EMPIRICAL ANALYSIS OF THE EFFECT OF EDUCATION TAX ON HUMAN CAPITAL DEVELOPMENT IN NIGERIA

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Abstract

This study examined the effect of education tax on human capital development both in the short run and in long run in Nigeria. It also investigated the direction of causality Education tax, Petroleum profit tax, company income tax, and Human capital development employing the method of Johansen co-integration and the Granger causality tests using data spanning the period year 2000- 2015. Findings revealed that education tax has positive significant impact on human capital development in Nigeria both in the short run (β=.3487991, t = 2.74, P>|t| =0.018) and in the long run (β=.1519196, Z= 3.69, P>|z| =0.018). Also, EDUTAX granger- causes HCDEV. Petroleum profits tax has positive significant impact on human capital development in Nigeria in the short run (β=.0420307, t = 2.70, P>|t| =0.019) but positive insignificant impact in the long run (β=.0510635, Z= -0.57, P>|z| =0.570). In the same vein, PPT granger- causes HCDEV. The study also revealed that company income tax has positive impact on human capital development in the short run (β=0.56107, t = 2.19, P>|t| =0.029) but negative significant impact (β=-.0000116, Z= -3.05, P>|z| =0.002) in the long run. But CIT granger- cause HCDEV. It is now concluded that Education tax has positive significant impact on human capital development both in the short run and in the long run. It is now recommended that government should utilize the education tax funds efficiently and efficiently for better achievement of human capital development in Nigeria. Shortage of infrastructure and inadequate academic personnel, and other social amenities in the school will be provided enormously if education tax fund are effectively utilized in the country.

Key Words: *Education tax, Human capital development; Nigeria; PPT; Short run; longrun*

Background to the study

The impact of human capital development and economic growth in recent times emphasized the growth theory (Romer, 1986; Lucas, 1988). Human capital refers to the abilities and skills of human resources, and human capital development refers to the process of acquiring and increasing the number of persons who have the skills, education and experience which are critical for the economic growth of the country (Harbison, 1962). Nigeria as a country is immensely endowed both in natural and human resources. The pool of resources from one end to the other is unquantifiable to such extent that, given a dynamic leadership, economic prosperity would have been achieved in late 20th century. The primary focus of Nigeria has been finding a way to accelerate the growth rate of national income and to engage in structural transformation of her subsistence and resource based economy to a production and consumption based economy in order to break the cycle of poverty, low productivity and

stagnation (Adelakun ,2011). Human capital has being paid more attention in the workplace as well. According to Lucas (1988), a microeconomic model shows that education investment for workers significantly affects his/her productivity in the workplace. Along with the belief of education about improving workers' productivity,   many researchers stress the importance of education and training in the human capital field   (Rosen, 1999). Accumulation of human capital through learning activities significantly influences many sectors. In the macroscopic aspects, many researchers present that accumulation of one's human capital on education and training investment largely affects the growth of an individual' wage, firms' productivity, and national economy (Denison, 1962; Kwon, 2009). Lepak & Snell (1999) show that firm's core competences or competitive advantage is induced by the investment of human capital entailed with value creating potential.

Not only one's productivity but others are affected by the investment of human capital. Through participating in leaning activity, the learning participators are likely to easily implement job-seeking activities with increasing the human capital (Vinokur et al., 2000). After being employed, the workers tend to easily control their working condition in the workplace and relatively receive high rewards in the internal/external labor market (Edward, 1979; Kwon, 2009). Furthermore, the investment of human capital affects national economic growth on the above-mentioned impacts as well (Romer, 1986; Kwon, 2009). The decline in Educational standards and the deep rot in infrastructure and other facilities at all levels of the Nigerian educational system which inhibited the human capital development necessitated the promulgation of Education Tax Act. Ugwuanyi (2014) asserted that from the primary to secondary and tertiary levels, it was obvious that there was urgent need for emergency funding to improve educational facilities and infrastructure, restore high morale of teachers, attract and retain qualitative entrants into the profession, encourage professionalism in teaching and improve teacher education curriculum. There was also the need to create an enabling environment for conducive teaching and learning and thus ensure the creation of a disciplined,

