

Journal of Economics and Business

Ugwu, Chukwuma C., Okwa, Iyana E., and Inyang, Ernest E. (2020), Tax Incentives and Investment Growth: The Nigerian Perspective. In: *Journal of Economics and Business*, Vol.3, No.1, 363-373.

ISSN 2615-3726

DOI: 10.31014/aior.1992.03.01.203

The online version of this article can be found at: https://www.asianinstituteofresearch.org/

Published by:

The Asian Institute of Research

The *Journal of Economics and Business* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Journal of Economics and Business* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which includes, but not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, Behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Economics and Business* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.





The Asian Institute of Research Journal of Economics and Business Vol.3, No.1, 2020: 363-373 ISSN 2615-3726 Copyright © The Author(s). All Rights Reserved

DOI: 10.31014/aior.1992.03.01.203

Tax Incentives and Investment Growth: The Nigerian Perspective

Chukwuma C. Ugwu¹, Iyana E. Okwa², Ernest E. Inyang³

^{1,2,3} Department of Accounting, Faculty of Humanities, Management and Social Sciences, Federal University Wukari, Nigeria

Correspondence: Chukwuma C. Ugwu. Email: ucollins98@yahoo.com

Abstract

Tax Incentives and Investment Growth: the Nigeria perspective is aimed at determining the effect of tax incentives represented by corporate income tax rate and investment allowance on investment growth in Nigeria from 1985-2018. The study adopted Ex Post Facto Research Design and time-series data was used. Relevant secondary data for this study were collected from the Central Bank of Nigeria (CBN) Statistical Bulletin, the National Bureau of Statistics (NBS) and the Federal Inland Revenue Service (FIRS). The study employed ordinary least square estimation and used regression analysis to test the relationship between Tax Incentives and investment growth in Nigeria. The study shows that tax incentive policy is positively and significantly related to gross fixed capital formation. The findings showed that tax incentives have positive impact on gross fixed capital formation; and that there is a degree of relationship between corporate income tax and gross fixed capital formation in Nigeria. The result also indicates that a higher company income tax rate is associated with lower private investment and slower gross fixed capital formation. The implication of this finding is that since tax incentives represented by company income tax allowance and investment allowance have positive and significant impact on gross fixed capital formation, policy reform in other factors that affect investment growth is needed also to complement these incentives so that a better result can be achieved.

Keywords: Tax Incentives, Investment Growth, Corporate Income Tax, Investment Allowance

Background to the Study

Before the Nigerian Independence in 1960, the economy was basically dependent on Agriculture, employing a greater percentage of the population's workforce and contributing the greatest share of national GDP (NEEDS 2004). But from the late 1970s, oil became prominent and government shifted from Agricultural sector to oil subsector. Then the economy was open to the international communities and so much importation killed domestic manufacturing. With stiff competition from foreign firms, many domestic companies that could not compete with foreign companies closed down. In the early 1980s, oil prices collapsed in the international market, as a result, government revenue fell and domestic production of goods and services fall as well, government could not finance the importation of goods and services and as a result, unemployment and price of goods and services rose creating both internal and external imbalance.

As a result of this, some economic measures were undertaken to bring the economy back to a sustainable economic track. One of such economic measures is the tax reforms, so as to overcome the low output of goods and services, rising price of goods and high unemployment. The essence of tax incentives is to reduce the cost of production and stimulate output growth leading to the demand for domestic resources – (labour and raw materials).

Tax incentive can be defined as a deduction, exclusion or exemption from tax liability that is offered as an enticement to investors so as to encourage investment in certain preferred sectors of the economy for a certain period. Tax incentives according to Fletcher (2002) has been defined as any tax provision granted to a qualified investment project that represents a favorable deviation from the provisions applicable to investment projects in general. For example, any tax provision that sets the corporate income tax (CIT) rate for foreign invested enterprises (FIEs) at half the rate that applies to all domestic companies would constitute a tax incentive, but a provision that simply sets a low CIT rate for all firms would not constitute a tax incentive (Fletcher 2002).

