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Has Value Added Tax Exemption Been Effective? A Lesson from the Nigerian Manufacturing Sub-Sector

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ABSTRACT

The study investigated the effect of value added tax exemptions on firm's performance in the Nigerian manufacturing sector using time series panel data covering from 2014 to 2020 of the ten (10) selected firms exempted from VAT. Among other objectives is to evaluate the effect of value added tax exemption on firm's performance in the Nigerian manufacturing sector.The study employ pooled Ordinary Least Square (OLS) regression model and LLC, ADF, PP panel unit root test, which confirmed that all series were stationary at I(1). The panel cointegration test and panel ECM test revealed that total profit (TOP), value added tax (VAT), return on assets (ROA) and return on equity (ROE) exhibited a long run relationship and about 67 percent of speed of adjustment in case of disequilibrium in the short run respectively. Overall, both VAT exemptions and return on equity were found to exhibit positive effect on the firms' total profits while return on asset was found to be negative though significant. This implies that there is a positive and significant effect of VAT exemptions on firm's performance in the Nigerian manufacturing sector. Based on this findings, the study recommends inter alia, that Federal Government in collaboration with the Federal Inland Revenue Service (FIRS) should sustain the VAT exemption policy to firms in oder to boost their productivity in Nigeria.

1. Introduction

The idea of VAT exemption in developing economies is to allow certain firms who produce essential commodities such as basic food items, educational products, baby products and pharmaceutical products to enjoy tax holiday. This is very vital because it mobilizes fund for reinvestment and promotes efficiency (Asogwa & Okeke, 2013). An important feature of real world VAT systems is that many firms are typically exempt from participating in VAT payment. In Nigeria, there are large informal sectors and firms that belong to this sector are exempt from VAT, because they are not even registered with the tax authority (Ishola, 2016). In addition, many firms are often exempt legally to enable them mobilize fund for their economic activities. For instance, small firms with revenue below a certain threshold are usually exempt, though they can register voluntarily (Sajeewani & Meng, 2017). Again, specific firms or sectors of activity are sometimes exempt or face a reduced VAT rate of which the prevalence of exemptions often results in valid policy rationale (Bakare, 2013).

However, enforcing universal registration with the tax authority (i.e.,closing the informal economy) would likely be too costly. Since the VAT is a complex tax to comply with and administer relative to a turnover tax, high registration thresholds, below which firms can voluntarily register or pay a simpler turnover tax, are often viewed as essential for the design of an effective VAT system especially in developing economies (Ebrill et. al., 2002). Exemptions for specific firms or sectors are sometimes motivated by redistribution or industrial policy objectives. However, these exemptions may come with unintended effects on revenue mobilisation and production efficiency, in addition to the direct loss in tax revenue from exempt firms.

The importance of Value Added Tax (VAT) in Nigeria since 1994 was to boost the revenue base of the government, re-activate the economy and as possible reduce the poverty level by appropriately reallocating resources from personal and private sections to promote growth and development (Akor & Ekundayo, 2016). Value Added Tax is rather a consumption tax which is broad based and can start from a low rate, with exemptions for essential goods to reduce its burden on the poor and that the propensity to consume is higher than the propensity to save (Ishola, 2016). Value Added Tax is therefore meant to influence the consumption habit of the people and it is directed at high-income earners. Value added Tax has provided a visible achievement in terms of its proceeds since its inception in the Nigerian economy with a 5 percent rate on the "Vatable" goods and services. Thus, statistics has shown that the proceed from VAT in 1994 amounted to N8.2billion. It increased to N21 billion in 1995 and was N29 billion in 1996 (Aruwa, 2008). Today, the proceed fromVAT has risen up to. N424 billion in 2019 (CBN, 2019).