committed, highly motivated, respected and professional teacher (Ugwuanyi, 2014). Education tax funds are to be utilized to improve the quality of education, providing funding for educational facilities and infrastructural development; Promoting creative and innovative approaches to educational learning and services; Stimulating, supporting and enhancing improvement activities in educational foundation areas like Teacher Education, Teaching Practice, Library Development etc.; and Championing new literacy-enhancing areas such as scientific, information and technology literacy which ultimately will enhance human capital development in Nigeria. But has the money realized from education tax been expended on the development of human capital in Nigeria?   Education could no longer solve the nation's social and industrial problems neither could it foster the development of character, the fulfillment of individual personality, the acquisition of knowledge nor skills to enable one take his rightful place in the society. Many buildings in Tertiary institutions have been dilapidated, libraries have not been equipped, educational and infrastructural facilities have not been improved. Therefore, this study examined the effect of education tax on human capital development in Nigeria.

LITERATURE REVIEW

Administration of Education Tax Fund in Nigeria

The Federal Government promulgated Education Tax Decree No 7 of 1993 on 1st January, 1993 to impose an Education Tax at 2% on Profit Before Tax (PAT) of companies registered in Nigeria, and also to establish an Education Tax Fund (ETF) and a Board of Trustees to manage and administer the fund. According to the ETF (2006), "the Educational Tax Fund (ETF) was established under Act No. 7 of 1993 and amended by the Act No. 40 of 1988; with project management to improve the quality of Education in Nigeria.

To enable the ETF achieve the above objectives, Act No. 7 1993 as amended imposes a 2 percent (2%) Education Tax on the assessable profit of all registered companies in Nigeria. The Federal Inland Revenue Service (FIRS) is empowered by the Act to assess and collect Education Tax. The Fund administers the tax imposed by the Acts, and disburses the amounts to educational institutions at Federal, State and Local Government levels. It also monitors the projects executed with the funds allocated to the beneficiaries". ETF is an interventionist agency empowered by the decree to deliver competent and proactive though interventionist programmes, through funding, to all levels of education in the country. A compulsory levy of 2% of all companies' PBT for nearly 20 years ought to have positively impacted on both the quantity and quality of education offering in Nigeria (.Education Tax Act 2004)

As from the commencement of this Decree, there shall be charged and payable an annual education tax which shall be assessed, collected and administrated in accordance with the

provisions of this Decree. The tax, which shall be at the rate of 2 per cent, shall be charged on the assessable profit of a company registered in Nigeria (in this Decree referred to as "a company"). The assessable profit of a company shall be ascertained in the manner specified in the Companies Income Tax Act or the Petroleum Profits Tax Act (in this Decree referred to as "the Act") as the case may be.

a) The Federal Board of Inland Revenue   shall assess and collect from a company the tax imposed by this Decree and accordingly-
shall when assessing a company, for companies income tax or petroleum profit tax for an accounting period of the company, also proceed to assess the company for the tax due under this Decree;

b) the provisions of the Act relating to the collection of companies income tax or petroleum profit tax shall, subject to this Decree apply to the tax due under this Decree.

c) The tax imposed by this Decree shall be due and payable within 60 days after the Board has served notice of the assessment on a company.

d) The Board may, for the purpose of assessing and collecting the tax imposed by this Decree, devise such forms as it may deem necessary.

There is hereby established a fund to be known as the Educational Fund (in this Decree referred to as "the Fund) which shall be managed by the Board of Trustees established under
section 4 of this Decree
The Board shall pay the tax collect under this Decree into the fund and shall, when doing so, submit to the Board of Trustees, in such form as the Board of Trustees shall approve,
The Board of Trustees shall of have responsibility, to

(i) monitor and ensure collection of tax by the Federal Inland Revenue Service and ensure transfer to the Fund;
(ii) manage and disburse the tax,
(iii) liase with the appropriate Ministries or bodies responsible for collection or safe keeping of the tax;
(iv) receive requests and approve admirable projects after due consideration-,
(v) ensure disbursement to various levels and categories of education.
(vi) monitor and evaluate execution of the projects;
(vii) invest funds in. appropriate and safe securities;

(viii) update the Federal Government on its activities and progress through annual and audited reports;

(ix) review progress and suggest improvement within the provisions of this Decree,

do such other things as are necessary or incidental to the objects of the Fund under this Decree or as may be assigned by the Federal Government.