Empirical studies like those of (Morisset 2003, Alan and Peter 2004 and Hoyt, Jepsen and Troske 2008) have reported different views on tax incentives as a catalyst for economic growth and development. One school of thought (Holland and Van 1996) believes that many developing and transitional countries in the world offer incentives for investment. This certainly relates to real investment in productive activities and are often directed to foreign investors on the ground that there is insufficient domestic capital that will bring the desired level of economic development and that international investment will always bring with it modern technology and management techniques, while another school of thought (Kwewuni 1996) believes that tax incentives by their nature represent revenue costs to the government and may be draining on the revenue of the government if not well focused. This is because government would have deprived itself of the revenue that would have been generated from tax.

The Government of Nigeria has put in place a number of investment incentives for the stimulation of private sector investment from within and outside the country. While some of these incentives cover all sectors, others are limited to some specific sectors.

It is not clear whether some of the measures taken so far by the government to improve the economy have really produced good results in terms of domestic investment growth rate, employment creation and output growth rate. This is because, with all these measures and policies taken so far, Nigerian economy has not shown any appreciable progress going by the review of the Gross Domestic Product (GDP) growth rate from 1985 - 2018. Years after the economic reforms, investment in industries is reducing, unemployment is increasing and domestic output has continued to stagnate. The question now is what are the effects of these incentives in the Nigerian economy if those problems have continued to linger after the introduction of these incentives? Nigeria still remains one of the developing nations. Given this gap, the study seeks to examine tax incentives and investment growth with evidence from Nigeria.

Objective

The Nigerian economy is not really doing very well, some companies are closing down and not very many are coming up. Apostles of tax incentives hold the view that tax incentives encourage investment growth while another school of thought believes that tax incentives reduce revenue to the government. They argued that tax incentives by their nature represent revenue loss to the government and may be draining on the revenue of the government if not well focused. Objective of this study is to assess the economic impact of tax incentives on investment growth in Nigeria.

Here the multiple regression was used to analyze the impact of tax incentives on the investment growth in Nigeria. This study used yearly data generated from Central Bank of Nigeria statistical bulletin, the Annual Abstract of the National Bureau of Statistics and the Federal Inland Revenue Service (FIRS) between 1985 and 2018.

Review of empirical literature

Klemm and Parys (2009) examined the Empirical Evidence on the Effects of Tax Incentives, considering two empirical questions about tax incentives: (1) are incentives used as tools of tax competition and (2) how effective are incentives in attracting investment? They prepared a new dataset of tax incentives in over 40 Latin American, Caribbean and African countries for the period 1985–2004. They used spatial econometrics techniques for panel data to answer the first question; they found an evidence for strategic interaction in tax holidays, in addition to the well-known competition over the corporate income tax rate and no evidence, however, for competition over investment allowances and tax credits. They used dynamic panel data econometrics to answer the second question and found evidence that lower corporate income tax rates and longer tax holidays are effective in attracting FDI, but not in boosting gross private fixed capital formation or growth. The finding that tax holidays are used as tool for tax competition and to affect FDI, while investment allowances do not seem to play a role in either case is interesting. There is also an interesting observation from their findings that the effect of tax rates and tax holidays on FDI, does not imply that there is an effect on total investment or economic growth.

Fletcher (2002) examined Tax Incentives in Cambodia, Lao PDR, and Vietnam. His purpose was to examine the effects of tax incentives in these countries on revenue and foreign direct investment. He did this via several means, including an examination of tax revenue and enterprise-level data in Vietnam, regional FDI trends, and regional cross-country relationships.

He observed that tax incentives schemes in Cambodia, Lao PDR (Lao People's Democratic Republic), and Vietnam share similar characteristics with each other. All three countries offer investors tax holidays of up to 8 years (although these are more rare in Lao PDR), reduced CIT rates, investment allowances or accelerated depreciation, and special exemptions from import duties and other indirect taxes.

All three countries also focus these incentives especially on foreign investors, exporters, and investments in poor regions. He found as follows; (1) Tax incentives can be costly; in the case of Vietnam, the cost may be in excess of 0.7 percent of GDP; (2) Tax incentives do not appear to be the primary determinant of investment; (3) There is little evidence that discriminatory tax incentives do a better job of promoting investment than simple, uniform regimes with low to moderate rates of taxation; indeed, if anything, the evidence indicates that the latter is preferable; and (4) If tax incentives are to be used, accelerated depreciation is likely to be more efficient and have fewer drawbacks than tax holidays.

