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Public Private Partnership (PPP) as an Aid to Tertiary Institution Support for Internally Generated Revenue (IGR): A Case Study of Yaba College of Technology

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Abstract: This study is on the contribution of public private partnership (PPP) to education development by generating revenue to sustain the infrastructure and academic decency of Yaba College of Technology, Lagos in Nigeria. Higher Education is a veritable tool for socio-economic development of any country. Training and educating society are the key influence of tertiary institution but they need to be financially sustained to carry out functional duties in terms of resources and development. PPP is seen as a solution to revamping educational sector that is experiencing failure in research and infrastructure growth everyday due to insensitivity on the part of government to finance education by meeting up the minimum requirement benchmark put forward by the United Nation (UN). The study identified the sources of internally generated revenue (IGR) of Yaba College of Technology, limitation facing these IGRs and investigated key issues affecting attempts to improve the IGR. The survey research strategy was used through questionnaire distribution to academic and non-academic members of staff for data collection. A total 150 questionnaires were returned. Sale of admission forms and Tuition fees and revenue from commercial ventures were revealed as main source of IGR. Analysis of the questionnaires showed key issues with IGR improvement to include performance, marketability, internalization, research and development as the challenges facing the institutional growth of the college. The study therefore recommends that concerted effort should be made by the government and private sectors to providing lasting solution to decline in educational sector of Nigeria.

Keywords: Public Private Partnership (PPP), Internal Generated Revenue (IGR), Funding, Tertiary Institution, Yaba College of Technology, Nigeria

1. Introduction

Tertiary institution development growth in Nigeria has been hindered due to the lack of funding by both state and federal government. Institution with level of awarding degrees has joined the growing list of public sectors seeking innovative solutions in an effort to generate money due the gap created by the governments in terms of funding [1]. Despite the fact that it is globally acceptable that fund is a key factor in positive transformation of the educational system in which Nigeria is not exempted. The procurement of public infrastructures such as roads, prisons, schools, rails, sewage wastes, power plants in the last two decades through Public Private Partnership (PPP) schemes has gained international recognition [2, 3]. Public Private Partnership (PPP) is an infrastructure delivery approach which combines the effective managerial expertise and finance of the private sector with public sector supervisory and regulatory capabilities [4, 5].

The governments have not paid adequate attention to funding of the education industry in Nigeria [6]. There has been a proposition which advocates for the use of internally generated funds (revenue) (IGR) to boost the infrastructure facilities needed by the institution in order to meet the short fall of extra fund that is not readily available. In response to this, tertiary educational institutions have embarked on several methods of generating funds for extra curricula activities needed to be achieved by the management. Maslen [7] reveals that countries like Australia, the UK, the Netherlands, Canada, the US and New Zealand generates revenue internally through high tuition fees paying program to ensure financial stability of their higher education systems, encouraging high completion rates, intensification of the knowledge economy and increasing access for students. Elizabeth & Wey [8] posited that revenue generated by tertiary institution may include receipt from taxation, sales of admission form, tuition fees, hostel accommodation fees, association registration fees, or other interests and returns from loans and investment earning which are not the proceeds of taxation.

The policy of Internally Generated Revenue (IGR) was insignificantly known in the Nigerian higher educational sector about two decades ago when the fewer tertiary institution in the country were funded with oil revenue. Operations and development of the tertiary education sector were catered for by the federal government [9, 10]. Then came the recent escalation in the number of universities and polytechnics which have remarkably grown over the years. According World Education News Review [11] the number of recognized universities in Nigeria has grown tenfold from 16 to 152 between 1980 and 2017, and in fact to 171 as reported on the Nigerian Universities Portal of the National Universities Commission [12] and 140 polytechnics displayed on National Board for Technical Education [13] website and given the huge economic catastrophe facing the government made worse by the recent global financial crisis, inadequate funding has clearly revealed itself to be a great challenge.

