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## **Analysis of The Factors Influencing the Private Cost of Teacher Education in South-South Nigeria**

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### **Abstract**

The study analyzed the factors that influence private cost of teacher education in public tertiary institutions in South-South Nigeria in 2014/2015 academic session. The aim was to determine the actual private unit cost of teacher education as well as the factors influencing it and their level of impact on private cost. The ex-post-facto research design was adopted for the study. The population consisted of all federal and state tertiary institutions offering teacher education programme. The sample was 2030 respondents drawn from twelve out of the twenty such institutions in the South-South Nigeria using the purposive and proportional stratified random sampling techniques. The instrument used was an inventory titled (PCTEI) which was duly validated. The research questions were analyzed using descriptive statistics, while the hypotheses were analyzed using the z-test for independent samples and multiple regression statistics at 0.05 level of significance. It was discovered that private cost of teacher education was higher in state tertiary institutions than their federal counterparts, while the private cost of university students was higher than the college of education counterparts. The study also revealed that factors such as type of institutions, gender, programme of study, level of study, place of students' residence and ownership status of institutions influence private cost. The study further revealed that the type of programme had a greater influence on the private cost than the other factors, while the programme of study made the least impact. Consequently, it was recommended among others that bursary awards, increased accommodation facilities and functional libraries be provided for students especially in state owned institutions to ameliorate their private cost burden.

### **Introduction**

Knowledge acquired through formal education is known to be a determining factor in the process of economic growth and development of nations. In the same manner, teacher education is regarded as a major source of producing knowledge capital for national development. In the teacher production process, a lot of resources are needed. These include; fiscal, materials and personnel resources. Fiscal resources which address the cost of production is perhaps one of the most important factors in the procurement of education by stakeholders including household. Household cost also refers to as private costs is the cost borne by students, parents and guardians for acquiring education for their children or wards. The private cost could be classified as academic or non-academic (incidental cost). Academic cost includes cost of items that relate to instruction such as tuition fee, examination charge, departmental/faculty dues, project/assignment, teaching practice, study tow/excursion, textbook, stationary, tools/instrument, practical demonstrations etc., while non-academic cost are cost of items though not related to instruction but facilitate learning such as close and wears,

feeding, clubs, societies, accommodation, transportation, identity card, telephone calls, medicals, etc.

When the cost of the education enterprise is undermined, the system as well as the stakeholders could face grave consequences. This opinion therefore emphasizes 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 facilitate 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 used in estimating unit cost of education. These indicators serve as 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 salary per teacher, Unit Cost Per Period, Unit cost per school. According to Nwadiani (2005), cost of education in general is influenced 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)

Olakulehin and Panda (2015) examined the comparative private cost of distance and campus based universities in Nigeria. A total of 200 subjects comprising students registered for the B. Sc computer science and B.A English studies programme at the University of Lagos and the National Open University of Nigeria were randomly selected as samples. It was revealed that the private cost of students studying through the distance learning mode were significantly lower than those in conventional university. The private unit cost for students in university of Lagos was N156,000 after acceptance of the programme while it was N101,500 for Open University by the end of the year. Accepting the fact that the conventional and open distance universities are different types of institutions gives credence to the private unit cost differentials. This disparity is traceable to the full time nature of conventional universities, where students pay for nearly all the necessary academic and non-academic services.

Deferential spending patterns were observed in male and female students taking part in teacher education programmes. Nwawo's (2005) study on the private cost of University Education in Edo/Delta States showed that while the females spent a total of N75, 708.26, the males spent N24, 813.64 as their unit private cost and this reveals

that private cost was higher among females than males. Females according to the study, incur higher amount on feeding, clothing, cosmetics while males incur higher cost on accommodation since most of them prefer to live off-campus. While differences may be expected in incidental or non-academic cost it may not necessarily be so in academic costs since there are no preferential treatments in terms of tuition payments and other instructional costs. Harpatha (2008), observed that students of the feminine gender incurred more private cost than their male counterpart in the Povarda province of Sri-Lanka. The reason advanced for this difference ranged from cost of food, clothes and wears on the part of female students. Accommodation costs are usually higher in urban areas than in rural areas. Therefore, students living alone in rented apartments in urban areas are more likely to pay higher rents than their counterparts in rural areas. Expenditures on transportation, extra-feeding, utilities (electricity and water) may also differ between urban and rural areas. These differences can invariably bring about some differences in the value of student private costs in teacher education programmes. Onokerhoraye (1979) advises that social services must be located in such a way that the total cost or effort of the people moving to the facilities is minimized.

