

**AN EMPIRICAL ANALYSIS OF THE FACTORS INFLUENCING THE PRIVATE COST OF
TEACHER EDUCATION IN SOUTH-WESTERN NIGERIA**

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Abstract

This study investigated the determinants of private cost of university education in the south-western, Nigeria. This study adopted descriptive survey research design of ex-post facto type. This is because the variables being investigated cannot be controlled by the investigator as the event had occurred. Besides, the researcher essentially described a phenomenon that was already in existence. Stratified random technique was used to sample 2, 212 through research instrument titled "Private Cost of Teacher Education Inventory (PCTEI). Data collected were analyzed using z-test Statistic and Regression Analysis. The study revealed significant variation in the private cost of university education due to ownership, gender, residential type and the type institution. Further, programme of study did not reveal strong effect on private cost of university education. Consequently, there is every need for teacher education programmes to be subsidized to ameliorate the private cost burden either by increasing the subvention or award of bursaries and scholarships to students

Key words: *Empirical analysis , private cost ,South west Nigeria, Teacher education.*

Introduction

There had been a continuous rise in the cost of education in Nigeria in the last two decades. This cost is grouped into social cost and private cost. The social cost is born by the government through taxes and other incomes generated by the government. The private cost is born by the individuals acquiring education. The private cost includes tuition cost, transport cost, accommodation cost, textbooks, extra living cost, foregone earnings and consumables. Private cost, duration of the academic programme and the location of the institution put great influence on individual choice of discipline. For instance, if the tuition fee which is one of the major components of private cost is so high, it may circumvent an individual from choosing a course of study. Institution location either urban or rural may hinder an individual from acquiring education in a particular institution (Tiamiyu, 2020). When the cost of the education enterprise is downplayed, the system as well as the stakeholders could face grave consequences. This opinion therefore accentuates the need for stakeholders to recognize the need to have a reasonable idea of the factors influencing the private cost burden of education in general and teacher education in particular to ease the attainment of the national objective for teacher education. The estimation of education cost is usually a difficult and complicated process. However, in order to ease the estimation process, the popular methods is to use unit cost per students, per degree granted (Adeyemi, 2013) defined unit cost as the cost of an educational unit of education, and certain indicators are harnessed in estimating unit cost of education. These indicators provide useful tools for institutional level planning and norm-based budgeting. They are: Institution level unit cost per student, Private unit cost of education, Unit cost per class, Average

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salary per teacher, Unit Cost Per Period, Unit cost per school. According to Nwadiani (2005), cost of education in general is motivated by both internal and external factors and determinants. The external factors include; the demand for education service, Teacher force, Operation technique, Size of enrolment of learners, Institutional variables, National aspiration and Inflation. He added that institutional variables which affect cost of education include curriculum (i.e. type of course offered and the facilities required for the course), school location, school age, buildings, teacher/student ratio and sex, level of study and type of institution (ownership).

Since education is an investment in human capital capable of yielding future returns, it is crucial for investors in education to make a rational choice of institution that will minimize their private cost and optimize their private returns. In Nigeria, university education is provided by federal and state governments as well as private individuals and religious organizations. The aim of providing university education differs. Governments provide university education as a social goods without profit motive. Private individuals and to some extent religious organizations provide university education for profit motive. This goal of profit maximization plays a prominent role in the determination of tuition fee and other charges by the owners of the institution. Several factors could influence the private cost of education. Prominent among them are student/teacher-ratio, average teacher's salary, student enrolment, age of the institution, the primary aim of the owner of the institution, school location and choice of discipline. Longe (1982) found that student/teacher ratio, average teacher's salary, and enrolment play significant role in influencing the unit cost of secondary education in Oyo state. The findings further revealed that school age, class size and the percentage of trained teachers in school play vital role in influencing the unit cost of secondary education. Sunday and Gomiluk (2014) discovered a significant relationship between educational costs and the demand for private secondary education in Akwa Ibom state. It appears that private cost which includes tuition fee and other out-of-pocket expenses had risen beyond family income making.

Statement of Problem

The cost burden of providing and acquiring teacher education seems increasingly difficult for both government and households to bear, while the social cost is evidently influenced by a host of factors such as inflation, competition from other sectors of the economy, personnel cost, increasing social demand for education, there seems to be no consensus in literature regarding the factors that actually influence private cost of teacher education. In most parts of Nigeria, the free education policy and bursary awards to students are no longer the way they were in time past. This situation is explained by the unfortunate economic and political environment militating against educational system. While parents complain of increasing cost of education the social demand for teacher education is equally increasing due to the benefits derivable from education and teacher education in particular. The national policy objectives for teacher education necessitates the reduction of private cost. Available literature reveals no clear consensus on the factors influencing teacher education cost. The problem of the study therefore is what factors influence private cost of teacher education in public teacher education institutions in South-West Nigeria.

