

# The Effect of Trade Liberalization On Trade Tax Revenue in Nigeria

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## Abstract

The study examined the relative contribution of trade liberalization on trade tax revenue in Nigeria for the period 1970 to 2009. Annual secondary data for the period was utilized. Data on trade tax revenue, Gross Domestic Product (GDP), trade openness, exchange rate and public debt were sourced from the annual Statistical Bulletin published by Central Bank of Nigeria. The findings of the study showed that trade liberalization, public debt, trade openness, gross domestic product and labor force impacted positively on trade tax revenue while exchange rate had negative effect. The Wald test showed that labor, public debt and exchange rate had significant influence on trade tax revenue while the Beta coefficient showed that trade liberalization policy was the major determinant of trade tax revenue in Nigeria. The study concluded that there is the need for appropriate macroeconomic policy to enhance the success of trade liberalization policy in Nigeria.

## Introduction

Like other developing countries, the Nigerian economy considers trade as a principal engine for growth. This is based on the implicit belief that trade creates jobs, expands markets, facilitates competition; disseminates knowledge and raises income both to the individuals and to the government (WTO, 2005 and Briggs, 2007). These overwhelming benefits from trade, has been a principal factor on which the Nigerian government had engaged in trade over the past decades.

At independence, the Nigerian economy engaged in international trade due to the agrarian nature of the economy while the exportation of agricultural products was the main source of foreign exchange to the government. The discovery of crude oil however brought a significant shift in the economy from an export oriented one to an import dependent one, with importation of virtually all forms of commodity (including agricultural and final product). This advent of crude oil with the instantaneous decline in

agricultural export and the imposition of various trade restrictions on international trade, prior the adoption of Structural Adjustment Program (SAP) in 1986, led to the decline in the share of trade revenue to the federal government

The introduction of SAP brought about the emergence of trade liberalization which was accompanied with the elimination of the exchange control on all current transactions, disbanding of all marketing/commodity boards, removal of price control and the reintroduction of import duty surcharge (Anyanwu et al, 1997). The main policy thrust of Structural Adjustment Program (SAP) through gradual liberalization of the controlled trade regime that pervaded the Nigerian economy in the pre-SAP period was to create an environment conducive to enhance increased capital inflows, transfers, adoption of appropriate technologies and increase the share of trade revenue to the federal government as a means of reducing the total reliance of the economy on crude oil revenue. The policy thrust of SAP was also in turn with the standard theory on trade which suggests that trade liberalization leads to a more efficient allocation of resources, enhanced productivity, and higher economic growth (Agbeyegbe, 2004).

In theory, trade liberalization in addition to its other benefits, is expected to increase the proportion trade tax revenue in its share of total revenue to the federal government through the imposition of tariff and excise duties on both imports and exports respectively (Keen and Ligthar, 2002). In contrast, Pritchett and Sethi (1999) argued that higher tariffs create an incentive for importers to evade tariffs and to seek tax exemptions. Tax evasion in turn affects the productivity of the tax system leading to a less than proportionate increase in trade revenue. In the light of this conflicting evidence in the literature, this study therefore attempts to investigate the effect of trade liberalization on trade tax revenue in Nigerian from the periods 1970 to 2009. In addition, this study also seeks to examine whether trade liberalization is a major determinants of trade tax revenue in Nigeria.

The rest of the paper is structured as follows. In addition to the introduction, section two presented a review of related studies while section three discussed the methodology on which this study is based. Section four presented the analysis of empirical results while section five discussed summary and policy recommendations.

### **Literature Review**

Several studies have been done on trade liberalization as an area that deserves attention in international trade. Tosun (2005) examined the relationship between tax structure and trade liberalization in Middle East and North Africa region using a panel data on sixty-five countries for period covering 1980 to 1997. Using a fixed effect regression estimate the study found that unlike other non-OECD countries, the MENA countries did not increase their reliance on domestic consumption taxes in response to trade liberalization. The study further revealed that trade liberalization did not seem to have a strong impact on major revenue impact of the MENA countries.

Agbeyegbe et al (2004) examined the relationship between trade liberalization, exchange rate changes and tax revenue in Sub-Saharan Africa using a panel of twenty-two countries for the periods spanning 1980 to 1996. Utilizing a General Method of Moment Regression technique the study found that the relationship between trade liberalization and tax revenue is sensitive to the measure used to proxy trade liberalization but that in general trade liberalization is not strongly linked to higher income tax revenue. The study therefore concluded that trade liberalization accompanied by the appropriate macroeconomic policies can be undertaken to enhance overall revenue yield.