In teacher education, while expenditures many not differ in the amount of tuition paid by students in the same school, for expenditures on non-academic (incidental) needs like feeding, clothing, transportation, accommodation (outside hostels), etc. differences should be expected according to the socio-economic background of every student. Salim (1993) shows that students from higher incomes groups spend considerably higher amounts on private tuition and incidental items of private cost. Similarly, Nwawo (1995) reports that unit private cost is higher among high socio-economic groups.

Ajaegbu (2015) conducted a study on the private cost of some selected professional courses at the University of Benin namely, Law, Medicine, Engineering and Education. 200 students were randomly selected from these Faculties. Simple percentage, mean score and Anova statistics were used for analysis. It was found that private unit cost for Education students was N211,742.75, Medicine N410,764.17, Law N365,388.60 and engineering N226,387.40. It was also found that private unit cost varied according to level of study. In the Faculty of Education year one student had a private unit cost of N118,461, year two N288,047, year three 137,358, year four N488.088. Earlier studies by Psacharopoulos (1994) in Amin (2014) revealed that private investments in education increase as education level increases; even though returns to investment in education are positive and decreases the higher the level of education. He concluded that investment in primary education should be emphasized at the expense of higher education. The cost of acquiring teachers' education and the

factors influencing the private cost is worthy of immense consideration by stakeholders.

### **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-South Nigeria.

### **Research Questions**

To guide this study two research questions was raised and answered.

1. What is the private cost of teacher education in public tertiary institution programme in South-South Nigeria?
2. Does private cost of teacher education vary according to the following factors of the type of institution, programme of study, gender, level of study, place of residence and ownership status of institution in South-South Nigeria?

### **Hypotheses**

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

1. There is no significant difference in the private cost of teacher education in public Colleges of Education and Universities in South-South Nigeria.
2. There is no significant difference in the private cost of teacher education of students from federal and state universities in South-South Nigeria.

3. 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.

### Method of Study

This study was a descriptive survey which adopted the ex-post-facto research design. The sample was made up of 2,030 respondents drawn from twelve public tertiary teacher education institutions, out of the twenty available institutions offering teacher education programmes in South –South Nigeria. The instrument used was a private cost of teacher education inventory (PCTEI) which was duly validated.

### Results of Study

**Research Question One:** What is the private unit cost of teacher education in public tertiary institutions in South-South Nigeria?

The private unit cost of teacher education in tertiary institutions is presented in Table 1. The data in Table 1 showed that the total private cost of 2030 respondents of teacher education in tertiary institutions in South-South Nigeria is four hundred and twenty-seven million, five hundred and fourteen thousand, one hundred and seventy-five naira, (₦427,514,175), while the private unit cost was two hundred and ten thousand, five hundred ninety-eight naira twelve kobo, (₦210,598.12). The data further showed that the total academic cost of teacher education in public tertiary institutions in the South-South for the two thousand and thirty (2030) students studied was one hundred and fifty-two million, nine hundred and twenty-four thousand, four hundred and twenty-seven naira, (₦152,924,427), (35.77%), while the total non-academic cost was two hundred and seventy-four million, five hundred and eighty-nine thousand seven hundred and forty-eight naira, ₦274,589,748 (64.23%).

The data in Table 1 showed that the academic cost represented 35.77% of the total private cost, while the non-academic cost represented 64.23% of the total private cost. This information showed that the non-academic cost is higher than the academic cost.

**Research Question 2:** Does the Private cost of teacher education vary according to the following factors of the type of institution, programme of study, gender, level of study, place of residence and ownership status of institutions in South-South Nigeria?

The private cost of the factors under study are presented in table 3

The data in table 3 showed the differences in the private cost of the variables or categories in the variables under study. The data showed that the private unit cost of respondent studied while it was N180, 514.04 for Colleges of Education students, it

was N228, 944.39 for University students. Vocational/Technical Education was N215, 234.32, science was N211, 147.66 while Arts/Social Science was N210, 631, and Languages N206, 793.14. Regarding gender differences, male students had N194, 884.90 while it was N227, 983.79 for female students. Year one students were found to have a private unit cost of N233,073.50, year two, N195,438.15, year three N20546.65, and year four N204,074.82 respectively had private unit cost of N229,898.86, School Hostel N206,650 .64, while family apartment was N164,289.74 private unit cost in federal institutions was N197,014.60, while state institution was N239,386.09. These indicates that the factors influencing private cost are: the type of institution, programme of study, gender, level of study, residence of students, and ownership status of institutions in South-South Nigeria.

