

# The Role of TETFund in Improving Infrastructure and Library Facilities in Northwest Nigerian University: An Evaluative Study

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## Abstract

The relevant of infrastructural and library development in Nigeria tertiary institutions has become more obvious due to the growing complexity of the academic environment. The study examines the effect of Tertiary Education Trust Fund TETFund interventions on the infrastructural and library development in selected Universities in North-West, Nigeria. The objectives of the study are to examine TETFund interventions on infrastructural and library development of selected Universities in the North-West, The Public Goods Theory by Samuelson (1994) was adopted as the theoretical framework. The study adopted survey research design, primary method of data collection through questionnaires and interview with documentary evidences. Simple regression analysis was used in analyzing the data with the aid of Statistical Package for Social Science (SPSS). Findings from the study revealed that, there is significant positive effect relationship between TETFund and infrastructural development of the Universities in the North-West. There is also significant positive effect relationship between TETFund and library development of the Universities in the North-west. The study recommends that, TETFund should increase the level of intervention on infrastructural development to the North West Universities to increase institutional development that will create enabling environment for learning and research. More so, TETFund should create enough room to carter for library development projects amongst the various Universities in the North West, learning is all about reading and research and without standard and well-equipped library and laboratories.

**Keywords:** *TETFund, Infrastructural Development, Intervention, Northwest University*

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### **Background to the Study**

Tertiary education in Nigeria provides the much-needed manpower for all spheres of human need. The relevance of infrastructural and library development in Nigeria tertiary institutions has become more obvious due to the growing complexity of the academic environment, the increasing changes in institutions and technological advancement which further brought about the need for continuous improving and development of both infrastructures and library to meet the current challenges. Tertiary education related to all forms of post-secondary education such as the Universities, Polytechnics, Colleges of Education, Monotechnic and Professional schools (Abdu, 2003). Afolayan (2015) stated that Nigeria's tertiary institutions were in a state of advanced decay with most of the teaching staff leaving the country for higher degrees in abroad. Apart from the impact of inadequate funding on the quality of the teaching and learning process in the institute of higher education, academic support is grossly inadequate. Nkwede (2009) aptly pointed out that tertiary institutions in the contemporary Nigeria has focused itself at the cross-roads in the wake of continued inadequate funding from the traditional sources even when it is explicitly clear that education is one of the most viable and biggest industries in almost every modern economy. Inadequate funding has resulted to poor infrastructural facilities, teaching/learning facilities; library, research and so on, are also in very short supply. However, the problem of funding is not peculiar to northern Nigerian universities alone but the country at large. As noted by Oscar (2012), the major challenge facing the management of university and tertiary education system in Nigeria is inadequate funding. Inadequate funding is the most critical challenge that has threatened the attainment of good quality higher education for sustainable development. The problem of inadequate funding of education has been a bane to educational development in Nigeria. Onokerrhoraye, (2015) maintains that, a major constraint to attaining academic excellence in Nigerian tertiary institution is financial constraint which makes many academics and non-academics to be working under difficult circumstances. Most of the Nigeria Universities are unable to build lecture halls, libraries, students' hostels, equip laboratories, pay research grants, pay staff salaries, allowances and medical bills and so on (Asiyai, 2015).

This poor funding is a major factor that militates against quality of education in universities. A research carried out by the World Bank on higher education (1994) shows that in the 80s, about 37 developing countries spent less than 26% of their budgets on education than the previous decades. Imhabekhai and Tonwe (2001) highlighted that tertiary education at present is underfunded, inadequate funding put the university management under stress and strains hence they are incapacitated in providing essential services. This has led to rampant crises in the system resulting in strikes by academic and non-academic staff, dearth of equipment and facilities among others.

