

FUND UTILIZATION AND PERFORMANCE OF FEDERAL UNIVERSITIES OF TECHNOLOGY IN NIGERIA

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Abstract

This research investigates the impact of fund utilization represented by research, learning and library development cost, academic staff emolument cost and capital rehabilitation and refurbishment cost on performance proxy by quality of graduates produced in the Nigerian federal universities of technology. Multiple regression is used as a tool of analysis for the study. The result reveals that fund utilization impacted significantly and strongly on the performance of Nigerian federal universities of technology. It is therefore recommended among others that the government must be ready to address the issue of funding the system adequately. Adequate finance will help to solve the problem of providing a conducive environment for learning. The government should as a matter of national importance review upward the pay-package for academic staff; give consent to the university autonomy being glamouring for by the academic staff of the universities.

Keywords: Fund Utilization, Performance and Nigerian Federal Universities of Technology

Introduction

A University has been described as an educational institution that has been established to provide higher level and high quality education to its students. In order to reposition the Nigerian University system in the face of global competition, and promote the quality of University Education especially federal universities of technology, the National Universities Commission (NUC) being the regulatory body of the Nigerian University System has to ensure compliance with minimum academic standards/ benchmarks by

the Universities. Universities are recognized worldwide as center of excellence dedicated to teaching and research. They are also established for advocating and propagating ideas. They are not only advancing the frontiers of knowledge but also add value of scientific and technological development for the benefits of mankind (Yahaya, 2000). Universities are also centers for resolving National problems, for facilitating development, and to serve as vehicles of achieving the economic, social and cultural aspiration of a nation.

The management aspect of the University system is critical and if management capacity is deficient, the core academic functions of the University may not be performed with efficiency, effectiveness and with distinction. According to Akinfaye (1989), behind the success of any institution be it private or public is the efficient utilization of its resources, and for any institution to protect the financial interest of any individual or organization, it must be based on a sound financial footing. The financial function of any establishment is the task of finding means for revenue generation, allocating and disbursing such funds on the programs to be executed by such establishment providing instrumentation arrangement for the accountability of the receipt and payment of fund. However, without effective financial management, organizational policies adopted in great variety of fields may not be capable of being successfully implemented. Therefore, proper financial management can facilitate successful and effective implementation of policies as well as improve performance.

Quality education deals with issues of relevance, validity, functionalism and efficiency of educational system in the achievement of national goals and objectives (Zeluys, 2004). Quality originates from the Latin word "qualis" that means real. Quality or degree of excellence of any product is very important to both the producers and the users of the products. Quality is the totality of features and characteristics of a product and its service as well as its ability to satisfy stated or implied needs. The perceived fall in quality of higher education concerns the consumers, the products, the institutions, the professional bodies and the governments that care for the future of its citizen. Quality assurance is a management function which deals with setting policies and running an administrative system

of management controls that cover planning, implementation and review of data collection, activities and the use of data in decision-making. It is a process-driven approach with specific steps to help define and attain goals. Quality assurance is one part of a quality system which encompasses a variety of technical and administrative elements, including policies and objectives, organizational authority, responsibilities, accountability and procedures, and practices. Thus, a quality system provides the framework for developing quality assurance policy and management controls.

The aims and activities of the Nigerian Library Development Fund (LDF), established to ensure adequate funding for Nigerian university libraries, are described in the context of the organization of higher education in Nigeria as a whole. The study explores the position of university libraries within institutions and discusses the implications of the LDF for Nigerian university libraries. Particular attention is paid to the problems experienced by the LDF due to: non-conformity with specified criteria on the utilization of the fund such as very large balances of unused funds with only a fraction of the fund accounted for as expenditure returns; over-subscription for books and periodicals resulting in large deficits caused by spending over and above the available funds; the spreading of funds over several quarters with a larger proportion of the funds used in paying salaries of library staff thereby ignoring the purchase of books, periodicals and other office consumables; and problems associated with the exchange rate between the local currency and stronger international currencies in the purchase of foreign books, periodicals and library equipment.