The Board of Trustees shall administer the tax imposed by this Decree and disburse the amount in the Fund to Federal, State and Local Government educational institutions, including primary and secondary schools, for any other matter ancillary thereto, but specifically for the following:-

a) works centers and phototype development;

b) staff development and conference attendance;

c) library system at the different levels of education.

d) research equipment procurement and maintenance;

e) Higher Education Book Development Fund;

f) redressing any imbalance in enrolment tax mix as between the higher educational institutions; and

g) execution of the 9 year compulsory education programme.

In disbursing the tax as between the various levels of education, the higher education section shall receive 50 per cent, the primary education section shall receive 30 per cent, and the secondary education section shall receive 20 per cent; of the total tax collected in any one year. The distribution of the tax accruing to the higher education section shall be in the ratio of 2:1:1 as between universities, polytechnics and colleges of education.

The Relationship between Education Tax and Human Capital Development

Frank & Bemanke (2007) define that human capital is 'an amalgam of factors such as education, experience, training, intelligence, energy, work habits, trustworthiness, and initiative that affect the value of a worker's marginal product'. Considering the production-oriented perspective, the human capital is 'the stock of skills and knowledge embodied in the ability to perform labor so as to produce economic value' (Sheffin, 2003). Furthermore, Rodriguez & Loomis (2007) define that human capital is 'the knowledge, skills, competencies and attributes in individuals that facilitate the creation of personal, social and economic well-being' with the social perspective. Human capital simultaneously includes both of the instrumental concept to produce certain values and the 'endogenous' meaning to self-generate it. In order to dependently/independently create these values, there is no doubt that leaning through education and training can be an important in terms of defining the concept of human capital. Considering that experience can be included as a category of knowledge, the human capital is a synonym of knowledge embedded in individuals (Kwon, 2009). People invest in education to increase their stock of human capabilities which can be formed by combining innate abilities

with investment in human beings. The provision of education is seen as a productive investment in human capital, an investment which the proponents of human capital theory considers to be equally or even more equally worthwhile than that in physical capital. According to Ugwuanyi (2014) Education Tax Fund are established with the following objectives are:

i. To provide scholarships, grants and busaries to enable teachers continually re-tool and update themselves;

ii. To support the development of a National Policy on Resources/materials production locally;

iii. To support the development of libraries in primary and secondary schools, especially in rural areas;

iv. To support projects designed to enhance the reading culture;

v. To provide funds for the improvement of teacher education programme facilities in polytechnics, Colleges of Education and Universities; and

vi. To make funds available to Local Government Areas for the acquisition and distribution of teaching/learning materials and the renovation of classrooms through the school Advisory Boards and Community leaders.
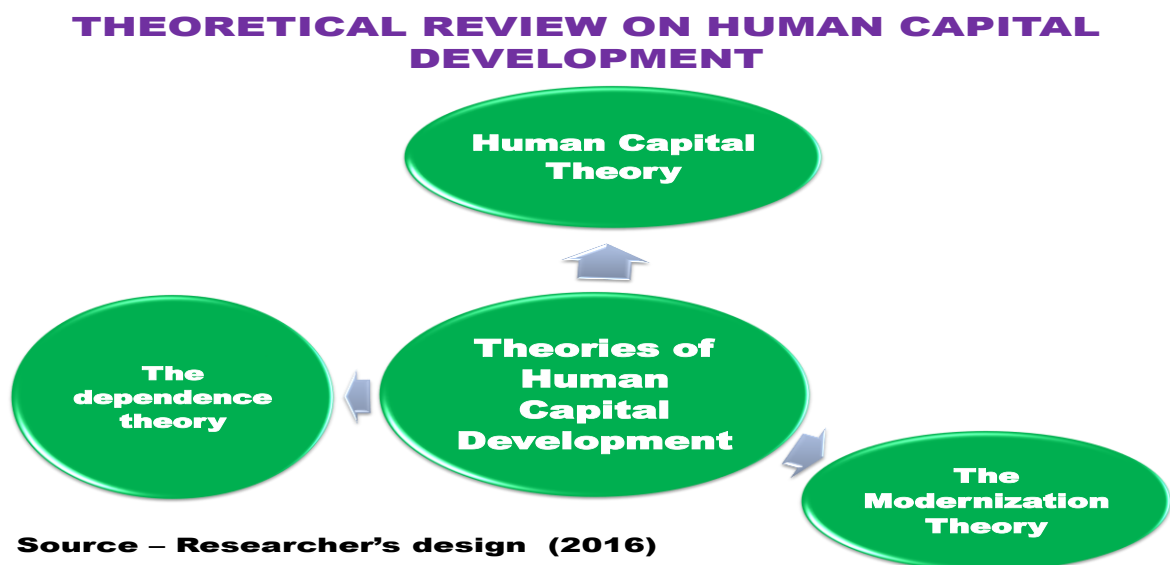
Theories of Human Capital Development

