

**IMPACT OF PUBLIC EXPENDITURE ON HUMAN CAPITAL DEVELOPMENT IN NIGERIA (A STUDY OF NIGERIAN TERTIARY INSTITUTIONS)**

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**ABSTRACT**

The study empirically analyses the impact of public expenditure on human capital development in Nigeria, a study of Nigerian tertiary university. Secondary data were obtained from the CBN statistical bulletin, annual report and statement of affairs as well as federal office of statistics (FOS) publications. Multiple regressions were employed to analyze the data. The result indicates  $R^2$  of 0.97, which shows that the model explains about 97% of the variation in tertiary institutions (TERE). It is found that the parameter estimate of government expenditure on education which is proxy by recurrent expenditure on education and capital expenditure on education are positively related to TERE. The capital expenditure (CE) and recurrent expenditure (RE) coefficients are statistically different from zero at 5% significant level. One percent increase in the GDP, RE, CE and Human Development Index (HDI) impacted on TERE by 0.6083%, 0.0716%, 0.1566%, and 1.3694% respectively. In conclusion, education is found to be indeed a catalyst for the promotion of economic growth. However, enrolments into tertiary institutions (especially those owned by governments) and human capital development are inadequate and ineffective as a result of poor and / or inadequate financing, investment (in human capital) and provision of necessary and enabling infrastructural facilities. For effective enrolment into tertiary institutions and human capital development, it is recommended that the government, beneficiaries (students and parents), employer of labour and other stakeholders in the society should share the responsibility for financing education as these will provide solid foundation for human capital development.

**Key words:** Public expenditure; Human capital development; Tertiary institutions; Economic growth; Nigeria;

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**INTRODUCTION****Background to the study**

Public expenditure can be referred to as the expenses of the public authority i.e. the federal, state and local government either for protecting the citizens or for promoting their economic and social welfare (Sundharan and Andleyi, 2003). As consumption is the end of all production activities so also public expenditure is the end of all financial activities of the state. Public expenditure is classified into different manners which are all aimed at the development of an economy but the most important of all is the expenditure on education which is aimed at the development of its human capital. Investment in education is a process of human capital formation through acquisition of skills, abilities, experience resulting from expenditure in education. Public expenditure on education has a very positive impact on the level of human capital development of any nation. Money spent on education is a legitimate investment in the nation's future (Obasanjo, 1999). Education is usually recognized as a form of investment in human capital which in turn yield economic benefits and contribute to a county's future wealth by increasing the productive capacity of its people.

Human capital on the other hand may be defined as the total stock of knowledge, skills, competencies and innovative abilities possessed by the population (World Bank, 2002). Human capital development has been a core element in the development efforts of developing countries in the knowledge society of the 21st century. An inquiry into fiscal operation and development in Nigeria revealed that federal government expenditure on education is categorized under social and community service sector. The implication is that education is a public good (Orubu, 1989) and as such, the onus rest on the government to make it available to all citizens. In most developing countries, improving the widening access to education especially a basic education is yet a cardinal objective of their government despite the opposition against government enrolment in economic productive activity.

In Nigeria, there is a level of uncertainty in the education sector both in normal and real terms. Schools at every level are faced with myriads of problems ranging from inadequacy of teaching staff to poor infrastructural facilities. The schools suffer from overcrowding, poor sanitation, poor management, poor funding and poor condition of services. These most time leads to closure of schools, strikes and endless crisis and the resultant effect are low productivity on the part of teachers which leads to low level of development of pupils at primary level and badly baked graduates at tertiary level.

The United Nation Development Programme (2004) recommends that growth and development should focus on human development through investment in education and health for benefit of the people. On this basis, UNDP has evolved human development index (HDI) which includes the knowledge (adult literacy, combined enrolment ratio through education). This necessitates the country's commitment to education and acts as catalyst to the government investing substantial part of their national income in education which is still below 26% budgetary allocation in Nigeria and contrary to what was recommended by UNDP. So, education as a major contributory factor to economic growth through development of human productive capacity of the nation is not peculiar to Nigeria alone, but it's a global phenomenon.