In spite of all these huge revenues generated from VAT, the government of Nigeria still except some manufacturing firms from participating from VAT. In principle, one of the challenges of VAT exemption in Nigeria is that the VAT threshold exemption has no incentives to ask for receipts and therefore it weakens the self-enforcing properties of a VAT before the retail stage of the supply chain. This is an important issue because exempt firms may exist at various stages of the supply chain (retail, wholesale, manufacturing), and because there is lack of enforcement at any stage of the chain can again, in principle, be transmitted across the rest of the chain through collusive evasion (Asogwa & Okeke, 2013). Again, there may be tendency of spillover effects among exempt firms, whereby the exemption of a single firm may result in the exemption of additional firms, with further losses in tax revenues (Akor and Ekundayo, 2016). This scenerio is most likely to affect the total profits of exempt firms, reduce the returns on both equity and assets and overall revenue of government. Thus, the main trust of this paper is to reexamine whether Value Added Tax exception has been effective in the performance of some selected manufacturing sub sector in Nigeria.

2. Some Extant Literatures

Conceptually, Value Added Tax (VAT) seems to be an alternative way of raising fund by developing economies particularly Nigeria. Owolabi and Okwu, (2011) as cited in Onaolapo and Fasina, (2013) defined VAT as tax on consumption, the more you buy the more tax you pay. It is also a neutral tax on businesses in that it does not represent a real cost to anyone but the end consumer. Izedonmi and Okunbor (2014) reiterated that VAT has become a major source of revenue in many developing countries, and that VAT has become an important contributor to total government tax revenues. Everybody pays tax to the Government whenever they purchase goods or services. This tax is

collected for the government by the supplier of those goods and services. VAT revenue has become a significant source of government revenue in Nigeria. Therefore, the primary objective of fiscal policy is to raise more revenue through value added tax. The tax authorities have been guided by the need to design equitable and efficient VAT system capable of complementing government expenditure and, thus, reduce recourse to public borrowing (Ishola, 2016). VAT rate in Nigeria has been determined in a way that minimizes disincentive effects on economic activities.

Theoretically, this paper adopts Optimal Tax Theory (OTT), which was first proposed by Mirrlees (1976) and cited by Saez & Stantcheva (2016). The theory argued that a neutral tax is a theoretical tax which avoids distortion and inefficiency completely. Other things being equal, if a tax-payer must choose between two mutually exclusive economic projects (say investments), the one with the lower tax or with a tax break would be chosen by the rational actor.With that insight, economists argue that generally taxes distort behaviour. For example, since only economic actors who engage in market activity of "entering the labour market" get an income tax liability on their wages, people who are able to consume leisure or engage in household production outside the market by say providing housewife services in lieu of hiring a maid are not taxed or are taxed lightly. There is a vivid justification why the theory of optimal tax is pertinent to this study as it provides crucial information on VAT exemptions.

Empirically, studies on the effectiveness of VAT ecxmption on manufacturing companies both developing and developed economies have been scanty, as most studies documented on this area focused mostly on VAT alone without relating it to its exemption. However, few of the studies include those of Sajeewani & Meng (2017) on the potential macroeconomic and welfare effects of the introduction of VAT of 5% rate in the six Gulf Corporation Council countries, the authors found that government revenue will rise without any significant impact on growth, while an across-the-board VAT (covering all goods/services) is found to be more efficient than the selective VAT policy being proposed by the countries. The CGE model used in the study is that of the world in the mould of Global Trade Analysis Project (GTAP) model in its static form. Mutwiri and Okello (2015) focused on how value added tax exception affected the capital structure decisions involving the firms which are listed at the Nairobi Securities Exchange. The study adopted a descriptive research design which made it easy to achieve its objectives. The design majorly helped it to form a causal relationship between the study variables. The study also adopted the correlational research design which helped it to collect data at the same time over various companies. With data analysis, the study majorly relied on correlation and regression analysis with inclusion of descriptive results. The correlation findings revealed that value added tax exception did not play a huge influence on the capital structure decisions of the firms listed at Nairobi Securities Exchange.