Hoyt, Jepsen and Troske (2008), explored Business Incentives and Employment: What Incentives Work and Where? They evaluated the effect of tax and location-based incentives on employment using a panel data of Kentucky counties. They found the following; First, that there is evidence of positive and significant relationships between business incentives and employment, the significance and magnitude of these impacts depend on both the type of incentive and the location of the county. Secondly, that it appears that both training and tax incentives help attract firms that, in the absence of these incentives, would have located or expanded in neighboring states. They also found that, while tax incentives have a much larger impact on employment in MSA (Metropolitan Statistical Area) border counties, training incentives have a larger impact in non-MSA border counties. Finally, they found that there is little evidence of spillover effects from these incentive programs—the amount of incentives taken by firms in neighboring counties appears to have little impact on employment in a county.

Alan and Peter (2004) conducted a similar study on "the Failure of Economic Development Incentives". The study used multiple regression analysis to analyze the failure of economic development incentives. The study showed that incentives will lead to business investment and thus new jobs, producing an increase in the local demand for goods and services, giving rise to further rounds of economic growth, and that economic growth increases public revenues, thus allowing for improved public services or a decline in tax rates.

Ogbonna and Appah (2012) examined the impact of tax reforms on Economic Growth in Nigeria: A Time Series Analysis. In their study, they used Time Series Data and employed co-integration tests to avoid spurious regression. The study also employed the Augmented Dickey - Fuller test for unit root. They also performed

Granger Causality test between the dependent and independent variables. The e-view software was used for the analysis of data. They found that tax reforms are positively and significantly related to economic growth and that tax reforms cause economic growth. However, they recommended that sustainable economic growth cannot be attained with tax reform processes except obsolete tax laws and rates are reviewed in line with macroeconomic objectives, corrupt-free and efficient tax administrative machinery with well trained personnel and accountability and transparency of government officials in the management of tax revenue.

Ohaka and Agundu, (2012) examined Tax Incentives for Industry Synergy in Nigeria. They adopted the survey approach method in their study to test how tax incentives affect return on equity. This was done by diagnosing two components of tax incentive (Investment Tax Credit and Re-Investment Allowance) Their analytical results clearly indicated a strong positive relationship between investment tax credit and return on equity; and this firmly establishes that investment tax credit is significantly associated with return on equity. Also, the coefficient of determination (R²) implied that investment tax credit accounts for 96.1% of the variation in return on equity. Also in their finding is that there is a strong positive relationship between re-investment allowance and return on equity; and this firmly establishes that re-investment allowance is significantly associated with return on equity. The coefficient of determination (R²) implied that re-investment allowance accounts for 98.9% of the variation in return on equity. Two components of tax incentives (Investment Tax Credit and Re-Investment Allowance) which were diagnosed in this study showed causally potent relationship with corporate financial performance (indicated by Return on Equity).

They recommended to the corporate executive and operative officers to: Invest in infrastructure modernization and expansion in order to upgrade critical technology, for the much-desired productive/competitive cutting-edge; Invest in training/retraining of critical human resources for more creative/innovative competencies; and Process and appropriate due benefits from tax incentives in accordance with relevant legislations, for utmost timeliness and effectiveness in auspicious utilization;

Worlu and Nkoro (2012) investigated Tax Revenue and Economic Development in Nigeria. In attempting to examine the impact of tax revenue on economic growth, they evaluated the time series features of the data by employing Augmented Dickey Fuller (ADF) and Philips-Perron(PP) to test for the unit root. They analyzed data collected using the three stage least square estimation technique. One major finding from their results is that tax revenue is indirectly related to foreign direct investment and real GDP through its impact on infrastructural development. The real GDP is significant though the sign is against apriori expectation as it presents with a negative rather than positive relationship with foreign direct investment. Also, foreign direct investment is with a contrary apriori sign and it is not significant. The interest rate, though with the wrong sign, is significant. Their recommendation was that for tax revenues to materialize its full potential on the economy, government will have to come up with fiscal laws and legislations and strengthen the existing ones in line with macroeconomic objectives, which will checkmate tax offenders in order to minimize corruption, evasion and tax avoidance and, improve the tax administrative machinery with personnel's and accountability and transparency of government officials in the management of tax revenue.

