
EMPIRICAL REVIEW OF GOVERNMENT EXPENDITURE ON EDUCATION AND ECONOMIC DEVELOPMENT IN NIGERIA (2000 – 2015)

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ABSTRACT: *The study empirically reviewed government expenditure on education and economic development in Nigeria from 2000–2015. The specific objective is to examine the extent to which the Nigerian GDP affects the government expenditure on education, social and community services and the number of school enrolment within the period being reviewed. Secondary data employed were from the EFA 2015 report and CBN bulletin published in 2016. Multiple regression analysis and student t-test were the statistical tools applied, with the use of SPSS for both data analysis and to test the hypotheses formulated for the study at 5% level of significance. The result indicated that expenditure on education is significant and impacts on the economy. While the result on SCS and ENRL showed a significant relationship with the GDP but little or no impact. The conclusion is that, the anti-graft fight by the present government to encourage proper use of resource allocation has to be encouraged by all good citizens and lovers of education. If the resources allocated are efficiently utilized to equip Government owned schools, education will be affordable by all and number of school drop-outs will reduce significantly.*

KEYWORDS: Education, economic development, enrolment, GDP, social and community services.

INTRODUCTION

Education in Nigeria has been a serious concern internationally and locally. Most government schools in the rural areas lack conducive learning environment and relevant learning materials for practical demonstrations. The few families that can afford to send their children to schools outside the country do not hesitate to do so in order to salvage the future of their children. The poor masses are left with no option than to manage whatever is available. Private schools become the domineering group in our education system, since they can at least impact on a child. The report of UNICEF (2005) states that “Forty per cent of Nigerian children aged 6-11 do not attend any primary school with the Northern region recording the lowest school attendance rate in the country, particularly for girls. Despite a significant increase in net enrollment rates in recent years, it is estimated that about 4.7 million children of primary school age are still not in school. Increased enrollment rates have also created challenges in ensuring quality education and satisfactory learning achievement as resources are spread more thinly across a growing number of students. It is not rare to see cases of 100 pupils per teacher or students sitting under trees

outside the school building because of the lack of classrooms. This situation is being addressed by current efforts of the Nigerian Government with the implementation of the Basic Education scheme. The compulsory, free Universal Basic Education (UBE) Act was passed into law in 2004 and represents the Government's strategy to fight illiteracy and extend basic education opportunities to all children in the country. However the number of schools, facilities and teachers available for basic education remain inadequate for the eligible number of children and youths.

This is more so in urban areas where there is population pressure. Under these conditions, teaching and learning cannot be effective; hence the outcomes are usually below expectation. Another challenge in Nigeria is the issue of girls' education. In the North particularly, the gender gap remains particularly wide and the proportion of girls to boys in school ranges from 1 girl to 2 boys to 1 to 3 in some States. Many children do not attend school because their labour is needed to either help at home or to bring additional income into the family. Many families cannot afford the associated costs of sending their children to school such as uniforms and textbooks. For others, the distance to the nearest school is a major hindrance. Another cause of low enrolment, especially in the North, is cultural bias. Most parents do not send their children, especially girls, to school and prefer to send them to Qur'an schools rather than formal schools. Even when children enroll in schools, many do not complete the primary cycle. According to current data, 30% of pupils drop out of primary school and only 54% transit to Junior Secondary Schools. Reasons for this low completion rate include child labour, economic hardship and early marriage for girls. In the last few years, especially since the launching of the Universal Basic Education Act, much has been achieved in the reconstruction of dilapidated school buildings and construction of new ones, supply of desks and other needed furniture as well as the provision of toilet facilities.

However, the child friendly school concept, which UNICEF is advocating for, is not comprehensively adopted by the various States in Nigeria. A majority of primary schools, especially in rural areas, lack water, electricity and toilet facilities. For example, on average, there is only one toilet for 600 pupils in the primary school system. Despite political commitment to trying to reverse years of neglect in the education sector and a significant increase of the Federal funding, investment in basic education is still low compared to other Sub-Saharan countries. For all these reasons, prospects of Nigeria achieving Education for All by 2015 remain frail." Sikiru (2011) as cited in Ajibola (2016) rightly pointed out that the role of education in any economy is no longer business as usual because of the knowledge based globalized economy where productivity greatly depends on the quantity and quality of human resource, which itself largely depends on investment in education. According to Yakubu and Akanegbu (2015), "expenditure on education is an investment that can foster economic growth, enhance productivity, contribute to personal and social development and reduce social inequality." Looking critically at this statement, one will believe that social inequality is the reason for insurgency, militancy and other social vices. A well-educated group of people are usually progressive minded, they have nothing to do with violence. They also understand life and have value for human life. This study strives to review government expenditure in education and how it impacts on economic development. UNICEF (2005) reported that education for all in 2015 would not be feasible due to so many complicated issues they identified. This research work will

enlighten the entire populace the more and bring our policy makers to a point of understanding what the problem is and the way forward.