It is a general belief that Nigerian Universities are underfunded by government, the controversy of this research, therefore is to examine the extent these meager resources utilized and accounted for by the Federal Universities of Technology in Nigerian. The Efficiency does not depend on revenue, but to some extent on the quality and integrity of the administration. The non-remittance of revenue generated to the universities coffers, its conversion to personal use by the staff and misappropriation are problems facing the federal Universities of Technology (Williams, July, 2000). There is evidence that with the sharp perennial decline in the statutory funds allocation to universities in Nigeria, the abilities of universities in sustaining their various academic and other activities have declined considerably, even for academic programme that are run within campuses, let alone those that are extension/satellite in nature. This situation has further been worsened by funds mis-management and delays in receiving statutory funds allocation. Most universities have therefore resorted to augmenting their statutory allocation of funds by generating needed income internally. Therefore, the question still remain what impact does fund utilization by the federal university of technologies management has on the quality and high academic standards of their graduates?

The main objective of this study is to examine the impact of fund utilization in research and library learning development, academic staff emoluments and capital rehabilitation and refurbishment on the quality of graduates in the Nigerian federal universities of technology. It is therefore posited that fund utilization in research and library learning development, academic staff emoluments and capital rehabilitation and

refurbishment has no significant impact on the quality of graduates in the Nigerian federal universities of technology. The study focuses on the recurrent grant fund, research grant fund, library development fund, capital rehabilitation and refurbishment grant fund, academic staff emoluments by the National Universities Commission (NUC), Education Trust Fund (ETF), Nigerian Library Development Fund (LDF) and internally generated revenue and other sources of revenue of Federal Universities of Technology Owerri and Yola. Essentially, the study concentrates on actual funds disbursed as fund utilized annually by the Federal Universities of Technology within the period of ten years (2002-2011).

The remaining parts of the paper covers four sections- section two contains literature review and theoretical framework where arguments are presented and previous literatures are reviewed, methodology is discussed in section three. In addition, results, policy implications and conclusion and recommendation are presented in section four and five respectively.

Literature Review and Theoretical Framework

The story of university education in Nigeria today has largely been a story of mixed fortune. These institutions initially laid claims in making respectable impact on the socio political and economic advancement of Nigeria. Today, there are doubts whether Nigerian universities under the present conditions will be able to continue to lay claims on being central to national capacity to connect with the new international knowledge system and adopt, adapt and further develop the new technologies needed in the wider society (Verspoor,

1994). Ibukun (1997) observed that university governance in Nigeria today is nothing but crises management.

Ibukun (1997) lamented that there is growing shortage of funds and learning resources in the university system. According to Oyeneeye (2006) and Adegbite (2007), the major challenge facing the management of university system in Nigeria is inadequate funding meanwhile, Ajayi and Ayodele (2002) argued that there was an increase in the proportion of total expenditure devoted to education, but this has been considered to be rather grossly inadequate considering the phenomenon increase in student enrolment and increasing cost, which has been aggravated by inflation. Besides, Ajayi and Ekundayo (2006) remarked that the Nigerian government over the years has not been meeting the United Nations Educational Scientific and Cultural Organisation (UNESCO) recommendation of 26% of the total budget allocation to education sector. Aina (2007) posited that government priority to education is still very low. These revelations expose the extent to which the government itself is a contributing factor to the financial imbroglio of the university system. The apparent shortage of fund available to the university system has been responsible for declining library, social and laboratory facilities in Nigerian universities in recent years. This in no small way makes the governance of the university system a herculean task.

Further, it is worrisome to note that Nigerian universities are fast decaying. All the resources required for education production process are in short supply. Lecture halls, laboratories, students' hostels, library space, books and journals and office spaces are all seriously inadequate (Ochuba, 2001). According to World Bank (1994), the equipment for teaching, research and learning

are either lacking or very inadequate and in a bad shape to permit the universities the freedom to carry out the basic functions of academics. Moreover, according to the NUC (2004), the Presidential Visitation Panels which looked into the operations of all federal universities between 1999 and 2003 reported that physical facilities in the universities were in deplorable condition. Meanwhile, this condition of resource inadequacy is what Ajayi and Ayodele (2002) described as an offshoot of the endemic financial crises in the sector.

