

Competitive Characteristics of Programmes And Master of Education Students' Choice of Public Universities In Kenya

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Abstract: The rise in academic consumerism and the rebranding of university programmes to suit students personal needs and values in the wider society has brought intense pressure in Public Universities (PU). With the governments' reduced funding of university programmes, funding of university projects from public coffers has diminished substantially. PUs have to now than before find other avenues of raising revenues to supplement their budgetary requirements. One of the ways in which the universities can raise funds is through attraction of more graduate students. Admission of more students translates into more funds in tuition charges. Attracting this caliber of students requires repackaging of universities programmes to make them more attractive. This study aimed at assessing the relationship between course characteristics and students' choice of Master of Education (MED) Programmes in public universities in Kenya. The study utilized the Rational Choice Theory to explain methodological individualism. Study 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 MED Students, 7 Registrars Academic affairs 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' sample 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 Model which determined the magnitude and direction of the relationship between the course characteristics and the choice of MED programmes. The study found out that e-learning was the most preferred mode of course delivery by MED students. The quality (content) of the programmes influenced students in choosing a university. The cost of the programmes did not have much influence in the students' choice of a university. Generally, the model gave the relationship between course characteristics and the choice of MED programmes as 13.7% ($R^2 = .137$; $P < 0.05$). The study concluded that there is a statistical significant relationship between course characteristics and the choice of MED programmes. The researcher recommended that the university administrators and planners should consider investing in infrastructure that: - cause innovations in the e-learning modes of course delivery that can be flexible enough to accommodate various types (able and persons living with disabilities) of learners with their unique needs. Initiate enrichments in the quantity and quality (content) of the university programmes that aligns with the demands of the current job market. This research provides a basis for innovations in attracting and retaining local and foreign education graduate students in Public Universities. The findings of this study give avenues through which Public Universities can redesign their programmes to realign with the demands of highly competitive globally environment.

Keywords: Course Characteristics, Master of Education programmes, Public Universities.

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I. INTRODUCTION

One of the competitive characteristics of a university is the leveraged advantages of the courses that it offers over its sister universities. These advantages could be embedded in marketability of the courses on offer, their modes of delivery, quality of content; their cost, entry requirements, and relevance to the economy. The courses may be delivered through part time, full time (face to face learning) or e-learning modes. Universities outshine each other by endeavoring to meet the desires of their prospective students (Anderson, & Simpson, 2014).

In designing university growth model that attracted more graduate students, universities in Texas transformed traditional on-campus programs to online learning format. This aimed at creating an academic partnership model between the industries and universities (Texas Academic Partnership, 2012). Using this partnership model, Lamar University increased its enrollment of graduate students in two graduate educational programs by over 1714% (from 226 to 4,100). Using this growth model, academic partnerships contracted with the Universities in USA increased enrollment of graduate students by over 80% (Thecb, 2012). These dramatic changes impacted positively on income at many universities across US. Other continents automatically aped this innovation and shifted on campus programmes to online and hybrid delivery modes (Stevens-Huffman, 2006). In Africa, Nigeria witnessed an increase in popularity of online undergraduate and certificate programmes. The country witnessed an estimated 6.1 million postgraduate students engaging in online courses during the period 2010-2011 (Gray & Daugherty, 20014). In the year 2016, an estimated 2.7 million students in Nigeria enrolled fully for online graduate programs (Hemsley-Brown, 2015) online enrollment is estimated to increase to 3.44 million students by end of 2017. This will encompass 15.9 % of total postgraduate enrollments in Nigeria (MOEST, 2016). Currently almost 30% of all the graduate and postgraduate students in universities in Africa take online courses (Sloan Consortium, 2015).

In Kenya, very low enrolments and completion rates in graduate programmes have been witnessed in higher education yet public universities depend on tuition fees to fund most of their projects (MoE, 2014). Graduate students consider enrolling in institutions that are associated with higher completion rates. Low completion rates translate into delays in graduation of students. In some universities students take as much as five years to complete their two year masters courses (CUE, 2016). This delay has sometimes been blamed on the characteristics of the universities programmes (Anderson, 2008). The commission for university education has considered urging universities to formulate policies that can allow imposition of penalties to those students who delay to finish their studies in scheduled time (CUE, 2016). These developments have left many graduate students with challenges in choosing the universities with desired course characteristics that can help them complete their courses within the stipulated timeframes so as to avoid the impending penalties being proposed by CUE, (2017). This study therefore sought to examine the extent at which courses' modes of delivery, content of the courses and their costs affect students' choice of MED programmes in Kenya's 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 programmes and the choice of MED programmes in public universities in Kenya. Orodho, (2009). 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 (Hair et al., 2006; Cohen, (2000).