Objective of the Study

The major objective of this study is to carry out an empirical review of Government expenditure on education and economic development in Nigeria. The study also seeks to achieve the following specific objectives:

- ❖ To investigate the extent to which GDP affects the government expenditure on education;
- ❖ To examine the effect of GDP on the social and community services;
- ❖ Finally, to ascertain the effect of GDP on the number of school enrolment in Nigeria.

Research Questions

To pursue the above objectives, the following research questions have been raised:

- ❖ To what extent does GDP affect the EDU?
- ❖ What effect does GDP have on the SCS?
- ❖ To what extent has number of school enrolment been affected by the GDP?

Research Hypotheses

To achieve the objectives of this study, the following hypotheses have been formulated:

- Ho1: there is no significant relationship between the GDP and the EDU;
Ho2: there exists no significant relationship between the GDP and SCS;
Ho3: number of school enrolment and GDP do not have significant relationship.

CONCEPTUAL REVIEW

Meaning of Education

Education is a way of imparting or possessing general knowledge, developing the powers of reasoning and judgment, and to prepare oneself or others intellectually, psychologically and socially for a mature and responsible life style. According to Dewey (1944), Education is the process that facilitates learning, or the acquisition of knowledge, skills, values, beliefs, and habits. Educational methods include storytelling, discussion, teaching, training, and directed research. Education frequently takes place under the guidance of educators, but learners may also educate themselves. Generally, education is the process or act of receiving and giving systematic instruction, especially at a place of study which could be a school or university. It can also be seen as an enlightening experience or encounter which gives one an insight into a subject matter. Education is very important for sustaining and developing the people. With education, people are able to endure, mature, and acquire experience, wisdom and the capability to fend for themselves as well as serve their communities and nation. Education is also both an instrument of stability

and of change: stability in the sense that good traditions are documented, taught, imbibed and practiced, and change because it equips people to meet new challenges. In the same vein education is a tool for inculcating moral values in the citizen. Education statistics, like other social data, facilitates planning. They constitute invaluable inputs for computing important social indicators which are used to monitor trends in the quality of life and in making regional and international comparisons. The following agencies are the sources of education statistics in Nigeria: Federal Ministry of Education (FME), State Ministries of Education (SMEs), National Bureau of Statistics (NBS), Joint Admissions and Matriculation Board (JAMB), National Universities Commission (NUC), National Board for Technical Education (NBTE), National Commission on Colleges of Education (NCCE), National Teachers' Institute (NTI), National Youth Service Corps (NYSC), West African Examinations Council (WAEC), National Examinations Council (NECO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The primary sources used by these agencies are educational institutions and State and Federal Ministries of Finance (NPC 2016).

Economic Development

Wikipedia defined Economic development as the process by which a nation improves the economic, political, and social well-being of the citizenry. The term has been used frequently by economists, politicians, and others in the 20th century. The concept, however, has been in existence in the West for centuries. Modernization, Westernization, and especially Industrialization are other terms people have used while discussing economic development. Economic development has a direct relationship with the environment and environmental issues. Economic development is a policy intervention with focus on social well-being of people, while economic growth is a phenomenon of market productivity and rise in GDP. Consequently, an economist Amartya Sen as cited in wikipedia points out that, "economic growth is one aspect of the process of economic development". O'Sullivan et al (2003) states that the scope of economic development consists of the process and policies that enable a nation to improve the economic, political and social well-being of its people.

Gross Domestic Product - GDP

Investopedia defines Gross domestic product (GDP) as "the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well. GDP includes all private and public consumption, government outlays, investments and exports minus imports that occur within a defined territory. Put simply, GDP is a broad measurement of a nation's overall economic activity".