Brain-drain is a widespread migration of academic staff from the universities in the country to overseas universities or equivalent institutions where their services are better rewarded. According to Akindutire (2004), institutional deterioration and salary erosion during the past decade have prompted substantial "brain-drain" of academic staff and impeded new staff recruitment. Bangura (1994) found out that between 1988 and 1990, over 1000 lecturers left the federal university system in Nigeria. According to Saint, Harnett and Strassner (2003), various factors have combined to cause these staffing difficulties. One has been the relatively low level of academic salaries during the past decade and the declining financial attractions of university employment in comparison to other opportunities. Another has been the rising workloads associated with deteriorating staff/student ratios. It must be emphasized that while the best brains are leaving the university system, the broad aim of producing high level manpower from the system for national development cannot be achieved.

Ojedeke and Ilusanya (2006) and Babalola et al., (2007) opined that university autonomy has to do with the protection of the universities from interference by

government officials in the day-to-day running of the institution especially on the issues related to the admission of student, the appointment and dismissal of academic staff including the vice-chancellors, the determination of content of university education and the control of the degree standard and the determination of size and the rate of growth. According to Ajayi and Ayodele (2002), government involvement in university governance has been a point of strife between the government and the Academic Staff Union of Universities (ASUU) over some time now. University autonomy is essential to the advancement, transmission and application of knowledge and this is the more reason the ASUU has been more vociferous in this demand. According to Babalola et al. (2007), university autonomy and academic freedom has over the years been a recurring issue in the ASUU's demand from the federal government.

Akindutire (2004) lamented that the problem of graduate unemployment is a reality in Nigeria where graduates had to wait for upwards of five years to get a job in the public service. According to Ajayi and Ayodele (2002), it is even common in recent times for university graduates to be subjected to series of competitive examination for appointments. They lamented that it is becoming a herculean task for fresh inexperienced graduates to pick a 'first' employment in the formal sector. One of the banes of effective university management in Nigeria in recent times is the unbridled student violent reaction to national issues and internal problems. According to Ibukun (1997) and Akindutire (2004), the result of student militancy and violent unionism has been the constant closure of universities, removal of vice-chancellors among others.

The gross under-funding of the educational system in the country has been rendering the university system incapacitated. Adepoju (2002) remarked that money is an absolutely input of any education system. It provides the essential purchasing power with which education acquires its human and physical inputs. According to Saint et al. (2003), the university system has not had the financial resources necessary to maintain educational quality in the midst of significant enrolment explosion. Also, according to Odia and Omofonmwan (2007), UNESCO recommended 26% of the total budget of a nation to be allocated to education but the Longe Commission of 1991 observed that the percentage of budgetary allocation to education has never exceeded 10%. Governments should therefore allocate more funds to the universities so that they can be more effective in their day-to-day operations. The universities should also seek alternative sources of revenue generation to argument what the government allocates to them. Apart from the release of fund, there is the need for an effective monitoring of the management of fund presently being allocated to the sector, as efforts should intensified to improve on what is currently being allocated to the system. As a means of ensuring effective management of fund, Mgbekem (2007) suggested that reliable accounting system should be established in each Nigerian university to guarantee accountability, honesty and transparency.

If quality is to be enhanced in our nation's universities these days, the infrastructure base of the system needs to be improved upon. As Ochuba (2001) has rightly put it, that present situation calls for an urgent need for the government to make available enough funds for the rehabilitation of existing facilities. Governments should

intensify efforts in providing more physical facilities in the universities. Besides, corporate bodies, philanthropists and alumni associations should also assist in the provision of these facilities to aid effective teaching-learning activities in order to achieve the academic goals of university education for national development. There is need for a serious expansion of physical facilities and equipment to meet the increasing student population. Moreover, there is the need to take serious look at the maintenance culture, which is lacking in an average Nigerian, as this will go a long way to reduce the rate of decay of the existing facilities.