Ajayi and Ekundayo (2006) pointed that the Nigerian government over the year, has not been meeting the United Nations Educational, Scientific and Cultural Organization (UNESCO), recommendation of 26% of the local budget allocation to education sector. In view of this, the Tertiary Education Trust Fund (TETFUND) was established under the Education Tax Act No. 7 of 1993 as an intervention agency. However, the Tertiary Education Trust Fund Act, 2011 was used to replace the Education Tax Act Cap. E4, laws of the Federation of Nigeria, 2004

and Education Tax Fund Act No. 17, 2003 which consequently led to the establishment of the Tertiary Education Trust Fund vested with the obligation of disbursing, managing and monitoring the education tax to public tertiary institutions in Nigeria. Consequently, to facilitate the attainment of the stated objective of TETFUND, the TETFund Act, 2011 subjects a 2 percent (2%) Education Tax on all declared profit of registered companies in Nigeria. Moreover, the Federal Inland Revenue Service (FIRS) was vested with the responsibility by the TETFund Act 2011 to collect Education Tax (tetfund.gov.ng, 2014). The fund is then remitted to Tertiary Education Trust Fund, the Fund disburses to tertiary institutions and also evaluates and monitors the projects implemented by beneficiary institutions. The disbursement of the fund is mandated as provided in section 7 (1) (a) to (e) of the TETFUND Act, 2011 which stipulates that Fund shall administer and disburse the amount in the Fund to Federal and State tertiary educational institutions. The fund so disbursed is for the provision and maintenance of physical infrastructure, Academic Staff Training and Development, Research and development, Library intervention and other critical area of need which is considered by the opinion of the Board of Trustees as significant for the improvement and sustenance of educational standard in tertiary institution (TETFund.gov.ng, 2014). It is against this background that the study will investigate the effect of Tertiary Education Trust Fund (TETFUND) interventions on the development of selected Universities in North-west, Nigeria.

Although Similar Studies were conducted on the impact of TETFund Interventions, However, this study seeks to fill in the gaps in some of the work reviewed. Thus; a study carried by Udu and Nkwede (2014) titled “Tertiary Education Trust Fund Interventions and Sustainable Development in Nigerian Universities: Evidence from Ebonyi State University (EBSU), Muhammad (2018) on the Influence of TETFund on the provision of physical infrastructure and Instructional Material in Business Education Department, In Colleges of Educations in North-west Nigeria. But, there is no study been carried out on TETFund intervention in the North West University holistically which is a motivate factor of this study.

The general objective of this study is to examine the effect of Tertiary Education Trust Fund (TETFUND) interventions on the infrastructural and library development of selected universities in North-West Nigeria, while the specific objectives are

- i. To identify the effect of TETFund intervention on the development of physical infrastructure of Universities in North-West Nigeria.
- ii. To examine the effect of TETFund intervention on library development of the Universities in North-West Nigeria.

#### **Statement of hypotheses**

**Ho<sub>1</sub>:** TETFund intervention has no significant effect on physical infrastructural development of Universities in North-West Nigeria.

**Ho<sub>2</sub>:** TETFund intervention has no significant effect on library development of Universities in North-West Nigeria.

## **Literature Review**

Tertiary Education Trust Fund (TETFund) is an interventionist agency set up by the federal government to oversee the monitoring of the university system of education is the Tertiary Education Trust Fund (TETFund). TETFund came into existence in 2011 after it metamorphosed from the Education Trust Fund (ETF) which was established in 1993. Also, as an intervention agency, the institution has been responsible for ensuring that the objectives of the public tertiary institutions in the country are met through the provision of necessary resources (Ogunde, 2011).

TETFund intervention is on regular and special interventions. The Regular Intervention is yearly for all beneficiary institution of TETFund. The Special Intervention usually at the discretion of the Board of Trustees, on equality of geo-political zones as enshrined in the enabling Act (TETFund Interventions, 2017). Ogunde (2011) stated that the focus of TETFUND intervention is to ensure that the tertiary level of education in the country can compete favorably with other universities in the continent and around the world. TETFund has been responsible for the distribution of intervention funds to the various public higher institutions in Nigeria. This includes the Universities, Polytechnics, and Colleges of Education. TETFUND major task has being in the area of distributing and monitoring fund among tertiary institutions in the country.