Peters and Kiabel (2015), conducted a study on "Tax Incentives and Foreign Direct Investment in Nigeria" the study examined the influence of tax incentives in the decision of an investor to locate FDI in Nigeria. Data were drawn from annual statistical bulletin of the Central Bank of Nigeria and the World Bank World Development Indicators Database. The work employs a model of multiple regressions using static Error Correction Modelling (ECM) to determine the time series properties of tax incentives captured by annual tax revenue as a percentage of Gross Domestic Product (GDP) and FDI. The result showed that FDI response to tax incentives is negatively significant, that is, increase in tax incentives does not bring about a corresponding increase in FDI. Based on the findings, the paper recommends, amongst others, that dependence on tax incentives should be reduced and more attention be put on other incentives strategies such as stable economic reforms and stable political climate.

Jean (2018) studied the Effect of Corporate Income Tax Incentives on Investment in Rwanda. The study adopted descriptive research design with a study population of thirty-nine manufacturing companies in free zone in Rwanda, the sample size comprised of 36 private companies. The Stratified random sampling technique was used

to select the respondents. The findings in his study revealed that tax incentives have significant positive effect on investment in private sector manufacturing companies in Rwanda. The study recommends that Government and policy makers should concentrate on efforts at ensuring that more CIT incentives and strategies that are specifically addressing small and medium enterprises are introduced.

UGWU, (2018), carried out a study on "Tax Incentives and Foreign Direct Investment (FDI): Implication for Export Promotion in Nigeria, Ghana and South Africa, Post IFRS Adoption".

The study adopted Ex-post- facto research design. Secondary data were collected and analyzed using descriptive and inferential statistics. Findings revealed a positive association between tax incentives and FDI and that FDI had no significant effect on the exports of Nigeria, Ghana and South Africa. There was also, no significant difference in the effect of FDI on exports of all the countries of study in their pre and post-IFRS adoption periods. This implies that the more corporate tax rate is reduced, as well as increase in other tax incentives, the more FDI inflow into those countries and when significant level of FDI inflow have been achieved, the effect on export would become significant. One of the recommendations is that governments of the three countries of study should improve and sustain more tax incentives as that would help in the attraction of the much needed FDI in export oriented industries to enhance economic growth and development.

Daniel and Faustin (2019), carried out a study on the Effect of tax incentives on the growth of small and medium-sized enterprises (SMEs) in Rwanda; adopting the qualitative and quantitative research approach, with a population of 49000 SMEs from agricultural, industrial, services and tourism sectors operating in Nyarugenge district and a sample size of 136 SMEs was finally determined using Silovin and Yemen's formula of sample size. The data set was analysed using descriptive statistics. A multiple regression analysis was used to explain the relation between variables. The study indicated that there was a strong positive and significant relationship between tax incentives and the growth of small and medium enterprises in Rwanda. The study concluded that tax incentives are the key to the sustainable growth of SMEs. The study recommended that government should design policies that specifically address issues related to the sustainable growth of SMEs.

Clearly, the finding in this literature, suggests that incentives may also be important. Most literature, have found a significant effect of tax incentives on investment growth, but uncertainty about its size remains. De Mooij and Ederven (2003) performed a meta-analysis of published results on this relationship and found a median semi-elasticity of FDI to the tax rate of -3.3 (implying that a 1 percentage point increase in the tax rate reduced FDI by 3.3 percent).

Shah (1995) examined the effect of tax incentives in a variety of countries, using different methodologies including calculations of METRs and business surveys. The overall conclusion from them is that tax incentives are often ineffectual, either because the particular incentives offered are not very valuable to firms or because important pre-conditions are not met, such as a relatively stable macroeconomic environment and satisfactory public infrastructure.

The impact of corporate taxes on economic growth has also been investigated extensively by some scholars. For example, Lee and Gordon (2005) used cross-country data ranging from 1970 to 1997 to investigate the impact of tax policies on a country's economic growth. Their study finds that increases in corporate taxes have a negative impact on economic growth. In fact, a ten percent reduction in the corporate tax rate will result in a one to two percent increase in the annual rate of growth. Similar conclusions about the impact of corporate taxes on economic growth are reached by Djankov, Ganser, McLiesh, Ramalto, and Shleifer (2008). Their cross-sectional study of 85 countries in 2004 indicates that corporate taxes have a large negative impact on aggregate investment and economic growth in countries under their empirical investigation.