In order to attract best brains to the university system, the personal emoluments of university staff may have to be revisited. According to Ibukun (1997), the situation where a young graduate who is fortunate to take up job outside the unified public service immediately starts to earn salaries sometimes twice a professor's annual income does not augur well for staff motivation and stability of tenure in the Nigerian university system. If education is well-funded, package of academics reviewed upward and the conditions of service improved, academics would not have to go abroad looking for greener pasture. Smah (2007) reports Professor Joseph Stilgitz, 2001 Nobel Prize winner in Economics, who, while delivering a lecture at the first Dr. Pius Okadigbo memorial lecture series in Enugu said that there is a particular university in the U.S. that has over 25 Nigerian professors. He submitted that the above pointer is instructive for any serious-minded government that wants to address the issue of brain-drain.

The issue of autonomy to varsities is a matter of necessity if quality output is expected, uninterrupted academic calendar is too guaranteed, an enabling teaching-

learning environment is to be assured and the incessant face-off between the ASUU and the government to be put to rest. The struggle for university autonomy has been a long-standing in the university system in Nigeria. Varma (1967) in Babalola et al. (2007) argued that for a university to be truly autonomous, the state control must be minimum, limited to requirements of proper utilization of funds and conformity to the broad objectives of national policy. Babalola et al. (2007) argued that there cannot be absolute autonomy, but a critical mass of qualified autonomy is needed for a university to operate as a functioning university. However, these areas of autonomy should be jointly agreed upon by both the government and the stakeholders of the university system (ASUU inclusive).

University education in Nigeria today needs a total overhauling and restructuring, this reform is required to improve the performance of the system. Ajayi and Ayodele (2002) posited that a reform in university programme is highly necessary and long overdue. Better training for university students should be vigorously pursued. The curriculum needs to be reformed in content and in methodology to give room for the spirit of inquiry, discovery and experimentation. Nwadiani in Ochuba (2001) observed that the 60:40 Science: Humanities placement policy has not been implemented resulting in overproduction of humanities graduates while some areas of critical importance have been neglected. It has therefore become necessary to redesign the university education to become purely practical oriented for skill acquisition. Ibukun (1997) suggested that there is the need to make plans projections on the nation's manpower needs in a bid to integrate this into university programmes.

The NUC and the Nigerian Manpower Board are in the position to alert universities on the future manpower requirements of the country.

Soludo (2004) and Ugwu (2003) reported that coupled with poor physical facilities (due to poor funding) which have impacted on teaching, and major technology in schools, products from universities become misfits who must be trained and retrained by employers before they can be useful in industrial settings. This problem of inadequate funding of universities now puts maintenance activities at a stake. Njoku (1994) and Oguji (1987) confirmed that about 20%-25% of expenditure on non-academic sector is spent on maintenance both in University of Ibadan and College of Education, Awka. The situation is obvious insufficient funds from government leading to insufficient funds for maintenance; then it becomes a vicious circle. This therefore makes maintenance of infrastructure in the higher institutions a perennial problem.

According to Alele-Williams (1991), inadequate funding has relative adverse effects on purposeful (result-oriented) planning. This is because university managers need to be sure of the source(s) and the level of funding to be able to plan effectively. Oyebade (2000) opined that as a result of shortage of funds, there are examples of clear misplacement of priorities. Instead of using the available funds for the procurement of teaching aids and materials (books, journals, equipment, utility, vehicles, recruitment of more personnel, etc.), it is usual to find some universities spending their limited funds to maintain deteriorating or break down infrastructure. It is therefore becoming increasingly difficult for the universities to promote academic excellence or to

contribute to the progress of the society as the policy objectives stated.

In a study conducted by World Bank (2001), "Employees admit that a disproportionate share of university problems stem from inadequate financing". Also, many of the employers are quick to add that the quality of the graduates is simply a reflection of the quality of academic staff, learning resources (libraries, laboratories, etc.) and funding limitations.