Financing Higher Education: A global Perspective

Higher education is now perceived as crucial and national assets in addressing many policy priorities, as sources of new knowledge and innovative thinking; as providers of skilled personnel and credible credentials; as contribution to innovation; as attractors of international talent and business investment; as agents of social justice and mobility; as contributors to social and cultural viability and as determinants of health and well-being of the citizenry (Bamiro & Adedeji, 2010). All these support the argument that

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education in general and higher education in particular remain a “public goods”. No matter what, most developed and developing countries have regarded higher education institution as an agent of change, economic growth and development. Consequently, they have placed great premium on the financing of these institutions in order for them to reform creditably the key function of teaching, research and community development in accord with the development of the nation (Ahmed & Adepoju 2013). Higher education all over the world has the problem of inadequate financial resources to carry out its functions of research, teaching and learning and community service. This has transpired as results of global economic crisis coupled with the increase in the costs of technology and other learning resources that higher education uses to achieve its objectives. The unit cost is rising faster in a developed country because of her GDP growth and the ability and willingness to pay for higher education is higher compared to what is obtainable in the developing countries that experience low GDP growth and low ability to pay for higher education due to poverty level and other macro and micro-economic problems. Unit cost of higher education is generally low in developing countries. Looking at the world context mostly in the developing countries, there is a sharp drop in per capital income which will at the end affect the ability to pay for higher education if the cost is high (Salerno, 2004). In the United States, for example, higher education institutions were able to generate at least up to 40/45 percent of their annual budget from fees, external donations and research (Li-Chuan, 2004; World Bank, 2010; Delaney, 2011). Australian higher education also generates up to 30/35 percent of their revenue from fees, research and donations, for example higher education in Australia, fees are charged up to 3,300 USD for social sciences 4,700 USD for the sciences and business and 5,500 USD for medicine (Ehrenberg, 2000). In New Zealand, higher education institutions generate up to 20% of their revenue from fees, research and donation and the higher education institutions charge tuition fees ranging from 2,300 to 5,500 USD depending on the type and the course of study. Netherland charges fees between 2,250 and 3,150 USD and they generate more than 20 percent of what they need from fees and research.

There are various ways in which higher education institutions are funded world over. One country for example can have one or more models of funding its higher education depending on many factors that include economic and political goodwill. World Bank (2010) identifies some predominant models that are used in the world: The first model according to World Bank (2010) has to do with financing higher education through taxes collected from the public and provide degree programs free to student without charging tuition fees. This is a practice in some African countries like Mali, Tanzania, Egypt and some other countries in Asia like India and the Maldives and Sri Lanka. The second model is the cost-sharing model in which the student is asked to pay for the education he received. The cost of producing a graduate is shared between government and the individual student or his parent. This model is gaining popularity because of the global economic crises and most countries want to shift the burden of funding higher education to the parent and the organization that hired or employed the graduate. USA leads in adopting this model the UK and New Zealand and some African countries like South Africa and Botswana have adopted this model. The third is called a dual track system where some universities are allowed to charge tuition fees while fees charged are for another set of students who have the minimum qualifications for entry, but have failed to receive sufficient marks to gain a free place. This is mostly allowed in order to solve the problem of access and inequality in higher education. This model is commonly practiced in the former communist countries like China, hungry and Russia. The fourth model is called a mixed mode and this model is set to combine the first and the second model. This is a situation where some higher education institutions are absolved from charging tuitions fees while others are allowed to charge fees from students. This model is market-oriented. Nigeria and Mexico adopt this model. The fifth model is a voucher system where a student will be provided with a voucher or scholarship which can be used in private higher

