Relationship Among Public, Private Costs and Transition of Junior Secondary Students In Federal Capital Territory: Implications For Human Capital Development In Nigeria

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Abstract: This study investigated relationship among public, private costs and transition of Junior Secondary Schools (JSS) students in Federal Capital Territory (FCT) Abuja and its implications on human capital development in Nigeria. Two research questions and two hypotheses guided the study. The study was anchored on the equalization theory of Cubberley, 1905. The study employed Ex-Post-Facto and a Descriptive Survey research design. The population of the study was 47,576 year three students in 182 public JSS. A sample size of 18 (10 percent) Schools participated in the study. Three instruments were used for data collection; Enrolment and Budgetary Allocation Inventory Proforma (EBAIP), School Sample Receipt (SSR) and Students’ Sundry Expenditure inventory (SSEI). The findings revealed that though, the policy provides for free JSS, private costs contribute 24.15 percent of the total of JSS in the FCT from 2015 - 2020 was 24.15. FCT recorded only 73.78 percent transition rate with 26.22 percent drop-out. The private cost contribution was found to be statistically significant. The finding of the study also showed an inverse relationship between private cost and students’ transition to Senior secondary schools. The study recommended that Federal Capital Territory Administration should initiate interventions in the form of scholarship and bursary awards to provide supports to parent of the indigent students to stay and complete SSS education. Federal Capital Territory Education Secretariate should carry out advocacy and sensitization to the international development partners on the need to extend educational support to the SSS level in the bit to reduce Out-Of-School Children (OOSC).

Key Words: Public Cost, Private Costs, Transition, Junior Secondary Students, Federal Capital Territory & Human Capital Development.

Introduction
Investment into education has attracted attention of scholars in the field of economics of education. Alfred Marshal in 1890 commented that there were few practical problems with direct interest to economists. Practically, economics of education is interested on issues which border on expenditures in education. Miller in 1966 was concern on studying how expenditures should be divided between state and households. West, in 1964 also addressed the issue of public or private finance of education and the economic consequences of
expenditures on education. In addition, scholars such as T. W. Schultz, 1961 and G. S. Becker, 1964 developed the popular Human Capital Theory which provided justification that people spend on education for future productivity. The general idea is that education should not only be social service but also as an investment. Therefore, public and private spending on education is encouraged where there are perceived superior positive effects of the efforts made (Undie, J.A 2007, Țaran-Moroșan, Sava and Diaconescu, 2010).

The launching of Universal Basic Education in 1999 in Nigeria was a commitment to the achievement of the ‘Education For All’, an international initiative which was designed to provide quality basic education for all children, youths and adults who never had access to education. This was designed to achieved the millennium development goal two which was aimed at achievement of universal primary education by 2015. By the provision, the junior secondary School (JSS) constituted a major component of the nine-year free and compulsory education. Following this development, the expectation was that access to JSS component could increase, now that government took the initiative of bearing the costs, hear in refer to as public cost. The substitution of the burden of private cost in the provision of JSS was a fertile ground for the improvement into the enrolment of JSS.

The provision of education in Nigeria is in the concurrent list, it is both public and private sector driven. In this wise, the national policy on education recognises that provision of education is capital intensive and requires financial provision from all tiers of government for successful implementation of educational programmes. Hence, the provision of education is a joint responsibility of Federal, State, Local governments and private sectors. In this connection, government welcomes and encourages participation of local communities, individuals and organizations (FGN, 2013).

The Universal Basic Education Act 2004, made provision of the financing arrangements for the implementation of the Universal Basic Education (UBE) programme. Accordingly, the programme is financed from;

i. Federal Government block grant of not less than 2 percent of its Consolidated Revenue Fund;
ii. funds or contributions in form of Federal guaranteed credits; and
iii. local and international donor grants;
iv. For any State including Federal Capital territory (FCT) to qualify for the Federal Government block grant would have to contribute not less than 50% of the total cost of projects as its commitment in the execution of the project. (Federal Government constitute the public cost for providing for UBE that comes from the federal government block grant and the 50% contributions for the implementation of the expenditure for basic education programme (FRN, 2004:6).