In 1999 a former executive secretary of NUC Okojie, in 1999 states that the federal government through the National Universities Commission (NUC) has advised all federal tertiary institutions to set up means of generating revenues internally to solve their finances related problems so as to enable the managements not to depend almost entirely on the government when financial needs arise. Again Famurewa [14] revealed that as a result of the Internally Generated Revenue (IGR) funding policy, a minimum of 10% of total annual fund sources for federal tertiary institutions, comes from Internally Generated Revenue (IGR). Onuoha [15] explains that the IGR theory means that the central government should not have to accept the burden of providing funding for every expenditure item of public universities. Baro et al. [16], Famurewa [14], Khaemba et al. [17], and Ogungbenle & Edogiawerie [18] all agreed that the IGR of some tertiary institutions is substantial IGR and it is been used positively to change the landscape of the institutions while some were yet to catch up with the vision.

Ngwenya [19]; Ofoegbu et al. [20], Umar & Current [21] also emphasised the significance of IGR of institutions through the Public Private Partnership (PPP) initiatives with a clearly defined active role to be played by tertiary institutions as the right ingredient to ensuring the success of a country's economic development. The general experience is that services provided by private sectors are delivered more efficiently and accurately. Therefore, the administration of Yaba College of Technology (Yabatech), Lagos, looked inward for better IGR in 2018 by revealing plans to launch aggressive moves to raise the institution's IGR and make its graduate self-reliant in different entrepreneurial programmes emphasising the drives as topmost because they sought to strengthen the institutions financial standing.

It is not only in Africa that tertiary education face challenges of funding. Funding challenges are also faced by universities in the United Kingdom [22]. Particularly in England the report examined the challenges for government and the tertiary institutions in funding any expansion of student numbers as against current funding restraints. Dotsey & Esi [23] reveals that UK tertiary institutions have been facing financial challenges over years following changes to funding to the recruitment of overseas students. This source indicates that United Kingdom's government policy change to higher or tertiary education could have serious impact on its skilled workforce and economic growth. This holds for all other countries particularly developing nations such as Ghana. The above makes it very essential, the report by Institute for Fiscal Studies [IFS], that calls for consideration of funding options that are sustainable and that could also ensure that higher education continues to be accessible to all applicants. Okuwa & Campbell [24] and Olayiwola [25] stressed the need of African tertiary institutions to expand their source of fundings due to several challenges facing the government to include partnership with business via PPP. Consequently, the universities should also ensure more efficient and effective use of resources available to them.

Furthermore, the extent of government funding in universities should be based on research output and academic program quality as well as the unit cost [26]. Also, allocation of public funds to institutions should be based on their effective resources' utilisation assessment [27]. The participation of private sector in tertiary institution funding in term of endowments support in tuition, research and development should be encouraged by the government through provision of incentives and other attractive packages [28]. Additionally, Kinyanjui [26] urged state owned tertiary institution to outsource non-core operations like security, transportation, catering and cleaning while maximising profits from investments and assets by utilising the service of professionals to handle their portfolios. Universities are also to be at the forefront in the creation of partnerships with the private sector to develop shared, science parks, national union catalogue and research centres [27].

Akintoye et al. [29] and Akintoye & Beck [30] explained public private partnerships (PPP) as a long-term contractual

agreement and relationship between the public authorities and private sector companies with the purpose of supporting, funding, designing, executing and operating public sector amenities and services. PPP involves contract between public sector authority and private body to fund, design, develop, construct, operate and receive payment of a public facility by the private sector party within a specified period of time at the end of which ownership is reverted to the public sector [31]. Leydesdorff & Bornmann [32] also explained the government in developing countries should prioritise certain infrastructures for development since public infrastructure development budget is limited. The participation of private sector in public infrastructure funding has been in form of Public Private Partnership (PPP) over the years. However, it is predominantly in economic infrastructure since it directly impact the society, but social infrastructure to improve human capital and life quality in terms of education, healthcare etc have been implemented in some countries.

The primary source of Nigerian tertiary education funding differs depending on the ownership of the institutions. The federal government is responsible for personnel and capital costs as well as research and development funds via several grants in federal tertiary institutions [15, 33, 34]. Statutorily, tertiary institutions owned by federal government are tuition free and it is considered serious violations if any federal tertiary institution charges any tuition fee [15, 35]. This funding policy can also be observed in Japan but with more flexibility in subsidy application between budget periods [36].