In a review of recent African country experience of the fiscal impact of trade liberalization commissioned for the Organization for Economic Cooperation and Development (OECD) Development Center, Fukasaku (2003) found that the overall impact of trade liberalization in Sub-Saharan Africa is ambiguous and depends on a multiplicity of facts, especially the nature and sequencing of reforms. Examining a database of 22 African countries, the study showed that trade liberalization in the last decade has contributed to declines in the ratio of trade tax revenue/total government revenue of more than 20 percent (Mauritius), more than 10 percent (Côte d'Ivoire and Senegal), and more than 5 percent (Cameroon, Tunisia, and Mozambique). In several countries, notably Mauritius and Senegal, domestic indirect taxation and the VAT compensated for the fiscal losses, while in most other countries, domestic resource mobilization was somewhat weaker. The study concluded that stressing the reductions in

tariff rates in Africa should be compensated by increases in domestic commodity taxes, an effective VAT, and the institutionalization of trade-policy-cum-tax reform, particularly in countries with a regional trade agreement.

Matlanyane and Harmse (2002) examined the revenue implication of trade liberalization in South Africa using an Ordinary Least Square (OLS) estimation technique for data covering 1974 to 2000. The study found that trade liberalization had significant influence on custom revenue and that increase in import may lead to a reduction in trade tax revenue. The study therefore suggested that supportive macroeconomic policies are a prerequisite for successful effect of trade liberalization of trade tax revenue.

Ogundele (2001) examined the effect of trade liberalization on exports of fish and shrimps in Nigeria. The author developed a short run-forecasting model to predict the quantities of fish and shrimps that could be exported within a three-year period (1999-2001). The effect of liberalization was examined with the aid of an econometric model, which was estimated empirically. The findings of the study revealed that the liberalization policy of exchange rate adjustment is as important factor affecting fish and shrimps export. The study also suggested that a real depreciation or appreciation of the naira for example, tends to stimulate farmers to increase or decrease supply for fish and shrimps exports thus taking advantage of the improved international competitiveness.

In a seminal paper for the International Monetary Fund, Ebrill et al., (1999) found that the revenue implications of trade liberalization depend significantly on the form of liberalization and the circumstances under which it occurs. More specifically, trade liberalization will have the fewest consequences on revenue mobilization provided that: the initial position is highly restrictive; trade liberalization involves the tariffication of quantitative restrictions; trade liberalization includes such reforms as reduction in tariff dispersion, introduction of minimum tariff, or the elimination of exemptions; trade liberalization is accompanied by reforms in customs and tax administrations, which reduce the incentive to evade taxes; and trade liberalization is supported by sound macroeconomic policies that ensure liberalization is consistent with external balance.

Kwanashie (1998) examined the impacts of the exchange rate and trade liberalization policies on Nigerian non-oil exports for the period 1986-1992 and

evaluation covered four non-oil exports namely cocoa beans, cocoa butter, palm kernel and rubber. The trend and simulation analysis were used in the study. The trend analysis sought to test if expected targets, that is, absolute prices, relative prices, export volumes export incomes and export structure were realized while the simulation analysis sought to find out if the paths of prices export volume and export incomes could have been different if Nigeria had implemented the fund devaluation rather than the exchange rate liberalization. The result of the study using the trend analysis showed that prices (relative and absolute) of export products rose sharply but the expansion was not sustainable. Besides, foreign prices of the commodities contracted over the period, suggesting that the rise in domestic prices may be due to the monotonic and rapid depreciation of the exchange rate of the naira. The study also revealed that there was significant undershooting of key targets of policy such as twenty-five per cent annual growth of foreign exchange earnings and steady rise in the share of non-oil commodities in total exports was not realized. Moreover, the rate of undershooting rose at increasing rate overtime in both cases. For instance, while foreign export income was expected to grow at 25% from 1986 to 1990 so that by 1990, it would have amounted to \$976.6. Rather than a 25% annual growth rate of foreign, export income, the gap between target and actual rose steadily from -2.7% in 1988 to 83.8% in 1992. The simulation analysis however revealed that the relative impact of foreign exchange earnings was negative and thus, exchange rate liberalization may have succeeded in worsening instabilities in domestic prices and in raising the supply of non-oil exports by without much advertised foreign exchange benefits.