Study Area

Kenya had 23 Public Universities by the time this study was being carried out (1st. October, 2016). Maringe, (2006) suggests 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, 2003). 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 MED students that was used in this study was determined by the formula prescribed by Yamane, Taro, (1967) as follows;

$$n = \frac{N}{1 + N(e)^2}$$

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 & Tromp, (2006) 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 1.1

Table 1.1 Target Population, Sample Size and Sampling Techniques

University	Target Population	Sampling Technique	Sample Size
UoN	54	52% of 54	28
MoU.	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

University: <University of Nairobi (UoN); moi university (MoU); kenyatta university (KU); Egerton University (EGU); Maseno University (MU), Muliro University of Science and Technology (MMUST); Kimathi University(KiU)>.

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, (2013) 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) established the strength and direction of the relationship between the Course Modes of Delivery, Content and Cost and choice of MED programmes. 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, (2003) 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, (2013) 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:

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

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

This study had Modes of Course Delivery, Course Content and Cost of the Course 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 (2013) method to demonstrate the students' awareness of some University Characteristics before choosing MED Programmes. The results of this test was recorded 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	62.318	2	.000
	Block	84.339	2	.000
	Model	84.339	2	.000
Step 3	Step3	50.887	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 (2013). Hosmer- argues that the bigger the Chi Square Values the better the model. Since the values of the 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, (2013).

This study sought to find out whether there was a significant statistical relationship between the courses' modes of delivery, content of the courses, their costs and the students' choice of MED programmes in Kenya's public universities. Table 1.3 shows the strength and direction of this association.

Table 1.3
Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
pa2b1	3.399	.007	1.931	1	.000	.247
pa2b2	2.025	.085	1.893	1	.003	1.787
pa2b3	.396	.695	.325	1	.088	.673
Constant	2.034	.964	7.915	1	.002	10.784

a. Variable(s) entered on step 1. Predictors: <pa2b1, pa2b2, pa2b3>. < Course characteristics>.

pa2b1: influence of modes of delivery of the courses on choice of MED Programmes.

Pa2b2: influence of the content of the courses on choice of MED Programmes.

Pa2b3: influence of the cost of the courses on choice of MED Programmes.

The logit coefficients in *Beta* (B) column indicate that course characteristics under the study had a positive association on choice of MED programmes. The association between the modes of course delivery and the choice of the Programmes (*pa2b1*, $B = 3.399$, $P=.000$) was positive and the greatest in magnitude. The odds ratio of $B = 3.399$ indicate that this relationship is about 1.7 times in magnitude the relationship between the content of the course and the choice of MED Programmes ($B=1.009$, $P=.005$).

The model generated 2.025 as odds for *Beta* value with the precision of .003 for the association between the contents of the courses and the choice of MED Programmes (*pa2b2*, $B = 2.025$, $P=.003$). This indicated that there was a strong positive relationship between course content and the choice of MED programmes. The cost of the courses had insignificant statistical relationship with the choice of MED Programmes ($B=.396$, $P>.05$). This implied that there was no significant statistical relationship between cost of MED programmes and their choice in public universities in Kenya. These results confirmed the assertion by Deans of schools of Education who said “the costs of programmes in public universities are regulated by their respective university councils in consultations with the ministry of education. This means that the differences in their costs are decimal. To this end students may be influenced by other factors such as distance between the university and their areas of work or residence. Closeness to universities reduces travel and living expenses as hidden costs of university programmes. For this reason, students in most public universities consider distance between their campuses and their area of residence before enrolling for the MED programmes”. Scholars Like Niu, & Tienda, (2008): reported that the distance effect is explained by a “transaction cost argument” or a “neighbourhood argument”. Transaction Cost Arguments suggest that the greater the distance to the university, the lower the participation in higher education. Students who live near a university avoid moving long distances and therefore reduce increased living expenses (Baumgartner Steiner, 2006; Lauer, 2002). The net effect of this a reduction on the cost of university programmes.

Table 1.4. Relationship between Course Characteristics and Choice of MED Programmes

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429 ^b	.184	.137	1.895

a. predictors: < course characteristics >

The results in table... showed that there was a significant statistical positive relationship between the course characteristics (modes of delivery, quality and quantity of content & cost of the courses) and the choice of MED programmes. The model estimated this relationship as 13.7% ($R^2 = .137$; $P < 0.05$).

IV. CONCLUSION

This paper has demonstrated that the results of the logistic regression analysis indicate that there is a statistical significant relationship between courses' modes of delivery, quality and quantity of content and the choice of MED programmes. In addition, the interviews with the DSEs suggested that there were no significant variations in fees charged on MED programmes in public universities in Kenya. It was therefore prudent to conclude that the cost of MED programmes does not influence students' choice of public universities and cannot be considered as one of the competitive advantages of public universities. However, modes of delivery, quality and quantity of courses are influential in choice of MED programmes.

V. RECOMMENDATIONS

The researcher recommended that the university administrators and planners should consider investing in infrastructure that: - cause innovations in the e-learning modes of course delivery that can be flexible enough to accommodate various types (able and persons living with disabilities) of learners with their unique needs. Initiate enrichments in the quantity and quality (content) of the university programmes that aligns with the demands of the current job market.

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