The state tertiary institutions are owned and funded primarily by the state government but they charge inexpensive tuition and other several administrative dues, level and fees [33, 37]. Private owned institutions funding depend primarily on tuition fee with little support via fund raising and the owner donation [33]. Improving fund via fund raising to booster IGR in private institutions often yield little fund as it is not norms in African communities. Proper funding of tertiary institutions are very important as they determine output quality and staff morale [15, 33, 38]. Ijaduola [35] explained that national productivity can reduce if morale is low or when workers cease to work due to irregular salaries and benefits are irregular.

Famade *et* al. [39] suggested ways of improving funding in Nigeria tertiary institution as;

Education Tax: government can create education tax which can be used for funding tertiary education and general purpose just like the Education Trust Fund (ETF) in which companies contributed 2% of their profit per annum and the proceedings was used in the education sector. The ETF has been transformed in 2009 into tertiary Education Trust Fund (TETFUND) which focus mainly on tertiary institutions. TETFUND has been involved in numerous interventions and projects to improve the quality of teaching, research and development in tertiary institutions.

Contributions from Users of Education: students can contribute to the institution funding via tuition fee, admission fee, acceptance fee, registration fee, examination fees and other administrative charges and levies.

External Support: Local and international funding which include grants, loans, bilateral agreements, scholarships, technical assistance and credits can be explored to improve paucity of funds in tertiary institutions.

Internal Generated Revenue (IGR): revenue generating ventures like consultancy services, micro-finance bank, bakeries, catering services, hotel, printing press etc can be established by tertiary institutions to supplement government funds.

Aja-Okorie [39] explored different approaches for improving the internally generated revenue of Ebonyi State University in Nigeria and identified entrepreneurship development centres, partnership programmes with other institutions and uses of ICT in fees collection through e-payment and POS as a tool to boost IGR of the institution.

The thinking behind this study is that involving the private sector would help in achieving and securing higher levels of funding without pressurizing the government during financial crisis. This will revitalize the tertiary institutions system and improve the quality of education. In view of the previous discussion, this study is carried out to accurately determine the possibility of improving the IGR of Yaba College of Technology through Public-Private Partnership considering the challenges the college is facing on infrastructural development within the campus premises. Academically, the findings of this study would be beneficial to the management and staff of Yaba College of Technology and other tertiary institutions within and outside Nigeria. It will also provide measurable and reliable knowledge in serving as a reference for stakeholders in other sector trying to seek alternate sources for boosting their revenue.

2. Methodology

The descriptive survey design was used for this study by gathering information about the present and existing condition within the campus. This design produces a snap shot of a population at a particular point in time. This design was aimed at determining the strategies for improving the Internally Generated Revenue of Yaba College of Technology through Public Private Partnership (PPP). This has collated quantitative degree of accuracy based on the opinions of professionals from different fields within and around the campus. The estimated population of this study is Two Hundred and Fifty (250) respondents which comprises of academic staffs which includes the Deans, Directors, Heads of Department and Staff of the Internal Quality Assurance Unit (IQA) and the non-academic staffs such as the bursary staffs, audit and finance sections of the institution. A total of One Hundred and Fifty (150) were realized and used to analyse the data collected. It must be recalled that the Deans, Directors and HODs are the spending officers of the College and that the staff of the Finance and IQA sections see to the proper accounting of the finances. Hence, each of them is well placed to contribute

meaningfully to the issue under discussion. The researcher used the Judgement (or purposive) sampling technique to select the respondents for the study. This was to give the opportunity of equal representation to all the staff members, both academic and non-academic members. Primary method of data collection was used to collect necessary data that was used for the analysis of this study using questionnaire. Data were generated through a field survey and questionnaire was administered to the respondents at their respective offices to source for relevant data needed to evaluate the subject matter. The instrument was made up of four sections. The first section was used to gather the demographic data of the respondents. The second section has twelve items, which are questions concerned with the sources of internally generated fund (IGR) for Yaba College of Technology. With these, respondents are supposed to indicate the extent each of them constitutes an IGR source for the College. In this research, descriptive statistics was used to present the demographic data of the respondent's characteristics, in line with modern trends in social and educational research. The data obtained from the questionnaire were in numerical form. These data were checked for consistency and organized in tables according to research questions.

3. Results and Data Analyses

3.1. Respondents Demography

The demographic questions asked the respondents include their gender, level of education and staff division (whether academic or non-academic).