Conceptually, cost is the monetary expression of the value of resources required to develop and/or implement an intervention or produce specific goods or services, regardless of how these resources are financed. Cost is different from price, which is the monetary value exchanged in a market transaction for one unit of a good or service (Walls, 2021).

Educational costs in general include both the actual expenses and the opportunity costs incurred by the person who makes the investment in education. In other words, it is the income which public or individuals’ give-up during the life devoted to education. The total cost of education of a person comprise both the costs supported by the individual and the social costs paid by the society for him. In other words, it includes all the amounts paid for an individual to become educated, regardless of the person or persons who pay these costs. (Țaran-Moroșan, Sava and Diaconescu, 2010). This lays credence to the assertion that no level of education can totally be free to any of the stakeholders. While governments on one hand intervenes in the provision of a particular level education by incurring expenses and opportunity costs, individuals on one hand bear significant amount of costs either in the form of actual expenditure on education or give-up earnings in the course of acquiring education.
Dada and Ofie (2018) saw cost in education to represent the real resources devolved to education, this could be in cash, material and sacrifices that are surrendered or made to produce an educated person at given level of education. The cost of education could be incurred by the stakeholders; State, organizations and private individuals. Agabi, (Dada and Ofie,2018) maintained that cost of education is the amount of money paid for a student in the course of acquiring education. It is the price that an individual or a group of people have to pay to acquire education or to provide education for another person or group of persons. Therefore, in this case cost represents the costs incurred by the Federal, State, Non-Govermental Organizations (NGOs) and individuals in the provision of JSS in the FCT. Cost in education is majorly categorized into public otherwise called institutional costs and private costs.

Public cost of education entails the cost borne by government on the basis of taxes, loans and other public revenues on the account of providing education. Public costs of education could be in the form of recurrent, otherwise called the overhead cost and capital costs. The later component of educational cost represents annual ongoing expenses of the education sector. It is also refer to as Operational cost. This cost component captures staff salaries, which takes the largest chunk of the overhead costs. The recurrent costs also include the cost for textbooks, Teachers’ manuals, educational supplies such as Chalk/White Boards, School records, Stationery, teacher training, capacity building monitoring and evaluation costs. Capital costs components include the costs for the provisions of infrastructure in the school system and other educational facilities; the type of cost incapsulates dost for equipment such as school furniture, computers, constructions such as roads, toilets, boreholes. Operationally, special projects & programmes that appears to recurrent in nature could be captured under capital cost especially when they are hug to be accounted as recurrent cost (Unpublished UNICEF training Manual, 2020).

Private cost of education is concerned with the cost borne by individual in families, it represents costs which the individuals and the families must bear in return for the education received. These costs are incurred in the payments of tuition and examination fees and other such fees; institutional supplies; manuals and books; transport; uniforms; foregone earnings and sundry expenditures. To this end, it can be observed that the cost of providing JSS education ultimately is not totally free of the private costs as parents, individuals grapple with the payments of the hidden costs of education.

Costs associated with schooling are frequently cited as a barrier to school enrolment and a cause for dropout in Nigeria, especially costs for education which are directly or indirectly related to students’ households. The study of 2010 Nigeria Education Data Survey (NEDS) found that around 60% of households were still paying PTA levies and buying uniforms. Household costs are private costs associated with purchase of books and supplies and other hidden cost such transports to and from school. These have to a large extend increased costs of education to the learners (UBEC 2012; Humphreys and Crawfur,2015). This implies that though, theoretically UBE is free for all, the reality on the ground is that households still bore some costs. This situation is more worrisome when parents have to shoulder the entire cost without public interventions as in the case of Senior Secondary School (SSS). Biwott (2013) established that cost variables borne by parents potentially effect students’ transition and are linked to be the third most common cause for non-enrolment affecting about a quarter of children, one third of dropouts nationally, non-completion and transition of students in secondary school level. Transition as in this study is described as the gradual process of moving from JSS to SSS (Jindal-Snape, Symonds, Hannah and Barlow, 2021).