According to Adelakun (2011), human capital development has been dominated by three theories below:

1) Human Capital Theory: This theory shows how education leads to increase in productivity and efficiency of workers by increasing the level of their cognitive skills. Theodore, Schultz, Gory Bucker and Jacob Mincer introduced the notion that people invest in education or as to increase their stock of human capabilities which can be formed by combining innate abilities with investment in human beings. Examples of such investments include expenditure on education, on- the- job training, health, and nutrition. However, the stock of human capital increases in a period only when gross investment exceeds depreciation with the passage of time, with intense use or lack of use. The provision of education is seen as a productive investment in human capital, an investment which the proponents of human capital theory considers to be equally or even more equally worthwhile than that in physical capital. Human capital theorists have established that basic literacy enhances the productivity of workers low skill occupations. They further state instruction that demands logical and analytical reasoning that provides technical and specialized knowledge increases the marginal productivity of workers in high skill or profession and positions. Moreover, the greater the provision of schooling society, consequently, the greater will be the increase in national productivity and economic growth.

2) The Modernization Theory: This theory focuses on how education transforms an individual's value, belief and behavior. Exposure to modernization institutions such as schools, factories, and mass media inculcate modern values and attitudes. The attitude include openness to new idea,

independences from traditional authorities, willingness to plan and calculate further exigencies and growing sense of personal and social efficacy. According to the modernization theorists, these normative and attitudinal changes continue throughout the life cycle, permanently altering the individual's relationship with the social structure. The greater the number of people exposed to modernization institutions, the greater the level of individual modernity attained by the society. Once a critical segment of a population changes in this way, the pace of society's modernization and economic development quickens. Thus, educational expansion through its effects on individual values and benefits sets in motion the necessary building blocks for a more productive workforce and a more sustained economic growth.

3) The dependence theory: this theory arose from Marxist conceptualizations based on the dynamic world system that structures conditions for economic transformation in both the core and periphery of the world economy. Certain features of the world polity such as state fiscal strength, degrees and regime centralization and external political integration may contribute to economic growth in the developing world.

THEORETICAL REVIEW ON HUMAN CAPITAL DEVELOPMENT

Source – Researcher's design (2016)

RESEARCH METHODOLOGY

Human capital development (proxied by Government expenditure on education) was used as the explained variable in this model, while the explanatory variables are; Education tax (EDUTAX), interest rate, and money supply.

Method of Data Collection

The data is gotten from Central bank of Nigeria (CBN) Statistical Bulletin and Federal Inland Revenue service Bulletin. The duration of my research was basically from 2000-2015.

This study employs annual data of Education tax (EDUTAX), Petroleum profit tax (PPT), company income tax (CIT), and Human capital development (proxied by Government expenditure on education) in Nigeria. Data were obtained from the CBN Statistical Bulletin from year 2000 to 2015

Data Analysis Techniques

Regression analysis technique was used to measure the effects independent variables and idependent variable in the short run. To assess the long run effect of Education tax on Human capital development in Nigeria, a time series technique which is more appropriate for testing the temporal or lead-lag relationship between variables were employed. Furthermore, time series technique addresses the problem of the stationarity of the variables which the classical OLS regression technique cannot address. Augmented Dickey-Fuller (ADF) test was also used to test the non-stationarity of the variables. After examining the unit-root tests and the order of the VAR, the Johansen cointegration test which uses two tests to determine the number of cointegration vectors, namely, the Maximum Eigenvalue test and the Trace test were also applied. The Maximum Eigenvalue statistic tests the null hypothesis of r cointegrating relations against the alternative of r+1 cointegrating relations. If cointegration has been detected between series, it is known that there exists a long-run equilibrium relationship among variables. The Vector error correction model (VECM) is to evaluate the direction of Granger causality both in the short and long run.