Table 1. *Respondents' Gender.*

Gender	Count	Percentage (%)
Male	70	47
Female	80	53
Total	150	100

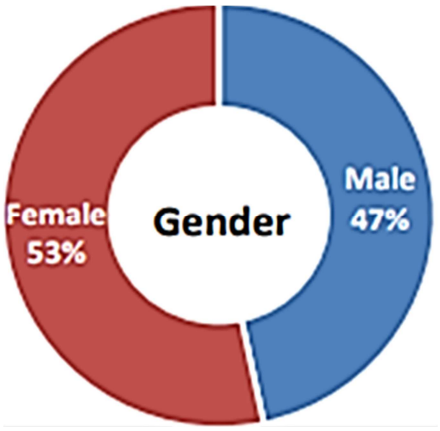

Figure 1. *Respondents' Gender status.*

Table 1 and Figure 1 describes the gender distribution of the respondents, about 53% are female while 47% are male, this almost equal distribution enables this survey to achieve a gender unbiased response from the respondents.

Table 2. *Respondents' Education Level.*

Respondent Educational Level	Count	Percentage (%)
PhD	7	5
Masters	59	39
BSc	42	28
HND	36	24
ND	6	4
Total	150	100

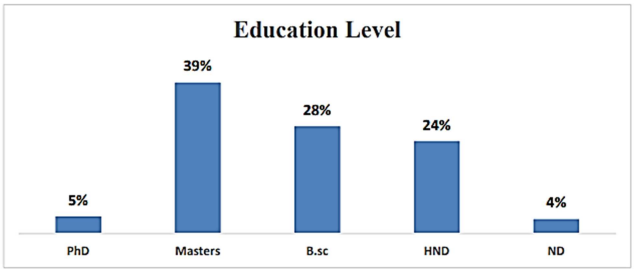

Figure 2. *Respondents' Education Level.*

Table 2 and Figure 2, showed 67% of the respondents having either a BSc or Masters, 44% have above BSc, while 96% of the respondents have above ND level qualification and 5% are PhD holders.

Table 3. *Respondents' Education Level.*

Staff Division	Count	Percentage
Academic	73	49%
Non-Academic	77	51%
Total	150	100%

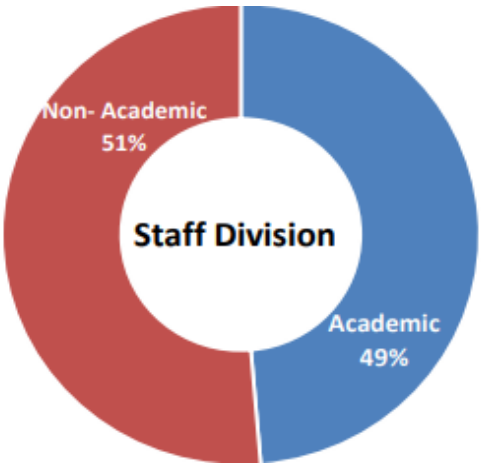

Figure 3. *Respondents' Education Level.*

Table 3 and Figure 3 showed the staff classification of the respondents, about 51% are non-academic while 49% are academic. This survey distribution just like in the case of gender helps to even out bias that may result from data collection. It is assumed that apart from the academic staffs who may have much knowledge about revenue and spending in the academia, non-academic staffs also have pivotal roles in the process, in fact they are mostly in charge of the revenue generation and expenditure budgeting processes. In summary, the demographic feature of the data collected is carefully monitored to ensure that

responses are not skewed to a gender or to a class of education level or even staff division. Gender and staff level distribution are almost shared in halves to ensure data fairness and randomness.

3.2. Reliability and Validity Test of the Data

Table 4 shows the normal Cronbach alpha reliability test of dimensions used in measuring the improvement of Internally Generated Revenue (IGR) of the college through public-private partnership. Twelve (12) variables were tested using Cronbach alpha method via SPSS, IBM version 23.

Table 4. *Normal Cronbach alpha reliability test.*

Cronbach's Alpha	No of Items
0.762	12

According to Pallant [40] reliability score greater than 0.70 are acceptable and reliable value for Cronbach's Alpha and value lower than 0.70 are substantially lower and it indicates unreliable scale. Twelve (12) dimensions measuring IGR being generated by the college were subjected to Reliability and validity test using Cronbach Alpha method. The result of the test divulged that all the dimensions as stated in the questionnaire shown an Alpha co-efficient that is above the standard guideline of 0.70, the scale are suitable for the analysis with acceptable reliability. Cronbach Alpha score of 0.762 was obtained for all the variables. This implies that there is internal consistency of the entire variables scale and the construct exhibited strong internal reliability. The result therefore, confirmed that the instrument used for this study had satisfactory construct validity.