The Tertiary Education Trust Fund (TETFund) therefore, as one of the intervention agencies of the government has been established with the responsibility of seeing to the survival of the university system. In the face of human, financial and material inadequacies in the nation's tertiary institutions, the standard of teaching, learning, research and community development has continually been threatened. As such, in order to redeem the image or lost glory of these institutions, monitoring agencies are employed to intervene and revamp the tertiary institutions vis-à-vis position the nation on the path of development via the efficiency and effectiveness of these tertiary institutions (Onyeike & Emmanuel, 2014).

Tertiary Education Trust Fund (TETFund) has become a house hold name in the higher education sector that private institution owners are neck bent to participate in the intervention of the Fund. From north to south east to west, there is virtually no tertiary institution, except privately owned that the presence of the Fund is not conspicuously noted. The numerous infrastructures, vis-a-vis edifices with modern architectural designs, speak volume of how TETFund is committed to the development of tertiary institutions in the country. Although the federal government has removed special intervention from the 2017 budget of the Fund, its normal intervention is shared at the ratio of 41 percent for universities, 30 percent for polytechnics and 29 percent for colleges of education at federal and state levels. These normal interventions are expected to be spent on physical infrastructures and equipment, library development, academic staff training and development, which over 10, 000 academics have benefited across higher institutions in the country (TETFund, 2017).

TETFund also input in tertiary institutions development through Book Development Fund, National Research Fund, Journal Publications, Staff Conference Attendance and Manuscripts

Development. The High Impact Intervention, specifically introduced to address specific and peculiar areas as enshrined in the TETFund Act, was divided into five phases. At the phase one level, 13 institutions drawn from the six geo-political zone benefited from the N 26.4 billion earlier earmarked, while 12 institutions also benefited from N 24 billion set aside for the second phase in the six zones. Only six institution, each from the geopolitical zones, were expected to benefit from the N 10billion, while at the phase four level, 12 institutions benefited from N 24 billion, while the fifth phase was specified for another 12 institutions for a total amount of N 24 billion. Benefiting from TETFund intervention is nevertheless automatic. Any institution entitled to it must fulfill certain conditions before it could receive assistance from the Fund (TETFund, 2017).

Hornby (2006) defines infrastructure as the basic systems and services that are necessary for an organization to run smoothly which include buildings, transport, water and power supplies. Physical infrastructure in educational institutions are those structures in which academic activities are taking place, they include lecture rooms, examination halls, offices for academic staff, laboratories etc. According to Eisendrath (2008), infrastructure refers to not only physical facilities, it is often a set of businesses that own, operate, renew and expand infrastructural facilities. Certainly, they are needed for smooth teaching and learning to take place. Miller (2013) stated that E-infrastructure including high performance computing is absolutely essential to our school research base, whether it is enabling scientist to carry out complex experiments or helping academics manage large amount of data.

Fowoe (1988) stated that an academic library is the central organ of a university, as a resource house, it occupies a central and primary place in a University, because it supports all the functions of a university-teaching, research and extension of the frontiers of knowledge and the transmission to posterity of the learning and culture of the present and the past. A library, particularly an academic library, must be up-to-date and at the same time must allow access to older materials in its collections. It must provide service and guidance to its readers, as well as suitable space and conducive conditions and environment in which they can work. In addition, an academic library must house collections of special value which should be part of the university's and the nation's heritage, this require a lot of funding.

University libraries occupy a central position in higher education with the mandate to acquire, organize and disseminate learning resources and services in support of the teaching and research programmes of their institutions. Hence, their major function is the provision and dissemination of information, both print and non-print, which flows from collection development. Olorunisola (2006) asserted that the quality of library resources and facilities is a vital component in the reputation of any institution. The quality and effectiveness of academic programmes are measured in part by the quality of the library. However, it is depressing that libraries could not discharge their roles effectively owing to poor funding.