Oyetunde (2008) also in his study on the role of tax incentives in a trio of Sub- Saharan African Economies, found out that, company income tax rates incentives were successfully used in Nigeria and have stimulated economic growth. Hines and Rice (2014) analyzed the effect of tax incentives on the foreign direct investment by comparing the inter-state distribution of investments with foreign investment in United State of America, using regression analysis, the results from the survey showed that high tax rates within the state are not good for the local

investment. Feldstein (2007) also analyzed the efficacy of tax incentives on investment, the result showed that investment allowance and investment tax credit are more simulative in its impact on private capital formulation. The study conducted by Bond and Xing (2013) on the effect corporate tax rate and depreciation allowances on the level of investment also revealed a significant effect on investment in assets.

However, Wheeler and Mody (2012), on International investment location decisions, had contradicting results from which they conclude that corporate taxes do not have a significant effect on FDI.

As discussed above many scholars in their studies have tried to show the effect of tax incentives on the level of investment growth, however, these views are not enough for policymakers rely on; we need empirical support of any policy we will want Nigeria to take. This paper has become part of the series of studies analyzing the effect of tax incentives on the investment growth in Nigeria so as to provide clue on contending issues and fill some research gap.

Theoretical framework

PRODUCTION THEORY: Several theoretical arguments have been advanced to support the assumption that tax incentives influence firm behavior. According to production theory, a reduction in the price of capital (due to tax incentives) triggers two effects. The first is an increase in output, a parallel drop in price of the good produced by beneficiary firms, and an increase in demand for both capital and labor. The second effect is a substitution of capital (the factor made relatively cheaper) for labor. The output and substitution effects work in the same direction for capital. Along the same lines, Papke and Papke (1984) argue that investment tax incentives increase liquidity and influence the timing of capital acquisition which encourages firms to retire and replace their plant and equipment more rapidly.

LOCATION THEORY: In addition to the production theory rationale, a well-developed branch of the economic literature known as LOCATION THEORY has argued that profit-maximizing firms choose the location that minimizes costs and thereby increases profits, all else being equal. Location theory was propounded by Johann Heinrich in his first volume of *Der Isolierte Staat* (partially translated as Isolated State) in 1826. This theory is concerned with the geographic location of economic activity; it addresses the questions of what economic activities are located where and why. Tax incentives influence a firm's cost function and its decision to locate within the jurisdiction of the awarding government. Some argue that tax incentives may also contribute to economic development because of their positive impact on business climate (J. A. Papke and Papke, 1984). The decision to locate investment in a specific area is made where it is considered that all other factors are relatively equal and hence tax incentives or tax differentials will have the greatest effect (Schmenner, 1982).

Methodology

In most of the developing countries in Africa, investment growth is influenced to a reasonable extent by external factors which may include exchange rate of the domestic currency against other currencies, trade openness, inflation, foreign direct investment and so many others. We measured investment growth as the ratio of gross fixed capital formation. This ratio is expected to be high and positively associated with global indicators. In Nigeria which is the study environment, the gross domestic product is not reflecting the expectations of the global world. Yearly data were generated from Central Bank of Nigeria statistical bulletin and the Federal Inland Revenue Service between 1985 which was the period the oil prices collapsed in the international market to 2018.

The econometric method was the most appropriate since we will be interested in model specification, measuring of the parameters of economic relationship.

The model equation is stated in Error Correction Form to establish whether there will be long run relationship between investment growth and tax incentives assuming linear relationship.

```
Ln GFCF = \beta_0 + \beta_1 LnCITA_t + \beta_2 LnINVA_t + \beta_3 LnINTR_t + \beta_4 LnINFL_t + \beta_5 LnEXCH_t + et. ... 1 Where; Ln = Elasticity; \beta_0 = Constant and
```

 β_i (i = 1, 2, n) = the parameters to be estimated

GFCF = Gross Fixed Capital Formation is used as proxy for investment,

Tax Incentives are represented by Company Income Tax and investment Allowance while the other variables are to moderate.

CITA = Company income tax,

INVA = Investment allowance

INTR = Interest Rate,

INFL = Inflation,

EXCH = Exchange Rate,

Company income tax allowance and investment allowance are chosen as proxy for tax incentives because they are general incentive for all companies. Their impact will be more in the economy because every company/firm in Nigeria will be affected and will benefit positively or negatively while all other tax incentives will only benefit foreign companies of which domestic companies will not benefit.