4. Discussion

4.1. Source of Internal Generated Revenue

In streamlining the questions about sources of internally generated funds for Yaba College of Technology, we try to draw from experience of the respondent from the questionnaires administered where we draw the 12 basic sources of these IGRs. This includes:

1) Sale of admission forms and Tuition fees;
2) Residential, academic user facility fees paid by full-time students and fees paid by part-time students;
3) Penalty charged for late registration of courses;
4) Commercial ventures (e.g.; Cybercafés, Bookshops, built up shops for rent, etc.);
5) Research and Consultant services;
6) Manufacturing and processing;
7) Alumni relations and Associations;
8) Hiring of auditorium, conference facilities, etc.;
9) Grants and Private contributors;
10) Community efforts and donations;
11) Procurement of certificate;
12) TET-Fund.

Respondents were asked to describe the extent to which they agree that each of these sources are important for Yaba college of technology's IGR.

Table 5. *Sources of IGR for Yaba College of Technology.*

	Source of Revenue	1	2	3
		To a lesser extent	To some Extent	To a larger extent
1	Sale of admission forms and Tuition fees	11%	36%	53%
2	Residential, academic user facility fees paid by full-time students and fees paid by part-time students	27%	45%	28%
3	Penalty charged for late registration of courses	49%	37%	13%
4	Commercial ventures (e.g.; Cybercafés, Bookshops, built up shops for rent, etc.)	24%	60%	16%
5	Research and Consultant services	47%	39%	13%
6	Manufacturing and processing	60%	25%	15%
7	Alumni relations and Associations	47%	38%	15%
8	Hiring of auditorium, conference facilities, etc.	20%	45%	35%
9	Grants and Private contributors	55%	40%	5%
10	Community efforts and donations	69%	30%	1%
11	Procurement of certificate	46%	47%	7%
12	TET-Fund	8%	31%	61%

On the first IGR sources; Sale of admission forms and Tuition fees recorded 53% of the respondent affirming that to a very large extent while 36% says to some extent thus, it is an important source of IGR. Residential, academic user facility fees paid by full-time students and fees paid by part-time students, 45% of the respondents agree that it is to some extent an important source of IGR, while about quarter of the respondent thinks it is to a large extent an important contributor to IGR. Penalty charged for late registration of courses is also considered and 86% readily agreed that it is only important to a less or to some extent, while only 14% sees its impact as being significant thus, less important on IGR. On revenue from commercial ventures (e.g.; Cybercafés, Bookshops, built up shops for rent, etc.), 60% agree that this source is important to some extent with 16% believes it is important to a very large extent.

Furthermore, research and Consultant services is considered less important with 47% while 40% are just in between. Also, the pattern experienced on manufacturing and processing as source of IGR is that about 60% responding that it is less important, 15% says to a large extent while about 25% are also in between. Alumni relations and associations has only 15% of the respondents agreeing that it is an important source of revenue while the remaining 85%

believe it only important to a less or some extent. Hiring of auditorium and conference facilities also contributes to IGR but only 35% thinks it is highly important while remaining 65% simply think it is less or to some extent important. More so, grants and private contributors are ranked as less important or to some extent important by about 95% of the respondent while only 5% agreed it is important to a large extent. From Table 5, community efforts and donations are far less important, only 1% of the respondents think community efforts and donations are significant to generating IGR to a large extent, 99% thinks it is less important or to some extent important. Procurement of certificate is also considered as largely significant on IGR by 7% of the respondents, 46% believe it is less significant while 47% thinks it significant to some extent. Finally, Tetfund seems to be the most important to a large extent as 61%) of the respondents agree that it is a significant source of IGR to a very large extent, 31% agreed to some extent while only 8% thinks it is less important.