According to Okonofua (2011), poor funding is the principal challenge that most Nigerian universities currently face which limits their ability to rate high in global ranking of universities. He remarked that if the government remains the major source of funding, there will continue to

be funding gaps from the government sources due to the increasing number of government funded universities. Likewise, libraries just like other higher institutions are striving to source for funds. The crave for proper funding of libraries has forced the heads of libraries and librarians to adopt some tough measures. Researches have reported several incomes generating ventures and coping strategies to generate additional funding. Despite these identified strategies, research reports coupled with the experiences of many library managers show that internally generated revenue is negligible.

**Empirical review**, the study was established through the review of the following empirical studies;

Chidera (2016) evaluated the extent of TETFund contribution towards quality infrastructures of tertiary institutions in Imo State. The design of this study is an evaluation as well as an opinion survey research, carried out in state owned tertiary institutions in Imo State. The population of the study consists of 112 academic managers from the three-state owned tertiary institutions. A census study of all the 112 academic managers from the three-state owned tertiary institutions in Imo State was used since their number can be reached. The instrument for data collection in this study is a researcher made rating scale named “TETFund Contribution towards Quality Infrastructures of Tertiary Institutions Scale (TCQTTIS)” with 18 items. The rating scale was prepared in line with the policy mandate of TETFund. The face validity of the instrument was established while internal consistency was established on a one short method of administration using Cronbach alpha statistic with an index of 0.81 indicating high reliability of the research instrument. In analyzing the data that were collected, mean score was used to answer the research questions while one sample z-test (i.e. z-test of difference between sample and population means) was used to test the hypotheses at 0.05 level of significance. It was revealed in this study that TETFund sponsor the establishment of new lecture halls, renovation of classroom blocks, and maintenance of students' lecture sits and ensure successful completion of infrastructural projects to a high extent. But in the aspect of establishment of ICT center for the schools, provision of new office furniture, renovation of school library, provision of electricity for the school and provision of borehole for the school, there contribution is to a low extent. The study further revealed that TETFund contribution towards quality transformation of tertiary institutions in the area of staff training and development is to a low extent. This implies that there is also no significant contribution of TETFund in the area of staff training and development in Imo State tertiary institution.

Grace (2016), investigated the Influence of TETFUND Intervention Fund to Educational Infrastructures in Nigerian Universities. Descriptive survey method was adopted. The target population was 6,939 lecturers in South East Universities. Stratified simple random technique was used. The sample size was 386. One research question and one hypothesis guided the study. The questionnaire adopted the four-point Likert scale. Two lecturers in the Department of Educational Management and one lecturer from Measurement and Evaluation validated the instrument. Using 10 lecturers from University of Uyo, the reliability coefficient was determined using Cronbach's Alpha technique which yielded 0.965. The hypothesis was formulated and tested with one-way ANOVA and Minitab software techniques at 0.05 level of significance and 14 degrees of freedom. The findings showed that TETFUND intervention

fund to a high extent has no significant influence on educational infrastructures in Universities in South East, Nigeria.

Nnanna and Abraham (2018) investigate TETFund inputs to library and research in universities of South East Nigeria. The population of the study was all the senior staff of TETFund at their Enugu zonal office and Abuja Head Office (26), all the lecturers of the beneficiary five Federal Universities in South East, Nigeria (7,734) and TETFund Desk Officers at the institutions (25 in all the five federal Universities). Based on sampling criteria, eight hundred and twenty-four (824) respondents (773 lecturers and 51 TETFund officials) were randomly sampled which constitute 10 percent of the lecturers from each of the five federal universities and all the TETFund officers from Abuja and all the desk officers of the five universities. The instrument was the researcher's designed questionnaire on "TETFund Inputs for Beneficiaries Research Output Questionnaire" (TIBROQ). Cronbach Alpha was used to test the reliability of the instrument and a co-efficient of 0.83 was obtained. Descriptive statistical tools of mean and standard deviation were used to provide answers to the research questions while z-test was used to test the null hypotheses at 0.05 alpha level. Findings revealed that TETFund inputs into the universities include well-equipped laboratory; stocked libraries and scholarships for lecturers locally and internationally. Most of the problems militating against research includes poor funding, low quality of research output and improper accountability; research brings about innovations in new products; promotes the prosperity of a nation and the well-being of its citizens among others. Based on these findings, it was recommended among others that TETFund should increase the funds allocated to universities and that lecturers should engage in innovative research that will bring meaningful development to the society.