Enrolment

Enrolment may be referred to as the process of initiating attendance to a school, which is the total number of students properly registered and/or attending classes at a school (Oxford dictionaries).

Social and Community Services

These are all services provided by the government to communities and local governments to enhance education. "Community services are defined as services that are identified by an

institution of higher education through formal or informal consultation with local nonprofit, government, and community-based organizations, as designed to improve the quality of life for community residents, particularly low-income individuals, or to solve particular problems related to their needs. These services include: such fields as health care, child care, literacy training, education (including tutorial services), welfare, social services, transportation, housing and neighborhood improvement, public safety, crime prevention and control, recreation, rural development, community improvement, and emergency preparedness and response; work in service opportunities or youth corps under AmeriCorps, and service in the agencies, institutions, and activities described later; support services for students with disabilities (including students with disabilities who are enrolled at the school)” (Emory University 2016).

INDEPENDENT VARIABLES	DEPENDENT VARIABLE
EDUCATION EXPENDITURE (EDU)	GROSS DOMESTIC PRODUCT (GDP)
SOCIAL AND COMMUNITY SERVICES (SCS)	
ENROLMENT IN SCHOOL (ENRL)	

Figure 1: Conceptual Framework

THEORETICAL REVIEW

The study has been anchored on the following theories for better understanding.

Modernization Theory

Modernization theory focuses on how education transforms an individual's value, belief and behavior. Modern values are being inculcated in people when they are exposed to modern institutions such as schools, social media, internet and factories. McClelland (1961) research work gave birth to modernization theory. He opines that certain societies are better and advanced because of their personality styles and cultural differences. As a social psychologists, he tries to explain why some societies are faster in social and technological advancement. This theory is trying to encourage societies to be open and adapt to modern ways of doing things by way of embracing technological changes. The world is changing rapidly, and for society to be relevant, modern ways of doing things must be accepted and be implemented.

Human Capital Theory

Jeff and Laura (2014) reviewed human capital theory propounded by Walter Heller 1960s. They discovered the reason why education is giving a central role in Federal economic policy in the USA. According to their study, before Kennedy's assassination in 1963, he met with Heller to look into the poverty situation of the United States. When eventually, President Johnson took over, Heller shared with him, Kennedy's plan to eradicate poverty and promote economic growth through education of human capital. Johnson keyed into the plan. Human capital formation through expenditure on education was practically linked to future growth. Education also became a powerful tool for fighting poverty, since there was obvious impact on the general income of the nation. According to them, the American's poor were poor because they failed to work towards educational attainment. The proponents of this theory therefore believe that education of human capital has the capacity and capability to eradicate poverty and bring about economic development. EFA (2015), reported that "the UBE programme is an expression of the desire of the Government of Nigeria to fight poverty and reinforce participatory democracy by raising the level of awareness and general education of the entire citizenry". This report is in support of human capital theory because it believes that education is the way out of economic problems for Nigeria as a nation.

EMPIRICAL REVIEW

Anthonia (2012) examined the impact of education on economic growth using primary and secondary annual data ranging from 1985 to 2007. The result revealed that only recurrent expenditure has significant effects on economic growth as the academic qualifications of teachers also have significant impact on students' academic performance. The study recommended among others that the government should increase its expenditure on education especially, the capital expenditure, while a good salary scheme with other incentives for teachers' motivation will have to be put in place.

Obi and Obi (2014) studied the impact of education expenditure on economic growth as a means of achieving the desired socio-economic change needed in Nigeria. Time series data from 1981 to 2012 were employed. The Johansen's co-integration analysis and ordinary least square (OLS) econometric techniques were the statistical tool applied to analyze the relationship between gross domestic product (GDP) and recurrent education expenditure. The result indicated a positive relationship between education expenditure and economic growth, but a long run relationship does not exist over the period under study. The study observed that this puzzle is attributable to labour market distortions, redundancy of the workforce, industrial dispute and job discontinuities as well as leakages in the Nigerian society such as brain drain, among others. It invariably concluded that educational sector in Nigeria has not performed as expected. The half-baked graduates, cultism and high the rate at which people drop-out of schools is alarming. The study therefore suggested total review and overhauling of the education system through efficient use of public resources, good governance, accountability and transparency.