4.2. Factor Analysis

Factor analysis was also used to substantiate the factors that contributed immensely to the increase in the Yaba College of technology internally generated revenue. Factor analysis is a statistical method used to describe variability among observed variables, correlated variables in terms of a potentially lower number of unobserved variables called factor [41]. It is a statistical data reduction and analytical technique that strives to explain correlations among multiple outcomes as the result of one or more underlying explanations, or factor. The technique involves data reduction, as it attempts to represent a set of variables by a smaller number. Principal components analysis was used in analysing the research question above, because it usually revealed the kind of relationship that exist between variables through correlation analysis, it provides eigen values (variance) of each component variables and revealed the variables that is/are the best for the subject matter under consideration. It also revealed co-variance relationship of the variables and the extent to which one variable is superior to other variables as well as the order of superiority of each variable. The various source of internally generated revenue (IGR) was highlighted below with their coding;

1) Sales of Admission form and tuition fees = ATF;
2) Residential, academic user facility = RAUF;
3) Penalty charged for late registration of courses = LRC;
4) Commercial ventures (e.g.; Cybercafés, Bookshops, built up shops for rent, etc.) = CV;
5) Research and Consultant services = RCS;
6) Manufacturing and processing = MPS;
7) Alumni relations and Associations = ARA;
8) Hiring of auditorium, conference facilities, etc.= HACV;
9) Grants and Private contributors =GPC;
10) Community efforts and donations = CED;
11) Procurement of certificate = POC;
12) TETFUND = Tetfund.

4.3. Extraction Method: Principal Component Analysis

The Table 6 explained the proportion of variable's variance, the sum of squared factor loading. It gives true picture of latent variables. The analysis revealed nine communalities that are tends to 1 which are Tetfund, Grants and Private contributors (GPC), Manufacturing and processing (MPS), Penalty charged for late registration of courses (LRC), Procurement of certificate (POC), Community efforts 25 and donations (CED), Alumni relations and Associations (ARA), Commercial ventures e.g.; Cybercafés, Bookshops, built up shops for rent, etc. (CV) and Sales of Admission form and tuition fees (ATF). From the extraction column, it was divulged that Tetfund, GPC, MPS, LRC and POC with the extract values of 0.793, 0.661, 0.632, 0.619 and 0.600 representing 79.3%, 66.1%, 63.2%, 61.9% and 60% respectively are the major factors that contributed tremendously to the IGR of the institution for the period under consideration. However, the table also revealed that ATF, CV, CED and ARA extracted value also contributed to the increase in the institution IGR but as not significant relative to what the institution is getting from Tetfund, GPC, MPS, LRC and POC respectively.

Table 6. *Communalities.*

	Initial	Extraction
ATF	1.000	0.560
RAUF	1.000	0.455
LRC	1.000	0.619
CV	1.000	0.571
RCS	1.000	0.443
MPS	1.000	0.632
ARA	1.000	0.572
HACV	1.000	0.421
GPC	1.000	0.661
CED	1.000	0.590
POC	1.000	0.600
Tetfund	1.000	0.793

Table 7. *Total variance Explained.*

Factor	Initial Eigenvalue			Extraction sums of squared loadings			Rotation sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.009	25.076	25.076	2.400	20.000	20.000	1.856
2	1.443	12.022	37.099	0.934	7.784	27.785	1.960
3	1.285	10.709	47.808	0.741	6.175	33.960	0.744
4	1.180	9.832	57.640	0.487	4.060	38.020	0.825
5	0.913	7.606	65.246				
6	0.882	7.352	72.598				
7	0.735	6.123	78.721				

Factor	Initial Eigenvalue			Extraction sums of squared loadings			Rotation sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
8	0.678	5.646	84.367				
9	0.599	4.994	89.361				
10	0.525	4.371	93.732				
11	0.442	3.685	97.417				
12	0.310	2.583	100.000				

From Table 7, the study considered twelve variables (Sources of internally Generated Revenue) which represent component factors that were used in determining which sources of IGR have a substantial contribution to the institution revenue. Furthermore, the eigen values (variance of the principal component analysis =1) which explained the variability that exists among the various principal components under consideration revealed that factor 1 to 4 are the factors that gave eigen value that are equal to 1 or more. This indicates that they revealed 26 acceptable variances of principal component i.e., they have significant contribution to the IGR of the institution as at the period of this study. This was substantiated in the cumulative % column and extracted sum of square loading as the number of rows reproduced on the right side of the table is determined by the number of principal components who's eigen –value is 1 or greater than 1. Hence, afore-mentioned factors contributed significantly to the IGR of the institution.