Wedemeyer, a theorist who has made notable contributions in the area of education quality theory, claims that education has yet to develop a theory related to the mainstream of educational thought and practice (Keegan, 1996). Some education quality theories, developed from leading scholars in the discipline, such as Holmberg, Wedemeyer, Moore and Peters, can be categorized into three broad groups (Keegan, 1996 and Saba, 2003). Therefore, for the purpose of this study the theory of industrialization of education is adopted to link or serve as nexus between fund utilization and graduates quality. This is because the focal point of the theory is adequate funding and quality education in universities. Thus, structural concerns and issues (e.g. industrialization) are the main focus of this theory along with how those issues influence the teaching and learning process considering adequate funding (Keegan, 1996; Saba, 2003).

Methodology

For any research work to be successful, it requires that information sought; the methods used in obtaining it, and the analytical techniques employed must be systematically and carefully laid out. For the purpose of this study correlational research design is adopted to regress the explanatory

and explained variables using secondary data only extracted from the books of accounts of the universities. The population of this study is 5 federal universities of technologies in Nigeria comprising of FUT Yola, FUT Minna, FUT Owerri, ATBU Bauchi and FUT Akure. While the sample of the study are all the five Nigerian Federal Universities of Technology using census sampling technique where 100% of the population is taken to be the sample of the study. The common techniques for analysis that are used in research include chi-square, t-test, f-test, regression, correlation coefficient and simple percentage. However, for the purpose of this research, multiple regressions are used. This is because it actually captures and address inter-relationship of the data collected from the secondary source.

Model Specification

The model that examines the variable of the study is presented below:

$$QOG = \beta_0 + \beta_1 RLDC + \beta_2 ASEC + \beta_3 CRRC + e$$

Where:

QOG = Quality of Graduates (FUTs Performance)

β_0 = Intercept

β_1 -3 = Coefficient of the independent variables

RLDC = Research, Learning and Library Development Cost

ASEC = Academic Staff Emolument Cost

CRRC = Capital Rehabilitation and Refurbishment Cost

e = Residual or error term

Variables Measurement

QOG = FUT Performance (Measured by number of 1st and 2nd class graduates)

RLDC = Research, Learning and Library Development Cost (Measured by total amount spent on researches, conferences, Direct teaching and laboratory cost, Journals subscription, e- library subscription and expenses, expenses on maintaining conventional and online libraries).

ASEC = Academic Staff Emolument Cost (Measured by salaries, allowances and all financial benefits in favour of only academic staff of the FUTs).

CRRC = Capital Rehabilitation and Refurbishment Cost (Measured by amount spent on renovations and maintenance of classes, theatres, laboratories, students hostels and common rooms).

Results and Discussion

Multiple regression has been used to estimate the relation between the independent variables (Research, Learning and Library Development Cost, Academic Staff Emolument Cost and Capital Rehabilitation and Refurbishment Cost) and the dependent variable (Quality of graduates) as the measure of Federal Universities of Technology' performance. The technique of least Squares has been used to estimate the regression coefficient in the model of the study. Thus:

$$QOG = \theta_0 + \theta_1 RLDC + \theta_2 ASEC + \theta_3 CRRC + e$$

The results are presented in three sections. Section one presents some basic statistics from the five Federal Universities of Technology in Nigeria. Section two presents the regression results for the study then, the last section presents the combined impact of fund utilization on the performance of the Nigerian Federal Universities of Technology.

Basic Sample Statistics

The sample descriptive statistic is first presented in table 1; the correlation matrix is presented in table 2, while the tolerance

and variable inflation factor are presented in table 3. Table 1 contains the mean, standard deviation, minimum and maximum values of the variables used in the study

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
RLDC	1.0607	38.4229	60.74	2877
ASEC	25.7910	5.7315	21.34	163.82
CRRC	11.0190	7.3411	4.47	37.40
QOG	1.5574	885.7994	0.78	24.21

Source: Regression Result Using SPSS

Table 1 indicates that, on average, during the period of the study the Quality of graduates is about 155%, while Research, Learning and Library Development Cost, Academic Staff Emolument Cost, Capital Rehabilitation and Refurbishment Cost have a mean of 106%, 258% and 110% respectively. Academic Staff Emolument Cost has the lowest standard deviation of 5.73 signifying its higher contribution to the Federal Universities of Technology' Graduates' quality, while capital rehabilitation and refurbishment cost has the highest standard deviation of 38.40 which

indicates its lowest contribution to the graduates' quality. This can be confirmed by the significant f values of the individual contributions of the independent variables to the quality of graduates in FUTs.