Ernest (2014) investigated the likely impact of government expenditure policy on education and poverty reduction in Nigeria. An integrated sequential dynamic computable general equilibrium (CGE) model was employed to simulate the potential impact of increase in government

expenditure on education in Nigeria. The result revealed that it will be extremely difficult for Nigeria to achieve the MDG (millennium development goals) target, in terms of education and poverty reduction by the year 2015, because as the policy was measured in the analysis, it could not meet the goal. The MDG target for Nigeria in terms of poverty reduction is to reduce the percentage of population living in relative poverty from 54.4% in 2004 to 21.4% by 2015. The study concluded that increase in education investment portfolio will help the country to meet MDG target and reduce poverty level.

IGE A.M. (2016) reviewed the trends of financial allocation to the education sector, from pre independence to the present moment, the review showed low allocation. The trend also did not meet the 26% of total annual budget as recommended by UNESCO (United Nations Educational Scientific and Cultural Organization). Political influences and poor accountability were also identified as the major problems of allocations to education.

Among all the work reviewed, the variables for this study are very much relevant for the review and have the capacity to provide useful guide to policy makers.

RESEARCH METHOD

Research Design

The research design adopted in this study is quasi experimental design which involves the use of secondary data.

Sources of Data Collection and Technique of Analysis

The secondary data used for the study are from the EFA report (2015) and Central Bank of Nigeria (CBN). Descriptive and inferential statistics were used to analyse the data for this study. Also multiple regression and t-test statistical tools were used to test the hypothesis formulated in this study.

Model Specification

This study used the econometric technique of Ordinary Least Square (OLS) in form of Multiple Linear Regressions to the relative regression coefficients. The regression model was estimated through the use of Statistical Package for Social Sciences (SPSS).

The mathematical model for the study is as follows:

$$\text{GDP} = f(\text{EDU}, \text{SCS}, \text{ENROL}).$$

Where;

GDP = Gross Domestic Product

EDU = Education Expenditure

SCS = Social and Community Services
 ENROL = Enrolment in School (the data captured only primary and junior secondary for Government owned schools only)

Mathematical Specification

$$Y_i = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where;

$$Y_i = \text{GDP}$$

$$X_1 = \text{EDU}$$

$$X_2 = \text{SCS}$$

$$X_3 = \text{ENROL}$$

b_0 = the parameter which represents the intercept.

b_1, b_2, b_3 = The regression parameters used in determining the significance of the impact of each of the independent or explanatory variables x_1, x_2, x_3 on dependent variable, Y_i .

e = Random disturbance term.

RESULTS AND DISCUSSIONS

The result from SPSS below has been summarised as follows:

Summary of the Results

R	=	0.979
R ²	=	0.959
Adj.R	=	0.948
Std Error of estimate	=	7321.196
Durbin – Watson	=	0.879
F Value	=	92.408
DF	=	15-3 = 12 i.e. F-tab = 3.49 (Under 5%)
PV (Significant)	=	0.000

Table 1 shows the R² of 95.9% which is the rate of variability on the dependent variable (GDP) by all the independent variables (EDU, SCS & ENROL) combined. That means GDP affects the behaviour of the explanatory variables which are accounted for by the model.

Table 2 is the F-Test to determine whether the model is a good fit for the data. From the p-value, the model is a good fit since the $P < 0.05$. That is, the F-value of 92.408 with the P-value of 0.000 shows that the model is statistically significant.

Table 3 means that $Y = -63885.89 + 123.53EDU + 111.27SCS + 255976.94ENRL$

TEST OF HYPOTHESIS

The study earlier hypothesized that: significant relationship does not exist between Nigerian GDP and expenditure on EDU, SCS & ENRL. Therefore the study has tested sets of variables using the t-test, to see if they are significant. The results revealed the following: EDU = 3.497 > 3.490 (positive impact), significance level ($p = 0.004 < 0.05$ i.e., significant); SCS = 3.130 < 3.490 (no impact), significance level ($p = 0.009 < 0.05$ i.e., significant); ENRL = 2.525 < 3.490 (no impact), significance level ($p = 0.027 < 0.05$ i.e., significant). Based on the result from SPSS, the study has rejected the three null hypotheses and accepted the alternatives which state otherwise.