To transform our model for long-run analysis, an Error Correction Model (ECM) is specified thus:

$$\Delta GFCF_t = \beta_0 + \beta_i \sum \Delta x_i + \lambda ECM_{t-1} \qquad$$

Where,

 $\Delta GFCF_t$ = differenced or stationarity level of gross fixed capital formation.

 Δx_i = differenced exogenous variables in the model

 β_0 = intercept

 $\beta_i = \beta_1, \beta_2, \beta_3, \beta_4$ (slopes of the model)

 $\lambda = ECM$ parameter measuring the adjustment to previous equilibra achieved in the current period.

Other variables remain as defined before.

In this way GFCF is a measure of *gross net investment* (acquisitions less disposals) in fixed capital assets by enterprises, government and households within the domestic economy, during an accounting period such as a quarter or a year:

RESULTS

Dependent Variable: Gross Fixed Capital Formation

Pre-estimation Test

Table 1: Unit root test for stationarity:

Variables	ADF	1% Critical	5% Critical	Order of
		Value	Value	Integration
LnGFCF	-12.21	-3.50	-2.89	1(1)
LnACITA	-11.31	-3.50	-2.89	1(1)
LnINVA	-11.17	-3.50	-2.89	1(1)
LnINTR	-11.16	-3.50	-2.89	1(1)
LnINFL	-11.14	-3.50	-2.89	1(1)
LnEXCH	-11.49	-3.50	-2.89	1(1)

Source: Analysis of Data

Dick-Fuller test for Stationarity was presented in table 1 above, all the variables are stationary at 1st difference which shows that the mean and variance of the variables are constant over time.

DW= 0.214. The value of Durbin-Watson test suggests presence of Autocorrelation. The problem was corrected with the robust standard error as presented in table 4.

Table 2: Specification test

F-Statistics	422.59	Calculated	1%	5%
			4.5	3.23
F-Prob	0.000			

Source: Analysis of Data

The value of the calculated and critical 'F' in table 2 suggests that the model is well specified.

Table 3: Co-integration/Unit Root Test:

Variable	ADF	1%	5%
Residual	-0.56	-3.50	-2.89

Source: Analysis of Data

Cointegration between the dependent and independent variables is not suspected from the result presented in table 3, because the value of the residual (ADF = -0.56) is less than the 5% critical value. As a result, there is no long-run relationship between them. Therefore, the trend between the dependent and independent variables does not continue in the long-run. Thus, there is no need for error correction (ECM).

_Table 4: Regression Result; Dependent Variable: Gross Fixed Capital Formation (LnGFCF-1)

Variables	Co-efficient	Robust Std error	't'c	P-value
CONST	8.837169	.3575994	24.71	0.000
LnCITA	.2609383	.0447997	5.82	0.000
LnINV A	0293068	.0068376	-4.29	0.000
LnINTR	0311423	.0094788	-3.29	0.001
LnINFL	.0058904	.0029338	2.01	0.047
LnEXCH	.0293337	.0048356	6.07	0.000

Source: Analysis of Data

 $R^2 = 0.9255$ $R^2_a = 0.9112$

Statistical 1st-order Test:

The statistical 1st-order test is concerned about the significance of the independent variables in affecting the dependent variable. The student't' test is the popular measure of test of significance in ordinary least square regression.

Table 5: Dependent Variable; Gross Fixed Capital Formation (GFCF)

Variables	't'c	t* 0.05	t* 0.01	Decision
Constant	24.71	2.04	2.75	XX
CITA	5.82	5.82	2.75	XX
INVA	-4.29	2.04	2.75	XX
INTR	-3.29	2.04	2.75	XX
INFL	2.01	2.04	2.75	NS
EXCH	6.07	2.04	2.75	XX

Source: Analysis of Data

XX = significant

NS = not significant

From the table above, all the variables except inflation are significant at either 1% or 5%.

Discussion of Finding

Table 4 above is the result of the effect of tax incentives on investment growth based on analysis with Nigerian data. Company income tax allowance, interest rate and exchange rate satisfied the a priori sign while investment allowance and inflation did not satisfy the a priori sign. The value of the Coefficient of Determination is 0.93 approximately, showing that the independent variables included in the model explained 93% of the changes in the investment growth of Nigeria within the study period. The explanatory power of the independent variables is high. The above result showed the relationship between tax incentive and investment growth. Company income tax allowance appeared with the correct sign while investment allowance did not. Economic theory posits that high company income tax allowance encourages domestic investment. Interestingly, both variables, company income tax and investment allowance are statistically significant. The explanatory power of the independent variables also shows that the independent variables account for 93 percent changes in the dependent variable.