Correlation Matrix

The correlation matrix is used to determine the relationship between the dependent and independent variables of the study. Table 2 below presents the correlation matrix for the sample observations.

Table 4.4 Correlation Matrix for the sample Observed

Variable	QOG	RLDC	ASEC	CRRC
QOG	1.000			
RLDC	0.97	1.000		
ASEC	0.64	0.005	1.000	
CRRC	0.76	0.022	-0.092	1.000

Source: Regression Result Using SPSS

Table 2 shows that there is a positive relationship between Quality of graduates and Research, Learning and Library Development Cost, Academic Staff Emolument Cost and Capital Rehabilitation and Refurbishment Cost. This implies that fund utilization is contributing positively to

the performance of Nigerian Federal Universities of Technology. The association between them is positive and highly significant. On the other hand the relationship between the independent variables as showed by the correlation matrix, indicate that the relationship

between them is not strong both highly negligible which reaffirms absent of multicollinearity. The next table that follows presents tolerance and variation inflation factor values for the test of multicollinearity between the explanatory variables.

Table 3: Tolerance and Variable Inflation Factor

Variables	Tolerance	VIF
RLDC	0.181	5.516
ASEC	0.146	6.849
CRRC	0.346	2.887

Source: Regression Result Using SPSS

The tolerance value and the variance inflation factor (VIF) are two advanced measures of assessing multicollinearity between the independent variables of the study. In table 3, the variance inflation factors were consistently smaller than ten indicating complete absence of multicollinearity (eg Neter et al; 1996 and Cassey, et al; 1999). This shows the appropriateness of fitting the model of the study with the three independent variables. In addition, the tolerance values are consistently smaller than 1.00 thus further substantiating the fact that there is complete absence of multicollinearity between independent variables (see Tobachmel and fidell, 1996).

The results of OLS in relation to the impact of fund utilization on the performance of Nigerian Federal Universities of Technology are presented and discussed. The study used three fund utilization proxies; Research, Learning and Library Development Cost, Academic Staff Emolument Cost, Capital Rehabilitation and Refurbishment Cost and Quality of graduates as proxy of performance. The regression results are presented in table 4 below.

Table 4: Fund utilization and Performance of FUTs in Nigeria

Fund utilization	Performance
Variables	QOG
Intercept	- 27.930
RLDC	0.000*
ASEC	0.002*
CRRC	0.010*
R	0.99
R ²	0.99
Adj. R ²	0.99
F. Sig.	0.000
Durbin Watson	3.144

Source: Regression Result Using SPSS

The estimated relationship for the model is $QOG = -27.930 (8) + 14.05 (RLDC) + -5.04 (ASEC) + 3.72 (CRRC)$

The model indicates that all the 3 proxies of fund utilization have significant impact on FUTs performance at 1% level of significant. The implication of these results is that the higher the level of fund utilization the better the graduates' quality of the Federal Universities of Technology.

The regression result in table 4 reveals that research, learning and library development cost as an explanatory variable has explained the variations in the quality of graduates measured by first and second class graduate of FUTs. This implies that investing good amount by FUTs on researches, conferences, direct teaching and laboratory consumables, journals subscription, e- library subscription and maintaining conventional and online libraries will go a long way in improving and increasing their quality of graduates. However, the result shows that research, learning and library development cost is significant on the graduate quality of FUTs at 1% level of significant. This finding is in line

with Ajayi and Ekundayo (2006), Aina (2007) contradicts Ajayi and Ayodele (2002), Oyeneye (2006), Adegbite (2007).