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education institutions and as such are an instrument of student aid. USA, Chile, Poland and Sweden use this model. The six models typify the introduction of differed tuitions fees, where students meet the cost of their undergraduate education after they have completed their studies and commence work. Countries like Australia and England have this model. The seventh model is the introduction of “up front” tuition fees at all public universities. Vietnam, Austria and Netherland have this model. To sustain growth and development in Africa, there is the felt need for state to diversify their economies and thus train enough human capital which will carry out the support and transformations needed for the continent to remain strong and have a sustainable economy based development (Banya & Elu, 2001). Higher education in this case plays a significant role in training and development of the individual who is qualified and capable of implementing new strategies and technological innovations that lead to achieving the desired goal (Daniel & Ingo, 2007). Africa is a big continent with enormous challenges and prospects. For Africa to achieve and reap the benefits of the investment made in higher education, qualified human capital, enough finances are needed, (World Bank, 2010). Public investment into higher education in Africa is very low compared to other continents of the world, hence, there is a need for the states to wake up and salvage the situation (World Bank, 2010). This sequence of events is perturbing in the sense that there are some countries in Africa that allocate as low as 0.32 percent of their total government expenditure to higher education whereas the number of student enrolments has doubled yearly (Pillay, 2004).

Effects of Rising Cost of Higher Education in Nigeria

Rising cost of higher education is not only in Nigeria but beyond. This is so because, it is believed that higher education provides the high level man-power capital needed in industries, civil, public, and international services. Okoli (2015) added that increase in fees has a damaging impact on both students and their programs. Challenges of rising cost of higher education are enormous, because it could lead to the production of a dynasty of illiterates. This is as a result of universities, polytechnics; colleges of education in the 21st century not giving the needed quality instructions to the future rulers. And if nothing is done about it now, in the nearest future Nigerian higher institutions would be producing illiterates in the name of graduates. As a result of high school fees students cut corners to meet up with the demands of fees by being irregular to lectures and sometimes absent, only to report during exams to copy or enter exam halls with textbooks, written materials etc. High school drop out of undergraduates resulting from fees increase has damaging impact on both students and their programmes. For instance U.K introduced fees increase in 2013 in her universities, the increase led to a drop in enrolment up to as many as 18,000 students. In Australia, eight top universities used fees increase to downsize their student’s enrolment. Thus fees increase leads to increased dropout of students. Those who could not afford the fees dropped out of their programmes. Another instance between 2011-2013 in the department of educational foundation, over 15 students dropped out of the programme (Okoli, 2015). Increase in crime rates; rising cost of higher education has made some students (both males and females) vulnerable to crimes such as kidnapping, armed robbery, 419 (advanced fee fraud) etc so as to meet up with the cost of education. This could also be attributed to the present policy of Nigeria on much quest for paper certificate without the accompanying skill needed. Frequent killings as a result of high school drop-out :The rising level of killings as seen in Nigeria today are done mainly by youths in most cases, within the high school ages bracket. This is so because of parent’s inability to send or sponsor their wards in higher institutions. These youths are lured to ritual killings to make money. The effect of this sager to the society cannot be over emphasized here. Increase in IT (internet crimes). Cybercrimes are offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm or loss to the victim directly or indirectly, using modern telecommunication networks such

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as the internet. Such crimes may threaten a nation’s security. This crime is committed mostly by youths in Nigeria because of frustration resulting from school dropout. Increase in moral decadence like prostitution, stealing and rape. Some of the girls in higher institutions in the contemporary Nigerians engaged in prostitution. This is to enable them fulfill their heart desire acquire higher education. This issue has also increased the population of HIV/AIDS patients in the country. Stealing and raping have also increased as a result of prostitution arising from the school dropout syndrome. Reduction in the production of skilled labour for the industries, civil, public and international organization services in Nigeria: many students are unable to buy textbooks because of fees increase.

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

H₀₁: There is no significant difference in the private cost of teacher education in public Colleges of Education and Universities in South-West Nigeria.

H₀₂ : There is no significant difference in the private cost of teacher education of students from state and federal Universities in South-Western Nigeria.

H₀₃ : There is no significant difference in the contribution of types of institution, programme of study, gender of students, year of study, residence of students and ownership of institution to the private cost of teacher education.

Methodology

This study was a descriptive survey which adopted the ex-post-facto research design. The multistage stratified and random sampling techniques were used respectively. The population of the study constitutes both public colleges of education and universities students and lecturers from south-western Nigeria. These sampling techniques were used to select 2,212 respondents drawn from ten public tertiary teacher education institutions, out of the available institutions offering teacher education programmes in South – Western Nigeria. The instrument used was a private cost of teacher education inventory (PCTEI) which was duly validated. The study employed Z-test and regression analysis to analyze the data.

Results

Research Hypothesis H₀₁: There is no significant difference in the Private Unit Cost of students in public Colleges of education and Universities in south-western Nigeria.

Table 1: z-test analysis of independent samples of Private Unit Cost of students from Public Colleges of Education and Universities.