Table 8. *Component Matrix*[a].

	Component			
	1	2	3	4
ATF	- 0.078	0.484	0.499	0.265
RAUF	0.435	0.377	-0.336	0.103
LRC	0.578	0.307	-0.420	0.000
CV	0.439	0.532	-0.308	0.009
RCS	0.530	-0.273	-0.273	-0.115
MPS	0.569	-0.347	0.000	-0.214
ARA	0.691	-0.116	-0.039	-0.281
HACV	0.245	0.468	0.363	0.100
GPC	0.577	0.179	0.000	-0.149
CED	0.733	-0.147	0.166	0.062
POC	0.516	-0.396	0.010	0.420
Tetfund	0.000	-0.224	0.025	0.000

The Table 8 contained component loading, which are correlations between the variables (components extracted) and the components. From the footnote of the table above, 4 components were extracted indicating that there are 4 factors that are substantially contributing to the IGR of the institution based on their eigen values that are greater than or equal to 1. However, it was revealed from the table that there is a moderate direct relationship between LRC, RCS, MPS, GPC, POC and Tetfund (1) sources of IGR, similarly, it was divulged that strong relationship exist between ARA, CED and Tetfund (1). Furthermore, the table also revealed relationship that subsist between GPC and other principal components variables, it was observed that there is moderate but positive relationship between GPC and CV, and weak positive relationship between GPC and ATF, RAUF and LRC while others components variables revealed weak inverse relationship. In considering relationship that exist between MPS and other principal components variables, it was discovered that there is moderate positive relationship between MPS and GPC, while there is weak positive relationship between ATF and MPS, HACV and MPS, Tetfund and MPS, there is inverse relationship between RAUF, LRC, CV, RCS, ARA and MPS.

Similarly, it was revealed that there is weak positive relationship between LRC and ATF and also, relationship exist between LRC and POC as it revealed the weak positive relationship. It was obvious, from the table that inverse relationship between LRC and RPS, MPS, ARA and GPC. This implies that as LRC generating increase in IGR, other variables are not generating more IGR.

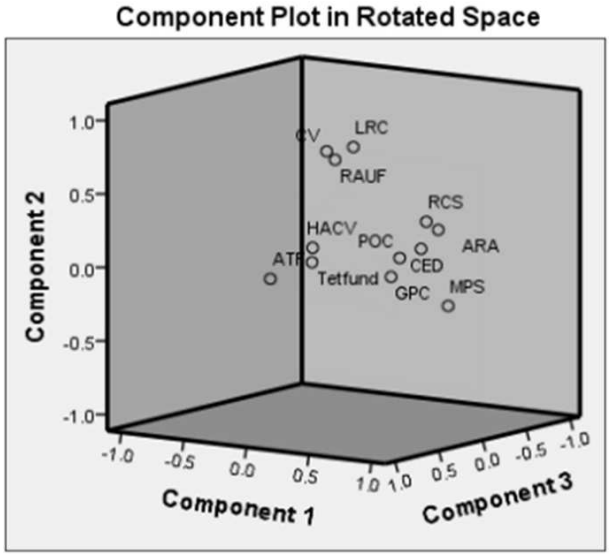

Figure 4. *Component Plot.*

The diagram above explained the component rotational analysis of all the components variables under consideration. It revealed the level of significant of each variable based on the height attained in the box. It also explained the cluster relationship between the explanatory variables. From the table it can be deduced that LRC, CV RAUF are the major dimensions that contribute significant improvement to the college IGR as their eigen- value are within 1 and 0.50. Similarly, GP, MPS, Tetfund, CED, POC, HACV and ATF clustered together, indicates that though they are not contributing huge amount to IGR of the college but they have similar contribution to the increase in the institution IGR as they all fall within 0.5 and 0. Similarly, LRC, RAUF and CV clustered together in the diagrammatical representation above which explained that the three variables are also contributing in the same or similar manner to the development of IGR in the institution. It was also observed that their contribution is

not as significant relative to the contribution of Tetfund, GPC, MPS and LRC respectively.