**Hypothesis 1:** There is no significant difference in the Private Unit Cost of students in public colleges of education and universities.

Data in Table 4 showed a calculated Z-value of -19.526 and a p-value of .000 at an alpha level of 0.05. Since the p-value is less than the alpha level, the null hypothesis which states that there is no significant difference in the private unit cost of teacher education students from Colleges of Education and University is not accepted. This implies that there is a significant difference in the private unit cost of teacher education students from Colleges of Education and Universities.

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

The data in Table 5 showed a calculated Z-test of 2.568 and a p-value of .000, testing at an alpha level of 0.05. Since the p-value is less than the alpha level, the null hypothesis which states that “there is no significant difference in the private unit cost of teacher education students from Federal and State Universities is not accepted. This implies that there is a significant difference in the private unit cost of teacher education programme from Federal and State universities in South-South Nigeria.

**Hypothesis 3:** There is no significant difference in the contributions of type of institutions, programme of study, gender of students, year of study, residence of students and ownership of institutions to the private unit cost of teacher education.

From the regression data in Table 6 the contribution of each independent variable studied was determined. The contribution of the type of institution was significant with  $\beta$  .423 (42.3%). This was followed by the place of residence with  $\beta$  .269 (26.9%) and level of study  $\beta$  .224 (22.4%). Gender of students  $\beta$  .108 (10.8%) and ownership of institution had  $\beta$  .088 (8.8%). The programme of study had  $\beta$  .002 (0.2%), with the least contributory value. With a P-value of 0.954 at alpha level of 0.05, it

showed that the programme of study by students is not significant because of its 0.2% contribution to the private unit cost.

### **Discussion of Findings**

The study clearly showed the differences in the private cost of student along the factors of programme of study, gender, level of study, students' place of residence and ownership status. These observed differences could be traceable to the differences in the duration of the programme in both levels of education, as well as in the academic and social requirements. Vocational and technical programmes had a higher private cost due to the practical nature of the programmes which require the use or practical demonstration items, what students are made to buy. Female students were seen to incur more private cost of their biological and social needs than their male counterparts. First year and final year students tended to incur higher private cost. The first year students need to meet some conditions and procure certain items to enable them settle down, while the final years spend more for their projects and assignments than their counterparts in other levels of education. The fact 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 indicates that federal institutions are more financially subsidized than state institutions. Finally, the study showed that the factor of the type of institution had more influence, while programme of study had the least influence on private cost. This means that students could study any teacher education programme of their choice and capacity without significant differences in cost.

### **Conclusion**

Based on the findings of the study, it could be concluded that the private cost of teacher education in public institutions in South-South Nigeria is relatively, 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**

1. State teacher educations programme should be subsidized to ameliorate the private cost burden either by way of increasing their allocation or award of bursaries and scholarships to students.
2. More hostels and well-equipped libraries should be provided for students to reduce the cost of transportation and books.

3. Non-governmental organizations involved in female empowerment should provide some form of financial assistance for female students to ameliorate their cost burden.

**Table 1: Private unit Cost of teacher education in public tertiary institutions in South-South**

Status of Institution	No of Respondents (N)	Academic Cost (₦)	%	Non-Academic (₦)	%	Total Private Cost (₦)	Private Unit Cost (₦)
Tertiary Institutions	2030	152,924,427	35.77	274,589,748	64.23	427,514,175	210,598.12