Types of Institution	Number of respondents	Mean	Std Deviation	df	z-test value	Sig
Colleges of Education	856	167,423.02	51182.412	1247	2.645	0.000
University	1356	414,75259	73912.056			

Source: Researchers field work $\alpha = 0.05$

From table 1, the calculated z-test was 2.645 and a p-value was 0.000, at an alpha level of 0.05. Since the p-value is less than the alpha level, the null hypothesis H₀₁ which states that there is no significant difference in the private unit cost of teacher education students from Colleges of Education and University is rejected.

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Research Hypothesis 2 H₀₂: There is no significant difference in the private unit cost of teacher education of students from Federal and State universities.

Table 2 : z-test analysis of independent samples of private unit cost of teacher education of students from State and Federal universities in south-western Nigeria .

Types of Institution	Number of respondents	Mean	Std Deviation	df	z-test Value	Sig.
State	532	118,456.74	32017.909	2045	-19.661	0.000
Federal	824	233,074.50	89777.469			

Source: Researchers field work. $\alpha = 0.05$

Table 2 shows a calculated z-value of -19.661 and a p-value of 0.000 at an alpha level of 0.05. Since the p-value is less than the alpha level, the null hypothesis H₀₂ which states that “there is no significant difference in the private unit cost of teacher education students from state and Federal Universities in south-western Nigeria is rejected. This implies that there is a significant difference in the private unit cost of teacher education programme from Federal and State universities in South-West Nigeria. The null hypothesis was therefore rejected.

Research Hypothesis H₀₃: There is no significant difference in the contributions of type of programme of study, gender of students; ownership of institutions; year of study; type of institutions; and residence of students to the private unit cost of teacher education.

Table 3: Regression analysis of the contributions of the type of institution, programme of study, gender of students, levels of study, student residence and ownership of institution on the private unit cost of teacher education

Variable	Unstandardized Coefficients		Beta	z-value	Sig.	Coefficient of determination $\beta \times 100$
	B	Standard Error				
Constant	17621.01	11256.24		11.588	0.00	-
Type of institution	68774.12	4084.89	0.334	9.521	0.00	33.4
Programme of study	92.44	1510.20	0.002	.065	0.00	0.2
Gender	10245.57	511.22	0.028	2.272	0.00	2.8
Level of Study	-181.81	2088.73	-0.112	-5.427	0.00	11.2
Residential type	-20301.89	4231.01	-0.251	-7.201	0.00	25.1
Ownership of institution	-12032.20	5161.33	0.010	-2.768	0.05	1

Source: Researchers field work. $\alpha = 0.05$

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It is evident from table 3 that the contribution of the type of institution was significant with β at 0.334 (33.4%). Next to this is programme of study with β at 0.002 (0.2%) and Gender $\beta = 0.28$ (2.8%). Level of study gives β at -0.112 (11.2%), while Residential type produces β at - 0.251(25.1%). Lastly, ownership of institution gives 0.10(1%). All tested at an alpha level of 0.05. Deductively, the programme of study by students is not significant because of its 0.2% contribution to the private unit cost. The null hypothesis H_{03} is by this very fact sustained.

Discussion of Findings

The study examined the influence of a number of factors, namely, contribution of types of institution, programme of study, gender of students, year of study, residence of students and ownership of institution on the private cost of teacher education in Nigeria. Findings revealed that there was a significant difference in the private cost of teacher education programme of colleges of education and universities as well as between federal and state universities and this indicates that federal institutions are more financially subsidized than state institutions. The study as well showed that the type of institution had more influence, while programme of study had the least influence on private cost. This implies that students could opt for any teacher education programme without significant differences in cost.

Conclusion

Based on the findings, it could be concluded that the private cost of teacher education in public institutions in South-West Nigeria is relatively influenced by a number of factors, and that private cost is generally influenced by the type of institution, programme of study, gender of students, level of study, students' place of residence and the ownership status of institutions. Consequently, concerted efforts should be made by stakeholders to reduce the private cost taking cognizance of the factors that influence it.

Recommendations

- i. There is every need for teacher education programmes to be subsidized to ameliorate the private cost burden and this could be done either by increasing their allocation or award of bursaries and scholarships to students.
- ii. The accommodation facilities available for students use should be strengthened by allowing public private partnership. Besides, well-equipped libraries should be provided for students to reduce the cost of transportation and books.
- iii. Non-governmental organizations should allow their advocacies for gender inclusion and gender balance to involve some form of financial assistance for female students to ameliorate their cost burden.

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