Worthy to note is that in the past two decades, Nigerian educational system has undergone major structural, policy changes and innervations geared towards enhancing free and compulsory basic education for the first nine years of schooling. The impact of the policy direction was noticeable in the rise of enrolment into public JSS in the four-year. The period recorded visible overall improvement in transition rates nationally across the zones. An improvement in transition rates of 43 & 54 percent were recorded in 2007 and 2010.
respectively (Humphreys and Crawfurd, 2015). This is an indication that all thing being equal, government intervention could improve school participation.

However, despite the interventions to maintain the gains recorded at the JSS level of education, out-of-school children (OOSC) still persists. OOSC includes children within the ages 6-17 who have never attended school, as well as those who were once in school but dropped out at some point for some reasons (Federal Republic of Nigeria, 2021). In 2010, NEDS estimated that there are about 11.8 million children aged 5-16 in Nigeria that had never attended school. In addition, one million who dropped out of school two or more years previously (Humphreys and Crawfurd, 2015). The challenge is more serious at SSS as the gross enrollment ratio in upper secondary school in Nigeria dropped over the past years. In 2018, only 38.7 percent of population in upper secondary education age was enrolled. Statistics has also shown that of the twelve million children aged 6-17 out of school in 2018/19, 3.8 million were in the senior secondary reference age group 15-17 years (Federal Republic of Nigeria, 2021).

Available data at the Federal Ministry of Education (FME) 2019 indicate that from 2011 and 2016 the enrolment JSS enrolment figures stood 5.8 and 6.9 million student while the enrolment figures at the SSS level remained between 4.2 and 5.8 million students. From the analysis the deficit of enrolment figures between JSS and SSS ranged between 15-30 percent annually. Implying that the 15 -30 percent students that were not accounted for at the SSS level swelled up the OOSC in Nigeria. In addition, the Nigeria Living Standards Survey in 2018/19 established that the adjusted net attendance rates in Junior Secondary School was 94.3 while that of Senior Secondary school was 81.8 percent (Federal Republic of Nigeria, 2021). This indicates that at the national level there is a gap in the JSS students’ transition to SSS. Although, there appears to be limited studies in the FCT that establish a relationship between private, public cost and transition rates from JSS to SSS, the situation may not be different from what obtains at the national level. The concern of the study is that aside other factors restraining students transition to SSS, private cost of education could have significant limitations for students transition in the FCT, Abuja. Therefore, the relationship among public, private costs and transitions of JSS to SSS is the concern of the study.

The study is anchored on equalization theory, proposed by Cubberley in 1905. According to the model, state support educational provision to equalizing educational opportunities as well as ensuring fairness…. The duty of the state is to secure for all as high a minimum of good education as possible, but not to reduce all to this minimum, to equalize the advantages to all as nearly as it can be done with the resources at hand or place a premium those local effort which will enable communities to rise above the legal minimum as far as possible, and to encourage communities to extend educational energies to view and desirable undertakings (Undie, 2007). Where the state extends its financial supports beyond JSS, this could positively influence transition of students to SSS thereby reducing OOSC and increasing the build-up of stock human resources for the economy.

**Research Questions**

The following research questions were raised for the study:

1. What is the percentage of annual private costs contributions to the total costs of Public Senior Secondary Schools in the Federal Capital Territory from 2015 -2020?
2. What is the transition rate of students from Public Junior Secondary Schools to Public Senior Secondary School in the Federal Capital Territory from 2015 – 2020?

**Hypotheses**

H0: Private costs do not significantly contribute to the total costs of public Junior Secondary Schools in the Federal Capital Territory from 2015 -2020.
H0: There is no significant relationship between private costs and transition rate in Public Junior Secondary Schools in the Federal Capital Territory from 2015 -2020.