$$Y = f(X1, X2, X3, \mu)$$

A regression model relates Y to a function of X and μ

Where:

Y -   Dependent variable

$X1 - X3$ -   Independent variables

μ.   -   Error term

MODEL SPECIFICATION

$$Loghcdev = a_0 + a_1 \, logedutax + a_2 \, logppt + a_3 \, logcit + \mu \qquad 1$$
$$hcdev = a_0 + a_1 \, edutax + a_2 \, ppt + a_3 \, cit + \mu \qquad 2$$

RESULTS AND DISCUSSION

Table 1- Effects of   Education tax on human capital development in Nigeria

Dependent Variable	Independent Variables	Coefficient	Standard Error	T	P>|t	[95%Conf. interval]	
LogHcdev	*LogEdutax*	.3487991	.1271065	2.74	0.018	.0718579	.6257404
	LogPPT	.0420307	.0000114	2.70	0.019	5.93e-06	.0000556
	LogCIT	5.61e-07	6.16e-06	2.19	0.029	-.0000129	.000014
	constant	35.51207	18.85612	9.88	0.000	-5.571884	76.59602
R-squared = 0.9226	Adj R-squared = 0.9032	Root MSE = 1.3834	Prob> F = 0.0000	F(3, 12) = 47.65			

The above table is represented by regression plots below:
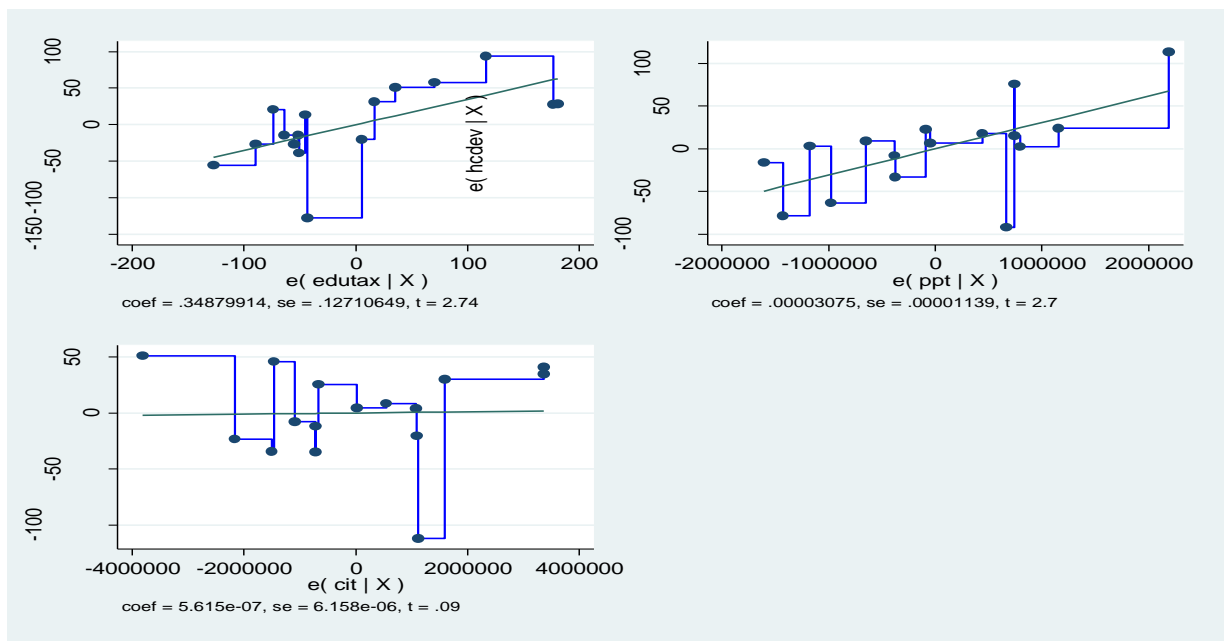
Table 1 also shows the short run effects of education tax (EDUTAX) , petroleum profit tax (PPT)   and company income tax (CIT)   on Human capital development (HCDEV) in Nigeria by finding the log of HCDEV compared with logarithms of on the independent variables. A unit increase in education tax (EDUTAX) increases HCDEV by 0.3 units. An increase in the level of EDUTAX has a positive significant impact on HCDEV. Also, a unit a unit increase in Petroleum profit tax increases HCDEV by 0.04 units. This also suggest a positive significant effect of PPT on HCDEV. In the same vein, a unit increases in company income tax (CIT) increases HCDEV   by 0.05 units, suggesting that there is a positive significant impact   of CIT on HCDEV in the short

