Reforming Education through User Fees: Ability and Willingness to Pay For University Education in Calabar, Nigeria

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Abstract
This study explored user fees as a policy option in transforming university system in Calabar-Nigeria and its implications for ability and willingness to pay for the cost of schooling. The study was expected to provide a baseline information on the policy-planning process of user fees in solving revenue and financing problems of the university system for efficiency. This survey inferential design study had two research questions and one hypothesis that guide the investigation. With the use of stratified random sampling technique, 460 parents were drawn from the parents’ population in the two universities’ locations. Data collection was carried out using a researchers’ constructed instrument called “Household Reaction To Cost of Schooling Questionnaire (HRTCOSQ)”. Descriptive statistics (using tables and percentages) and Ordinary Least Square Regression Analysis were used to statistically analyze data collected for the study. Results obtained revealed that households in Calabar were able and willing to pay for the cost of schooling. The low income group households were willing to pay more for the male than the female children. The desirability of the user fees as a policy option depended on the ability and willingness of the household to pay for the cost of schooling. It is therefore recommended that the user fees should be adopted by university's administration to raise revenue while government should provide scholarship to brilliant students from low-income households to cushion effects for equity.

Keywords: Household, user fees, cost, reforming, university education.

1. Introduction
Investment in education leads to the accumulation of human capital which is the key to economic growth and increased income. Education therefore, is a private and social investment shared by individuals, families, employers, government and other groups (including international agencies). According to Wasser and Picken (1998), the financial base of public higher education can be strengthened by mobilizing a greater share of the required financing from students (users) themselves. This is basically because students can expect significantly greater lifetime earnings as a result of attending higher educational institutions. Moreover, students are from families with the ability and willingness to pay most of the expenses associated with higher education. On the basis of this, universities in Nigeria can introduce or increase user fees in order to recover some of the costs of education and sustain quality and efficiency of the system.

User fees in this study is said to mean the compulsory contribution in cash or kind by users of educational services towards the costs of their provision. According to Ayodele (2006), education is privately financed when the recipients or users of the services pay directly for it. It is publicly financed when general tax revenue is the source of funding. The importance of user fees is affirmed in World Bank (2004) when it asserts with regards to higher education that a growing number of developing countries are moving in the direction of cost-sharing. This implies that user fees have been promoted as an essential policy response to the financial crisis facing the social sectors in many low and middle income countries. The common presumption is that user fees are strongest with higher education and weakest for primary education (Thobani, 2010).

2. Problem of the study
The high cost of schooling in universities in Calabar poses a lot of financial burden to the university administration, government and the household. In the face of competing demands from other sectors of the economy, it becomes pretty difficult for government to continue to shoulder this responsibility alone. The university education can therefore be subsidize through private investment option of user fees, but to an extent that the household (individuals and families) are able and willing to pay for. The consequence of this is inadequate finance currently
experienced by most public university administration impacting negatively on quality and efficiency in the system. The problem of this investigation therefore, is derived from establishing the extent to which the cost of schooling in universities in Calabar, Nigeria is justified by the household income range of the socio-economic class. This is necessary now in this period of global financial crises in order to ensure user fees and its relevant increase in school charges can be paid for by parents and thus, desirable. Most studies on detailed analysis of cost of schooling are expenditure based. Little or no study has been investigated on user fees as cost recovery option vis-à-vis households income range to determine the ability and willingness to pay. The study therefore contributes to the filling of the gap and hence added knowledge to the literature.

3. Research questions

1. What are the ability and willingness of households to pay for increase in cost of schooling in state-owned university?
2. What are the ability willingness of households to pay for increase in cost of schooling in federal-owned university?

4. Hypothesis

There is no significant relationship between the cost of schooling in universities and the household income.

5. Literature review

The justification of user fees by individual students as private investment in education is that it will make the greatest possible contribution since education yields direct and indirect benefits to the individuals. If it does not, then the scarce resource are not being allocated as efficiently as possible (Psacharopoulos and Woodhall, 1986). As such, tax burden on citizens should be reduced while the user fees in university education increased. Ironically, those who benefit from education should pay for it. Contributing to this reason, Ayeni and Odugoye (2009) pointed out that standards in education are falling in Nigeria basically because government wants to shoulder the full responsibilities of financing education. A point is made here that tax payer’s money that goes into university education should be made appropriate to the social benefits accruing to the society as a whole. Therefore, the rest should be borne by the individual who possesses it. User fees may be integral components of the neo-liberal and macro-economic policies put forward within stabilization and structural adjustment programme for the economic transformation of Nigeria.