Source: Researcher's field work

**Table 2: Unit cost components of private cost of teacher education in Colleges of Education and Universities**

Component of Academic Cost	Colleges of Education			Universities		
	Number of Respondents (N)	Total Private Cost ₦	Private Unit Cost ₦	Number of Respondent	Total Cost ₦	Unit Cost ₦
Examination charges	769	16,297,600	21,193	1261	39,543,500	31359
Books	769	11,120,000	14,460	1261	33,363,900	26458
Admission expenses	769	4,907,400	6,382	1261	19,243,000	15269
Projects/Assignment	769	2,078,000	2,702	1261	5,113,318	4055
Student handbook	769	2,050,100	2,666	1261	4,609,400	3655
Faculty dues	769	551,800	718	1261	2,646,500	2099
Teaching practice	769	239,500	311	1261	2,580,800	2047
Departmental dues	769	361,500	470	1261	1,520,900	1206
Stationary materials	769	1,459,200	1,897	1261	1,444,009	1145
Excursion	769	105,000	137	1261	1,096,000	869
SIWES	769	234,500	305	1261	93,9000	745
Practical materials	769	202,001	263	1261	803,800	637
Tools	769	149,000	194	1261	264,700	210
Subtotal	769	66,065,494	85,911	1261	119,522,327	94,784
<b>Incidental Cost</b>						
Feeding	769	41,391,002	53,824	1261	6,955,310	55157
Clothes/Wears	769	2,911,003	37,854	1261	63,937,996	50704
Accommodation	769	18,131,997	23,579	1261	29,847,101	23669
Transport	769	4,061,297	5,281	1261	32,092,498	25450
Entertainment/Midday snacks	769	1,597,897	2,078	1261	2,014,334	1597
Medicals	769	1,667,899	2,169	1261	1,768,906	1403
SUG	769	632,403	822	1261	1,744,795	1384
Laundry/Toiletries	769	1,540,307	2,004	1261	1,636,110	1297
Identity card	769	742,200	965	1261	1,160,297	920
Replaced damages	769	-	-	1261	546,795	434
Clubs/societies	769	73,801	96	1261	228,105	94

Subtotal	769	72,749,856	94,603	1261	169,176,548	134,161
Grand Total	769	138,815,300	180,514.04		288,698,875	228,944.34

**Source: Researchers Field Work****Table 3: Private unit cost of the variables under study**

Variables studied	Number of Respondents (N)	Total private cost (₦)	Unit private cost (₦)
<b><u>Type of institution</u></b>			
College of Education	769	138,815,300	180,514.04
University	1261	288,698,875	228,944.39
<b><u>Programme of study</u></b>			
Vocational/Technical Education	459	98,792,551	215,234.32
Sciences	470	99,239,400	211,147.66
Arts/Social Sciences	454	95,686,700	210,631.49
Languages	647	133,795,524	206,793.14
<b><u>Gender</u></b>			
Male	1065	207,509,821	194,884.90
Female	965	220,004,354	227,983.79
<b><u>Level of Study</u></b>			
Year one	599	139,611,624	233,074.50
Year two	569	111,204,307	195,438.15
Year three	554	113,843,200	205,460.65
Year four	308	62,855,044	204,074.82
<b><u>Residential</u></b>			
Rented apartment	700	160,929,200	229,898.86
School hostel	1135	234,548,475	206,650.64
Family apartment	195	32,036,500	164,289.74
<b><u>Ownership of Institution</u></b>			
Federal	968	173,286,138	197,014.60
State	1062	254,228,037	239,386.09

**Source: Researchers field work.****Table 4: z-test of independent samples of Private Unit Cost of students from public colleges of education and universities**

Types of Institution	Number of Respondents (N)	Mean	Std Deviation	df	z-Test Value	Sig. (2-tailed)
Colleges of Education	769	180,514.04	32017.909	2028		.000
University	1261	228,944.39	77909.678			

$$\alpha = 0.05$$

**Table 5: z-test of independent samples of private unit cost of students from Federal and State universities**

Ownership of Institution	Number of respondents (N)	Mean	Std Deviation	df	z-Test Value	Sig. (2-tailed)
State	611	234644.26	50162.114	1259	2.568	.000
Federal	650	223586.520	96747.426			

$$\alpha = 0.05$$

**Table 6: 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****Coefficient**

Variable	Unstandardized Coefficients		Standard coefficient	Z-Value	Sig.	Coefficient of determination
	B	Std error	Beta			
Constant	19593.118	12366.291		15.845	.000	-
Type of Institution	59880.158	4482.990	.423	13.357	.000	42.3%
Programme of Study	99.451	1711.133	.002	.058	.954	0.2%
Gender	14843.872	4009.662	.108	3.702	.000	10.8%
Level of study	-17055.36	2290.923	-.224	-7.445	.000	22.4%
Residential Type	-30025.896	3259.440	-.269	-9.212	.000	26.9%
Ownership of Institution	-12251.303	4336.369	.088	-2.825	.005	8.8%

Source: Researchers field work  $\alpha = 0.05$

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