Research Design

The study employed two research designs; Ex-Post-Facto and a descriptive survey research design. The former was to allow for the harvest of existed secondary data of public costs, the approved budget of FCT- Universal Basic Education Board (UBEB) and students’ enrolment from FCT, Department of Policy Planning Research and Statistics (DPPRS). The later design is suitable because it substantially complies with the basic principles of the design which allows for collection of data from sampled respondents (students) considered to be representative the larger population.

The population of the study consisted 47,576 students of year three from 182 Public JSS in the FCT. A total of 18 (10 percent) Junior Secondary Schools in the FCT participated in the study, the sampled schools were first stratified by area councils and randomly selected for the study. Nwana (Adukwu, 2001) suggested that in population of few thousand 10 percent sample size was adequate for in social science research. The researchers referred to sampling standards of Krejcie and Morgan, 1970 and selected 181 respondents proportionally from the schools as sample for the study.

Three instruments were developed for data collection; Enrolment and Budgetary Allocation Inventory Proforma (EBAIP), a School Fees Sample Receipt (SFSR) and Students’ Sundry Expenditure Inventory (SSEI). EBAIP collected students’ enrolment and the budgetary allocations (public cost) from the FCT-UBEB and DPPRS for the period of the study, 2014 to 2020. SFSR was used to harvest tuition and non-tuition fees where applicable; it indicated the official amount students pay per term, representing part of private costs of JSS. The thirdly instrument, SSEI contained 17 items of costs drivers designed to collect data on unreceipted hidden students’ sundry costs borne by households of JSS students, the data was supplied on daily, weekly and termly basis.

The instrument for the collection of public costs and the school receipt were not subjected to validity and reliability tests; they are both audited and certified official documents. SSEI was only validated through peer review with colleagues in the department to ensure that hidden cost variables were adequately captured. This instrument did not require reliability test as the data involve were purely financial figures used by students. Applications were made to the relevant offices in the FCT to obtain secondary data on budget and students’ enrolment. To collect primary data, the researchers obtained permission from the school authorities to distribute SSEI, respondents were guided on how to supply data on the students’ sundry costs while in school. Simple percentage was employed to answer research questions of the study with results presented in graph and histography. ANOVA was used to test the hypotheses of the study. Private costs for the sampled students was calculated by summing up all the cost driver variables as follows;

\[
PC_{n1} = \left(\sum X_1, X_2, X_3, X_4, X_5, \ldots, X_n\right) / n
\]

where \(PC_{n1}\) = Private Costs of base line year,

\(X_1, \ldots, X_n\) = cost driver variables for individual student.

\(n\) = Number of sampled students

\(N\) = Number students enrolled in the years under consideration.

Results and Discussion

Research Question One

What is the percentage of annual private costs contributions to the total costs of Public Senior Secondary Schools in the Federal Capital Territory from 2015 -2020?

Table 1: Private Costs Contributions to the Total costs of Public Junior Secondary Schools in the FCT
Table 1 and figure 1 present public and private costs of JSS in the FCT. The analysis revealed that though, JSS is said to be free in the FCT and elsewhere in the nation, private costs contribute 24.15 percent of the total costs of JSS in the FCT from 2015-2020. Details of the analysis showed trend of private cost of JSS which fell between 20.03 percent and 27.99 percent. The highest total private cost of 27.99 percent was recorded in 2014/2015 session. A gradual down turn in the annual private cost was noticed in the period of the study; in 2015/2016 private cost was 25.20 percent, subsequently dropped to 24.64 percent, 23.83 percent, 23.18 percent and 20.03 percent in 2016/2017, 2017/2018, 2018/2019 and 2019/2020 respectively.

Research Question Two:

What is the percentage of annual private costs contributions to the total costs of Public Senior Secondary Schools in the Federal Capital Territory from 2015-2020?