**Statement of the Problem**

It is apparent that under-investment in education will constrain the skills, knowledge, competencies of the people of the country and lead to economic retardation of such country. This is due to the fact that ignoring investment in education would mean ignoring major aspect of

human capital development in the growth process. This problem leads to lowering the productive capacity of such economy hence, reducing the rate of economic growth. In the light of this, there are different problems which will be serving as stumbling blocks in the process of investment in education by the Nigerian government. These include:

- i Problem of erratic and improper funding of education with its effect on inadequate and obsolete books, ill-equipped laboratory, e.t.c.
- ii Low school enrolment at all levels of education in Nigeria which may be as a result of religious and cultural belief and gender sensitivity.
- iii Inconsistent revenue from the revenue base of the nation that brings about failure in the implementation of the educational plan.
- iv Corruption on the part of top education officials siphoning the allocated fund to education sector.
- v Change in the priority of the government and the political leaders compromising education with other sectors.

### **Objectives of the study**

The broad objective of this study is to examine empirically the relationship that exists between public expenditure and human capital development in Nigeria while the specific objectives are:

- i. to analyze the implication of human capital development on economic growth.
- ii. to show the problems limiting the contributions of public expenditure on tertiary education to the development of the human capital.
- iii. to ascertain if other factors aside public expenditure on tertiary education can determine the level of human capital development

### **Research Questions**

The following research questions guided the study:

- i. Will there be any significant relationship between Gross Domestic Product and enrolment into tertiary institutions?
- ii. Will recurrent expenditure on education have impact on enrolment into tertiary Institutions?
- iii. Will capital expenditure on education have significant impact on enrolment into tertiary institutions?

### **Significance of Study**

Adequate investment on education contributes to human capital development of the nation and if properly carried out in line with the needs of the nation will also play a crucial role in achieving sustainable economic growth. The development of human being through investment in education has been recognized by development economists to be an important prerequisite and an invaluable asset for a country's economic growth and political transformation. People are assets if their education is properly invested on; infact they are the country's most valuable assets. This study will help proffer some policy recommendations for both private individuals and government to improve on their expenditure on education in Nigeria, as this constitutes the major means of achieving both medium and long term socio-economic goals set up by nations and other various international organizations. No nation can achieve Millennium Development Goals (MDGs) except the inherent target set in the global policy are adequately and rigorously pursued.

**LITERATURE REVIEW****Privatization Policy and Tertiary Education In Nigeria**

Privatization in a strict sense means the transfer of the ownership of a public enterprise to private investors. The concept of privatization is an emotive, ideological and controversial one evoking sharp political reactions. Thus, Itheme (2007) defines privatization as any of a variety of measures adopted by government to expose public enterprises to competition or to bring in private ownership or control or management into a public enterprise and accordingly to reduce the usual weight of public ownership. Privatization in Nigeria was formally introduced by the Privatization and Commercialization decree of 1986 as part of Structural Adjustment Programme (SAP). The Privatization and Commercialization act of 1988 and the Bureau of Public Enterprise Act of 1993 defined privatization as the relinquishment of part or all of the equity and other interests held by the federal government or any of its agencies in enterprises whether in wholly or partly owned by the federal government. In 1999, the federal government enacted the public enterprise (privatization and commercialization) act 1999 which created the National Council on Privatization which has the following as functions;

- ❖ Making policies on privatization and commercialization.
- ❖ Determining the modalities for privatization and advising the government accordingly.
- ❖ Determining the timing of privatization of particular enterprises.
- ❖ Approving the prices for shares and the appointment of privatization advisers.
- ❖ Ensuring that the commercialized public enterprises are managed in accordance with sound commercial principles and prudent financial practices.

The Act also established the Bureau of Public Enterprise (BPE) as the secretariat of the National council on Privatization. The functions of the bureau include;

- ❖ Implementing the council's policy on privatization and commercialization.
- ❖ Preparing public enterprises approved by the council for privatization and commercialization.
- ❖ Advising council on capital restructuring needs of the public enterprises to be privatized.
- ❖ Ensuring update of accounts of all commercialized enterprise to be privatized.
- ❖ Ensuring the success of the privatization and commercialization exercise through effective post transactional performance monitoring and evaluation.