The argument in literature in favour of user fees as private investment in education is that, it creates incentives for costs containment by sharpening cost consciousness among students and school managers. Mingat (2008) considers the scheme useful in high performing Asian economic. He established the relationship between the proportions of private financing on unit costs in pubic institutions. Higher education unit costs tend to decrease as the countries develop. Zumelmen (2006) asserts that such cost-recovery ensure effective and flexible use for greater self-help potential. Considering the cost of schooling and the income of household, the relationship flatten out as the rate of users fees goes beyond 40 percent, suggesting that the gain in cost containment is minimal beyond that point.

Education costs and financing attract special attention particularly in the era of budgetary austerity by government. The users (individuals or families) must usually cover the part of the university cost. According to Okuwa (2009), two factors are very critical to users namely earnings forgone and private rate of returns to family investment in education. The earnings forgone by those who are studying and not working are high in university education. In Nigeria like most third world countries, such indirect costs are financed privately. The exception being the direct cost to tertiary education in respect of students’ scholarships, bursary or student loans, usually below market interest rates.

Also, the high private rate of returns to family investment in the university education made the students to share significantly in the burden of the costs of their education, especially those from wealthy homes. The general reason for this is that, they will earn more in later life as a result of having received university education. In the view of Lawton (2002), costs recovery in higher education is needed to guide higher education authorities in deciding which programme to expand and which one to contract or eliminate. Therefore, university education should be managed to ensure that the output of education is demand driven and socially useful. However, special subsidies and students from poor homes are not financially constrained from pursuing university courses for which they are academically qualified (Appleton 2007). The focus of this study is on the user fees and its implications for household in terms of the ability and willingness to pay for the cost of schooling in universities in Calabar, Nigeria.
6. Methodology

This study was conducted in Calabar in Cross River State of Nigeria. The study area is the seat of administration in the state and constitutes two local government areas namely Calabar Municipality and Calabar South Local Government Area. It covered two universities located therein, one of which is owned by federal government of Nigeria (university of Calabar) while the other is owned by the state government (Cross River University of Technology). The design adopted for this study was survey inferential research design.

Parents of the students residing in the study area made up the population. A sample size of 460 parents of the university students were drawn using the stratified random sampling techniques. The basis of stratification was the local government areas for the selection of the household units. Further breakdown showed that 230 household units were drawn form each of the two local government areas.

Researchers’ constructed instrument called “Household Reaction To Cost of Schooling Questionnaire (HRTCOSQ)” was used to collect data. The questionnaire consisted of 22 items (12 items on household income and 10 items on cost of schooling in the universities). The respondents were expected to tick ‘Yes’ or ‘No’ for items that apply to them.

Experts in educational measurement and evaluation face-validated the questionnaire. A test-retest method gave a reliability coefficient estimate of 0.81 which was considered reliable for use in achieving the research objectives.

Administration of the instrument was personally carried out with the aid of four other research assistants recruited in each of the two local government areas. The instrument was administered to the 460 subjects sampled and the measures adopted in doing this gave a 100 percent return rate.

A descriptive statistics (using tables and percentages) and econometric (using Least Square Regression Analysis) were used to statistically analyze data generated for the study.

7. Data analysis and results

The information gathered from the subjects were subjected to descriptive statistics using tables, mean, percentages and Ordinary Least Square Regression test. The analyses are shown in tables 1, 2 and 3.

The reaction of parents of the students to change in the cost of schooling was estimated using simple simulation exercise by percentages. This was done to know the number of parents who were willing to send their children to either state or federal owned universities if fees increased by certain percentages; while ordinary Least Square Regression Analysis was used to establish the relationship between household income and cost of schooling. In the regression model, the cost of schooling is the dependent variable while the household income of parents’ education and the choice of university are the explanatory variable.