Chukwudi (2015) assessed the degree of effect of tax incentives on the performance of manufacturing firms using some indices liked investment decision, profit, capital growth, research & development (R&D) etc. Extensive literature review on textbooks, journal, and materials on the areas of the study was carried out. The data collected were presented on static tables tested with Kendall Coefficient of concordance. Based onthe analysis, it was discovered that various incentives are available to manufacturing firm in Rivers State, but not all the companies were aware of the available tax incentives scheme because of poor administration of incentive scheme. Further, Erero (2015), which delves on the effects of increases in value-added tax in South Africa using a recursive dynamic CGE model. The study implements five simulations that involve increases in VAT rate from 1 to 5%. A major finding of the study is that the percentage increase in the tax rate will not impoverish the lower-income households if the increased revenue is channelled (in the form of provision of social services) to them. The standard of living of both the middle- and high-income households increases together with a marginal increase in gross domestic product. Government revenue also increases

A related VAT study to the earlier one is that of Levin and Sayeed (2014), which delves on distributional impact of VAT imposition that allows exemptions and the one that does not for Bangladesh. The study finds that VAT without exemptions causes tax incidence to be higher for the poor households, while VAT imposition that exempts local market food sectors ensures that equivalent variations of low-income groups in both the rural and urban areas become bolstered. The study thus suggests a VAT system that stresses exemptions for local food sectors. Felici and Gesualdo (2014) extend the VAT framework by

Giesecke & Tran (2009), which relates to modelling multi-production, multiple VAT rates, multiple VAT exemptions, differential VAT registration rates, undeclared imports, unclaimed VAT on tourist's purchases and general and transaction-specific compliance rates. The study specifically includes fiscal details into an existing CGE model (ORANI-IT). They include in their model's database such specific Italian economic features as the non-taxable public sector and some differentiated taxation of what they refer to as intra-community and extra-community exports. There is, however, no simulation of any sort. Ekeocha (2011) investigates the potential economic effects of increasing value-added tax rate from 5 to 15% using Orani-G CGE model with 1999 social accounting matrix. The motivation for the exercise is the National Tax Policy that was released in January 2010, which provides for reductions in company income tax rate from 30 to 20% and in personal income tax rate from 25 to 17.5%. The tax policy also requires an increase in value-added tax rate from 5 to 15% to ensure that the nation's tax system leans more on indirect than direct tax sources with a view to releasing more resources to the private sector for increased investment expenditure to spur growth in the economy. The study finds that there will be a slight decline in real gross domestic product with increased indirect taxes' (including VAT) revenue.

Some of the Selected Top Companies Exempted from VAT in Nigeria

a. Nestle Nigeria Plc (NNP): Nestle is a very popular company in Nigeria as they are known for products like Milo, Cerelac, Golden Morn, Bottled Water and pet food. For over 57 years they have been in the business of manufacturing food products for Nigerians. Nestle boasts of engaging over 2300 employees with a good distribution network to spread its good all round Nigeria

b. Unilever Nigeria Plc (UNP): Unilever Nigeria is a top producer of food products in Nigeria, formerly known as Lever Brothers Nigeria but later emerged to form Unilever Nigeria. They are producers of Blue Band Margarine and Lipton label tea and seasoning cubes, though they are into various other products which make them a top FMCG company in Nigeria.

c. Avalanche Nigeria Plc (ANP): Avalanche Nigeria is based in Oyo State, Nigeria and is an educational software provider for schools, university prospects and also flexible software to host any examination platform.

d. Burtech Industries Limited (BIL): Burtech industries Limited manufactures school furniture (classroom, computer, library, laboratory furniture and fittings) laboratory equipment (laboratory glassware, plasticware and equipment) PVC water supply and drainage pipes.

e. DryLove Nigeria Limited (DNL): DryLove Nigeria Limited is the producer of DryLove Diapers for children and other baby products like baby soaps, baby cream, baby toothpaste, baby bath shampoo and oil.

g. Express Buy Plc (EBP): ExpressBuy is a manufacturing company that provides baby products such as pampers, diaper wipes, huggies, baby gears, baby strollers and lots more.

h. P.Z Cussons Nigeria Plc (PZ-CNP): Nigerian service manufacuturers of baby-care products range.

i. Bond Chemical Industries Limited (BCIL): Bond Chemical Industries Limited specialises in the manufacturing of pharmaceutical products with varying range of anti diabetic, anti hypertensives, creams, erectile dysfunction, analgesic and anti inflammatory products and lots more.

j. Pharma Deco Plc (PDP): Pharma Deco Plc is a manufacturer of a wide range of pharmaceutical products.

k. Chemical and Allied Product Plc (CAP): Chemical and Allied Product Plc is a pharmaceutical company in Nigeria that manufactures a wide range of medicinal and pharmaceutical products such as painkillers antibiotics, antimalarials, vitamin supplements and mucokinetics.