The analytical outcome of this result is, therefore, in conformity with the submissions of many other researchers in the field of taxation accounting. Alan and Peter (2004) in particular contend that incentives will lead to business investment and thus new jobs. Djankov, Ganser, McLiesh, Ramalto, and Shleifer (2008), also indicates that corporate taxes have a large negative impact on aggregate investment and economic growth in countries under their empirical investigation. Asiodu (2003), in his study, showed that investment tax credit meaningfully promotes business performance, although the magnitude varies among countries, industries, and firm types. It helps to increase the profit prospects of new ventures and enables firms to recover capital costs more quickly. These costs, when recovered will eventually lead to reduced investment risks, thus consolidating firms' assets and working capital for strategic re-investments. Auerbach and Hines (1988) also affirmed that tax incentives critically redefine the financial performance of firms. Edame and Okoi (2014) are also in conformity to the expectation of this study, because their study showed that corporate income tax (CIT) appeared with a negative sign, this means that an inverse relationship exists between taxation and investment. The economic implication of the result is that a one percent (1%) increase in CIT will result in a decrease in the level of investment in Nigeria.

Looking at the result on investment in table 4, one can see that the effect of company income tax on gross fixed capital formation (gross domestic investment) is vividly clear as presented in table 4. The result is very interesting because it came out as expected. It shows that company income tax is very important in stimulating domestic investment. This is because tax is a cost in the production process and any policy that reduces the tax on firms equally reduces its cost of production. As cost of production is falling, every other thing remaining the same, firms will earn more profit. Increase in firms profit is an incentive to invest more.

Conclusion

The study so far shows that tax incentives (company income tax allowance and investment allowance) have significantly impacted on investment growth within the period of study. Corporate Income Tax Incentives have significantly affected investment growth positively in private sector manufacturing companies (Feldstein 2007 and Jean 2018). The present research has reinforced the findings of Feldstein and Jean that tax incentives have a significant positive effect on investment growth. However, the impact on investment growth is our major concern. Tax policy is a major determinant of other macroeconomic indices for both in developed and developing economies. Based on the reviewed literature, from lessons derived from international examples, there is hope that tax incentive policies in Nigeria, if prudently and selectively applied in conjunction with other economic policies, may well contribute to sustainable investment growth. However, tax incentive policy should be designed to protect domestic industries to stabilize and ready to compete with the external economies, this can be done by increasing import tariffs and also to attract investment in preferred sectors and achieve balance of payment equilibrium.