Jerome (1998) examined exchange rate and trade liberalization policies and the promotion of manufactured exports in Nigeria. The study observed that the Nigerian economy has experienced overtime, structural transformation learning in its trail, an uneven growth process accompanied by dramatic sectoral changes, structural distortions and imbalance. The study observed that the emergence of Nigeria as a major net world oil exporter in the early 1970s brought about fundamental structural changes in the economy with profound impact on the external sector such that the Nigerian economy which was titled in favor of production of exportable agricultural produce in the 1960s became

considerably less diversified as the oil sector dominated products and trade structures. The study further stressed that the Nigerian economy was pushed into deep recession due to the attendant collapse of oil prices especially since early 1980s and lack of effective inter-sectoral balance. This led to a reduction in the size and magnitude of the tradable sector and gradually, the emergence of the “Dutch Disease” syndrome. Various policy measures were therefore put in place to check the rapid decline of the economy one of which was the structural Adjustment Program (SAP) of 1986 which was designed to stimulate and enhance the production and export of non-oil productions. Olokesusi (1998) examined the impact of liberalization policies on the building construction industry in Nigeria. The study observed that the building construction industry in any economy provides a sensitive measurement and monitoring of the health or ill-health of an economy, this is because the construction industry is assumed to have a large share of capital formation.

Olomola (1998) examined the effect of market liberalization on Nigerian agriculture. The study examined whether the adopted liberalization policies is effective in boosting agricultural exports, aggregate food supply and agricultural terms of trade as expected after the introduction of SAP. The study also examined the effect of liberalization polices on the declaring foreign exchange earnings and deteriorating balance of payments and heavy debt serving burden. This was with a view at finding out the sort of changes in agricultural protectionism that have occurred under liberalization. The unfolding results of the study indicated that the economic policy measures adopted in the period of 1970 to 1990 provided positive incentive especially for food crop production and that the degree of protection during liberalization (1986-90) is significantly lower than the degree of protection prior to liberalization (1970-1985).

Adebiyi et al, (1996) examined the impact of trade liberalization on the non-oil export. The study was ascertained through the effect of exchange rate changes, interest rate and the price index of non-oil commodities export. The findings of the study showed that the exchange rate is a significant determinant of non-oil commodities export and that a real depreciation of the naira tends to stimulate increased export which is in consonance with the expectation of SAP.

Tyers (1989) established that liberalization in both OECD countries and developing countries (that is, lowering the nominal protection rates to zero) further boost the international price of food. This, according to the author, has the effect of encouraging production and discouraging consumption in all countries so that welfare improves by extra \$12 to \$14 billion per year in the OECD countries and is much greater in the developing countries.

It is observed from above that lots of studies have examined the effect of trade liberalization on economic growth while others have examined this issue at the sectors level such as on manufacturing, agriculture and other non-oil sectors. The findings of these studies are mixed, revealing that there is no clear-cut evidence on the issue. The review also showed that there exist a scanty of study on the relationship between trade liberalization and trade tax revenue in Nigeria while the few studies that have been carried out have failed to empirically examine the major determinants of trade tax revenue taking into cognizance trade liberalization. This study therefore aimed at filling this gap by examining the effect of trade liberalization trade tax revenue in Nigeria for the period 1970 to 2009 and also examine whether trade liberalization is an important determinant of trade tax revenue in Nigeria over the study period.

### **Research Methodology**

Using a simplified regression estimate, the empirical relationship between trade tax revenue and trade liberalization can be expressed as follows.

$$Trdrev = f(\alpha + \beta_1 D + u_t) \quad (1)$$

Where T = Trade tax revenue, D= dummy variable for trade liberalization (trdlib).

This study includes other trade tax revenue determining variables, in line with the study by (Suparerk, 2009), equation (1) becomes:

$$Trdrev = \alpha_0 + \beta_1 Trdlib + \beta_2 GDP + \beta_3 OPNX + \beta_4 EXT + \beta_5 DBT + \beta_6 LAB + \mu_t \quad (2)$$

Where: GDP=Gross Domestic Product, OPNX=Degree of Trade Openness, EXT=Exchange Rate, DBT=Public Debt, LAB=Labor Force, while  $\mu_t$  = error term.