Statement of Research Hypotheses

H_0: Value Added Tax exemption has not been effective in the Nigerian manufacturing sub sector.

H_1: Value Added Tax exemption has been effective in the Nigerian manufacturing sub sector.

3. Model Set Up

Population and Sample Size

The population for this study constitutes twenty seven (27) newly approved companies by Federal Executive Council (FEC) as eligible for pioneer status incentive, a corporate income tax exmption for up to five years (FEC, 2019). However, ten (10) top companies that produce goods and services exempted from VAT were selected from this population for the study and that formed the sample size. Thus, the model for the study was specified such that the dependent variable was the performance of the companies selected for the study proxied by the total profit of each companies while the independent variables were the companies'

VAT exemptions, return on equity and return on assets. The model was implicitly stated as follows;

$TOP = f(VATe, ROE, ROA)$ (1)

Where; TOP is the total revenue, VATe is the companies VAT exemption (the amount the companies would have paid as VAT), ROE is the return on equity and ROA is the return on Asset. Arising from the above specifications, the model was explicitly specified as follows:

$TOP_t = \alpha + \beta_1 VATe_t + \beta_2 ROE_t + \beta_3 ROA_t + \epsilon_t$ (2)

Where all variables were as previously defined with respect to time period t, α was the constant coefficient, $\beta_1 - \beta_3$ were the parameter estimates while ϵ_t was the stochastic error term. Aprori, it is expected that all variables were non negative.

Description of Variables and Measurements

a. Total Profit (TOP)

Total profit was used as a proxy for the performances of the companies selected for the study. Here total profit describes the total revenue generated by the companies less total outstanding cost within a fiscal year. TOP = Total revenue – Total cost

b. Value Added Tax (VATe) Exemption

This measures the value of VAT which government would have collected from the companies but were exempted due to the sensitive nature of their products or services. It is usually computed in line with the VATA (VAT Act) provisions.

c. Return on Equity (ROE)

A return on shareholders' equity is calculated to ascertain the degree of profitability of owners' investment (Pandey, 2010). The formula for return on equity is net profit after taxes divided by shareholders' equity.

$$ROE = \frac{\text{Profit after Tax}}{\text{Equity (Net worth)}} \times \frac{100}{1}$$

d. Return on Asset (ROA)

This measures the companies' profits in relation to the total sum of assets. It gives managers, investors, or analysts an indication of the efficiency of the company's management to generate earnings using the company's assets. Return on asset is computed as follows;

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}} \times \frac{100}{1}$$

Analytical Technique and Data Sources

The data analysis technique employed in testing the hypothesis of this study is Pooled Ordinary Least Square (OLS) regression model. However, the study employed other estimation techniques such as panel descriptive statistics, panel unit root test, panel co-integration, panel OLS and the ECM estimates, using E-view 9.0 software. Secondary source of data were employed in the course of this research. They included data generated mainly from the annual reports and financial statements from all the companies used in the study, internet materials, conference materials, journals, periodic publications and articles on prior works of other researchers.

4. Results and Discussion

This section presents the results obtained from the various tests. Specifically, results included in this section were; the result of descriptive statistics, panel unit root tests using (LLC, ADF, PP) approach; the results of co integration and the result of ECM.