CONCLUSION AND RECOMMENDATION

The result above shows that Government expenditure on Education is significant and impacts on the economy, meanwhile it is evident that most children in the country are out of school and uncountable dilapidated school structures all across the country. No conducive learning environment. That means IGE (2016) study of allocation trends and poor accountability of allocations to education is proved. The fight against corruption by the present government has to be encouraged by all good citizens of the country to rescue our educational system. In the same vain, the expenditure on social and community services within the period under review is significant, though impacts little on the economy. The problem could be likened to misuse of funds also. If funds are applied for the purposes for which they are meant for, the communities will have enough infrastructures to encourage learning in schools. The enrolment of students in Government schools has to be encouraged through adequate provision of learning materials and motivation of teachers by way of payment of salaries as at when due.

TABLE FOR VARIABLES FROM CBN BULLETIN AND EFA REPORT 2015

YEAR	GDP	EDU	SCS	ENRL
	N'BILLION	N'BILLION	N'BILLION	BILLION
2000	6,713.57	57.96	11.61	0.22
2001	6,895.20	39.88	15.23	0.22
2002	7,795.76	80.53	31.03	0.23
2003	9,913.52	64.78	4.56	0.29
2004	11,411.07	76.53	23.66	0.25
2005	14,610.88	82.80	13.19	0.26
2006	18,564.59	119.02	12.9	0.26
2007	20,657.32	150.78	23.99	0.25
2008	24,296.33	163.98	70.73	0.24
2009	24,794.24	137.12	126.87	0.25
2010	54,612.26	170.80	281.00	0.26
2011	62,980.40	335.8	217.84	0.26
2012	71,713.94	348.40	243.76	0.28
2013	80,092.56	390.42	273.66	0.28
2014	89,043.62	343.75	235.03	0.30
2015	94,144.96	325.19	224.71	0.30

SOURCE: CBN BULLETIN 2016 AND EFA REPORT 2015

TABLE 1

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.979 ^a	.959	.948	7321.19595	.879

a. Predictors: (Constant), ENRL, SCS, EDU

b. Dependent Variable: GDP

TABLE 2

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14859160618.495	3	4953053539.498	92.408	.000 ^b
	Residual	643198921.122	12	53599910.094		
	Total	15502359539.617	15			