To examine the relative effect of the explanatory variables on trade tax revenue in equation (2), the net effect (sum of the coefficient) of the variables were used rather than

on each of the lag variables. In addition, the Wald test was conducted on the contemporaneous and lagged values of the explanatory variables. The F-statistics and the corresponding probability values from the Wald test were used to judge whether the net effects of the explanatory variables were significant or not. To examine the major determinant of trade revenue, the beta coefficients was also calculated for each of the variable. The variable with the highest beta coefficients was then considered as the most important determinant of trade revenue in Nigeria. The appropriate lag length was determined by the Schwartz Information Criteria (SIC) and the Akaike's Information Criteria (AIC) to be three lags.

#### Data Specification and Variable Measurement

To examine the relationship between trade liberalization and trade revenue in Nigeria, the study used annual data over the period 1970 to 2009; containing seven variables, namely: trade revenue (trdrev); gross domestic product (gdp), trade openness (opnx), exchange rate (ext), public debt (dbt), labor force (lab) and a dummy variable to proxy for the period of trade liberalization (trdlib).

Tax revenue was measured as the addition of custom and excise duties as specified in the Central bank of Nigeria statistical Bulletin.

Gross Domestic Product (GDP) measures the growth of economic activity within an economy. It is believed that the higher the growth rate experience with an economy, the higher should be the degree of monetization within the economy and better tax administration (Agbeyegbe et al., 2004). Hence, it is expected that there is a positive relationship between trade tax revenue and Gross Domestic Product.

Degree of openness was measured by the ratio of imports plus exports to GDP. The degree of openness is used to measure the degree of globalization within the economy and the extent of a country's foreign trade sector. Since revenue of the Nigeria economy especially from the perspective of trade revenue, tend to have high dependency on international trade, an increase in the degree of openness is expected to bring about higher trade revenue. Thus a positive relationship is expected between trade openness and trade revenue.



Exchange rate was measured by the official naira to US dollar exchange rate available in the Central Bank of Nigeria Statistical Bulletin. Currency appreciation could potentially lead to a higher volume of imports and higher trade revenue. Hence, a positive relationship is expected between exchange rate and trade revenue.

Public debt was measured by the summation of both domestic and external debt. In many less developed countries like Nigeria, a high level of public spending often leads to large fiscal deficits and an increase in public debt (Feyzioglu et al., 1998; Moore, 1998). The interest on debt and the debt itself is often paid with current tax revenue. Thus, this may result in raising tax revenue in order for the government to finance large debt. Hence, it is expected that public debt is positively related to trade tax revenue.

Using a dummy variable, the period of trade liberalization is represented by 1 while the period during which trade liberalization is absent is represented by zero. Given that trade liberalization increases trade relations between the domestic economy and other countries of the world, we expect a positive relationship between trade liberalization and trade revenue.

### Empirical Results

This study commenced its empirical analysis by first examining the properties of the variables for the study. The stationarity property among the variables in the model is examined using the Augmented Dickey Fuller (ADF) stationary test and the Philip-Perron (PP) test. The results are presented in Table 1 below. The ADF test showed that all the variables were only stationary after first differencing, thus implying that the variables are I(1) series. This result is also confirmed by the PP test result presented on the other half of Table 1.

After establishing stationarity, next is the examination of the co-integration relationship among the variables. The stationarity test, revealed that all the variables are I(1) series, that is integrated of order one and since the model specified in equation (2) above is a multi-regression model, the Johansen multivariate co-integration tests was adopted for the examination of the long run relationship among the variables. This is because the Johansen multivariate co-integration tests required all variables to be integrated of order one while the Engel-granger approach is inappropriate because it is

only suitable for testing co-integration between two variables. The results obtained from the Johansen multivariate co-integration method were summarized in Table 2.