Descriptive Statistics

The test of descriptive statistics is to check the mean value, median, variance and the sum square deviation of the variables under study with the aim to ascertain whether the mean value or other statistical estimates of the listed firms were consistent or not. The result of the descriptive statistics is as presented in table 1 below;

Table 1: Descriptive Statistics

	TOP	VAT	ROE	ROA
Mean	6223661.	799994.3	26.45860	24.56000
Median	1058144.	11885.00	1.590000	25.00000
Maximum	43008026	7762862.	290.0000	60.00000
Minimum	5677.000	1005.000	0.030000	2.500000
Std. Dev.	11377597	1877432.	68.86841	13.30496
Skewness	1.984139	2.331322	2.935037	0.728931
Kurtosis	5.709913	7.186563	10.13372	3.655760
Jarque-Bera	48.10594	81.80740	177.8077	5.323709
Probability	0.000000	0.000000	0.000000	0.069819
Sum	3.11E+08	39999717	1322.930	1228.000
Sum Sq. Dev.	6.34E+15	1.73E+14	232400.1	8674.080
Observations	50	50	50	50

Source: Author's Computation, 2022

From table 1 above, the study deduced that total profit (TOP) stood on the average mean of 6200000 which fluctuates from a minimum of 5677 to a maximum of 4300800. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 1137000. The skewness of 1.984 is positive, this indicated that the right tails were extreme, the data series for this variable indicated a symmetric or normal data distribution as the series relatively maintained normality by being positively skewed. Also, in relation to kurtosis of 5.709000 of total profit, its leptokurtic is positive indicating fat tails than normal distribution; this variable is a heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.0. The series of value added tax exempt (VATe) stood on average mean of 7999000 which fluctuates from a minimum of 100500 and a maximum of 776200. The dispersion around the mean indicated by the value of standard deviation can be seen to be given by 187700. From the result, the skewness (2.331) was indicated to be positive, this implied that the right tails are extreme; the data series for this variable indicates a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. In relation to kurtosis which was 7.186, value added tax was leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.0.

In the case of return on equity (ROE), the ratio stood at the average mean of 26.45 which fluctuates from a minimum of 0.03 and a maximum of 290.00. The dispersion around the mean indicated by the value of standard deviation can be seen to be given as 68.83 while its skewness is positive having the value of 2.935 indicating that the right tails are extreme. Thus, the data series for this variable further indicated a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. Also, in terms of the kurtosis of return on equity which is 10.33, it implied that it is leptokurtic, indicating fat tails than normal distribution; this variable is heavy tailed (i.e. heavier than normal) because the figure is above the threshold of 3.0. Finally, the result of return on assets (ROA) stood on the average mean of 24.56, which fluctuated between a minimum of 2.5000 and a maximum of 60.000. The dispersion around the mean indicated by the value of standard deviation was 13.3 with a skewness of 0.728 that tends positive. This indicated that the right tails are extreme; the data series for this variable indicated a symmetric or normal data distribution as the series relatively maintains normality by being positively skewed. In the kurtosis analysis of return on assets (3.655), it showed a leptokurtic, indicating fat tails than normal distribution. This further indicated that book value per share has a figure above the threshold of 3.0, showing that this series is heavy tailed. Overall, the above analysis indicated that all the series engaged in this paper mainrained normality and postively skewed.

Panel Unit Root Test

The data engaged in this study were examined for the presence of unit root using the LLC, ADF and PP method, which is based on the Dickey–Fuller procedure. The null hypothesis for these tests is that there is a presence of non-stationary series against the alternative hypothesis of stationary series. The study failed to reject the null hypothesis of a panel unit root in the level of the series but at first difference, all series were stationary as contained in table 2 below

Table 2: Summary Result of Panel LLC, ADF and PP Unit Root Tests

	Level			First Difference				
Variables	**LLC t-statistic**	**ADF t-statistic**	**PP t-statistic**	**LLCADF t-statistic**	**ADF t-statistic**	**PP t-statistic**	**Order**	**Prob.**
TOP	5.53497	7.76826	7.94626	-7.29014	-8.4526	-6.9452	I (1)	0.0000
VATe	3.94626	6.94252	8.74528	-5.52524	-7.5686	-8.9342	I (1)	0.0000
ROE	6.42877	5.84527	6.46923	-4.77607	-6.4629	-7.8247	I (1)	0.0000
ROA	4.35286	6.83526	9.70462	-3.24965	-5.3427	-6.3426	I (1)	0.0000