7.1 Research question one

Table 1: Percentage reactions of households in Calabar to increase in cost of schooling (in the State-owned University). N=460

<table>
<thead>
<tr>
<th>Increase in cost of schooling</th>
<th>Very poor 20%</th>
<th>Poor 21%-44%</th>
<th>Rich 45%-69%</th>
<th>Very rich 70% &amp; above</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>20%</td>
<td>92.90</td>
<td>94.90</td>
<td>97.90</td>
<td>92.90</td>
<td>80.00</td>
</tr>
<tr>
<td>50%</td>
<td>65.70</td>
<td>67.70</td>
<td>70.70</td>
<td>62.60</td>
<td>38.30</td>
</tr>
<tr>
<td>100%</td>
<td>44.40</td>
<td>43.40</td>
<td>28.30</td>
<td>29.30</td>
<td>27.60</td>
</tr>
<tr>
<td>200%</td>
<td>22.20</td>
<td>17.20</td>
<td>14.10</td>
<td>13.00</td>
<td>27.50</td>
</tr>
</tbody>
</table>

Source: Computed by the researcher from field survey, 2010.

The result of data analysis presented in table 1 have shown generally that the percentages of parents who send their children to the state university were more despite the increase in cost of schooling. The percentage of parents willing to pay the increase were greater in number. The implication of this was that the income of parents was a major factor in sending children to the state institution with relatively higher school charges. Also, the parents who sent their children to the state university (Cross River State University of Technology) were willing to pay this
increase because of the perceived better quality outcome coupled with the perceived benefits expected from the technological courses offered in the institution.

Nevertheless, when the school charges increased by 200 percent, a higher percentage of parents under very poor income group were not willing to pay this increase for female students, while the poor and the very poor income range groups showed an appreciable percentage willingness to pay for their male students.

7.2 Research question two

Table 2: Percentage reactions of households in Calabar to increase in cost of schooling in the Federal-owned University. N=460

<table>
<thead>
<tr>
<th>Increase in cost of schooling</th>
<th>Percentage of parents willing to pay according to income range</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>94.00 95.40 92.80 93.90 92.10 92.50 89.90 93.78 92.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>42.10 41.90 41.90 39.20 47.20 45.10 58.70 55.60 47.48 45.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>16.80 16.80 21.20 18.60 22.80 19.20 30.00 26.20 22.70 20.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200%</td>
<td>9.90 7.90 7.10 5.50 11.60 8.44 17.60 15.90 11.05 9.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Source: Computed by the researcher from field survey, 2010.

The results of analysis in Table 2 have shown that higher percentages of parents were willing to pay the increase in the cost of schooling. A comparison of the willingness to pay for increase in cost of schooling in Federal and State owned Universities revealed that, parents were willing to pay for the increase in cost of schooling after 20 percent increase (for male and female students). The state university has a more favourable percentage willingness to pay by parents than the Federal University at the various levels of cost of schooling increase.

Further examination of the results in Table 1 and Table 2 revealed that parents play positive and significant role in sending their children to either the State or Federal University. The lower the increase in cost of schooling, the higher the willingness of the parents to pay the increase. For instance, at the lower increase in the cost of schooling of 20% all income groups were willing to pay the cost of schooling in the State and Federal Universities. This proved that the parents believed that university education was an investment that can yield returns or benefits to the students, families and the nation. The user fees policy option was stated in a manner easily measurable, and reflected a radical departure from the previous policy.

7.3 Hypothesis

There is no significant relationship between cost of schooling and households income. The independent variables were the cost of schooling while the explanatory variable was the households income and choice of universities.

Table 3: Ordinary Least square regression analysis of the relationship between household income and cost of schooling in universities in Calabar, Nigeria.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>t-value</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>162.33</td>
<td>11.44</td>
<td>0.00</td>
</tr>
<tr>
<td>Household income</td>
<td>0.16</td>
<td>7.12</td>
<td>0.00</td>
</tr>
<tr>
<td>Choice of school</td>
<td>-0.078</td>
<td>-3.45</td>
<td>0.00</td>
</tr>
<tr>
<td>Father’s education</td>
<td>0.037</td>
<td>1.64</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Computed by researcher from field survey, 2010.

The results presented in Table 3 showed that there was a significant relationship between household income and cost of schooling. It further revealed that the higher the income of the household, the greater the probability of the parents to pay for the increase in cost of schooling.