Table 1: Unit Root Test on Variables

Augmented Dickey-Fuller (ADF) Test				Phillip-Perron (PP) Test		
Variables	Level	1 <sup>st</sup> Difference	Status	Level	1 <sup>st</sup> Difference	Status
ext	0.5259	-3.6057**	I(1)	0.5685	-5.2720*	I(1)
gdp	1.3405	-3.9095*	I(1)	1.7794	-5.4149*	I(1)
opnx	2.0154	-4.2189*	I(1)	1.0666	-7.0008*	I(1)
dbt	-1.2742	-4.1928*	I(1)	-0.9978	-3.8998*	I(1)
trdrev	2.3506	-3.5999*	I(1)	2.8455	-6.0094*	I(1)
lab	-0.2106	-3.3754*	I(1)	-0.4156	-5.2545*	I(1)
trdlib	-1.2192	-4.3012*	I(1)	-1.1982	-6.1663	I(1)
Test Critical values						
1%	-3.6117	-3.6171		-3.6067	-3.6117	
5%	-2.9399	-2.9422		-2.9378	-2.9399	
10%	-2.6080	-2.6062		-2.6069	-2.6080	

Note: \*/\*\* implies stationarity at one percent and five percent respectively.

Table 2 Summary of the Co-integration Tests

Models	Trace Test				Maximum Eigen value Test			
	Null	Alternative	Statistics	95% critical values	Null	alternative	Statistics	95% critical values
Model I	r=0	r≥1	112.1499	94.15	r=0	r=1	47.069	39.37
		r≥2	65.08140	68.52	r≤1	r=2	27.088	33.46
		r≥3	37.99323	47.21	r≤2	r=3	19.042	27.07
		r≥4	18.95184	29.68	r≤3	r=4	13.435	20.97
		r≥5	5.51730	15.41	r≤4	r=5	5.5173	14.07

Source: Author's Computation, 2011.

From Table 2, the null hypothesis of no co-integration, that is  $r=0$  was rejected in both the trace statistics and the maximum eigen-value statistics. The statistical values of these tests were greater than their critical values. However, the null hypothesis of no co-integration, that is  $r \leq 1$  could not be rejected in both the trace statistics and the maximum eigen-value statistics, because their values were less than the critical values, implying that there are at least one co-integrating vector among the series.

With respect to the objectives of the study which is to examine the relative effects of trade liberalization on trade revenue in Nigeria and to examine the major determinant of trade revenue in Nigeria, Table 3 summarized the results of the estimate of equation (2). The full estimate of the regression result is presented in the appendix.

Table 3: Summary Statistics on the Effects of Trade Liberalization on Trade Revenue

Variables	trdlib	gdp	opnx	ext	debt	lab
Net Effect of Variables	0.569	0.274	0.224	-0.003	0.076	0.483
Wald Test F-Statistics	0.713 (0.416)	1.715 (0.217)	0.582 (0.462)	0.352 (0.089)	0.091 (0.025)	8.413 (0.014)
Beta Coefficients	0.277	0.054	0.041	-0.0001	0.036	0.125

The overall performance of the model as evident in Table 4 was good. Both the R-squared and the adjusted R-squared were high and statistically significant. The Durbin Watson was not substantially farther away from the traditional benchmark of 2.0 in the model and the F-stat of the model was also significant at one per cent. Also, all the explanatory variables had their expected signs with exception to the exchange rate as observed on table 3.

From Table 3, the net effects (sum of the coefficients) of the explanatory variables on trade revenue were presented. The results showed that trade liberalization, gross domestic product, public debt and labor force had a positive net effect on trade revenue while exchange rate had a negative net effect on trade revenue. The positive effect of trade liberalization on trade revenue is a signal that trade liberalization enhances