*Not stationary at any %
**Stationary at 1%, 5% and 10%

Sources: Author's Computation, 2022

The results of the panel unit root test, showed that at level, the critical values at 1%, 5% and 10% of all the series were greater than the LLC, ADF and PP test statistic and hence were not stationary. However, all series (TOP, VATe, ROE and ROA) were stationary after differencing them once (that is; 1(1)). This implied that the data engaged in this study have been confirmed useable, which guaranteed further test of co

integration to examine the long run relationship among the series. Table 3 reported the panel co integration test

Panel Co Integration Test

Having confirmed that the data employed in this study were stationary at I (1), the study proceeded to conduct the co integration test to determine if there exist a long run relationship between total profit of the selected firms and the value added tax exempt.

Table 3: Result of Panel cointegretion Test

Series: TOP VATe ROE ROA

Newey-West automatic bandwidth selection and Bartlett kernel

Alternative hypothesis: common AR coefs. (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	24.6723	0.0000	-1.052573	
Panel rho-Statistic	-6.84522	0.0000	1.375502	
Panel PP-Statistic	-12.5266	0.0000	-2.410984	
Panel ADF-Statistic	12.16729	0.0000	-1.350422	

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	2.486805	0.9936
Group PP-Statistic	-3.173176	0.0008
Group ADF-Statistic	-0.904720	0.1828

Cross section specific results

Phillips-Peron results (non-parametric)

Cross ID	AR(1)	Variance	HAC	Bandwidth	Obs
NNP	-0.648	30870.26	29862.11	1.00	5
UNP	0.317	103.7551	102.3712	2.00	5
ANP	0.242	21.55924	17.01115	7.00	5
BIL	0.405	11.36051	9.104675	3.00	5
DNL	0.017	13.53620	11.77049	2.00	5
EB	-0.076	0.576065	0.404819	3.00	5
PZ-CNP	0.151	82.13469	30.13503	8.00	5
BCIL	0.121	15.71002	15.96842	1.00	5
PDP	-0.207	1.163151	0.636850	4.00	5
CAP	0.189	1.778115	0.574277	10.00	5

Augmented Dickey-Fuller results (parametric)

Cross ID	AR(1)	Variance	Lag	Max lag	Obs
NNP	-0.699	31239.00	1	--	5
UNP	0.088	97.99111	1	--	5
ANP	-0.227	14.50133	1	--	5
BIL	0.183	10.40460	1	--	5
DNL	-0.262	14.50807	1	--	2
EB	-0.366	0.553032	1	--	5
PZ-CNP	-0.144	80.59672	1	--	5
BCIL	-0.003	14.85664	1	--	5
PDP	-0.458	1.190012	1	--	5
CAP	-0.240	1.490281	1	--	5

Source: E-view 9.0 Estimate

The result of panel co integration test as presented above suggested that all series were co-integrated in all the firms selected for the study. These findings indicated that value added tax, return on equity and return on asset exhibited a stable long run relationship with total profit of the firms uesd in this study.

Panel Short run Dynamics Test

The paper has verified that there is a long run relationship existing among the variables (i.e. total profit of the firms ,value added tax, return on equity and return on asset) but there may be tendency for disequilibrium to occur in the short run and that necessitated the test of panel of Error Correction model (ECM). This test was conducted to estimate the pace of adjustment in case of disequilibrium and the result is shown in table 4 below:

Table 4: Summary of Short run Dynamics Panel Test

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.048152	2.96E-18	1.63E+16	0.0000
VATe	0.135330	1.05E-17	1.29E+16	0.0000
ROE	-0.039277	9.20E-18	-4.27E+15	0.0000
ROA	0..457654	6.43E-19	8.534285	0.0000
ECM(-1)	-0.674370	6.74E-18	-1.48E+17	0.0000