References

- Alan, P. and Peter, F. (2004), The Failures of Economic Development Incentives, *Journal of the American Planning Association*, *Winter 2004*, 70,(1) 2-3
- Asiodu, D.S. (2003), Industrial Policy and Incentives in Nigeria; *Nigeria Journal of Economic and Social Studies*. 2: 161-167.
- Auerbach, A.J. and J.R. Hines, (1988), "Investment Incentives and Frequent Tax Reforms," *American Economic Review* Vol. 78(2), 211–216.
- Auerbach A. J. (1998), The Cost of Capital and Investment in Developing Countries, in *Fiscal Incentives for Investment and Innovation*, 137-139;
- Bond, S., & Xing, J. (2013). Corporate taxation and capital accumulation. *Centre for Business Taxation, Working Paper No. 1015.*
- Daniel T. and Faustin G. (2019), Effect of tax incentives on the growth of small and medium-sized enterprises (SMEs) in Rwanda; *Journal of Accounting and Taxation*, Vol. 11(5), pp. 89-98, May 2019, ISSN 2141-6664, http://www.academicjournals.org/JAT
- De Mooij, R.A. and S. Ederveen, (2003), Taxation and Foreign Direct Investment: A Synthesis of Empirical Research, *International Tax and Public Finance* Vol. 10(6), 673–693.
- Djankov, S., Ganser, T., McLiesh, C., Ramalto, R., and Shleifer (2008), The Effect of Corporate Taxes on Investment and Enterpreneurship." Working Paper, *American Law & Economic Association Annual Meeting*, 2008
- Dwivedi D.N. (2004), Managerial Economics. 6th Edition, Vikas Publishing House PVT Ltd., New Delhi. 596P Edame G.E. and Okoi W. W. (2014), The Impact of Taxation on Investment and Economic Development in Nigeria, *Academic Journal of Interdisciplinary Studies*, MCSER Publishing, Rome-Italy Vol. 3 No. 4
- Feldstein, M. (ed.) (2007). The effects of taxation on capital accumulation. Chicago: University of Chicago Press.
- Fletcher K. (2002), Tax Incentives in Cambodia, Lao PDR, and Vietnam. *Prepared for the IMF Conference on Foreign Direct Investment: Opportunities and Challenges for Cambodia, Lao PDR and Vietnam Hanoi, Vietnam, August 4, 16-17.*
- Holland D. and R.J. Vann (1998): "Income tax incentives for Investment" Tax design and drafting, 2, 985-987
 Hoyt W. H., Jepsen C. and Troske K. R. (2008) Business Incentives and Employment: What Incentives Work and Where? Institute for Federalism and Intergovernmental Relations (IFIR) Working Paper No. 2009-0
- Jean B. H. (2018), Effect of Corporate Income Tax Incentives on Investment in Rwanda, Journal of Management and Organizational Studies, Vol. 5, No. 4; 2018, 1 ISSN 2330-5495 E-ISSN 2330-5509, http://mos.sciedupress.com
- Klemm, A., (2009), "Causes, Benefits and Risks of Tax Incentives," *IMF Working Paper 09/21 (Washington: International Monetary Fund)*.
- Klemm A. and Parys, S. (2009). Empirical Evidence on the Effects of Tax Incentives. *IMF Working Papers*; 9136(200). 1–25.
- Kuewuni, M. (1996): "A Critique of tax incentives in Nigeria" Tax News, 2 (1) 4-8
- Morisset J. (2003), Using Tax Incentives to Attract Foreign Direct Investment; *The world bank group, private sector and infrastructure network.*
- Morisset J. and N. Pirnia (2003); How Tax Policy and Incentives Affect Foreign Direct Investment: A Review in Wells et al, Using Tax Incentives to Compete for Foreign Investment: Are They Worth the Costs? 85-87.
- OECD, 1996, "Tax Expenditure: Recent Experiences," Committee on Fiscal Affairs, OECD.
- OECD/AFDB, African Economic Outlook (2004) 105-Country Studies: Nigeria, 373-375.
- Ogbonna G.N. and Appah E.(2012), Impact of Tax Reforms and Economic Growth of Nigeria: A Time Series Analysis. *Current Research Journal of Social Sciences* 4(1): 62-68
- Ohaka, J. and Agundu, U. C. (2012) Tax Incentives for Industry Synergy in Nigeria: A Pragmatic Proprietary System Advocacy; African Research Review: An International *Multidisciplinary Journal, Ethiopia Vol. 6* (3), Serial No. 26, July, 2012
- Oyetunde S. O. (2008), The role of tax incentives in a trio of sub-Saharan African economies: A comparative study of Nigerian, South African and Kenyan Tax Law; A thesis submitted to the University of London for the degree of doctor of philosophy (PhD); *Centre for Commercial Law Studies*, Queen Mary University of London, England.
- Papke, J. A., and Papke, L. E. (1984). State tax incentives and investment location decisions: micro analytic simulations. In J. A. Papke (Ed.), *Indiana's revenue structure: Major components and issues Part II* (60-114). West Lafayette, Indiana: Purdue University, *Center for Tax Policy Studies*.
- Schmenner, R. W. (1982). Making business location decisions. Englewood Cliffs, NJ: Prentice Hall. 588P Shah A. (1995), Overview in Fiscal Incentives for Investment and Innovation, (oxford University Press, New York: 1995), 2-5

- Wheeler, D., & Mody, A. (2012). International investment location decisions: The case for U.S. Firms. *Journal of International Economics*, 33(7), 57-76.
- Worlu C. N. and Nkoro E. (2012) Tax Revenue and Economic Development in Nigeria: A Macro econometric Approach *Academic Journal of Interdisciplinary Studies Published by MCSER-CEMAS-Sapienza University of Rome; Vol 1 No 2 November 2012 ; ISSN 2281-3993*