Table 4: Dependent Variable: LTRDREV.  
Included observations: 36 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.223709	1.518211	-1.464690	0.1710
TRDLIB	0.568659	0.419311	1.356174	0.2022
TRDLIB(-1)	-0.220548	0.560918	-0.393192	0.7017
TRDLIB(-2)	0.175075	0.494514	0.354034	0.7300
TRDLIB(-3)	0.070511	0.404955	0.174120	0.8649
LRGDP	0.347005	0.184701	1.878741	0.0870
LRGDP(-1)	-0.169289	0.215111	-0.786985	0.4479
LRGDP(-2)	0.013283	0.190987	0.069549	0.9458
LRGDP(-3)	0.083389	0.169058	0.493257	0.6315
OPNX	0.320817	0.152053	2.109902	0.0586
OPNX(-1)	0.020336	0.150253	0.135347	0.8948
OPNX(-2)	-0.042528	0.190817	-0.222872	0.8277
OPNX(-3)	-0.074798	0.206495	-0.362229	0.7240
EXT	0.004066	0.007722	0.526609	0.6089
EXT(-1)	0.005047	0.009252	0.545486	0.5963
EXT(-2)	-0.008598	0.010042	-0.856198	0.4102
EXT(-3)	-0.003404	0.008452	-0.402695	0.6949
LDEBT	-0.030128	0.347820	-0.086618	0.9325
LDEBT(-1)	-0.145491	0.466551	-0.311845	0.7610
LDEBT(-2)	0.385375	0.541226	0.712040	0.4913
LDEBT(-3)	-0.133940	0.451442	-0.296694	0.7722
LLAB	0.439284	0.197931	2.219382	0.0484
LLAB(-1)	-0.155342	0.232278	-0.668778	0.5174
LLAB(-2)	0.302936	0.296311	1.022356	0.3286
LLAB(-3)	-0.104046	0.269413	-0.386195	0.7067
R-squared	0.996855	Mean dependent var		10.18755
Adjusted R-squared	0.989994	S.D. dependent var		2.409845
S.E. of regression	0.241056	Akaike info criterion		0.195693
Sum squared resid	0.639190	Schwarz criterion		1.295359
Log likelihood	21.47752	Hannan-Quinn criter.		0.579506
F-statistic	145.2880	Durbin-Watson stat		1.949793
Prob(F-statistic)	0.000000			

trade revenue, which is similar to the findings by Ebrill et al (1999), and Khattry and Rao (2002).

Using the statistics in Table 3, the Wald test result showed that public debt, exchange rate and labor force had significant influence on trade tax revenue while trade liberalization, degree of openness and gross domestic product had insignificant influence on tax revenue. The significant influence of public debt could stem from the increased drive by the government to source revenue from non-oil sector especially in the face of unstable oil price, large fiscal deficit and the need to finance interest payment on large external debt. Similar study by Suparerak (2009) had also found a positive relationship between trade revenue and public debt. The significant negative effect of exchange rate implies that depreciation of the domestic currency (naira) leads to a decline in the volume of imports and hence leads to a loss of trade tax revenue. The significant negative impact of exchange rate can be attributed to the increased depreciation of naira as against the dollar by monetary authority in order to enhance domestic production and volume of export in the domestic economy. This depreciation exercise has hampered the volume imports and consequently reduced the potential amount accruable from tariffs and other foreign trade duties. The observed insignificant effect of trade liberalization on trade tax revenue is similar to the findings of Tosun (2005) and Agbeyegbe et. al. (2004).

Furthermore, the beta coefficient revealed the relative importance of each explanatory variable on tax revenue. Based on the absolute value of the beta coefficient, trade liberalization policy was observed as the main determinant of trade tax revenue in Nigeria. This is followed by the labor force, gross domestic product, trade openness, public debt and lastly exchange rate.

With the increased trend in the volume of import experienced within the Nigerian economy, it is no doubt that trade liberalization as shown by the “Beta Coefficient” is a major determinant of trade tax revenue in Nigeria. The insignificant effect of trade liberalization as shown by the Wald test can be attributed to the large extent smuggling, large number of middle-men at the sea port, gross unrecorded tax payment on imported goods and the continuous depreciation of the naira (domestic currency) against

foreign currencies (as observed on table 3) which has reduced the volume of imports and the potential derived revenue from imports.

### **Conclusion and Policy Recommendation**

The macroeconomic consequences of trade liberalization have generated a great deal of debate among researchers in the world over. For developing countries like Nigeria, the contribution of trade liberalization to overall economic growth is immense due to inadequate domestic resources (such as, capital goods, raw materials and technical know-how); and the potential revenue derived from international trade. In the light of this, this study examined the effect of trade liberalization on trade tax revenue in Nigeria. The empirical result of this study showed that trade liberalization, gross domestic product, public debt and labor force had a positive net effect on trade tax revenue while exchange rate had a negative net effect on trade tax revenue. Furthermore the beta coefficient showed that labor force, public debt and exchange rate had significant influence on trade revenue while trade liberalization and gross domestic product were found to have an insignificant influence on trade tax revenue. Using the Wald test trade liberalization was found to be the most important determining variables of trade revenue while exchange rate was observed to be the least influencing variable. Based on these findings, this study recommends that there is the need for the implementation of appropriate policies (such as foreign exchange policy and financial market deregulation policy) as a complimentary policy to enhance the success of trade liberalization in Nigeria. In addition, there is the need to ensure tighter security at the port. This is necessary to reduce the rate of smuggling at the port. Also, there should be proper documentation of tax paper and strict monitoring of duties payment on imported and exported goods. This can be achieved through the use of high technology and surveillance on goods on the warehouse awaiting clearance at the ports. The proper identification of tax official at the ports through the pegging of identity cards during official hours and strict surveillance of the ports by security officials would eliminate unofficial middlemen and illegal tax collecting officials at the ports. Lastly, there is the need for government to de-emphasize the focus on crude-oil in order to ensure the

successful performance of trade liberalization policy and achieve the enormous revenue from trade tax.

