greenville University officers are trained and registered by a state approved instructor and licensed by the South Carolina Law Enforcement Division. North Greenville University Security Officers have the same powers and authority as Deputy Sheriffs [10].

University linkages to industry and other stakeholders improve the quality of graduates churned out by the universities. In countries like Ethiopia, where the culture of indigenous technology development and utilization is low and most industries are traditional trade based, formal university-industry linkage and technology transfer channels are pursued aggressively [11]. In the formal channels, the University initiates and works through the linkage for effective knowledge and technology transfer. In Industry-Sponsored Research Projects, Industry problems are brought to the University with research fund so that the university faculty and students undertake research to solve the problems [12]. The research deliverables and goals are set in the agreement [13] between the universities themselves and the potential employers.

Akoojee [14] argues that distance to a university affects enrolments in universities. He reports that a difference of 10 km to a university explains a two or three percentage point difference in the probability of a student attending the university. He asserts that individuals who live 36.1 or more km away from university, the probability of a student attending classes regularly is four percentage points lower than for individuals living 12.7 km away. From a theoretical point of view, the distance effect is explained by a "transaction cost argument" or a "neighbourhood argument" as well [15]. Baumgartner Steiner [16] has suggested that distance affects educational choices due to transaction costs. Transaction Cost Arguments suggest that the greater the distance to the university, the lower the participation in higher education.

Ministry of education in Kenya has reported that each year, public universities in Kenya graduate quite a large number of undergraduates World Bank [17]. At least 10% of these new graduates are expected to enroll into graduate programmes in their subsequent year (commission for university education) [18]. During the period 2011 - 2013 about 27000 undergraduates graduated with Bachelor of Education Degrees from the 23 public universities of Kenya. MoE [19] reported that out of the 27000 BED graduates; only 1200 (4.4%) students were admitted into graduate programmes. In addition, out of the 1200 BED graduates, only 300 (1.1%) were admitted for MED programmes. the ministry in its report laments that there were very low transition rates between undergraduate and graduate levels in Kenya's higher education cycle [20]. Further, those who make efforts to enroll for the graduate programmes either spend a lot of time or do not necessarily complete their courses in scheduled time. Some students take as much as five years to complete their two year masters courses [21]. The commission for university education is currently considering urging universities to formulate policies that can allow imposition of fines to those students who delay to finish their studies in scheduled time [22]. Abrahamson [23] blames this delay on the characteristics of the university itself, nature of its programmes or students themselves

These emerging developments have left graduate students with challenges in deciding which university has the ideal characteristics and programmes that can help them complete their courses within the stipulated timeframes as recommended by the governing authorities [24]. This study therefore sought to examine the relationship between the public universities competitive characteristics and students' choice of master of education programmes in public universities.

II. Materials And Methods

Research Design

This study adopted descriptive survey design and mixed methods approach to survey and quantify the relationships between competitive university characteristics and the choice of MED programmes in public universities in Kenya. Orodho [25] recommends that descriptive survey design best suits studies that are

exploratory in nature. Mixed methods approach employs both qualitative and quantitative techniques in analyzing conditions or relationships that exist, opinions that are held, processes that are ongoing, relationship that are evident or trends that are developing [26].

Study Area

Kenya had 23 Public Universities by the time this study was being carried out (1st. October, 2016). Maringe [27] suggest that older institutions are thought to be favored by learners since they are presumed to have already established desired infrastructure and brands. For the purposes of this study, only 7 (30%) out of the 23 Public Universities participated. 30% sample is a well representation of a population in social science studies (Mugenda Mugenda [28]). The study targeted the first year group of master’s students because they were available for the survey. They were the 2015/2016 academic year students studying master of education degree programmes in seven out of 23 public universities in Kenya. During the 2015/2016 academic year the MED students admitted in the seven public universities were 369. They were spread in the seven universities as follows:- University of Nairobi 54, Kenyatta University 49, Moi University 65, Egerton University 48, Masinde Muliro University of Science and Technology 40, Maseno University 55, Kimathi University 58. In addition, seven Academic Registrars and seven Deans of Schools of Education participated in the study. The target population for the study therefore was 383 respondents.

Sampling Techniques and Sample Size

The sample size of 2015/2016 academic year masters of education students that was used in this study was determined by the formula prescribed by Yamane [28] as follows;

$$n = N / (1 + N(e)^2)$$

Where *n* = sample size; *N* is the population size; *e* is the level of precision (0.05)

Sample size therefore was found by;

$$n = N / (1 + N(e)^2)$$

Hence the Sample Size was:

$$369 / \{1 + 369(0.05)^2\}$$

$$= 192$$

Kombo [29] recommends that a sample size of above 20% of the target population is representative enough to be used in collecting data for analysis. The researcher used 52% of the universities’ individual MED students’ populations and obtained sample sizes as shown in Table 3.1

Table 1.1 Target Population, Sample Size and Sampling Techniques

University	Target Population	Sampling Technique	Sample Size
UON	54	52% of 54	28
Moi Univ.	65	52% of 65	34
KU	49	52% of 49	25
EGU	48	52% of 48	25
MU	55	52% of 55	29
MMUST	40	52% of 40	21
KiU	58	52% of 58	30
Total	369	52% of 369	192

Balloting was used to obtain the required samples from the target populations of individual universities. Seven Academic Registrars and Seven Deans, Schools of Education were purposively selected. This study used a questionnaire for MED Students, interview schedule for Academic Registrars and Deans to gather the required data. It also used a document check list to audit: - the data base of 4th year graduation lists of BED undergraduates in 2013/14 and 2014/15 in the sampled seven public universities in Kenya and the data base of graduate students enrolled in MED programmes in the academic year 2014/15.