Secondly, the regression result also reveals that the Academic Staff Emolument Cost as one of the independent variables influences the changes in the graduates' quality of FUTs in Nigeria. The implication is by the time the FUTs concentrates in paying the salaries and allowances as well as all other benefits of their academic staffers it will serve as a motivational factor to deliver quality services that will directly improves the quality of graduates produced by them. It is also discovered that the academic staff emolument cost is significant at 1% level of significant. This finding is in line with Ibukun (1997), Smah (2007) Contradicts Akindure (2004), Bangura (1994), Harnett and Strassner (2003).

Thirdly, the result produces evidence of Capital Rehabilitation and Refurbishment Cost is significant at 1% level of significant on the graduates' quality of FUTs. The implication of this result is that for FUTs to have a qualitative product it should among others ensure that the learning environment is very conducive for both the students and their lecturers. This can easily be attain if the learning facilities like classes, theaters, halls, etc are constantly undergoing maintenance as due through rehabilitation and refurbishment. This finding is in line with Ochuba (2001), Alele-Williams (1991), and Oyebade (2000) contradicts Soludo (2004) and Ugwu (2003), Ajayi and Ayodele (2002).

Finally, the combined impact of the proxies of fund utilization on the performance of Nigerian Federal Universities of Technology is indicated in the model summary of the regression result. The combined relationship between the dependent and independent variables of the

study is 89% which implies strong positive and significant relationship. While the coefficient of determination R^2 0.78% shows that fund utilization in Nigerian Federal Universities of Technology occupies 78% of their Quality of graduates and the remaining 22% is covered by other factors. The R^2 indicates the variance of dependent variable which is explained by the available independent variables in the regression model. In fact, this coefficient shows the ability to explain the changes in the dependent variable by independent ones of the model. As far as this coefficient is bigger the ability to explain the model is also higher. The calculated F-change significant value of 0.000 is significant at 1% which confirms that the model is fit the variables; Research, Learning and Library Development Cost, Academic Staff Emolument Cost and Capital Rehabilitation and Refurbishment Cost have been properly selected and utilized in explaining and predicting the quality of graduates of Nigerian Federal Universities of Technology. This result lends support to the findings of Etuk (2005), Soludo (2004) and Ugwu (2003) and contradicts Njoku (1994) and Oguji (1987) Alele-Williams (1991) and Oyebade (2000).

Conclusion and Recommendation

The study has provided both empirical and statistical evidence on the utility of three independent variables Research, Learning and Library Development Cost, Academic Staff Emolument Cost, Capital Rehabilitation and Refurbishment Cost in explaining and predicting Quality of graduates of the five Federal Universities of Technology in Nigeria. The results show that the three variables have a significant aggregate impact (at 1 percent) on the performance of Federal Universities of Technology in Nigeria. Second,

among the predicting variables, Academic Staff Emolument Cost contributes highest to Quality of graduates that represents performance. On the other hand, Capital Rehabilitation and Refurbishment Cost identified to be the lowest contributor to the aggregate impact on the performance of Nigerian Federal Universities of Technology. However, reference to the findings and conclusion of the study, it is recommended that the management of federal universities of technology should increase fund utilization in research and development centers where marketable research efforts are coordinated and brought to the public domain for commercialization, provide a conducive environment for learning and staff development activities in order to improve the quality of graduates and improve their overall performance.

It is also recommended that in order to guarantee quality assurance in FUTs, the following strategies should be put in place:

provision of adequate and modern facilities; adequate funding; appraisal of educational programmes; employment of qualified teaching personnel and close monitoring of the activities of the universities so that their cost-recovery plans do not jeopardise the quality education they are to provide.

For the proper internal control of university's income and expenditures, management through the university bursar must design and implement a very comprehensive and sound internal control system. The system should also cover the security and optimal use of university's assets. The universities management need to device ways of cutting administrative cost, so as to allow more monies to move into the financing of direct teaching /research services, such as laboratory works, teaching and other field experiments.

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