Anaehobi and Agim (2019) Studied effect of Tertiary Education Trust Fund (TETFund) intervention to the development of university libraries in South-East, Nigeria. Four research questions were answered in the study. A descriptive research design was adopted for the study. The instrument used in data gathering was questionnaire. The population comprised the 10 university librarians in public universities in South-East, Nigeria. The instrument was validated by experts and the reliability ascertained using the Richard Kuderson 21 with a coefficient value of 0.86. Data collected were analyzed using frequencies and percentages. The findings revealed that the university libraries in South-East, Nigeria have been able to acquire information resources such as new encyclopedias and other reference sources through TETFund intervention, staff in the libraries have benefited from TETFund sponsored staff development programmes, the Fund has contributed to physical infrastructure in the libraries, research and publications of books and journals executed by library staff in university libraries in South-East Nigeria have been sponsored through TETFund intervention.

#### **The Public Goods Theory by Samuelson (1994)**

The Public goods theory has two main assumptions:

1. A good once produced for some consumers can be consumed by additional consumers at no additional cost.
2. There is non-excludability which means that it is difficult to keep people from consuming the good, once it has been produced.

According to Samuelson, Good with these characteristics will be under-produced in the private sector, or may not be produced at all. Following the conventional wisdom, economic efficiency requires that the government forces people to contribute to the production of public goods, and, then, allow all citizens to consume them. A public good is a good produced by government and generally made available for the benefit of its citizens. The explanation of 'public' by Narain (1986) throws more light to the public goods analysis. For Narain (1986), there are three characteristics of "publicness" which include (a) Public purpose (b) Public ownership, and (c) Public control.

For this study, education is a public good. The public goods theory provides justification for large public expenditure in education. This assumes that it is only the government that can effectively provide education services appropriately to the citizens given the varied externalities associated with it. Government Universities in North-West Nigeria is a public enterprise, owned and controlled by the government with normal and special TETFund intervention for the public interest/purpose; hence, demands accountability from the University authorities. Evidently, the TETFund intervention projects injected to the Universities in North-Western states of Nigeria ensures that goods (education) with public-goods characteristics are efficiently and effectively provided. By so doing education as public good is made available and affordable to the greater majority, a situation that foster government as well as its stakeholders' interest/benefits.

### **Methodology**

The research design for the study is survey. This study collected data from academic staff of Nassarawa State University thus making a survey effective in executing the research. The study established the effect of tertiary education trust fund (TETFund) interventions on the infrastructural and library development in selected Universities in North West which was collected using questionnaires, documentary evidences and observations. The factors were to be tabulated in the questionnaires and expressed using relative frequencies. The total population for this study comprises of all academic staff in all the selected universities in North-west Nigeria (Ahmodu Bello University, Zaria, Beyaro University, Kano, and Federal University, Dutse) with the total population of = **5480**. (Statistic Unit of those Universities, 2019)

### **Method of Determining Sample Size**

**Yaro Yamane formula of (1967)** is mostly applied when population is very large that why it's suitable for this study

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n= sample size required

N = number of people in the population

e = allowable error (0.05 on the basis of 95% confidence level)



$$\frac{5080}{1 + 5080(0.05 \times 0.05)}$$

$$\frac{5080}{1 + 12.7}$$

$$\frac{5080}{13.7} = 370$$

**Probability Sampling Method**

**Stratified Sampling;** this is applied by classifying the population into groups using definite characteristics. These group are called strata. A stratum is a subset of the population that share at least one common characteristics. Examples of stratum can be males and females, or postgraduate students and undergraduate students etc. The researcher first identifies the relevant stratum and their actual representation in the population. Random sampling is then used to select a sufficient number of subjects from each stratum. “Sufficient” refers to the proportion each stratum bear to the total population using the following formula.