**Privatization in the Nigerian Educational System**

The role of education as an instrument for promoting the socio-economic, political and cultural development of any nation can never be over-emphasized. According to Kareem (2001), a nation's growth and development is determined by its human resources. Privatization in the education sector means breaking the government monopoly of the provision and management of education by giving free hand to private participation in the provision and management of education in the country. Caldwell and Spinks (1992) argued that the privatization of education will help schools to become self-managing. Olatunbosun (2005) describes privatization of education as a sale of knowledge to the highest bidder, which has the effect of lowering standards for the attraction of customers.

Privatization of tertiary education is a recent phenomenon in the country, which is borne out of the fact that the private institutions are better managed than the public institutions judging from

the experience of the lower levels (primary and secondary schools). Nevertheless, the private sector institutions have been licensed to complement governmental efforts at providing tertiary education to the masses.

### **Effects of the privatization on tertiary education**

Various arguments have been made that the standard of tertiary education has fallen over the years following the myriad of problems bedeviling the system, which has created the need for private handling of its provisions.

Specifically, tertiary education is privatized so as to;

- ❖ increase access to Tertiary Education: According to Ojebade (2005), the license given to private investors in tertiary education is meant to address the problem of excessive demand over supply although, access in this case provided for those who can afford the high fees charged.
- ❖ address the problem of scarce educational resources: Akangbou (1992) asserts that national educational systems have always seemed to be tied to a life of crisis. Most tertiary institutions in the country have consistent inadequate resources which invariably affects the quality of output they produce. Utulu (2001) points out another factor that accounts for the decline in the quality of university output in Nigeria as the lack of physical facilities. The institutions in Nigeria operates in adverse conditions; overcrowding and deteriorating physical facilities, lack of library books inadequate educational materials and so on. Addressing these problems calls for involvement of the private sector.
- ❖ improve the quality of tertiary education: The government is of the view that the growth of private tertiary institutions in the country will allow for competition between the public and private institutions in terms of instructional delivery and other activities put in place to produce quality graduate for the economy. Competition brings improved quality of educational inputs and outputs (Ibadin, Shofoyeke and Ilusanya, 2005).
- ❖ enhance efficiency: Ibibio, (2003) and Akinwumi et al, (2005) posit that pro-university deregulatory schools of thought opine that deregulating the system will enhance efficiency. Privatizing the tertiary system of education would be more rational and efficient allocation of resources in the short term. The long-term effect is to stabilize the cost of operation with an attendant increase in and improved quality of production.
- ❖ irregular academic calendar: The varying crises in the tertiary education sector which had been paralyzing the academic calendar over the year constitute a source of worry to the stakeholders in the sector.

### **Problems of the Privatization of Tertiary Education**

Despite the immense benefits of private involvement in tertiary education as highlighted above, the move had been criticized on various grounds, among which are:

- ❖ Private institutions are profit-making Ventures: Private institutions have been criticized on the basis that they are profit-making ventures. According to Etuk (2005), private institutions charge high fees. However, not many Nigerians can afford to pay these fees.
- ❖ It widens the social gap: It has often been said that the deregulation of the tertiary system will bring about greater inequality and widen the existing gap between the 'haves' and the 'have nots'.
- ❖ Quality may be sacrificed for profit: The private institutions have again been criticized because potentially, they may not produce the expected quality of education as the

proprietors are business owners who want big returns on their investment. Hence, cost and returns recovery plans may jeopardize quality.

### **Concept of Human Capital Formation**

The term human capital formation or human resources development is the process of acquiring and increasing the numbers of people who have skills, education and experience that are critical for the socio-economic development of a country (Harbison, 1952). Human capital formation/manpower development is therefore, associated with investment in human beings and their developments as creative and productive resources. It covers not only expenditure on education and training but also the development of attitudes towards productive activities. UNDP (2001) defined human capital development as a process of expanding the developing capabilities of the people, in all economic, social and cultural activities for a wealthier, more knowledgeable and meaningful life.