Table 2: Transition Rate from Public JSS students to Public SS One in the FCT
Figure 2: Transition Rate from Public JSS students to Public SS One in the FCT

Table 2 presents results of the analysis of transition rates of JSS students which and graphically represented in figure 2. The result of the analysis revealed that FCT recorded only 73.78 percent transition rate with 26.22 percent drop-out. Details of the analysis revealed that the highest transition rate of 82.02 percent was recorded in 2016/2017 leaving behind only 17.98 percent. In 2014/2015 and 2019/2020, 77.93 percent and 77.01 percent of students transited to SSSI with 22.07 percent and 22.99 percent respectively dropping out of the link. In 2015/2016, 2017/2018 and 2018/2019, the transition rates were between 67.93 percent and 69.81 percent leaving between 30.19 percent and 32.07 percent out of the system.

Hypothesis

H0: Private costs do not significantly contribute to the total costs of public Junior Secondary Schools in the Federal Capital Territory from 2015 -2020.

Table 3 Private costs do not significantly contribute to the total costs of public Junior Secondar Schools in the Federal Capital Territory.

Table 3: Analysis of Variance of Contribution Private Cost to Total Cost of JSS in FCT

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>R</th>
<th>r²</th>
<th>Sig@0.05</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Costs</td>
<td>6</td>
<td>16457282279.70</td>
<td>3157674367.29</td>
<td>0.947</td>
<td>0.898</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>Private Costs</td>
<td>6</td>
<td>3905244356.3533</td>
<td>344339136.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Result on Table three showed that Private costs do significantly contribute to the total costs of public Junior Secondary Schools in the Federal Capital Territory (p=0.002, which is less than 0.05 level of significance). As a result, the hypothesis was rejected. In other words, there was a very strong positive correlation (0.947) which shows that there exists a very strong positive influence of private cost on the total cost of public secondary school in the Federal Capital Territory. The $r^2$ value of 0.898 shows that only 89.8 percent of the variance in total costs of public Junior Secondary Schools in the Federal Capital Territory can be explained on the basis of influence of private costs variations.

**HO2:** There is no significant relationship between private costs and transition rate in Public Junior Secondary Schools in the Federal Capital Territory from 2015-2020.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>$r$</th>
<th>$r^2$</th>
<th>Sig@0.05</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition Rate</td>
<td>6</td>
<td>73.78</td>
<td>5.99</td>
<td>-0.363</td>
<td>0.132</td>
<td>0.240</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Private Costs</td>
<td>6</td>
<td>3905244356.35</td>
<td>344339136.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Result on Table four showed that Private costs do not positively significantly influence the transition rates of Public Junior Secondary Schools to public Senior Secondary School in the Federal Capital Territory (p= -0.395, which is greater than 0.05 level of significance). As a result, the hypothesis which state that there is no significant relationship between private costs and transition rate in Public Junior Secondary Schools in the Federal Capital Territory was accepted. In other words, there is a weak negative correlation (-0.363), the weak negative influence implies that as private cost and transition rates of public Junior Secondary Schools to public Senior Secondary School in the Federal Capital Territory are inversely related; an increase in private cost would result in decrease of transition rates. The $r^2$ value of 0.132 shows that only 13.2 percent of the variance in transition rates of Public Junior Secondary Schools to public Senior Secondary School in the Federal Capital Territory can be explained on the basis of influence of Private costs variations.

**Discussion**

The provision of JSS education in the FCT just like elsewhere in the nation, is a component of the free and compulsory Universal Basic Education programme, a federal government intervention programme aimed at providing uninterrupted and equal access to basic quality education to children within the borders of the nation. The national policy on education is unequivocal that the 9-year duration of basic included the three years of Junior Secondary Education “shall be free and compulsory” (FRN, 2013). The philosophy behind was to aggressively pursue drastic reduction of the OOSC in Nigeria towards achieving the EFA of the MDGs and consequently SDG. Therefore, it is implied that the cost burden of the students’ transiting from JSS to SSS was squarely on the shoulder of parents. This situation could potentially cut transition rate especially in the present economic situation where parents are grappling with the impact of inflation and unemployment in addition to forgone earnings on the account of the pursuit for education. Though, the policy provides for free JSS education, the study found out that the parents and guidance still pay different kinds of fees and levies; among others include PTA levies (Local and National), examination fee, utility fee, health fee, clubs and society fee, files and badges fee, identity cards fee, sport and games fee, computer and library fees. This is in addition to the endless hidden costs; for instance, cost of uniform, textbooks exercise books, transports, school bags and feeding that are borne by parents; the sum of such could affect students transition thereby increasing the already high number of OOSC. Federal Republic of Nigeria (2021) Education Sector Analysis, also admitted that households have been paying towards their children’s education. Even in public schools, where government’s full contribution is...
expected in accordance with education policy, the study estimated that households spend an average of NGN16,900 towards their children’s schooling. Mutegi (Mwikya, Cheloti, & Mulwa, 2019) saw these costs associated with secondary education as one of the factors affecting demand for secondary education Tharaka District.