$$N = \frac{P \times S}{P}$$

**N** is the number off element in the stratum

**P** is the population of the study

**S** is the required sample size

The population of the study comprises 5080 Academics staff of the selected Universities, in the North West from which a sample size of 370 Academics staff was determined. Below is the sample frame;

**Table 1.**

Academics staff of the various Universities	Population
Ahmadu Bello University, Zaria	2800
Bayero University, Kano	1755
Federal University, Dutse	525
<b>Total</b>	<b>5080</b>

Academics staff of the various Universities	Population	Samples
Ahmadu Bello University, Zaria	2800	204
Bayero University, Kano	1755	128
Federal University, Dutse	525	38
<b>Total</b>	<b>5,080</b>	<b>370</b>

### **Methods of Data Collection**

The researcher will adopt primary method of data collection, Questionnaire and Observation techniques will be used to collect data on the effect of TETFund intervention on the development of selected Universities in North-west Nigeria. The observation method shall be conducted by the researcher by visit the various Universities under study observed the number of Infrastructural Development put in place by TETFund in those Universities. Questionnaire will be divided into five sections A, B, C, D and E. Section A: will contain information on demographic data of the respondents, Section B: information on the provision of physical infrastructure, Section C: information on the Library development, Section D: information on research and development (R&D) while Section E: information on academic staff training. A four points Likert-Scale of Strongly Agreed (SA) Agreed (A), Disagreed (DA) and Strongly Disagreed (SD) will be used in collecting the data for sections B, C, D and E. The questionnaire will be subjected to vetting by the 3 experts in the Department of Public Administration to ensure the content validity. Also, to ascertain the reliability of the questionnaire, a pilot study will be conducted using twenty (20) staff of the University of Abuja which is outside the study area.

### **Techniques for Data Analysis**

Data processing operations shall be carried out including data editing/ cleaning and classification. Data editing/ cleaning is the examination of the collected data so as to detect omissions and errors and to correct them whenever possible. Data classification is the arranging of the collected data in classes or groups with common characteristics. The similar data shall then tabulate before further analysis is conducted. The tabulated data shall be analyzed using both qualitative and quantitative techniques. Descriptive statistics shall be used for the analysis of the collected data, and this included parameters such as measures of central tendencies and the measure of dispersion. Inferential data analysis techniques such as regression and correlation analysis shall also be used to analyze the collected data. These parameters were used to determine and evaluate the relationships of the variables being measured. Data analysis and presentation of findings shall be carried out using statistical software which includes SPSS version 24. The software aided in the generation of suitable charts and tables which shall be used in drawing conclusions as well as presenting the research findings.

Regression is an important approach to modeling the relationship between the dependent variable (y) and one or more independent variable (xs). A regression equation describes how the mean value of a response variable relates to specific values of the predictor variables (Bhattacharyya, 2011). The study shall use simple regression analysis to test the statistical significance of the independent variables on the dependent variables.

The simple regression equation model for the study is given below:

$$Y = f(\text{PHYINF}, \text{LIBDV}), \dots \text{eq(i)}$$

Linearizing equation (1) above produces a simple regression model as thus:

$$Y = \beta_0 + \beta_1 \text{PHYINF} + \beta_2 \text{LIBDV} + e, \dots \text{eq(ii)}$$

Where; Y = Development of Universities being affected.

$B_0$  = is the constant or coefficient of intercept.

PHYINF= Physical Infrastructure.

LIBDV = Library development.

Development.  $\beta_1 \dots \beta_2$  = the corresponding coefficients for the respective dependent variables.

$e$  = stochastic error term

Equation (ii) is estimated using the method of Ordinary Least Square to ascertain the coefficients  $\beta_1$  through  $\beta_2$ , which measures the slope of each of the variables above. We shall introduce X to represent the variables as

TETFUND= Tertiary Education Trust Fund = X

**Table 2:** Showing the number of Questionnaires Distributed and how many Retrieved

Respondents	Response Rate	Percentage (%)
Returned	326	88
Unreturned	44	12
Total	370	100

**Source:** Field Survey 2019

The above table shows that out of 370 questionnaires administered to the staff of the Universities, only 326 representing 88% were completed and returned, while 44 questionnaires representing 12% of the questionnaires were not returned. The 326 returned questionnaires were used for analysis.