run.

Given the coefficient of determination (R^2) to   tune of 0.9226 (92%) and Adj R-squared as 0.9032 (90%),it presages the independence variables incorporated into this model were able to determine   the effect of education tax on HCDEV to 90%.The F and probability   statistics   also confirmed the significance of this model. The results is statistically significant.

Table 2 – Unit Root Test

Variables	ADF stat	1% critical value	5% critical value	10% critical value	Order of integration	Remark
HCDEV	3.838	-3.750***	-3.000	-2.630	I(0)	Stationary
EDUTAX	3.937	-3.682 ***	-2.972	-2.618	I(0)	Stationary
PPT	2.324	-3.689	-2.975	-2.619	I(1)	Stationary
CIT	-0.526	-3.689	-2.975**	-2.619	I(1)	Non Stationary

(*), (**) and   (***) means stationary at 1%.   5% and 10% respectively.

Source: **Authors' Computation (2016) through STATA 12**

It has been a common practice, in applied econometric analyses, to test the order of integration of time series (Adegbite and Azeez 2015). The study applies ADF unit root test, at level and at the first difference of the time series with assumption of no drift and tend, to have the information about the order of a time series. ADF test results reported in the Table 2 are evident that we are unable to reject the null hypothesis for the presence of a unit root at level of each of the time series. All of the time series are stationary at their first difference. Since each of the time series is stationary at its first difference so the variables are cointegrated. There exists an equilibrium or long run relationship between the time series if all the variables are integrated of the same order, Engle & Granger (1987). The study applies Johansen cointegration technique. Johansen and Juselius (1991) introduced, in the multivariate cointegration test, the two likelihood ratio tests (Maximumeigen value and Trace tests) to find out the number of cointegrating vectors.

Table 3- Johansen Tests for Co-Integration

Rank	Eigen Value	Parm	LL	Trace statistic	5% critical value	1% critical	Eigen Value
0	-	20	**-563.90988**	**77.6519**	**47.21**	**54.46**	-
1	**0.91066**	27	**-547.00245**	**43.8371**	**29.68**	**35.65**	**0.91066**
2	**0.87769**	32	**-532.29379**	**14.4198*1*5**	**15.41**	20.04	**0.87769**
3	**0.63352**	35	**-525.2671**	**0.3664**	**3.76**	6.65	**0.63352**
4	**0.02583**	36	**-525.08391**				**0.02583**

Source: **Authors' Computation (2016) through STATA 12**

Table 3 produced information about the sample, the trend specification, and the number of lags included in the model. The main table contains a separate row for each possible value of r, the number of cointegrating equations. When r = 2, two variables in this model are stationary. In this study, because the trace statistic at r = 0 of 77.6519 exceeds its critical value of 47.21, the null hypothesis of no cointegrating equations are rejected. Similarly, because the trace statistic at r = 1 of 43.8371 exceeds its critical value of 29.68, the null hypothesis that there is one or fewer cointegrating equation is also rejected. In contrast, because the trace statistic at r = 2 of 14.4198 is less than its critical value of 15.41, the null hypothesis that there are two or fewer cointegrating equations cannot be rejected. Because Johansen's method for estimating r is to accept as $r^{\wedge}$ the first r for which the null hypothesis is not rejected, r = 2 is accepted as estimate of the number of cointegrating equations between these three variables. The "*" by the trace statistic at r = 2 indicates that this is the value of r selected by Johansen's multiple-trace test procedure. The eigenvalue shown in the last line of output computes the trace statistic in the preceding line.