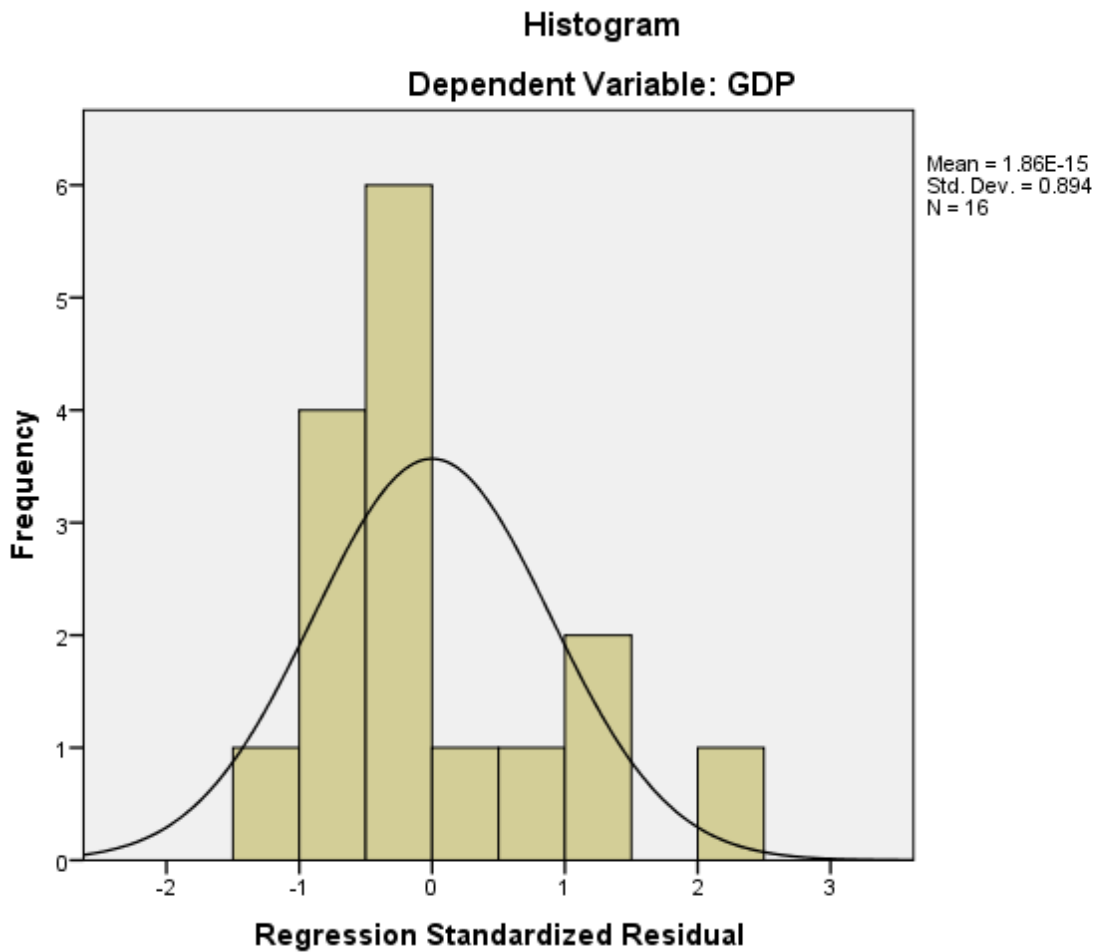
a. Dependent Variable: GDP

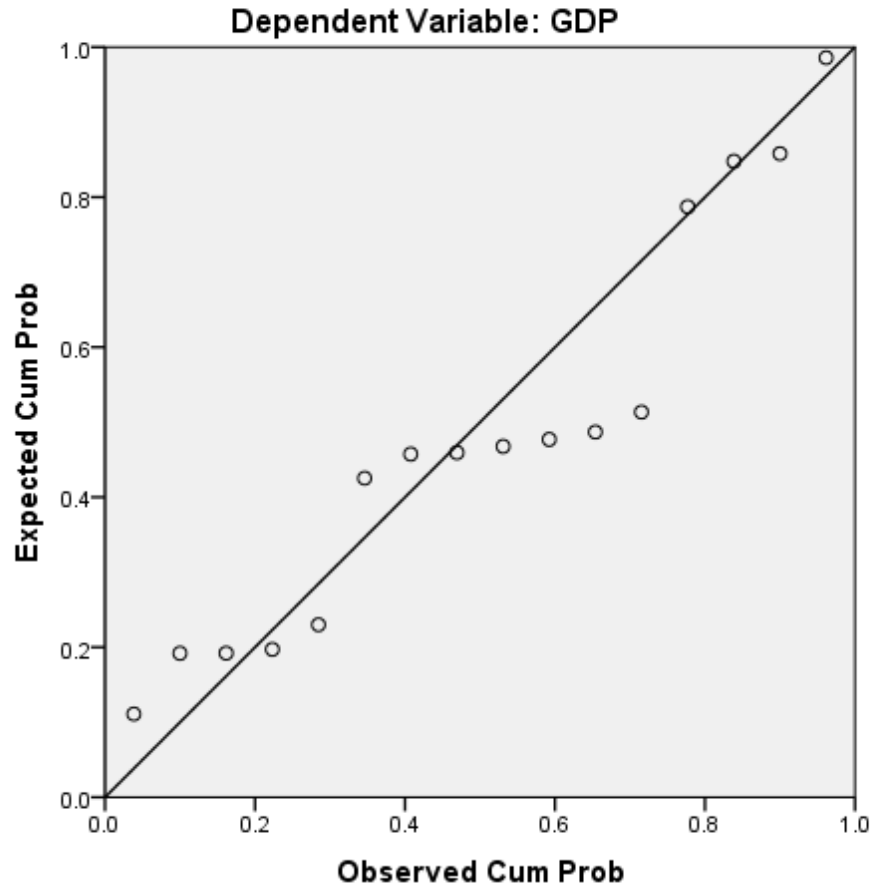
b. Predictors: (Constant), ENRL, SCS, EDU

TABLE 3

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-63885.892	23956.969		-2.667	.021
	EDU	123.533	35.329	.475	3.497	.004
	SCS	111.273	35.554	.385	3.130	.009
	ENRL	255976.938	101363.118	.202	2.525	.027

a. Dependent Variable: GDP



Normal P-P Plot of Regression Standardized Residual**REFERENCES**

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