From the results, the positive constant suggested hypothetically that there were no household income or choice of universities and education of parents. Parents would still bear the cost of sending their children to universities. All variables are statistically significant at 0.05 except parents’ education. The choice of university education though statistically significant, it has a lower t-value (-3.45). The negative coefficient of choice of university education
means that parents would demand less of the education offered by the universities with high cost of schooling. Also, the $R^2$ of 0.37 implied that the regression equation explained 37 percent of the variation in the dependent variable. The F-statistics allowed for a test of the null hypothesis. The critical value associated with 5 percent level of significant at 3 and 1978 degrees of freedom in the numerator and denominator respectively in F distribution table gave 2.60. The null hypothesis was therefore rejected given the fact that the obtained F-value of 25.35 was found to be higher than the critical F-value of 2.60 at 0.05 alpha level of significant.

8. Discussion of results

The outcome of the study revealed that the parents of students in both the State and Federal University in Calabar were able and willing to pay for the cost of schooling of their children/wards. This suggested that the household was a potent factor in the schooling of their children in the universities. Also, the higher the household income range, the more the household were able and willing to pay for the cost of schooling.

This finding was consistent with the outcome of Bank (2004) and Mingat (2008), which revealed that parents of graduating students were willing to pay for the cost of schooling of their children in proportion to their earnings. A germane explanation for this finding centred on the unimpressive funding of education both by the State and Federal Government of Nigeria. A few years back, the funding has been revolving between 7 and 8 percent (Ekanem, 2011). However, given the increase from 8-13 percent in the year 2012 nation’s budget to education, not much in expected to reform the sector. The fallout of this study revealed that inadequate funding in universities in Calabar could be resolved through the introduction of user fees as a means of recovering part of the cost of schooling in university and ensuring improvement in education services. This may account principally for reforms in universities in Nigeria towards national transformation since the communities tend to appreciate the benefits for the collectivity programmes.

Furthermore, the result showed that parents’ education were very important in the education of their children. This was because parents’ education could affect the priority given to education by parents and their willingness to pay the costs of schooling. This is in consonance with Lawton (2002) that the education of individuals correlated with the social class of parents in third world countries. User fees policy option was advocated to raise revenue for university improvement and its desirability has been established using price elasticity and demand for schooling (Okuwa, 2009). The ability and willingness to pay for the university education could improve infrastructural facilities and maintenance of the productive workforce in order to positively affect the quality of output. Closely akin to this was the fact that in Africa, there is a stereotyped belief that male domain is nurtured from birth by various agents of socialization which could influence children behaviour at school (Thobani, 2010 and Appleton, 2007). It therefore followed that when cost of schooling was high (as much as 200 percent), the poor income group could only be willing to pay more for the male students than their female students. Based on these realities, the universities would stand a better chance of realizing more revenue and ensure gender equality/equity by not increasing the cost of schooling beyond affordable proportion of the households. The objectives of the new policy initiatives were properly understood by the students and the families.

The outcome of the hypothesis revealed that there was a significant relationship between the household income and the cost of schooling. The implication of this was that the universities should charge fees to those in the upper tail of income (rich and very rich income groups) distribution. This is important when considering the fact that the wealthy households have high regard for quality education and willing to pay for the educational services without regards for welfare consequences (Wasser and Ricken, 1998). A reliance on user fees by educational administrators could assist institutions in tapping the much needed resources from private investors for galvanizing the university education system. The involvement of the various groups in this study was an essential strategy for mobilizing the desirable political support.

9. Conclusion

The households were able and willing to pay for the increase in cost of schooling in universities in Calabar-Nigeria. However, the low income groups (the poor and very poor) of households were willing to pay more for the male than their female children at the highest cost of schooling of 200 percent increase. Also, there was a significant relationship between household income and cost of schooling in the universities. Therefore, the degree of ability and willingness of household to pay for the user fees in universities in Calabar-Nigeria, is a function of the levels of
household income and cost containment engendered by competition.

10. Recommendations

1. The universities in Nigeria should emphasize user fees to solve current cost and financial problems since the desirability of the policy depends on the ability and willingness of the household to pay for the cost of schooling.

2. The university administration should be sensitive to effective policy-planning and even de facto policy formulation during the implementation of the user fees policy initiative. This will enable the policy-makers to identify constraints, feedback and concreteness for possible re-assessment.

3. Government should offer scholarship specifically to the indigents and other deserving students in order to cushion the effect for equity in the university system.

References


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