Table 4: Vector Error-Correction Model

Equation	Parms	RMSE	R sq	chi2	P>chi2
D_ hcdev	6	75.3562	0.5170	8.5626	0.1997
D_ edutax	6	30.0108	0.7629	25.74514	0.0002
D_ ppt	6	906601	0.6327	13.78242	0.0000
D_ CIT	6	1.4e+06	0.7492	23.89345	0.0005

Det(Sigma_ml) = 1.02e+29	Log likelihood = -547.0024	AIC = 82.00035	HQIC = 81.88626	SBIC = 83.23282	

Variable	Coefficient	Std Error	Z	P>|z|	[95% Conf. Interval]	
D_ HCDEV						
_ce1						
L1.	-.442078	.8088466	-0.55	0.585	-2.027388	1.143232
HCDEV						
LD.	-.5156418	.6626008	-0.78	0.000	-1.814316	.7830319
edutax						

LD.	.7777006	.8247164	0.94	0.001	-.8387139	2.394115
ppt						
LD.	.0000477	000031	1.54	0.124	-.0000131	.0001085
_cons	26.81827	37.49385	0.72	0.474	-46.66833	100.3049
D_edutax	.0214616	.3221255			-.6098928	.6528159
_ce1 |			4.97	0.000		
L1.						
hcdev|	-.0723765	.2638827	-0.27	0.784	-.5895771	.444824
LD.						
edutax	.5869061	.3284457	1.79	0.074	-.0568357	1.230648
LD.						
ppt	.0000164	.0000124	1.33	0.184	-7.80e-06	.0000406
LD.						
Cit	-3.12e-06	4.87e-06	-0.64	0.522	-.0000127	6.43e-06
LD.						
_cons	10.15753	14.93204	0.68	0.496	-19.10872	39.42378
_ppt	25475.42	9731.128	2.62	0.009	6402.755	44548.08
_ce1 |						
L1.						
hcdev|	-17670.57	7971.664	-2.22	0.027	-33294.74	-2046.394
LD.						
edutax	-20148.95	9922.056	-2.03	0.042	-39595.82	-702.0786
LD.						
ppt	-.6342138	.3731058	-1.70	0.089	-1.365488	.0970602
LD.						
Cit	-.1373478	.1471537	-0.93	0.351	-.4257636	.1510681
LD.						
_cons	180018.5	451083.7	0.40	0.690	-704089.2	1064126

Cointegrating equations	Equation	Parms	chi2	P>chi2	Identification: beta is exactly identified	
	_ce1	3	*285.9153*	0.0000		

Source: **Authors' Computation (2016) through STATA 12**

Table 5- Johansen Normalization Restriction Imposed

Beta		Coefficient	Std Error	Z	P>|z|	[95% Conf. Interval]	
_ce1							
	HCDEV	1	.	.	.	.	
	EDUTAX	.1519196	.0411522	3.69	0.000	0712628	.2325764
	PPT	.0510635	8.97e-06	-0.57	0.570	-.0000227	.0000125
	CIT	-.0000116	3.82e-06	-3.05	0.002	-.0000191	-4.15e-06
_cons		-38.52279	.	.	.	.	

Source: **Authors' Computation (2016) through STATA 12**

Table 4 and table 5 contains information about the sample, the fit of each equation, and overall model fit statistics. The first estimation table contains the estimates of the short-run parameters, along with their standard errors, z statistics, and confidence intervals. The three coefficients on L. ce1 are the parameters in the adjustment matrix _ for this model. The second estimation table contains the estimated parameters of the cointegrating vector for this model, along with their standard errors, z statistics, and confidence intervals. According to Johansen normalization restriction imposed table, one percent increase in EDUTAX, increases HCDEV by 1.5% in the long run, this shows that there is positive relationship between EDUTAX and HCDEV. Also, one percent increase in PPT, increases HCDEV by .05% in the long run, this shows that there is positive relationship between PPT and HCDEV in the long run. Coefficient is statistically significant confirmed by P>|z| which is 0.000. Overall, the output indicates that the model fits well. The coefficient on PET in the cointegrating equation is statistically significant, as are the adjustment parameters.