**Table 3:** TETFund Intervention and Infrastructural Development

**Descriptive Statistics**

	Mean	Std. Deviation	N
Tertiary Education Trust Fund	4.8856	1.21384	175
infrastructural Development	3.6478	1.15249	175

Table 3 is the descriptive statistics depicting the mean, standard deviation and number of observations. It is shown in the result that the mean TETFUND Intervention, and Infrastructural development are 4.8856, 3.6478 respectively. The standard deviation is less than 1.9 and the number of observations is 175

**Table 4:** Variables Entered/Removed <sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	TERTIARY EDUCATION TRUST FUND <sup>b</sup>		Enter

a. Dependent Variable: Infrastructural Development

b. All requested variables entered.

Table 4 showed summary of the variables entered in the SPSS package, which are one dependent variable and one independent variable.

**Table 5:** Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.801 <sup>a</sup>	.671	.640	.7309	.220

a. Predictors: (Constant), Tertiary Education Trust Fund

b. Dependent Variable: Infrastructural Development

Table 5 showed the summary of the model in the study and explained the coefficient of correlation depicted by R, which is 0.801. It also reported the coefficient of determination depicted by R<sup>2</sup>, which is equal to 0.671. Adjusted R<sup>2</sup>, which is 0.640. A standard error of 0.7309 and Durbin Watson statistic of 2.2 were also reported accordingly.

**Table 6:** ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	191.534	1	191.534	358.517	.000 <sup>b</sup>
	Residual	106.848	200	.534		
	Total	298.381	201			

A. Dependent Variable: Infrastructural Development

b. Predictors: (Constant), Tertiary Education Trust Fund

Table 6 is the ANOVA table (analysis of variance) that indicates the fitness of the model. Thus, the F-Statistics of 358.517 and its corresponding P-value of 0.000 depicts that the model is fit.

**Table 7: Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.223	.172		-1.295	.197
Tertiary Education Trust Fund	.845	.045	.801	18.935	.000

a. Dependent Variable: Infrastructural Development

Table 7 showed the coefficient of the independent variables and their respective significant. As shown in the result table, B0, which represents the constant term has a value of 0-223, B1, which is the coefficient of the TETFUND by X1 has a value of 0.845 Also, the significance of these values as shown on the **Sig** column are 0.000 for TETFUND

**TETFund and Library Development**

**Table 8: Descriptive Statistics**

	Mean	Std. Deviation	N
Tertiary Education Trust Fund	3.6789	1.1584	202
Library Development	2.8886	1.2149	202

Table 8 is the descriptive statistics depicting the mean, standard deviation and number of observations. It is shown in the result that the mean TETFUND Intervention, and Library development are 3.6789, 2.8886 respectively. The standard deviation is less than 1.9 and the number of observations is 202

**Table 9: Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	TERTIARY EDUCATION TRUST FUND <sup>b</sup>		Enter

a. Dependent Variable: Library Development

b. All requested variables entered.

Table 9 showed summary of the variables entered in the SPSS package, which are one dependent variable and one independent variable

**Table 10:** Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.701 <sup>a</sup>	.562	.520	.6307	.200

a. Predictors: (Constant), Tertiary Education Trust Fund

b. Dependent Variable: Library Development

Table 10 showed the summary of the model in the study and explained the coefficient of correlation depicted by R, which is 0.701. It also reported the coefficient of determination depicted by R<sup>2</sup>, which is equal to 0.562. Adjusted R<sup>2</sup> which is 0.520. A standard error of 0.6307 and Durbin Watson statistic of 2.00 were also reported accordingly.

**Table 11:** ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	191.534	1	191.534	358.517	.000 <sup>b</sup>
	Residual	106.848	200	.534		
	Total	298.381	201			

a. Dependent Variable: Library Development

b. Predictors: (Constant), Tertiary Education Trust Fund

Table 11 is the ANOVA table (analysis of variance) that indicates the fitness of the model. Thus, the F-Statistics of 358.517 and its corresponding P-value of 0.000 depicts that the model is fit.