$R^2 = 0.89$; Adj $R^2 = 0.82$; F-statistic = 20.4; DW = 2.03

Source: E-view 9.0 Estimate

From the above results of **s**hort run dynamics panel test, the study first estimated equations 2 as specified in section three. The equation became necessary in order to state the constant and the parameter estimates as contained in equation (3) below:

$$TOP_t = 0.048152 + 0.135330VATe_t - 0.039277ROE_t + 1..457654ROA_t + \varepsilon_t \quad (3)$$
$$(1.63E+16) \quad (1.29E+16) \quad (-4.27E+15) \quad (8.534285)$$

where all variables are as previously defined and the values in parenthesis are the asymptotic t-values. The results further showed that there is a reasonable speed of adjustment in case of disequilibrium in the short-run. This is so because about 67 percent of disequilibrium was adjusted through time.

Discussion of Results

The estimates so far have shown that value added tax exemption has a positive and significant effect on the selccted firm's performance in the Nigerian manufacturing sub-sector within the periods under review. For instance, value added tax exempt and return on asset were found to be positive and statistically significant with firms' performance while return on assets was found to be statistically significant with firms' performance, though negative. This implies that a one percent increase in value added tax exemption may have increased the firms' total profit by 13.5 percent point, while a one percent rise in return on assets may have increased firms' total profit by 14.5 percent point. However, the indices of return on equity (ROE) showed that there is a negative and significant relationship with the firms' total profit.. This is so because a one percent increase in return on equity may have caused total profits of the firms to be reduced by 3.9 percent point (see table 4 above). This empirical evidence contradicts with the view of Mutwiri and Okello (2015) who studied on how value added tax exception affected the capital structure decisions involving the firms which are listed at the Nairobi Securities Exchange and found that value added tax exception did not play a huge influence on the capital structure decisions of the firms listed at Nairobi Securities Exchange. The evidence rather coincided with that of Chukwudi (2015) who assessed the degree of effect of tax incentives on the performance of manufacturing firms using some indices like investment decision, profit, capital growth, research & development (R&D) etc and documented that the percentage increase in the tax rate will not impoverish the lower-income households if the increased revenue is channelled to them. Finally, the findings of the study is in line with the study of Levin and Sayeed (2014), which delves on distributional impact of VAT imposition that allows exemptions and the one that does not for Bangladesh, and found that VAT without exemptions causes tax incidence to be higher for the poor households, while VAT imposition that exempts local market food sectors ensures that equivalent variations of low-income groups in both the rural and urban areas become bolstered.

Test of Hypotheses

The following hypotheses were raised;

H_0: Value Added Tax exemption has not been effective in the Nigerian manufacturing sub sector.

H_1: Value Added Tax exemption has been effective in the Nigerian manufacturing sub sector.

The test of the hypotheses was based on the estimate and the probability values as contained in the table below;

Table 5: Hypotheses Test Table

Null Hypotheses	Variables	Test Coefficients	Sign	Decision	Prob.
H_{01}	VATe	0.135330	(+) ***	Reject Ho	0.000
H_{02}	ROE	-0.039277	(-)*	Reject Ho	0.000
H_{03}	ROA	0..457654	(+)***	Reject Ho	0.000

*** = Significant, * = Not Significant
Source: Author's Compilation, 2022

From the above ressult, it can be concluded that there is a significant effect of value added tax exemption on firm's performance in the Nigerian manufacturing sector within the period under review.

5. Conclusion and Recommendations

The study has shown that value added tax exemptions has a positive and significant effect on the firm's performance in the Nigerian manufacturing sector. The study used panel data analysis of time series data spanning from 2014 to 2020 of the ten (10) companies totalling a sample size of fifty (70). With Ordinary Least Square pooled data, the paper found that, value added tax exemptions has a positive and significant effect on the firm's performance in the Nigerian manufacturing sub-sector as well as return on assets, but return on equity has negative but significant relationship with the firm's performance in the Nigerian manufacturing sub-sector. Based on the findings above, the paper recommended that the Federal government in collaboration with the Federal Inland Revenue Service (FIRS) should sustain the VAT exemption policy to firms in order to boost their productivity, and consequently provide jobs for the teeming unemployed youths.

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