### References

- Adebiyi, et al. (1996). Impact of trade liberalization on non-oil exports in Nigeria. *Training Programme Report*.
- Adeoye, T. (2006). Fiscal policy & economic growth of the Nigerian economy: *an empirical perspective. Niser monograph series No. 3*.
- Agbeyegbe, T., Stotsky, J. G., & WoldeMariam, A. (2004). Trade Liberalization, Exchange Rate Changes and Tax Revenue in Sub-Saharan Africa. *IMF Working Paper WP/04/178*
- Anyanwu, J. C., Oyefusi A., Oaikhenau H., & Dimowo, F. A. (1997). Structure of the Nigerian Economy (1960 to 1997). *Joanee Educational Publishers LTD, Anambra Nigeria*.
- Ebrill, L., Stotsky, J., & Gropp, R. (1999). Revenue implication of Trade Liberalization. *IMF Occasional Paper 180 IMF Washington D. C.*
- Feyzioglu, T., Swaroop, V., & Zhu, M. (1998). A Panel Data Analysis of the Fungibility of Foreign Aid. *World Bank Economic Review*, 12(1), 29-58.
- Jerome, A. (1998). Exchange Rate and Trade Liberalization Policies and the promotion of Manufactured Exports in Nigeria. *A Publication for the NISER/SSCN Research Network*.
- Keen, M., & Lighthart, J. I. (2002). Coordinating Tariff Reduction and Domestic Tax Reform. *Journal of International Economics*, 56, 489-507.
- Khattry, B., & Rao, J. M. (2002). Fiscal Faux Pas?: An Analysis of the Revenue Implications of Trade Liberalization, *World Development*, 30(8), 1431-1444.
- Kwanashie, M. (1998). Exchange Rate and Trade Liberalization and Non –oil exports in Nigeria. An Empirical Investigation. *A Publication of the NSER/SSCN Research Network*.
- Matlanyane, A., & Harmse, C. (2002). Revenue Implications of Trade Liberalization in South Africa. *South African Journal of Economics*, 70(2), 155-161.

- Moore, M. (1998). Death without taxes: Democracy, state capacity, and aid dependence in the fourth world. In G. White and M. Robinsons, eds., *Toward a Democratic Developmental State*, Oxford: Oxford University Press,
- Ogundele, F. (2001). Effect of trade liberalization on Nigeria's fish and shrimps exports short-run forecasting model. *NISER Monograph Series*, 2001.
- Olokesusi, F. (1998). The impact of liberalization policies on the building construction industry in Nigeria. *A Publication of the NISER/SSCN Research Network*, 1998.
- Olomola, P. A. (1998). Market liberalization and its effect on Nigerian agriculture. *A Publication of the NISER/SSCN National Research Network*. 1998.
- Pritchett, L., & Sethi, G. (1999). Tariff rates, tariff revenue, and tariff reform. World Bank Policy Research Working Paper 1143 (May 1993).
- Suparerk, P. (2009). The effect of trade liberalization on taxation and government revenue. An Unpublished Thesis Submitted to the University of Birmingham for the Degree of Doctor of Philosophy, Department of Economics, College of Social Sciences, The University of Birmingham.
- Taylor, L. (1997). The revival of the Liberal Creed – the IMF and the World Bank in a Globalized Economy', *World Development*, 25(2), 145-52.
- Tosun, M. S. (2005). The tax structure and trade liberalization of the Middle East and North Africa Region. *Review of Middle East Economics and Finance*, 3(1), 21-38
- Tyers, R. (1989). Developing countries interest in agricultural trade reform. *Agricultural Economics*. 3, 1-53.
- World Trade Organization (2005). Trade policy review Nigeria 2005. WTO and Bernan Associates, Geneva, Switzerland.