Data Analysis

The researcher used Hosmer-Lemeshow [30] test to generate chi square values that determined the multicollinearity of the covariates and the model's goodness of fit statistics. Logistic Regression Model (LRM) was used to establish the strength of the relationship between the independent variables and dependent variable. Hosmer asserts that logistic regression model is used where the independent variables are categorical, nominal or ordinal in nature. The dependent variable can either be "0" or "1" representing the outcomes such as yes/no; pass/fail, win/lose, alive/dead or healthy/sick. Orodho [31] agrees that Logistic Regression is a statistical method for analyzing a dataset in which there are one or more independent variables that determine an outcome. Tabachnick [32] avers that logistic regression model generates the coefficients, standard errors and significance levels of a model that predict logit transformation of the probability of a presence of characteristic of interests.

For the purposes of this study the following LRM was used:

$$\text{Logit } P(Y=1|X_1, \dots, X_p) = \log\left(\frac{P(Y=1|X_1, \dots, X_p)}{1 - P(Y=1|X_1, \dots, X_p)}\right) = \beta_0 + \beta_1 X_1 + \dots + \beta_p X_p.$$

In this model the parameters are $\beta_0, \beta_1, \dots, \beta_p$

This study had adequacy of teaching/learning materials/facilities, security in university campuses and university linkages as its predictor variables that determined the choice (Yes/No) of MED programmes.

III. Results And Discussion

Model's goodness-of-fit statistics

The researcher evaluated the model's goodness-of-fit statistics using the Hosmer-Lemeshow method on the students' awareness of some University Characteristics before choosing MED Programmes as shown in Table 1.2

Table 1.2 Model's Goodness-of-Fit Statistics

Overall Model Evaluation		Chi-square	df	Sig.
Step 1	Step 1	72.021	1	.000
	Block	72.021	1	.000
	Model	72.021	1	.000
Step 2	Step2	12.318	2	.000
	Block	84.339	2	.000
	Model	84.339	2	.000
Step 3	Step3	10.887	3	.001
	Block	95.226	3	.000
	Model	95.226	3	.000

Step 1: <adequacy of teaching/learning materials/facilities>; Step 2 :< security in university campuses>, Step 3 :< university linkages>. <Goodness-of-fit statistics is significant at $p = 0.05$ >.

A logistic model is said to provide a better goodness of fit statistics if the analyzed data is big enough. Therefore 192 respondents provided sufficient data for this study as recommended by Hosmer-Lemeshow. Hosmer- argues that the bigger the chi square values the better the model. Since the values of chi square generated ranged from 12.318 to 95.226 the model was suitable for computing the coefficients that determined the strength and direction of the relationships between the covariates and the binary variable as suggested by Tabachnick & Fidell [32].

Table 1.3 Awareness of University Characteristics

Awareness of some University Characteristics and Choice of MED Programmes							
	B	S.E.	Wald	df	Sig.	Exp(B)	
Step 1 ^a	pa26	1.899	1.041	1.331	1	.068	.150
	pa29	1.814	1.157	1.917	1	.025	.060
	pa212	1.390	1.064	1.043	1	.045	10.918
	pa219	2.007	1.556	1.003	1	.003	.993
	Constant	1.848	3.470	.284	1	.594	.157

- a. Variable(s) entered on step 1: < pa26, pa29, pa212, pa219>. <Awareness of some university characteristics>. <Constant Yes or No>.
- b. pa26, awareness of security levels in campuses; pa29: awareness of the distance and accessibility between university and area of residence. Pa212, awareness of university linkages with stakeholders; pa219, awareness of the level of adequacy of teaching and learning materials.

Table 1.3, show that some students knew ($P < .05$) some of the university characteristics while some did not know ($P > .05$). Characteristics like pa26 (awareness of security levels in campuses) and Pa212 (awareness of university linkages with stakeholders) were not known by most graduate students before they enrolled for their MED programmes ($p > .05$). Students were aware of (Pa212) the distance and accessibility between university and their areas of residence and (pa219) the level of adequacy of teaching and learning materials ($p < .05$). Hosmer-Lemeshow test showed that $B=1.899, P=.048$; $B=1.814, P=.025$; $B=1.390, P=.025$; $B=2.007, p = 003$ indicated that there was a significant association between MED students awareness of some university characteristics and their choice of MED programmes.