The finding of the study showed that the average percent of transition of JSS to SSS in FCT Public Secondary Schools between 20014 and 2020 stood at 73.78 percent leaving 26.22 percent dropping out of the system. This means that the 26.22 percent who never transited to SSS increased the number of the OOSC. Similarly, according to the UNESCO Institute of statistics (UIS) 2017, worldwide 85 percent of children in the last grade of primary school go on to attend secondary school. Only two regions have transition rate below this global average. Eastern and Southern Africa (67.1 percent) and west and Central Africa (52.4 percent). The study noticed that transition rates are highest in the industrialized countries (98.2 percent) and in Eastern Europe. FRN (2021) estimated that 22 percent of the children and adolescents are out of school due to cost pressures. Lewin (Mwikya, Cheloti, Mulwa, 2019) attributed this phenomenon to payment of tuition fees which constitute large chunk of household payments to education and described it as the greatest challenge in secondary education in Sub-Saharan Africa that inhibits access and transition rate in secondary education particularly among poor families.

This finding was further confirmed by the negative correlation (-0.363) between private cost and transition to SSS education. The negative relationship implies that as private cost JSS education increases the transition rates to public Senior Secondary School in the Federal Capital Territory decreases; the inversely relationship presuppose that as parents continue to pay fees this reduces the possibility of the students moving to SSS, where they would be paying high fees that will increase in private cost would result in decrease of transition rates. This finding is validated the finding of Areba, Ayodo & Chemwei (2016) that a strong positive linear correlation exist between the two variables of completion and hidden costs in secondary education in Kenya which implied that as one variable increased so did the other decreases. Mwikya, Cheloti & Mulwa, (2019) in a related study in Kenya found that cost of education, significantly influence the transition rate from primary school to secondary schools in Machakos Sub-County. The study concluded that cost of education had the greatest influence on the transition rates from primary to secondary schools in Machakosm, Kenya. Hence as the hidden costs increased the total number of students who failed to complete the four years of secondary school education also increased. Thus, they concluded that hidden cost is a key barrier to transition to secondary schools.

**Conclusion and Recommendations**

Conclusively, this research finds out that private costs contribute to the total cost of JSS education and that there was an inverse relationship between private costs and students’ transition. When students are moved from the street to enrol into basic education as result of the federal government intervention and cannot stay to complete senior secondary education. It could therefore, be deduced that without specific interventions in SSS education level, the menace of dropout syndrome of students who complete JSS education will continue unabated especially in the present economic circumstance where parents are saddled with multiple financial tasks. Wastages in the educational sector and increase in the number of OOSC is inevitable. A situation such as this when students do not transit to and complete SSS education, the implication is that the build-up of the stock of well-trained human capital for the economy becomes eminent.

From the conclusion the following recommendations are made:

1. That, the Federal Capital Territory Administration initiate interventions in the form of scholarship and bursary awards should be resuscitated to provide supports to parents of the indigent students to transit and complete SSS education.
2. That, the Federal Capital Territory Education Secretariat should carry out advocacy and sensitization to Development Partners on the need to extend educational supports to the SSS level in the bid to reduce OOSC.

3. That, the Principals of public secondary schools should mobilize SBMC to initiate Private Cost Reduction Strategy (PCRS) by raising funds from community-based associations in form grants to support schools in provide uniforms, instructional materials as financial supports to poor families.

References


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