Five ways of developing human resources are;

- i. investment in health facilities and services, broadly conceived to include all expenditures that affects the life expectancy, strength and stamina, and vigor and vitality of the people.
- ii. on-the job training, including old-type apprenticeships organized by firms.
- iii. formally organized education at the elementary, secondary and higher (Tertiary education) levels.
- iv. study programmes for adults that are not organized by firms, including extension programmes notably in agriculture.
- v. migration of individuals and families to adjust to changing opportunities. Meier (1970) asserts that human resources development concern the two fold objective of building skills and providing productive employment for non-utilized or underutilized manpower. Both are related to investment in man in the form of education and training which the means of human capital accumulation are.

### **Relationship between Investment in Education as Means of Human Capital Development and Economic Growth**

There have been attempts to empirically relate these two concepts of economic growth and human capital development (Rains and Stewart, 2001). The study focuses on the two way relationship between economic growth and human capital development. The study views human capital development as the capital objectives of human activities and economic growth as potentially very important for advancing it. At the same time achievement in human capital development as well can make critical contribution to economic growth. These are two distinct casual chains examined. One runs from economic growth to human capital development, as resources from national income are allocated to activities like education, health, environment, e.t.c. the other runs from human capital development to economic growth indicating how human capital development helps increase national income or economic growth of the nation.

## **RESEARCH METHODOLOGY**

### **Method of Data Collection**

Time series data were used in this work. The rationale for this is that the time series data are made up of series of observation taken on economic variables at specific equal intervals of time.



This type of data (secondary) helps in the estimation of economic relationships and will enable us to predict, forecast and project. Because of the limitation of resources, time and finance, the researcher used secondary data in this research work. The various data were collected from the CBN statistical bulletin, annual report and statement of affairs as well as federal office of statistics (FOS) publications.

### Method of Data Analysis

The quantitative techniques used in analyzing the data collected were Ordinary Least Square (OLS) method and econometric view package (E-view) to analyze the impact of public expenditure in tertiary education on human capital development in Nigeria. Multiple regression was used. According to Nurudeen and Ojoawo (2001), Gujarati (2007), a multiple regression provides a better representation of the real world which is relatively richer than a single equation.

### Data Presentation and Analysis of Model Result

The importance of investment in education to improve human capital development and achieve a sustainable economic growth cannot be overemphasized. The development of human capital development has been recognized by development economists to be an important pre-requisite and an invaluable asset for a country's socio-economic and political transformation. Thus, in this research, we hypothesize that there can be no significant human development without adequate investment in education.

### Model Specification

There are different indicators to measure the performance of the economy. This study focuses on education sector, to examine the relationship between public expenditure on tertiary institutions and human capital development in Nigeria. This was done by examining the impact of government expenditure (current and recurrent) in tertiary education on human capital development in Nigeria. The basic macro-economic variable of interest derived are; enrolment into tertiary institutions (TERE), Gross Domestic Product (GDP), Capital expenditure (CE), Recurrent Expenditure (RE), Human Development Index (HDI). The model that was used in the estimation of sample statistics is stated below:

$$\text{TERE} = f(\text{GDP, RE, CE, HDI})$$

In examining the relationship between the dependent and independent variable, a linear approximation of this was taken adding stochastic error or disturbance term it becomes stochastic equation in empirical form stated below:

$$\text{LogTERE} = \alpha_0 + \alpha_1 \text{LogGDP} + \alpha_2 \text{LogRE} + \alpha_3 \text{LogCE} + \alpha_4 \text{LogHDI} + \mu$$

Where the dependent variable is:

**TERE** = Enrolment into tertiary institutions

Intercept is:

$\alpha_0$  = Value of TERE when all independent variables are equal to zero.

Independent variables are:

<b>RE</b>	=	Recurrent expenditure
<b>CE</b>	=	Capital expenditure

**HDI** = Human development index

$\alpha_1, \alpha_2, \alpha_3, \alpha_4$  = Co-efficient of each independent variable respectively.

$\mu$  = Stochastic or random error term.

### ***Apriori Expectation***

This refers to the sign and size of the parameter of economic relationship. It is expected that there exists positive and direct relationship between human capital development and federal government expenditure on education.