Table 6: Granger Causality Wald Tests

Equation	Excluded	chi2	Df	Prob> chi2	Decision
HCDEV	EDUTAX	48.268	2	0.000	EDUTAX granger- cause HCDEV
HCDEV	PPT	37.322	2	0.000	PPT granger - cause HCDEV
HCDEV	CIT	14.215	2	0.001	CIT granger - cause HCDEV
HCDEV	ALL	71.928	6	0.000	ALL jointly granger- cause HCDEV
EDUTAX	HCDEV	1.5266	2	0.466	HCDEV does not granger- cause EDUTAX
EDUTAX	PPT	4.6794	2	0.096	PPT does not granger - cause EDUTAX
EDUTAX	CIT	6.4464	2	0.040	CIT granger - cause EDUTAX
EDUTAX	ALL	17.265	6	0.008	ALL jointly granger- cause EDUTAX
PPT	HCDEV	1.1828	2	0.554	HCDEV does not granger- cause PPT
PPT	EDUTAX	22.549	2	0.000	EDUTAX granger - cause PPT
PPT	CIT	1.5398	2	0.463	CIT does not granger - cause PPT
PPT	ALL	39.254	6	0.000	ALL jointly granger- cause PPT
CIT	HCDEV	13.889	2	0.001	HCDEV granger- cause CIT
CIT	EDUTAX	.96904	2	0.616	EDUTAX does not granger - cause CIT
CIT	PPT	1.6548	2	0.437	PPT does not granger - cause CIT
CIT	ALL	52.005	6	0.000	ALL jointly granger- cause CIT

Source: Authors' Computation (2016).

To test for the granger causality, the first is a Wald test that the coefficients on the two lags of EDUTAX that appear in the equation for HCDEV are jointly zero. The null hypothesis that EDUTAX does not Granger-cause HCDEV cannot be accepted because Prob> chi2 is 0.000, therefore EDUTAX granger-cause HCDEV. Also, the null hypothesis that the coefficients on the two lags of PPT in the equation for HCDEV are jointly zero cannot be accepted because Prob> chi2 is 0.000.   So the hypothesis that PPT does not Granger cause HCDEV cannot be accepted, therefore, PPT granger cause HCDEV. The null hypothesis that CIT does not Granger-cause HCDEV cannot be accepted because Prob> chi2 is 0.000, therefore CIT also granger-cause HCDEV. The forth test is with respect to the null hypothesis that the coefficients on the two lags of all the other endogenous variables are jointly zero. Because this cannot be accepted in the sense that Prob> chi2 is 0.000 that is that ALL (EDUTAX, PPT, CIT) jointly, Granger-cause HCDEV.

SUMMARY AND CONCLUSIONS

This study examined the effect of education tax on human capital development both in the short   run and in long run in Nigeria. It also investigated the direction of causality Education tax (EDUTAX), Petroleum profit tax (PPT), company income tax (CIT), and Human capital development (proxied by Government expenditure on education) in Nigeria, employing the method of Johansen co-integration and the Granger causality tests using data spanning the period 2000-2015. Findings revealed that education tax has positive significant impact on human capital development in Nigeria both in the short run and in the long run. Also, EDUTAX

granger- causes HCDEV. Petroleum profits tax has positive significant impact on human capital development in Nigeria in the short run (β=.0420307, t = 2.70, P>|t| =0.019) but positive insignificant impact in the long run (β=.0510635,Z= -0.57, P>|z| =0.570). In the same vein, PPT granger- causes HCDEV. The study also revealed that company income tax has positive impact on human capital development in the short run (β=0.56107, t = 2.19, P>|t| =0.029) but negative significant impact (β=-.0000116,Z= -3.05, P>|z| =0.002) in the long run. But CIT granger-cause HCDEV.   It is now concluded that Education tax has positive significant impact on human capital development both in the short run and in the long run. It is now recommended that government should utilize the education tax funds efficiently and efficiently for better achievement of human capital development in Nigeria. Shortage of infrastructure and inadequate academic personnel, and other social amenities in the school will be provided enormously if education tax fund are effectively utilized in the country.

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