Table 1.4 Universities' Characteristics and Students' Choice of MED Programmes

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
pa21	1.327	.470	.484	1	.487	1.386
pa22	3.119	1.302	9.055	1	.000	.020
pa23	2.732	1.518	3.237	1	.022	.065
pa24	1.228	1.661	.619	1	.011	.796
pa25	3.286	1.810	.025	1	.000	1.332
Constant	6.741	5.498	1.503	1	.020	846.365

a. Variable(s) entered on step 1: <pa21, pa22, pa23, pa24, pa25>. <Universities' characteristics> Constant <Yes or No>. Sig.p<.05

pa21: relationship between security in the university and choice of M.ED Programmes.

pa22: relationship between distance between campuses and areas of residences

pa23: relationship between university linkages and choice of MED Programme

pa24: relationship between the location of the university and choice of MED Programme

pa25: relationship between adequacy of teaching and learning materials and choice of MED Programme.

The logit coefficients in column B indicate the association between independent variables and the dichotomous dependent variable (Hosmer-Lemeshow, 2013). Their significance levels are indicated in column designated as Sig. the results in table 1.4 showed that there was a statistical significant association between:- security in the university and choice of M.ED Programmes (pa21: $B = 1.327$; $P = .487$); distance between campuses and areas of residences (pa22: $B = 3.119$; $P = .000$); university linkages and choice of MED Programme (pa23: $B = 2.732$; $P = .022$); location of the university and choice of MED Programme (pa24: $B = 1.228$; $P = .011$) and adequacy of teaching and learning materials and choice of MED Programme (pa25: $B = 3.286$; $P = .000$).

The results show that the associations of adequacy of teaching/learning materials and facilities (pa25) and campuses and areas of residences (pa22) had the greatest influence (three times more than the association of the other covariates) on the students' choice of MED programmes. This covariates had significant positive relationships ($B = 3.919, p = .000$; $B = 3.119; P = .000$ respectively) on choice of MED programmes. The relationship between university linkages and choice of MED Programmes (pa23): $B = 2.732; P = .022$) came third in influencing choice of MED Programmes. The association between the location of the university and choice of MED Programme (pa24): $B = 1.228; P = .011$) was positive though least in magnitude but statistically significant.

Table 1.5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1 ^a	.429 ^a	.384	.307	1.895

a. predictors: < university characteristics >

The relationship between the university characteristics under study (security in the university, distance between campuses, university linkages, and adequacy of teaching and learning materials and the choice of MED programmes was statistically significant and showed that the five university characteristics influenced the choice of MED programmes by 30.7%. ($R^2 = .307, P < 0.05$). Deans, Schools of Education remarked "students in most universities consider distance between their campuses and their area of residence before enrolling for MED programmes". They also observed that apart from students valuing reputation of their university, marketability of the programmes and quality of courses offered, university proximity to their homes was a major factor in their choice of graduate programmes. They emphasized that well-planned linkages that connect students to the outside world and industry have a double benefit. They do not only boost attraction and recruitment of graduate students to their potential employers but also forge strong ties with their prospective industries, national and international counterparts who later become good ambassadors of their respective universities. Scholars have found out that most universities in Africa do not have adequate resources/facilities such as lecture rooms, office, and library and laboratory spaces to provide a suitable learning and teaching

environment (Anticil & Okwakol, 2008). They noted that 55% of laboratory equipment in most departments in universities are not in a state in which they can be used to carry out experimental researches. The net effect of this scenario is that only half the lessons that require learning through experiments are done.

IV. Conclusions And Recommendations

This study purposed to investigate the relationship between the competitive university characteristics and master of education students' choice of public universities in Kenya. Its findings were summarized based on the three focused areas namely: - Assessment of the relationship between adequacy of teaching/learning materials/facilities; security in university campuses and university linkages and their Choice of Master of Education Programmes in public universities in Kenya. It drew its 192 respondents from practicing Teachers, Education Managers and Planners as its MED Students representatives. Other respondents who participated were seven registrars of academic affairs and seven deans, schools of education in the seven selected Public Universities in Kenya. There were 47.6% females' and 52.4% males' gender representations in the study. The researcher found out that some students do not know the university characteristics under study before enrolling for MED programmes. These characteristics were adequacy of teaching/learning materials/facilities; security in university campuses and university linkages. The study also showed that students consider most importantly the Adequacy of Teaching, Learning Facilities and distance between universities and their places of residences. The study found out that the relationship between university characteristics was positive, statistically significant and stood at 30.7%.

Conclusions

Most graduate students do not seek to know very crucial information about their universities before seeking to enroll for programmes. However, a few seek to know facts about their universities before enrolling. Distance and accessibility between the campuses and students areas of residence, adequacy of learning materials and facilities are major determinant of choice of MED programmes.

Recommendations

Public universities should endeavor to make information about their institutions public. This will create and enhance desired perceptions by stakeholders who can be goodwill ambassadors to sell the institutions competitive characteristics both at national and global markets. efforts should be made by university managers and policy planners to put more resources in teaching/learning materials/facilities and infrastructure to improve the quality of their products; move services closer to learners by availing opportunities for potential learners to access university products at their convenient times and places.

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