Mathematically,

$$\frac{\delta \text{LogTERE}}{\delta \text{LogGDP}} > 0$$

This shows that an increase in the Gross Domestic Product leads to increase in enrolment into Tertiary institutions.

$$\frac{\delta \text{LogTERE}}{\delta \text{LogCE}} > 0$$

This shows that an increase in the Capital expenditure increases enrolment in Tertiary institutions.

$$\frac{\delta \text{LogTERE}}{\delta \text{LogRE}} > 0$$

This shows that an increase in recurrent expenditure increases enrolment into tertiary institutions.

$$\frac{\delta \text{LogTERE}}{\delta \text{LogHDI}} > 0$$

This shows that increase in Human development increases enrolment into Tertiary institutions.

## **PRESENTATION AND ANALYSIS OF DATA**

### **Analysis of Estimated Regression Models**

#### **Regression Result**

**Table 1**

<b>Regression</b>	<b>Co-efficient</b>	<b>Std. Error</b>	<b>t-statistics</b>	<b>P-value</b>
<b>C</b>	10.72344	2.440814	4.39338	0.0002
<b>LogRGDP</b>	0.608317	0.099395	6.12022	0.0000
<b>LogRE</b>	0.071568	0.081884	0.87401	0.3901
<b>LogCE</b>	0.156620	0.069684	2.24755	0.0333
<b>LogHDI</b>	1.369424	0.560011	2.44535	0.0216



**SUMMARY OF FINDINGS**

The result of the static regression above indicates  $R^2$  of 0.97, which shows that the model explains about 97% of the variation in TERE. It is found that the parameter estimate of government expenditure on education which is proxy by recurrent expenditure on education and capital expenditure on education are positively related to TERE. The RE and CE coefficients are statistically different from zero at 5% significant level. One percent increase in the GDP, RE, CE and HDI impacted on TERE by 0.6083%, 0.0716%, 0.1566%, and 1.3694% respectively. The result shows that the parameter estimate is correctly signed statistically and significant but RE coefficient has a low probability value which thus has minimal statistical significance. This is not surprising due to a longer period that is required for the impact of recurrent expenditure to be felt on economic growth. Other problem remains the poor manpower of the school turn-out, which most times do not reflect the true manpower needs of the country. Generally, low contribution of government expenditure on education to economic growth and human capital development in Nigeria can be attributed to the structural defects, inefficiency and ineffectiveness which today places Nigeria at its lowest ebb in human resource development and utilization.

**CONCLUSION**

In conclusion, education is found to be indeed a catalyst for the promotion of economic growth. However, enrolments into tertiary institutions (especially those owned by governments) and human capital development are inadequate and ineffective. These are as a result of poor and / or inadequate financing, investment (in human capital) and provision of necessary and enabling infrastructural facilities. In turn, the tertiary institutions and the education sector as a whole are constrained, hindering the full manifestation of the potentials in propelling economic growth.

**POLICY RECOMMENDATIONS**

For effective enrolment into tertiary institutions and human capital development, the government, beneficiaries (students and parents), employer of labour and other stakeholders in the society should share the responsibility for financing education as these will provide solid foundation for human capital development. Education is indeed a catalyst for promoting economic growth as revealed in the findings. However, the sector is constrained; this hinders the full manifestation of its potentials in propelling economic growth. In the light of the findings, measures to deliver the sector from the grip of decay are as follows:

- ❖ Provision of enabling environment by the government to ensure macro-economic stability that will encourage increased investment in human capital
- ❖ Regular closure of institutions due to industrial actions and some social vices should be addressed. Here there should be concerted efforts government owners of universities (and their likes) in keeping to considerable and meaningful dialogue with every sincerity of purpose, faith, honesty, integrity and will power to honour and implement reached agreements with employee union.
- ❖ Expansion of institutional capacity by strengthening the infrastructural facilities are accorded right priority.
- ❖ Welfare of staffs (lecturers and non-teaching staff) should be accorded high priority and improved working conditions in the institutions be encouraged.
- ❖ Efforts should be geared up to sustain and enrich other sources of financing education sector like education tax fund, unrequited transfer, private sector funds, e.t.c. while policies aimed at diversifying and broadening the Nigerian economy be rekindled.

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