After identifying the various sources of IGR with help of the respondents, and determining from their responses the most significant, less significant and average sources of IGR for Yaba college of technology, it is important to investigate the challenges that hinder the functionality of these sources in order to have a holistic view of their importance and difficulties. The following were identified by the respondents as most significant challenges. 1. Government policies/control on school fees increases and other charges does not allow for charging full cost recovery fees. 2. Lack of management total commitment to switching from the tradition core duties of research/teaching and learning to commercializing some of its activities 3. Low enrolment of Students 4. Delays in payment of levies imposed on traders on various campuses 5. Staff (manpower) capacity.

Table 9. *Challenges Encountered During the generation of IGR in Yaba College of Technology.*

	Revenue Generation Challenges	1	2	3	4
		Strongly agree	Agree	Disagree	Strongly Disagree
1	Government policies/control on school fees increases and other charges does not allow for charging full cost recovery fees	3%	19%	55%	23%
2	Lack of management total commitment to switching from the tradition core duties of research/teaching and learning to commercializing some of its activities	3%	27%	51%	20%
3	Low enrolment of Students	27%	29%	33%	11%
4	Delays in payment of levies imposed on traders on various campuses	17%	31%	40%	12%
5	Staff (manpower) capacity	26%	25%	29%	19%

Table 9 has indicated the challenges facing the growth and development of Yabatech in terms of revenue generation which has postulated the need for private investors involvement.

5. Conclusion and Recommendations

The following recommendations are made based on the data collected and analysed in the previous chapters & also based on the suggestions proffered by some of the respondents.

1. Yaba college of technology as an institution and citadel of learning need to use its research and development strength to improve its IGR as it worth noting that the academia must institute a better relationship with the corporate world for research funding, this will not only boost IGR for the company, it will also ensure that researches are directed towards resolving immediate realistic corporate problems.
2. The Management of Yaba college of technology should put in place effective measures that would ensure every IGR sources that contributes at least some amount of revenue on the activities of the college are efficiently managed and improved on significantly to ensure long-term sustainability.
3. The government should provide financial support through scholarships to those students with poor financial background whiles management on its part allow for flexible terms of payment for such students to avoid pilling up of student's debts (resulting from full cost recovery policy) that would in effect reduce the Internally Generated Revenue.
4. The research also recommend that public-private partnership in the area of manufacturing and processing, transportation services and accommodation services will go a long way in boosting the internally generated revenue of the college and also serve the purpose of its existence. This was substantiated in the previous chapter of this study under factor Analysis where it was discovered from the respondents‟ analysis that Manufacturing and processing (MPS) has contributed little/nothing to the IGR of the institution.
5. The management of the institution should put in place measures to enforce payment of levies on commercialize traders and workspace occupants to improve upon the contribution of such Internally Generate Revenue sources.
6. The research outcome also recommend that the management of the institution should manage these major areas of IGR; Tetfund, Sales of admission form (ATF), Hiring of auditorium & conference facilities (HACV), Residential, academic user facility fees paid by full-time students and fees paid by part-time students (RAUF) very well and ensure that nothing should serve as a stubbing block prevent it from getting revenue. If there is proper monitoring and control strategies in the following sources aforementioned then the sky is the limit for tremendous increase in IGR for the institution. This can be substantiated from the factor 35 analysis conducted on which sources of IGR gives more revenue and it was divulged that From the extraction column, it was divulged that Tetfund, Sales of admission form (ATF), Hiring of auditorium & conference facilities (HACV), Residential, academic user facility fees paid by full-time students and fees paid by part-time students (RAUF) respectively are the major factors that contributed tremendously to the IGR of the institution for the period under consideration.

In conclusion, the study might open up the avenue for further research in this field of interest. The study focused on one federal institution in Lagos state, future research in this area may focus on more than one federal institution in the state and how localization/commercialization features environment can be of advantage for them in increasing their

IGR via diversification. The research serves as a reference to both under-graduate and post-graduate student. This study serves as a eyes-opener to the management of Yaba college of Technology, Yaba on areas that gives more IGR and potential areas of focus in increasing the IGR of the college. The study informs the management the importance and significance of each source of IGR and how public-private partnership can be used to increase internally generated revenue of the institution. The study also provides needed strategies that would enhance and improve the present IGR of the college.

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