**Table 12:** Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.245	.172		-1.295	.197
	Tertiary Education Trust Fund	.761	.045	.801	18.935	.000

a. Dependent Variable: Library Development

Table 12 showed the coefficient of the independent variables and their respective significant. As shown in the result table, B0, which represents the constant term has a value of 0-245, B1, which is the coefficient of the TETFUND by X1 has a value of 0.761 Also, the significance of these values as shown on the **Sig** column are 0.000 for TETFUND.

### Discussion of Findings

From the model summary table, the correlation value of 0.801 and 0.701 are strong evidence to suggest that there is highly positive relationship between the variables. This means that TETFund is highly related with infrastructural development and library development. The

coefficient of determination, which has a value of 0.671 and 0.562 are strong evidences to also suggest that 71% of the variation that occurs in the dependent variable- infrastructural development is well explained by the independent variables- TETFund intervention, while 29% is explained by other external variables, more so, 62% of the variation that occurs in the dependent variable- library development is well explained by the independent variables- TETFund intervention, while 38% is explained by other external variables, which are not included in the model. The Durbin Watson statistic value of 2.2 and 2.0 respectively strong indications of the absence of any serious auto or serial correlation, meaning that the error terms are not in any way correlated.

Furthermore, the analysis of variance result is highly significant as the calculated statistic is less than the 5%  $\alpha$  level of significant. We are therefore confidence that the model use in this study is appropriate to guarantee better conclusion. The coefficient table enables us to understand the effect of independent variable on each of the dependent variables. As shown below, starting from the contribution of TETFund on infrastructural development which has a coefficient value of 0.845 and a level of  $\alpha$  value of 0.000, which is less than the 5% - 0.05 is an indication that we can reject the null hypothesis of non-significant relationship between TETFund intervention and Infrastructural development of the Universities in the North West. The implication of this result is that in the academic environment, the emphasis on infrastructural development, based on this study is significant, hence attention should be to it, because of its significant contributions to University standard.

Again, the contribution of TETFund intervention to library development, which has a coefficient value of 0.761 and a level of  $\alpha$  value of 0.000, which is less than the 5% - 0.05 is an indication that we can reject the null hypothesis of non-significant relationship between TETFund and library development of the Universities in the North West. The implication of this result is that in the academic environment, the emphasis on measures to develop library is sacrosanct, hence attention should be given to increasing expenditures that are capable of increasing library equipment's and materials in order to standardized libraries of the Universities of North East.

### **Conclusion and Recommendations**

Based on the summary above, the study wishes to draw the following conclusions: That in view of the fact that the regression result is significant at 5%, we conclude that the findings is statistically reliable for conclusion to be derived. Also, the result can be taken to an unbiased and non-spurious. The statement of the first hypothesis is completely rejected on the premise of statistical evidence. We are 95% confident that in the academic environment such as Universities in the North West, there is sufficient evidence to suggest that increase in infrastructural spending by TETFund would increase University development. Furthermore, the statement of the second hypothesis is completely rejected on statistical evidence. We therefore conclude that TETFund has statistical and significant relationship with library development in the North West Universities. There is sufficient evidence to suggest that increase in spending that would increase library development by TETFund will also increase Universities development.

- i. The study recommended that, TETFund should increase the level of intervention on infrastructural development to the North West Universities to increase institutional development that will create enabling environment for learning and research. Other academics institutions can fall suite, that infrastructure is a significant factor for the increase of academic performance, in order to make learning environment conducive and standard for both teaching staff and the students to achieve their learning objectives.
- ii. More so, TETFund should create enough room to carter for library development projects amongst the various Universities in the North West, learning is all about reading and research and without standard and well-equipped library and laboratories, academic institutions would not find it easy to copy with the educational demands in the society. E-library is a key to enhance globalization of knowledge and also promotes innovation.

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